



فنرها  
Springs

آبان ۱۳۹۸  
November 2019



قطعات پیش ساخته قالب های تزریق  
Standard Mould Making Components



سنبه، ماتریس، پین و پاران ها  
Punches, Disc, Dowel pins and Ejectors



قطعات پیش ساخته قالب های قلمی  
Standard Tool Making Components



فنرها  
Springs



لوازم کمکی  
Accessories



چسب ها، اسپرئها  
Adhesives, Sprays



|                                                                                                |                                                                    |                                                                                                          |                                                                                                          |                                                                  |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <p>فتر</p> <p><b>D64V<br/>D64L</b></p> <p>Spring</p> <p>4.4</p>                                | <p>فتر</p> <p><b>D64JG<br/>D64G</b></p> <p>Spring</p> <p>4.6</p>   | <p>فتر</p> <p><b>D64JB<br/>D64B</b></p> <p>Spring</p> <p>4.9</p>                                         | <p>4</p> <p>فترها<br/>Springs</p>                                                                        |                                                                  |
| <p>فتر</p> <p><b>D64JR<br/>D64R</b></p> <p>Spring</p> <p>4.12</p>                              | <p>فتر</p> <p><b>D64JY<br/>D64Y</b></p> <p>Spring</p> <p>4.15</p>  | <p>فتر</p> <p><b>D64W<br/>D64S</b></p> <p>Spring</p> <p>4.18</p>                                         | <p>فتر</p> <p><b>D63/80</b></p> <p>Spring</p> <p>4.20</p>                                                | <p>فتر</p> <p><b>D63/90</b></p> <p>Spring</p> <p>4.21</p>        |
| <p>فتر</p> <p><b>D63/95</b></p> <p>Spring</p> <p>4.22</p>                                      | <p>فتر بشقابى</p> <p><b>D62</b></p> <p>Disc Spring</p> <p>4.23</p> | <p>واحد فتر بندى</p> <p><b>D244</b></p> <p>Combination Spring and Spacer Unit</p> <p>NEW</p> <p>4.24</p> | <p>واحد فتر بندى</p> <p><b>D245</b></p> <p>Combination Spring and Spacer Unit</p> <p>NEW</p> <p>4.25</p> | <p>فتر گازى</p> <p><b>D611</b></p> <p>Gas Spring</p> <p>4.26</p> |
| <p>بيرون انداز (فتر گازى)</p> <p><b>D612</b></p> <p>Spring Plungers</p> <p>NEW</p> <p>4.26</p> |                                                                    |                                                                                                          |                                                                                                          |                                                                  |



# TENSILE STRENGTH

## General Information

## استحکام کششی مواد

### اطلاعات عمومی

| مشخصه<br>Type                                                 | شماره مواد<br>STD. NO. | استحکام کششی<br>Tensile Strength | مشخصه<br>Type                                                             | شماره مواد<br>STD. NO. | استحکام کششی<br>Tensile Strength | مشخصه<br>Type                                        | استحکام کششی<br>Tensile Strength |
|---------------------------------------------------------------|------------------------|----------------------------------|---------------------------------------------------------------------------|------------------------|----------------------------------|------------------------------------------------------|----------------------------------|
| فولاد ساختمانی کربن بازرگم غلظت شده<br>DIN EN 10025 (1994-03) |                        |                                  | ورق و نوار از فولاد نرم و سدره غلظت شده<br>DIN EN 10268 (1999-02)         |                        |                                  | آلیاژهای آلومینوم نرود شده<br>DIN EN 12163 (1998-04) |                                  |
| S185                                                          | 1.0035                 | 290...510                        | DC01                                                                      | 1.0330                 | 270...410                        | Al 99.5 (1050A)                                      | 65...95                          |
| S235JR                                                        | 1.0037                 | 340...470                        | DC03                                                                      | 1.0347                 | 270...370                        | Al Mn1 (3103)                                        | 90...130                         |
| S235JRG1                                                      | 1.0036                 | 340...470                        | DC04                                                                      | 1.0338                 | 270...350                        | Al Mn1Cu (3003)                                      | 95...135                         |
| S235JRG2                                                      | 1.0038                 | 340...470                        | DC05                                                                      | 1.0312                 | 270...330                        | Al Mg1 (5005)                                        | 100...145                        |
| S235JO                                                        | 1.0114                 | 340...470                        | DC06                                                                      | 1.0873                 | 270...350                        | Al Mg2 (5251)                                        | 160...200                        |
| S235J2G3                                                      | 1.0116                 | 340...470                        | ورق و نوار از فولاد میکروآلیاژی سرد غلظت شده<br>DIN EN 10130 (1999-02)    |                        |                                  | Al Mg3 (5754)                                        | 190...240                        |
| S235J2G4                                                      | 1.0117                 | 340...470                        | H240LA                                                                    | 1.0480                 | 240...340                        | Al Mg5 (5019)                                        | 250...350                        |
| S275JR                                                        | 1.0044                 | 410...560                        | H280LA                                                                    | 1.0489                 | 280...370                        | Al Mg3Mn (5454)                                      | 215...275                        |
| S275JO                                                        | 1.0143                 | 410...560                        | H320LA                                                                    | 1.0548                 | 320...410                        | Al Mg4.5Mn0.7 (5083)                                 | 270...350                        |
| S275J2G3                                                      | 1.0144                 | 410...560                        | H360LA                                                                    | 1.0550                 | 360...460                        | Al Cu4SiMg (2014)                                    | 220                              |
| S275J2G4                                                      | 1.0145                 | 410...560                        | H400LA                                                                    | 1.0556                 | 400...500                        | Al Cu4Mg1 (2024)                                     | 220                              |
| S355JR                                                        | 1.0045                 | 490...630                        | ورق و نوار از فولاد کربنیزه آلیاژی سرد غلظت شده<br>DIN EN 10142 (2000-07) |                        |                                  | Al Si1MgMn (6082)                                    | 150                              |
| S355JO                                                        | 1.0553                 | 490...630                        | DX51D+Z                                                                   | 1.0226+Z               | 270...500                        | Al Zn4.5Mg1 (7020)                                   | 220                              |
| S355J2G3                                                      | 1.0570                 | 490...630                        | DX51D+ZF                                                                  | 1.0226+ZF              | 270...500                        | Al Zn5Mg3Cu (7022)                                   | 450                              |
| S355J2G4                                                      | 1.0577                 | 490...630                        | DX52D+Z                                                                   | 1.0350+Z               | 270...420                        | Al Zn5.5MgCu (7075)                                  | 275                              |
| S355K2G3                                                      | 1.0595                 | 490...630                        | DX52D+ZF                                                                  | 1.0350+ZF              | 270...420                        | آلیاژ من نرود شده (برنج)<br>DIN EN 12163 (1998-04)   |                                  |
| S355K2G4                                                      | 1.0596                 | 490...630                        | DX53D+Z                                                                   | 1.0355+Z               | 270...380                        | CuZn28 (CW504L)                                      | 460                              |
| E295                                                          | 1.0050                 | 470...610                        | DX53D+ZF                                                                  | 1.0355+ZF              | 270...380                        | CuZn37 (CW508L)                                      | 440                              |
| E335                                                          | 1.0060                 | 570...710                        | DX54D+Z                                                                   | 1.0306+Z               | 270...350                        | CuZn40 (CW509L)                                      | 340                              |
| E360                                                          | 1.0070                 | 670...830                        | DX54D+ZF                                                                  | 1.0306+ZF              | 270...350                        | آلیاژ من روی نرود شده<br>DIN EN 12163 (1998-04)      |                                  |
| فولاد کربنیزه و سدره شده<br>DIN EN 10083 (1996-10)            |                        |                                  | DX56D+Z                                                                   | 1.0322+Z               | 270...350                        | CuZn31Si1 (CW708R)                                   | 530                              |
| C22                                                           | 1.0402                 | 410                              | DX56D+ZF                                                                  | 1.0322+ZF              | 270...350                        | CuZn38Mn1Al (CW716R)                                 | 550                              |
| C22E                                                          | 1.1151                 | 470...620                        | فولاد رنگ نزن<br>DIN EN 10088 (1995-08)                                   |                        |                                  | CuZn40Mn2Fe1 (CW723R)                                | 540                              |
| C25                                                           | 1.0406                 | 440                              | X10CrNi18-8                                                               | 1.4310                 | 500...750                        | استحکام کششی<br>Tensile Strength                     |                                  |
| C25E                                                          | 1.1158                 | 500...650                        | X2CrNi18-9                                                                | 1.4307                 | 450...680                        | Type                                                 |                                  |
| C35                                                           | 1.0501                 | 520                              | X2CrNi19-11                                                               | 1.4306                 | 460...680                        | ترموپلاستیک                                          |                                  |
| C35E                                                          | 1.1181                 | 550...750                        | X2CrNi18-10                                                               | 1.4311                 | 550...760                        | ABS                                                  | 35...56                          |
| C45                                                           | 1.0503                 | 580                              | X5CrNi18-10                                                               | 1.4301                 | 500...700                        | PA 6                                                 | 43                               |
| C45E                                                          | 1.1191                 | 630...800                        | X8CrNi18-9                                                                | 1.4305                 | 500...750                        | PA 66                                                | 57                               |
| C60                                                           | 1.0601                 | 670                              | X6CrNiTi18-10                                                             | 1.4541                 | 500...700                        | PE-HD                                                | 20...30                          |
| C60E                                                          | 1.1221                 | 750...950                        | X4CrNi18-12                                                               | 1.4303                 | 500...700                        | PE-LD                                                | 8...10                           |
| 28Mn6                                                         | 1.1170                 | 600                              | X5CrNiMo17-12-2                                                           | 1.4401                 | 500...700                        | PMMA                                                 | 70...76                          |
| 38Cr2                                                         | 1.7003                 | 600...850                        | X6CrNiMoTi17-12-2                                                         | 1.4571                 | 500...700                        | POM                                                  | 50...70                          |
| 38CrS2                                                        | 1.7023                 | 600...850                        | X2CrNiMo18-14-3                                                           | 1.4435                 | 500...700                        | PP                                                   | 21...37                          |
| 46Cr2                                                         | 1.7006                 | 650...950                        | X2CrNiMoN17-13-3                                                          | 1.4429                 | 580...800                        | PS                                                   | 40...65                          |
| 46CrS2                                                        | 1.7025                 | 650...950                        | X2CrNiMoN17-13-5                                                          | 1.4439                 | 580...800                        | PTFE                                                 | 15...35                          |
| 34Cr4                                                         | 1.7033                 | 700...950                        | X1NiCrMoCu25-20-5                                                         | 1.4539                 | 530...730                        | PVC-P                                                | 20...29                          |
| 34CrS4                                                        | 1.7037                 | 700...950                        | X2CrNi12                                                                  | 1.4003                 | 450...600                        | PVC-U                                                | 35...60                          |
| 37Cr4                                                         | 1.7034                 | 750...1000                       | X6Cr13                                                                    | 1.4000                 | 400...630                        | SAN                                                  | 78                               |
| 37CrS4                                                        | 1.7038                 | 750...1000                       | X6Cr17                                                                    | 1.4016                 | 400...630                        | SB                                                   | 22...50                          |
| 25CrMo4                                                       | 1.7218                 | 700...950                        | X2CrTi12                                                                  | 1.4512                 | 380...560                        | الاستومر (لاستیک)                                    |                                  |
| 25CrMoS4                                                      | 1.7213                 | 700...950                        | X6CrMo17-1                                                                | 1.4113                 | 440...660                        | BR                                                   | 2 (18)                           |
| 41Cr4                                                         | 1.7035                 | 800...1100                       | X3CrTi17                                                                  | 1.4510                 | 430...630                        | CO                                                   | 5 (15)                           |
| 41CrS4                                                        | 1.7039                 | 800...1100                       | X2CrMoTi18-2                                                              | 1.4521                 | 420...620                        | CR                                                   | 11 (25)                          |
| 34CrMo4                                                       | 1.7220                 | 800...1100                       | تیتانیوم، آلیاژ تیتانیوم<br>DIN EN 17860 (1990-11)                        |                        |                                  | CSM                                                  | 18 (20)                          |
| 34CrMoS4                                                      | 1.7226                 | 800...1100                       | Ti1                                                                       | 3.7025                 | 290...410                        | EPDM                                                 | 4 (25)                           |
| 42CrMo4                                                       | 1.7225                 | 900...1200                       | Ti2                                                                       | 3.7035                 | 390...540                        | FKM                                                  | 2 (15)                           |
| 42CrMoS4                                                      | 1.7227                 | 900...1200                       | Ti3                                                                       | 3.7055                 | 460...590                        | IIR                                                  | 5 (21)                           |
| 50CrMo4                                                       | 1.7228                 | 900...1200                       | Ti1Pd                                                                     | 3.7225                 | 290...410                        | IR                                                   | 1 (24)                           |
| 51CrV4                                                        | 1.8159                 | 900...1200                       | Ti2Pd                                                                     | 3.7235                 | 390...540                        | NBR                                                  | 6 (25)                           |
| 36CrNiMo4                                                     | 1.6511                 | 900...1200                       | TiAl6V6Sn2                                                                | 3.7175                 | 1070                             | NR                                                   | 22 (27)                          |
| 34CrNiMo6                                                     | 1.6582                 | 1000...1300                      | TiAl6V4                                                                   | 3.7165                 | 920                              | PUR                                                  | 20 (30)                          |
| 30NiCrMo8                                                     | 1.6580                 | 1100...1450                      | TiAl4Mo4Sn2                                                               | 3.7185                 | 1050                             | SIR                                                  | 1 (8)                            |
| 36NiCrMo16                                                    | 1.6773                 | 1100...1450                      |                                                                           |                        |                                  | SBR                                                  | 5 (25)                           |

- These amounts are according to N/mm<sup>2</sup>

- برای سایر مواد به کتاب جداول استاندارد نوشته Ulrich Fisher مراجعه گردد.  
- مقادیر ارائه شده بر حسب N/mm<sup>2</sup>



# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Violet/Light Green Color

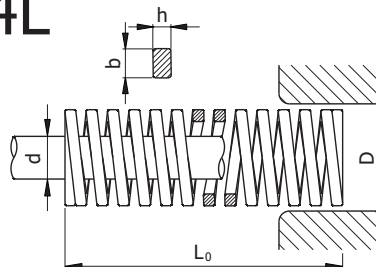
DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - بنفش / سبز روشن



D64V  
D64L



| کد سفارش<br>Ordering Code | D<br>(b x h) | d    | L <sub>0</sub> | R<br>(Rate)<br>ضریب فنر<br>±10% | A<br>30%<br>دوام 3.000.000<br> |     | B<br>40%<br>دوام 1.500.000<br> |     | C<br>50% Max Defl<br>دوام 200.000<br> |     | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |
|---------------------------|--------------|------|----------------|---------------------------------|--------------------------------|-----|--------------------------------|-----|---------------------------------------|-----|----------------------------------------------------|
|                           |              |      |                |                                 | mm                             | N   | mm                             | N   | mm                                    | N   |                                                    |
| D64.../20/025             | 20           | 10   | 25             | 32.1                            | 7.5                            | 241 | 10                             | 321 | 12.5                                  | 401 | 14                                                 |
| D64.../20/032             |              |      | 32             | 24.7                            | 9.6                            | 237 | 12.8                           | 316 | 16                                    | 395 | 18                                                 |
| D64.../20/038             |              |      | 38             | 20.7                            | 11.4                           | 236 | 15.2                           | 315 | 19                                    | 393 | 22                                                 |
| D64.../20/044             |              |      | 44             | 17.8                            | 13.2                           | 235 | 17.6                           | 313 | 22                                    | 392 | 26                                                 |
| D64.../20/051             |              |      | 51             | 15.3                            | 15.3                           | 234 | 20.4                           | 312 | 25.5                                  | 390 | 30                                                 |
| D64.../20/064             |              |      | 64             | 12.1                            | 19.2                           | 232 | 25.6                           | 310 | 32                                    | 386 | 38                                                 |
| D64.../20/076             |              |      | 76             | 10.2                            | 22.8                           | 232 | 30.4                           | 310 | 38                                    | 386 | 45                                                 |
| D64.../20/089             |              |      | 89             | 8.6                             | 26.7                           | 230 | 35.6                           | 306 | 44.5                                  | 384 | 53                                                 |
| D64.../20/102             |              |      | 102            | 7.5                             | 30.6                           | 229 | 40.8                           | 306 | 51                                    | 384 | 62                                                 |
| D64.../20/115             |              |      | 115            | 6.7                             | 34.5                           | 231 | 46                             | 308 | 57.5                                  | 384 | 70                                                 |
| D64.../20/127             |              |      | 127            | 6.1                             | 38.1                           | 232 | 50.8                           | 310 | 63.5                                  | 386 | 77                                                 |
| D64.../20/139             |              |      | 139            | 5.5                             | 41.7                           | 229 | 55.6                           | 306 | 69.5                                  | 385 | 85                                                 |
| D64.../20/152             |              |      | 152            | 5.1                             | 45.6                           | 233 | 60.8                           | 310 | 76                                    | 284 | 93                                                 |
| D64.../20/305             |              |      | 305            | 2.5                             | 91.5                           | 229 | 122                            | 305 | 152.5                                 | 384 | 188                                                |
| D64.../25/025             | 25           | 12.5 | 25             | 52.7                            | 7.5                            | 395 | 10                             | 527 | 12.5                                  | 658 | 14                                                 |
| D64.../25/032             |              |      | 32             | 40                              | 9.6                            | 384 | 12.8                           | 512 | 16                                    | 640 | 18                                                 |
| D64.../25/038             |              |      | 38             | 33.3                            | 11.4                           | 380 | 15.2                           | 506 | 19                                    | 634 | 22                                                 |
| D64.../25/044             |              |      | 44             | 28.6                            | 13.2                           | 378 | 17.6                           | 503 | 22                                    | 629 | 25                                                 |
| D64.../25/051             |              |      | 51             | 24.7                            | 15.3                           | 378 | 20.4                           | 504 | 25.5                                  | 630 | 30                                                 |
| D64.../25/064             |              |      | 64             | 19.4                            | 19.2                           | 372 | 25.6                           | 497 | 32                                    | 622 | 38                                                 |
| D64.../25/076             |              |      | 76             | 16.3                            | 22.8                           | 372 | 30.4                           | 496 | 38                                    | 618 | 45                                                 |
| D64.../25/089             |              |      | 89             | 13.9                            | 26.7                           | 371 | 35.6                           | 495 | 44.5                                  | 618 | 53                                                 |
| D64.../25/102             |              |      | 102            | 12.1                            | 30.6                           | 370 | 40.8                           | 494 | 51                                    | 618 | 61                                                 |
| D64.../25/115             |              |      | 115            | 10.8                            | 34.5                           | 373 | 46                             | 497 | 57.5                                  | 619 | 70                                                 |
| D64.../25/127             |              |      | 127            | 9.8                             | 38.1                           | 373 | 50.8                           | 498 | 63.5                                  | 620 | 77                                                 |
| D64.../25/139             |              |      | 139            | 8.9                             | 41.7                           | 371 | 55.6                           | 495 | 69.5                                  | 618 | 85                                                 |
| D64.../25/152             |              |      | 152            | 8.1                             | 45.6                           | 369 | 60.8                           | 492 | 76                                    | 616 | 93                                                 |
| D64.../25/178             |              |      | 178            | 6.9                             | 53.4                           | 368 | 71.2                           | 491 | 89                                    | 616 | 109                                                |
| D64.../25/203             |              |      | 203            | 6.1                             | 60.9                           | 371 | 81.2                           | 495 | 101.5                                 | 615 | 124                                                |
| D64.../25/305             |              |      | 305            | 4                               | 91.5                           | 366 | 122                            | 488 | 152.5                                 | 613 | 188                                                |
| D64.../32/038             | 32           | 16   | 38             | 43.8                            | 11.4                           | 499 | 15.2                           | 666 | 19                                    | 831 | 22                                                 |
| D64.../32/044             |              |      | 44             | 37.5                            | 13.2                           | 495 | 17.6                           | 660 | 22                                    | 825 | 26                                                 |
| D64.../32/051             |              |      | 51             | 32.3                            | 15.3                           | 494 | 20.4                           | 659 | 25.5                                  | 823 | 21                                                 |

# High Performance Compression Spring

Rectangular Wire-Violet/Light Green Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - بنفش / سبز روشن

| کد سفارش<br>Ordering Code | D<br>(b x h)       | d  | L <sub>0</sub> | R<br>(Rate)<br>ضریب فنر<br>±10% | A<br>30%<br>دوام 3.000.000 ضرب |      | B<br>40%<br>دوام 1.500.000 ضرب |      | C<br>50% Max Defl<br>دوام 200.000 ضرب |      | D<br>Approx<br>تخمین طول تقریبی<br>تا بسته شدن |
|---------------------------|--------------------|----|----------------|---------------------------------|--------------------------------|------|--------------------------------|------|---------------------------------------|------|------------------------------------------------|
|                           | mm                 | mm | mm             | N/mm                            | mm                             | N    | mm                             | N    | mm                                    | N    | mm                                             |
| D64.../32/064             | 32<br>(6.5 x 2.6)  | 16 | 64             | 25.4                            | 19.2                           | 488  | 25.6                           | 650  | 32                                    | 813  | 39                                             |
| D64.../32/076             |                    |    | 76             | 21.3                            | 22.8                           | 486  | 30.4                           | 648  | 38                                    | 809  | 47                                             |
| D64.../32/089             |                    |    | 89             | 18.1                            | 26.7                           | 483  | 35.6                           | 644  | 44.5                                  | 804  | 56                                             |
| D64.../32/102             |                    |    | 102            | 15.8                            | 30.6                           | 483  | 40.8                           | 645  | 51                                    | 803  | 64                                             |
| D64.../32/115             |                    |    | 115            | 13.9                            | 34.5                           | 479  | 46                             | 639  | 57.5                                  | 800  | 73                                             |
| D64.../32/127             |                    |    | 127            | 12.6                            | 38.1                           | 480  | 50.8                           | 640  | 63.5                                  | 799  | 81                                             |
| D64.../32/139             |                    |    | 139            | 11.4                            | 41.7                           | 475  | 55.6                           | 634  | 69.5                                  | 796  | 89                                             |
| D64.../32/152             |                    |    | 152            | 10.5                            | 45.6                           | 479  | 60.8                           | 638  | 76                                    | 800  | 97                                             |
| D64.../32/178             |                    |    | 178            | 8.9                             | 53.4                           | 475  | 71.2                           | 634  | 89                                    | 796  | 114                                            |
| D64.../32/203             |                    |    | 203            | 7.8                             | 60.9                           | 475  | 81.2                           | 633  | 101.5                                 | 793  | 131                                            |
| D64.../32/254             |                    |    | 254            | 6.2                             | 76.2                           | 472  | 101.6                          | 630  | 127                                   | 784  | 163                                            |
| D64.../32/305             |                    |    | 305            | 5.2                             | 91.5                           | 476  | 122                            | 634  | 125.5                                 | 788  | 197                                            |
| D64.../40/051             | 40<br>(8.0 x 3.4)  | 20 | 51             | 50.8                            | 15.3                           | 777  | 20.4                           | 1036 | 25.5                                  | 1297 | 26                                             |
| D64.../40/064             |                    |    | 64             | 39.7                            | 19.2                           | 762  | 25.6                           | 1016 | 32                                    | 1269 | 34                                             |
| D64.../40/076             |                    |    | 76             | 33.1                            | 22.8                           | 755  | 30.4                           | 1006 | 38                                    | 1256 | 40                                             |
| D64.../40/089             |                    |    | 89             | 28.1                            | 26.7                           | 750  | 35.6                           | 1000 | 44.5                                  | 1249 | 48                                             |
| D64.../40/102             |                    |    | 102            | 24.5                            | 30.6                           | 750  | 40.8                           | 1000 | 51                                    | 1249 | 55                                             |
| D64.../40/115             |                    |    | 115            | 21.6                            | 34.5                           | 745  | 46                             | 994  | 57.5                                  | 1244 | 63                                             |
| D64.../40/127             |                    |    | 127            | 19.5                            | 38.1                           | 743  | 50.8                           | 991  | 63.5                                  | 1239 | 70                                             |
| D64.../40/139             |                    |    | 139            | 17.8                            | 41.7                           | 742  | 55.6                           | 990  | 69.5                                  | 1238 | 76                                             |
| D64.../40/152             |                    |    | 152            | 16.3                            | 45.6                           | 743  | 60.8                           | 991  | 76                                    | 1235 | 84                                             |
| D64.../40/178             |                    |    | 178            | 13.8                            | 53.4                           | 737  | 71.2                           | 983  | 89                                    | 1231 | 99                                             |
| D64.../40/203             |                    |    | 203            | 12.1                            | 60.9                           | 737  | 81.2                           | 983  | 101.5                                 | 1232 | 113                                            |
| D64.../40/254             |                    |    | 254            | 9.7                             | 76.2                           | 739  | 101.6                          | 986  | 127                                   | 1227 | 142                                            |
| D64.../40/305             |                    |    | 305            | 8                               | 91.5                           | 732  | 122                            | 976  | 152.5                                 | 1226 | 171                                            |
| D64.../50/064             | 50<br>(10.5 x 4.1) | 25 | 64             | 80.2                            | 19.2                           | 1540 | 25.6                           | 2053 | 32                                    | 2566 | 37                                             |
| D64.../50/076             |                    |    | 76             | 66.9                            | 22.8                           | 1525 | 30.4                           | 2034 | 38                                    | 2544 | 45                                             |
| D64.../50/089             |                    |    | 89             | 56.6                            | 26.7                           | 1511 | 35.6                           | 2015 | 44.5                                  | 2519 | 53                                             |
| D64.../50/102             |                    |    | 102            | 49.3                            | 30.6                           | 1509 | 40.8                           | 2011 | 51                                    | 2517 | 62                                             |
| D64.../50/115             |                    |    | 115            | 43.5                            | 34.5                           | 1501 | 46                             | 2001 | 57.5                                  | 2501 | 70                                             |
| D64.../50/127             |                    |    | 127            | 39.3                            | 38.1                           | 1497 | 50.8                           | 1996 | 63.5                                  | 2494 | 78                                             |
| D64.../50/139             |                    |    | 139            | 35.8                            | 41.7                           | 1493 | 55.6                           | 1990 | 69.5                                  | 2489 | 85                                             |
| D64.../50/152             |                    |    | 152            | 32.8                            | 45.6                           | 1496 | 60.8                           | 1994 | 89                                    | 2490 | 94                                             |
| D64.../50/178             |                    |    | 178            | 27.8                            | 53.4                           | 1485 | 71.2                           | 1979 | 76                                    | 2474 | 110                                            |
| D64.../50/203             |                    |    | 203            | 24.2                            | 60.9                           | 1474 | 81.2                           | 1965 | 101.5                                 | 2457 | 126                                            |
| D64.../50/254             |                    |    | 254            | 19.2                            | 76.2                           | 1463 | 101.6                          | 1951 | 127                                   | 2444 | 159                                            |
| D64.../50/305             |                    |    | 305            | 16                              | 91.5                           | 1464 | 122                            | 1952 | 152.5                                 | 2446 | 192                                            |

Spring Temperature Range:

محدوده دمای فنر:

| Temperature Range / محدوده دما | Spring / فنر |
|--------------------------------|--------------|
| -30°C ~ 150°C                  | D64J...      |
| -30°C ~ 120°C                  | D64...       |

- Up to 250°C should be considered an average loss of 1% on springs rate for every 40°C.

- در صورتی که دما تا ۲۵۰ درجه سانتی گراد باشد به نسبت هر ۴۰ درجه می بایست افت یک درصدی از ضریب فنر در نظر گرفته شود.

# High Performance Compression Spring

Rectangular Wire-Green Color

DIN/ISO 10243

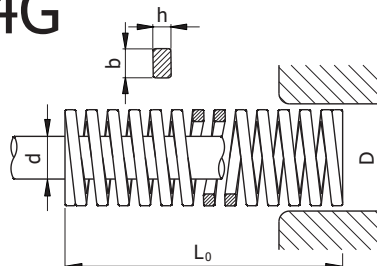
فنر

مقطع مفتول فنر مستطیل - رنگ سبز

Green  
سبز



D64JG  
D64G



| کد سفارش<br>Ordering Code | D d<br>(b x h) |     | L <sub>0</sub> | D64<br>(Rate)<br>فنر<br>±10% | D64J<br>(Rate)<br>فنر<br>±10% | A<br>25%<br>دوام 3.000.000<br> |     | B<br>30%<br>دوام 1.500.000<br> |      | C<br>40%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000<br> |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |     |      |      |      |     |
|---------------------------|----------------|-----|----------------|------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|-----|
|                           | mm             | mm  |                | N/mm                         | N/mm                          | mm                                                                                                              | N   |                                                                                                                 | mm   | N                                                                                                                                                |      | mm                                                                                                                                    | N   |      |      |      |     |
|                           |                |     |                |                              |                               |                                                                                                                 | D64 | D64J                                                                                                            |      | D64                                                                                                                                              | D64J |                                                                                                                                       | D64 | D64J | D64  | D64J |     |
| D64.../10/025             | 10             | 5   | 25             | 10                           | 12                            | 6.3                                                                                                             | 63  | 75                                                                                                              | 7.5  | 75                                                                                                                                               | 90   | 10                                                                                                                                    | 100 | 120  | 10.5 | 13   | 130 |
| D64.../10/032             |                |     | 32             | 8.5                          | 9.4                           | 8                                                                                                               | 68  |                                                                                                                 | 9.6  | 82                                                                                                                                               |      | 12.8                                                                                                                                  | 109 |      | 13.4 | 16   | 136 |
| D64.../10/038             |                |     | 38             | 6.8                          | 7.9                           | 9.5                                                                                                             | 65  |                                                                                                                 | 11.4 | 78                                                                                                                                               |      | 15.2                                                                                                                                  | 103 |      | 16   | 20   | 136 |
| D64.../10/044             |                |     | 44             | 6                            | 6.8                           | 11                                                                                                              | 66  |                                                                                                                 | 13.2 | 79                                                                                                                                               |      | 17.6                                                                                                                                  | 106 |      | 18.5 | 24   | 144 |
| D64.../10/051             |                |     | 51             | 5                            | 5.9                           | 12.8                                                                                                            | 64  |                                                                                                                 | 15.3 | 77                                                                                                                                               |      | 20.4                                                                                                                                  | 102 |      | 21.4 | 27   | 135 |
| D64.../10/064             |                |     | 64             | 4.3                          | 4.7                           | 16                                                                                                              | 69  |                                                                                                                 | 19.2 | 83                                                                                                                                               |      | 25.6                                                                                                                                  | 110 |      | 26.9 | 35   | 151 |
| D64.../10/076             |                |     | 76             | 3.2                          | 3.9                           | 19                                                                                                              | 61  |                                                                                                                 | 22.8 | 73                                                                                                                                               |      | 30.4                                                                                                                                  | 97  |      | 31.9 | 39   | 125 |
| D64JG/10/089              |                |     | 89             | -                            | 3.4                           | 22.3                                                                                                            | -   |                                                                                                                 | 26.7 | -                                                                                                                                                |      | 35.6                                                                                                                                  | -   |      | 37.4 | -    | -   |
| D64JG/10/102              | 102            | -   | 2.9            | 25.5                         | -                             | 30.6                                                                                                            | -   | 40.8                                                                                                            | -    | 42.8                                                                                                                                             | -    | -                                                                                                                                     |     |      |      |      |     |
| D64.../10/305             | 305            | 1.1 | 1              | 76.3                         | 84                            | 91.5                                                                                                            | 101 | 122                                                                                                             | 134  | 128.1                                                                                                                                            | 154  | 169                                                                                                                                   |     |      |      |      |     |
| D64.../13/025             | 12.5           | 6.3 | 25             | 17.9                         | 24                            | 6.3                                                                                                             | 113 | 150                                                                                                             | 7.5  | 134                                                                                                                                              | 180  | 10                                                                                                                                    | 179 | 240  | 10.5 | 13   | 233 |
| D64.../13/032             |                |     | 32             | 16.4                         | 18.8                          | 8                                                                                                               | 131 |                                                                                                                 | 9.6  | 157                                                                                                                                              |      | 12.8                                                                                                                                  | 210 |      | 13.4 | 17   | 279 |
| D64.../13/038             |                |     | 38             | 13.6                         | 15.8                          | 9.5                                                                                                             | 129 |                                                                                                                 | 11.4 | 155                                                                                                                                              |      | 15.2                                                                                                                                  | 207 |      | 16   | 21   | 286 |
| D64.../13/044             |                |     | 44             | 12.1                         | 13.6                          | 11                                                                                                              | 133 |                                                                                                                 | 13.2 | 160                                                                                                                                              |      | 17.6                                                                                                                                  | 213 |      | 18.5 | 26   | 315 |
| D64.../13/051             |                |     | 51             | 11.4                         | 11.8                          | 12.8                                                                                                            | 146 |                                                                                                                 | 15.3 | 174                                                                                                                                              |      | 20.4                                                                                                                                  | 233 |      | 21.4 | 29   | 331 |
| D64.../13/064             |                |     | 64             | 9.3                          | 9.4                           | 16                                                                                                              | 149 |                                                                                                                 | 19.2 | 179                                                                                                                                              |      | 25.6                                                                                                                                  | 238 |      | 26.9 | 37   | 344 |
| D64.../13/076             |                |     | 76             | 7.1                          | 7.9                           | 19                                                                                                              | 135 |                                                                                                                 | 22.8 | 162                                                                                                                                              |      | 30.4                                                                                                                                  | 216 |      | 31.9 | 42   | 298 |
| D64.../13/089             |                |     | 89             | 5.4                          | 6.7                           | 22.3                                                                                                            | 120 |                                                                                                                 | 26.7 | 144                                                                                                                                              |      | 35.6                                                                                                                                  | 192 |      | 37.4 | 50   | 270 |
| D64.../13/102             | 102            | 4.6 | 5.9            | 25.5                         | 117                           | 30.6                                                                                                            | 141 | 40.8                                                                                                            | 188  | 42.8                                                                                                                                             | 58   | 267                                                                                                                                   |     |      |      |      |     |
| D64JG/13/115              | 115            | -   | 5.2            | 28.8                         | -                             | 34.5                                                                                                            | -   | 46                                                                                                              | -    | 48.3                                                                                                                                             | -    | -                                                                                                                                     |     |      |      |      |     |
| D64.../13/305             | 305            | 1.4 | 2              | 76.3                         | 107                           | 91.5                                                                                                            | 128 | 122                                                                                                             | 171  | 128.1                                                                                                                                            | 162  | 227                                                                                                                                   |     |      |      |      |     |
| D64.../16/025             | 16             | 8   | 25             | 23.4                         | 30                            | 6.3                                                                                                             | 147 | 188                                                                                                             | 7.5  | 176                                                                                                                                              | 225  | 10                                                                                                                                    | 234 | 300  | 10.5 | 13   | 304 |
| D64.../16/032             |                |     | 32             | 22.9                         | 23.4                          | 8                                                                                                               | 183 |                                                                                                                 | 9.6  | 220                                                                                                                                              |      | 12.8                                                                                                                                  | 293 |      | 13.4 | 17   | 389 |
| D64.../16/038             |                |     | 38             | 19.3                         | 19.7                          | 9.5                                                                                                             | 183 |                                                                                                                 | 11.4 | 220                                                                                                                                              |      | 15.2                                                                                                                                  | 293 |      | 16   | 20   | 386 |
| D64.../16/044             |                |     | 44             | 17.1                         | 17                            | 11                                                                                                              | 188 |                                                                                                                 | 13.2 | 226                                                                                                                                              |      | 17.6                                                                                                                                  | 301 |      | 18.5 | 25   | 428 |
| D64.../16/051             |                |     | 51             | 15.7                         | 14.7                          | 12.8                                                                                                            | 201 |                                                                                                                 | 15.3 | 240                                                                                                                                              |      | 20.4                                                                                                                                  | 320 |      | 21.4 | 27   | 424 |
| D64.../16/064             |                |     | 64             | 10.7                         | 11.7                          | 16                                                                                                              | 171 |                                                                                                                 | 19.2 | 205                                                                                                                                              |      | 25.6                                                                                                                                  | 274 |      | 26.9 | 36   | 385 |
| D64.../16/076             |                |     | 76             | 10                           | 9.9                           | 19                                                                                                              | 190 |                                                                                                                 | 22.8 | 228                                                                                                                                              |      | 30.4                                                                                                                                  | 304 |      | 31.9 | 43   | 430 |
| D64.../16/089             |                |     | 89             | 8.6                          | 8.4                           | 22.3                                                                                                            | 192 |                                                                                                                 | 26.7 | 230                                                                                                                                              |      | 35.6                                                                                                                                  | 306 |      | 37.4 | 52   | 447 |
| D64.../16/102             | 102            | 7.8 | 7.4            | 25.5                         | 199                           | 30.6                                                                                                            | 239 | 40.8                                                                                                            | 318  | 42.8                                                                                                                                             | 58   | 452                                                                                                                                   |     |      |      |      |     |
| D64JG/16/115              | 115            | -   | 6.5            | 28.8                         | -                             | 34.5                                                                                                            | -   | 46                                                                                                              | -    | 48.3                                                                                                                                             | -    | -                                                                                                                                     |     |      |      |      |     |
| D64JG/16/127              | 127            | -   | 5.9            | 31.8                         | -                             | 38.1                                                                                                            | -   | 50.8                                                                                                            | -    | 53.3                                                                                                                                             | -    | -                                                                                                                                     |     |      |      |      |     |
| D64.../16/305             | 305            | 2.5 | 2.5            | 76.3                         | 191                           | 91.5                                                                                                            | 229 | 122                                                                                                             | 305  | 128.1                                                                                                                                            | 166  | 415                                                                                                                                   |     |      |      |      |     |

# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Green Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ سبز

| کد سفارش<br>Ordering Code | D<br>(b x h) | d    | L <sub>0</sub> | D64<br>(Rate)<br>ضریب فنر<br>±10% | D64J<br>(Rate)<br>ضریب فنر<br>±10% | A<br>25%<br>دوام 3.000.000 ضرب |      | B<br>30%<br>دوام 1.500.000 ضرب |      | C<br>40%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن |      |      |       |      |      |
|---------------------------|--------------|------|----------------|-----------------------------------|------------------------------------|--------------------------------|------|--------------------------------|------|-----------------------------------------------------------------|------|------------------------------------------------|------|------|-------|------|------|
|                           |              |      |                |                                   |                                    | N                              |      | N                              |      | N                                                               |      | mm                                             |      | N    |       |      |      |
|                           | mm           | mm   | mm             | N/mm                              | N/mm                               | mm                             | D64  | D64J                           | mm   | D64                                                             | D64J | mm                                             | D64  | D64J | D64   | D64  | D64  |
| D64.../20/025             | 20           | 10   | 25             | 55.8                              | 60                                 | 6.3                            | 325  | 375                            | 7.5  | 419                                                             | 450  | 10                                             | 558  | 600  | 10.5  | 13   | 725  |
| D64.../20/032             |              |      | 32             | 45                                | 46.9                               | 8                              | 360  |                                | 9.6  | 432                                                             |      | 12.8                                           | 576  |      | 13.4  | 17   | 765  |
| D64.../20/038             |              |      | 38             | 33.3                              | 39.5                               | 9.5                            | 316  |                                | 11.4 | 380                                                             |      | 15.2                                           | 506  |      | 16    | 20   | 666  |
| D64.../20/044             |              |      | 44             | 30                                | 34.1                               | 11                             | 330  |                                | 13.2 | 396                                                             |      | 17.6                                           | 528  |      | 18.5  | 24   | 720  |
| D64.../20/051             |              |      | 51             | 24.5                              | 29.4                               | 12.8                           | 314  |                                | 15.3 | 375                                                             |      | 20.4                                           | 500  |      | 21.4  | 27   | 662  |
| D64.../20/064             |              |      | 64             | 20                                | 23.4                               | 16                             | 320  |                                | 19.2 | 384                                                             |      | 25.6                                           | 512  |      | 26.9  | 35   | 700  |
| D64.../20/076             |              |      | 76             | 16                                | 19.7                               | 19                             | 304  |                                | 22.8 | 365                                                             |      | 30.4                                           | 486  |      | 31.9  | 40   | 640  |
| D64.../20/089             |              |      | 89             | 14                                | 16.9                               | 22.3                           | 312  |                                | 26.7 | 374                                                             |      | 35.6                                           | 498  |      | 37.4  | 49   | 686  |
| D64.../20/102             |              |      | 102            | 12                                | 14.7                               | 25.5                           | 306  |                                | 30.6 | 367                                                             |      | 40.8                                           | 490  |      | 42.8  | 55   | 660  |
| D64.../20/115             |              |      | 115            | 10.9                              | 13                                 | 28.8                           | 314  |                                | 34.5 | 376                                                             |      | 46                                             | 501  |      | 48.3  | 62   | 675  |
| D64.../20/127             |              |      | 127            | 9.5                               | 11.8                               | 31.8                           | 302  |                                | 38.1 | 362                                                             |      | 50.8                                           | 483  |      | 53.3  | 71   | 676  |
| D64.../20/139             |              |      | 139            | 8.4                               | 10.8                               | 34.8                           | 394  |                                | 41.7 | 350                                                             |      | 55.6                                           | 467  |      | 58.4  | 76   | 638  |
| D64.../20/152             |              |      | 152            | 7.5                               | 9.9                                | 38                             | 385  |                                | 45.6 | 342                                                             |      | 60.8                                           | 456  |      | 63.8  | 81   | 608  |
| D64JG/20/178              |              |      | 178            | -                                 | 8.4                                | 44.5                           | -    |                                | 53.4 | -                                                               |      | 71.2                                           | -    |      | 74.8  | -    | -    |
| D64JG/20/203              |              |      | 203            | -                                 | 7.4                                | 50.8                           | -    |                                | 60.9 | -                                                               |      | 81.2                                           | -    |      | 85.3  | -    | -    |
| D64.../20/305             |              |      | 305            | 4                                 | 4.9                                | 76.3                           | 305  |                                | 91.5 | 366                                                             |      | 122                                            | 448  |      | 128.1 | 168  | 672  |
| D64.../25/025             | 25           | 12.5 | 25             | 100                               | 90                                 | 6.3                            | 630  | 563                            | 7.5  | 750                                                             | 675  | 10                                             | 1000 | 900  | 10.5  | 12   | 1200 |
| D64.../25/032             |              |      | 32             | 80.3                              | 70.3                               | 8                              | 642  |                                | 9.6  | 771                                                             |      | 12.8                                           | 1028 |      | 13.4  | 16   | 1285 |
| D64.../25/038             |              |      | 38             | 62                                | 59.2                               | 9.5                            | 589  |                                | 11.4 | 707                                                             |      | 15.2                                           | 942  |      | 16    | 19   | 1178 |
| D64.../25/044             |              |      | 44             | 52.9                              | 51.1                               | 11                             | 582  |                                | 13.2 | 698                                                             |      | 17.6                                           | 931  |      | 18.5  | 22   | 1164 |
| D64.../25/051             |              |      | 51             | 44                                | 44.1                               | 12.8                           | 563  |                                | 15.3 | 673                                                             |      | 20.4                                           | 898  |      | 21.4  | 25   | 1100 |
| D64.../25/064             |              |      | 64             | 35.2                              | 35.2                               | 16                             | 563  |                                | 19.2 | 676                                                             |      | 25.6                                           | 901  |      | 26.9  | 34   | 1197 |
| D64.../25/076             |              |      | 76             | 28                                | 29.6                               | 19                             | 532  |                                | 22.8 | 638                                                             |      | 30.4                                           | 851  |      | 31.9  | 38   | 1064 |
| D64.../25/089             |              |      | 89             | 24                                | 25.3                               | 22.3                           | 535  |                                | 26.7 | 641                                                             |      | 35.6                                           | 854  |      | 37.4  | 48   | 1152 |
| D64.../25/102             |              |      | 102            | 21.1                              | 22.1                               | 25.5                           | 538  |                                | 30.6 | 646                                                             |      | 40.8                                           | 861  |      | 42.8  | 54   | 1139 |
| D64.../25/115             |              |      | 115            | 18.7                              | 19.6                               | 28.8                           | 539  |                                | 34.5 | 645                                                             |      | 46                                             | 860  |      | 48.3  | 61   | 1141 |
| D64.../25/127             |              |      | 127            | 16.7                              | 17.7                               | 31.8                           | 531  |                                | 38.1 | 636                                                             |      | 50.8                                           | 848  |      | 53.3  | 69   | 1152 |
| D64.../25/139             |              |      | 139            | 15.3                              | 16.2                               | 34.8                           | 536  |                                | 41.7 | 638                                                             |      | 55.6                                           | 851  |      | 58.4  | 75   | 1148 |
| D64.../25/152             |              |      | 152            | 14                                | 14.8                               | 38                             | 532  |                                | 45.6 | 638                                                             |      | 60.8                                           | 851  |      | 63.8  | 81   | 1134 |
| D64.../25/178             |              |      | 178            | 12.5                              | 12.6                               | 44.5                           | 556  |                                | 53.4 | 668                                                             |      | 71.2                                           | 890  |      | 74.8  | 96   | 1200 |
| D64.../25/203             |              |      | 203            | 10.4                              | 11.1                               | 50.8                           | 528  |                                | 60.9 | 633                                                             |      | 81.2                                           | 844  |      | 85.3  | 110  | 1144 |
| D64JG/25/229              |              |      | 229            | -                                 | 9.8                                | 57.3                           | -    |                                | 68.7 | -                                                               |      | 91.6                                           | -    |      | 96.2  | -    | -    |
| D64.../25/305             | 305          | 7    | 7.4            | 76.3                              | 534                                | 91.5                           | 641  | 122                            | 854  | 128.1                                                           | 168  | 1176                                           |      |      |       |      |      |
| D64.../32/038             | 32           | 16   | 38             | 94                                | 92.1                               | 9.5                            | 893  | 875                            | 11.4 | 1072                                                            | 1050 | 15.2                                           | 1429 | 1400 | 16    | 18   | 1692 |
| D64.../32/044             |              |      | 44             | 79.5                              | 79.5                               | 11                             | 875  |                                | 13.2 | 1049                                                            |      | 17.6                                           | 1399 |      | 18.5  | 22   | 1749 |
| D64.../32/051             |              |      | 51             | 67                                | 68.6                               | 12.8                           | 858  |                                | 15.3 | 1025                                                            |      | 20.4                                           | 1367 |      | 21.4  | 25   | 1675 |
| D64.../32/064             |              |      | 64             | 53                                | 54.7                               | 16                             | 848  |                                | 19.2 | 1018                                                            |      | 25.6                                           | 1357 |      | 26.9  | 34   | 1802 |
| D64.../32/076             |              |      | 76             | 44                                | 46.1                               | 19                             | 836  |                                | 22.8 | 1003                                                            |      | 30.4                                           | 1338 |      | 31.9  | 40   | 1760 |
| D64.../32/089             |              |      | 89             | 37.2                              | 39.3                               | 22.3                           | 830  |                                | 26.7 | 993                                                             |      | 35.6                                           | 1324 |      | 37.4  | 48   | 1786 |
| D64.../32/102             |              |      | 102            | 32                                | 34.3                               | 25.5                           | 816  |                                | 30.6 | 979                                                             |      | 40.8                                           | 1306 |      | 42.8  | 55   | 1760 |
| D64.../32/115             |              |      | 115            | 29                                | 30.4                               | 28.8                           | 835  |                                | 34.5 | 1001                                                            |      | 46                                             | 1334 |      | 48.3  | 63   | 1827 |
| D64.../32/127             |              |      | 127            | 25                                | 27.6                               | 31.8                           | 795  |                                | 38.1 | 953                                                             |      | 50.8                                           | 1270 |      | 53.3  | 69   | 1725 |
| D64.../32/139             |              |      | 139            | 23                                | 25.2                               | 34.8                           | 805  |                                | 41.7 | 959                                                             |      | 55.6                                           | 1279 |      | 58.4  | 77   | 1771 |
| D64.../32/152             |              |      | 152            | 21.5                              | 23                                 | 38                             | 817  |                                | 45.6 | 980                                                             |      | 60.8                                           | 1307 |      | 63.8  | 81   | 1742 |
| D64.../32/178             |              |      | 178            | 18.2                              | 19.7                               | 44.5                           | 810  |                                | 53.4 | 972                                                             |      | 71.2                                           | 1296 |      | 74.8  | 95   | 1729 |
| D64.../32/203             |              |      | 203            | 15.8                              | 17.2                               | 50.8                           | 803  |                                | 60.9 | 962                                                             |      | 81.2                                           | 1283 |      | 85.3  | 112  | 1770 |
| D64JG/32/229              |              |      | 229            | 15.3                              | 15.3                               | 57.3                           | -    |                                | 68.7 | -                                                               |      | 91.6                                           | -    |      | 96.2  | -    | -    |
| D64.../32/254             |              |      | 254            | 12.5                              | 13.8                               | 63.5                           | 794  |                                | 76.2 | 953                                                             |      | 101.6                                          | 1270 |      | 106.7 | 143  | 1788 |
| D64.../32/305             |              |      | 305            | 10.3                              | 11.5                               | 76.3                           | 786  |                                | 91.5 | 942                                                             |      | 122                                            | 1257 |      | 128.1 | 175  | 1803 |
| D64.../40/051             | 40           | 20   | 51             | 92                                | 98                                 | 12.8                           | 1178 | 1250                           | 15.3 | 1408                                                            | 1500 | 20.4                                           | 1877 | 2000 | 21.4  | 25   | 2300 |
| D64.../40/064             |              |      | 64             | 73                                | 78.1                               | 16                             | 1168 |                                | 19.2 | 1402                                                            |      | 25.6                                           | 1869 |      | 26.9  | 33   | 2409 |
| D64.../40/076             |              |      | 76             | 63                                | 65.8                               | 19                             | 1197 |                                | 22.8 | 1436                                                            |      | 30.4                                           | 1915 |      | 31.9  | 39   | 2457 |
| D64.../40/089             |              |      | 89             | 51                                | 56.2                               | 22.3                           | 1137 |                                | 26.7 | 1362                                                            |      | 35.6                                           | 1816 |      | 37.4  | 47   | 2397 |
| D64.../40/102             |              |      | 102            | 43                                | 49                                 | 25.5                           | 1097 |                                | 30.6 | 1316                                                            |      | 40.8                                           | 1754 | 42.8 | 54    | 2322 |      |



# High Performance Compression Spring

Rectangular Wire-Green Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ سبز

| کد سفارش<br>Ordering Code | D<br>(b x h) | d  | L <sub>0</sub> | D64<br>(Rate)<br>ضریب فنر<br>±10% | D64J<br>(Rate)<br>ضریب فنر<br>±10% | A<br>25%<br>دوام 3.000.000 ضرب                                                    |                  | B<br>30%<br>دوام 1.500.000 ضرب                                                    |                  | C<br>40%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب                   |                  | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن                                      |      |      |
|---------------------------|--------------|----|----------------|-----------------------------------|------------------------------------|-----------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|------|------|
|                           |              |    |                |                                   |                                    |  |                  |  |                  |  |                  |  |      |      |
|                           | mm           | mm | mm             | N/mm                              | N/mm                               | mm                                                                                | N<br>D64<br>D64J | mm                                                                                | N<br>D64<br>D64J | mm                                                                                | N<br>D64<br>D64J | mm                                                                                  | D64J | D64  |
| D64.../40/115             | 40           | 20 | 115            | 39.6                              | 43.5                               | 28.8                                                                              | 1140             | 34.5                                                                              | 1366             | 46                                                                                | 1822             | 48.3                                                                                | 61   | 2416 |
| D64.../40/127             |              |    | 127            | 37                                | 39.4                               | 31.8                                                                              | 1177             | 38.1                                                                              | 1410             | 50.8                                                                              | 1880             | 53.3                                                                                | 66   | 2442 |
| D64.../40/139             |              |    | 139            | 32                                | 36                                 | 34.8                                                                              | 1120             | 41.7                                                                              | 1334             | 55.6                                                                              | 1779             | 58.4                                                                                | 76   | 2432 |
| D64.../40/152             |              |    | 152            | 28                                | 32.9                               | 38                                                                                | 1064             | 45.6                                                                              | 1277             | 60.8                                                                              | 1702             | 63.8                                                                                | 81   | 2268 |
| D64.../40/178             |              |    | 178            | 25.2                              | 28.1                               | 44.5                                                                              | 1121             | 53.4                                                                              | 1346             | 71.2                                                                              | 1794             | 74.8                                                                                | 93   | 2344 |
| D64.../40/203             |              |    | 203            | 22.7                              | 24.6                               | 50.8                                                                              | 1153             | 60.9                                                                              | 1382             | 81.2                                                                              | 1843             | 85.3                                                                                | 110  | 2497 |
| D64JG/40/229              |              |    | 229            | -                                 | 21.8                               | 57.3                                                                              | -                | 68.7                                                                              | -                | 91.6                                                                              | -                | 96.2                                                                                | -    | -    |
| D64.../40/254             |              |    | 254            | 17                                | 19.7                               | 63.5                                                                              | 1080             | 76.2                                                                              | 1295             | 101.6                                                                             | 1727             | 106.7                                                                               | 136  | 2312 |
| D64.../40/305             | 50           | 25 | 305            | 14.8                              | 16.4                               | 76.3                                                                              | 1129             | 91.5                                                                              | 1354             | 122                                                                               | 1806             | 128.1                                                                               | 163  | 2412 |
| D64.../50/064             |              |    | 64             | 156                               | 156.3                              | 16                                                                                | 2995             | 19.2                                                                              | 2995             | 25.6                                                                              | 3994             | 26.9                                                                                | 31   | 4836 |
| D64.../50/076             |              |    | 76             | 125                               | 131.6                              | 19                                                                                | 2850             | 22.8                                                                              | 2850             | 30.4                                                                              | 3800             | 31.9                                                                                | 36   | 4500 |
| D64.../50/089             |              |    | 89             | 109                               | 112.4                              | 22.3                                                                              | 2910             | 26.7                                                                              | 2910             | 35.6                                                                              | 3880             | 37.4                                                                                | 44   | 4796 |
| D64.../50/102             |              |    | 102            | 94                                | 98                                 | 25.5                                                                              | 2876             | 30.6                                                                              | 2876             | 40.8                                                                              | 3835             | 42.8                                                                                | 49   | 4606 |
| D64.../50/115             |              |    | 115            | 81                                | 87                                 | 28.8                                                                              | 2795             | 34.5                                                                              | 2795             | 46                                                                                | 3726             | 48.3                                                                                | 60   | 4860 |
| D64.../50/127             |              |    | 127            | 71                                | 78.7                               | 31.8                                                                              | 2705             | 38.1                                                                              | 2705             | 50.8                                                                              | 3607             | 53.3                                                                                | 64   | 4544 |
| D64.../50/139             |              |    | 139            | 66.5                              | 71.9                               | 34.8                                                                              | 2773             | 41.7                                                                              | 2773             | 55.6                                                                              | 3697             | 58.4                                                                                | 70   | 4655 |
| D64.../50/152             | 63           | 38 | 152            | 60                                | 65.8                               | 38                                                                                | 2736             | 45.6                                                                              | 2736             | 60.8                                                                              | 3648             | 63.8                                                                                | 77   | 4620 |
| D64.../50/178             |              |    | 178            | 52                                | 56.2                               | 44.5                                                                              | 2777             | 53.4                                                                              | 2777             | 71.2                                                                              | 3702             | 74.8                                                                                | 94   | 4888 |
| D64.../50/203             |              |    | 203            | 44                                | 49.3                               | 50.8                                                                              | 2235             | 60.9                                                                              | 2680             | 81.2                                                                              | 3573             | 85.3                                                                                | 105  | 4620 |
| D64.../50/229             |              |    | 229            | 38.2                              | 43.7                               | 57.3                                                                              | 2189             | 68.7                                                                              | 2624             | 91.6                                                                              | 3499             | 96.2                                                                                | 126  | 4813 |
| D64.../50/254             |              |    | 254            | 35                                | 39.4                               | 63.5                                                                              | 2223             | 76.2                                                                              | 2667             | 101.6                                                                             | 3556             | 106.7                                                                               | 137  | 4795 |
| D64.../50/305             |              |    | 305            | 28.5                              | 32.8                               | 76.3                                                                              | 2175             | 91.5                                                                              | 2608             | 122                                                                               | 3477             | 128.1                                                                               | 168  | 4788 |
| D64.../63/076             |              |    | 76             | 189                               | 197.4                              | 19                                                                                | 3591             | 22.8                                                                              | 4309             | 30.4                                                                              | 5746             | 31.9                                                                                | 38   | 7182 |
| D64.../63/089             |              |    | 89             | 158                               | 168.5                              | 22.3                                                                              | 3523             | 26.7                                                                              | 4219             | 35.6                                                                              | 5625             | 37.4                                                                                | 45   | 7110 |
| D64.../63/102             | 63           | 38 | 102            | 131                               | 147.1                              | 25.5                                                                              | 3341             | 30.6                                                                              | 4009             | 40.8                                                                              | 5345             | 42.8                                                                                | 52   | 6812 |
| D64.../63/115             |              |    | 115            | 116                               | 130.4                              | 28.8                                                                              | 3341             | 34.5                                                                              | 4002             | 46                                                                                | 5336             | 48.3                                                                                | 60   | 6960 |
| D64.../63/127             |              |    | 127            | 103                               | 118.1                              | 31.8                                                                              | 3275             | 38.1                                                                              | 3924             | 50.8                                                                              | 5232             | 53.3                                                                                | 63   | 6489 |
| D64.../63/152             |              |    | 152            | 84.3                              | 98.7                               | 38                                                                                | 3203             | 45.6                                                                              | 3844             | 60.8                                                                              | 5125             | 63.8                                                                                | 78   | 6575 |
| D64.../63/178             |              |    | 178            | 71.5                              | 84.3                               | 44.5                                                                              | 3182             | 53.4                                                                              | 3818             | 71.2                                                                              | 5091             | 74.8                                                                                | 89   | 6364 |
| D64.../63/203             |              |    | 203            | 61.7                              | 73.9                               | 50.8                                                                              | 3134             | 60.9                                                                              | 3758             | 81.2                                                                              | 5010             | 85.3                                                                                | 108  | 6664 |
| D64JG/63/229              |              |    | 229            | -                                 | 65.5                               | 57.3                                                                              | -                | 68.7                                                                              | -                | 91.6                                                                              | -                | 96.2                                                                                | -    | -    |
| D64.../63/254             |              |    | 254            | 47                                | 59.1                               | 63.5                                                                              | 2985             | 76.2                                                                              | 3581             | 101.6                                                                             | 4775             | 106.7                                                                               | 137  | 6439 |
| D64.../63/305             | 63           | 38 | 305            | 38.2                              | 49.2                               | 76.3                                                                              | 2915             | 91.5                                                                              | 3459             | 122                                                                               | 4660             | 128.1                                                                               | 163  | 6227 |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |
|                           |              |    |                |                                   |                                    |                                                                                   |                  |                                                                                   |                  |                                                                                   |                  |                                                                                     |      |      |

# HIGH PERFORMANCE COMPRESSION SPRING

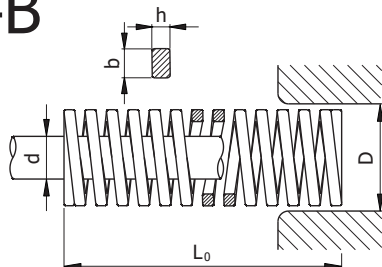
Rectangular Wire-Blue Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ آبی

D64JB  
D64B



Blue  
آبی



| کد سفارش<br>Ordering Code | D d<br>(b x h)      |     | L <sub>0</sub> | D64<br>(Rate)<br>ضرب فنر<br>±10% |      | D64J<br>(Rate)<br>ضرب فنر<br>±10% |     | A<br>25%<br>دوام 3.000.000 ضرب<br> |      | B<br>30%<br>دوام 1.500.000 ضرب<br> |     | C<br>37.5%Max. def<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب<br> |     | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |      |      |     |   |
|---------------------------|---------------------|-----|----------------|----------------------------------|------|-----------------------------------|-----|---------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------|------|------|-----|---|
|                           | mm                  | mm  |                | mm                               | N/mm | N/mm                              | mm  | N                                                                                                                   |      | mm                                                                                                                  | N   |                                                                                                                                                       | mm  | N                                                                                                                                     |      | mm   |     | N |
|                           |                     |     |                |                                  |      |                                   |     | D64                                                                                                                 | D64J |                                                                                                                     | D64 | D64J                                                                                                                                                  |     | D64J                                                                                                                                  | D64  | D64J |     |   |
| D64.../10/025             | 10                  | 5   | 25             | 16                               | 18.1 | 6.3                               | 100 | 113                                                                                                                 | 7.5  | 120                                                                                                                 | 136 | 9.4                                                                                                                                                   | 150 | 170                                                                                                                                   | 9.9  | 12   | 192 |   |
| D64.../10/032             |                     |     | 32             | 13                               | 14.2 | 8                                 | 104 |                                                                                                                     | 9.6  | 125                                                                                                                 |     | 12                                                                                                                                                    | 156 |                                                                                                                                       | 12.6 | 14   | 182 |   |
| D64.../10/038             |                     |     | 38             | 11.9                             | 11.9 | 9.5                               | 113 |                                                                                                                     | 11.4 | 136                                                                                                                 |     | 14.3                                                                                                                                                  | 170 |                                                                                                                                       | 15   | 19   | 226 |   |
| D64.../10/044             |                     |     | 44             | 10.3                             | 10.3 | 11                                | 113 |                                                                                                                     | 13.2 | 136                                                                                                                 |     | 16.5                                                                                                                                                  | 170 |                                                                                                                                       | 17.4 | 23   | 237 |   |
| D64.../10/051             |                     |     | 51             | 8.9                              | 8.9  | 12.8                              | 113 |                                                                                                                     | 15.3 | 136                                                                                                                 |     | 19.1                                                                                                                                                  | 170 |                                                                                                                                       | 20.1 | 27   | 240 |   |
| D64.../10/064             |                     |     | 64             | 7.5                              | 7.1  | 16                                | 120 |                                                                                                                     | 19.2 | 144                                                                                                                 |     | 24                                                                                                                                                    | 180 |                                                                                                                                       | 25.3 | 31   | 233 |   |
| D64.../10/076             |                     |     | 76             | 5.3                              | 6    | 19                                | 101 |                                                                                                                     | 22.8 | 121                                                                                                                 |     | 28.5                                                                                                                                                  | 151 |                                                                                                                                       | 30   | 37   | 196 |   |
| D64JB/10/089              |                     |     | 89             | -                                | 5.1  | 22.3                              | -   |                                                                                                                     | 26.7 | -                                                                                                                   |     | 33.4                                                                                                                                                  | -   |                                                                                                                                       | 35.2 | -    | -   |   |
| D64JB/10/102              | D64J<br>(1.9 x 1.3) |     | 102            | -                                | 4.4  | 25.5                              | -   | 30.6                                                                                                                | -    | 38.3                                                                                                                | -   | 40.3                                                                                                                                                  | -   | -                                                                                                                                     |      |      |     |   |
| D64.../10/305             |                     |     | 305            | 1.6                              | 1.5  | 76.3                              | 122 | 91.5                                                                                                                | 146  | 114.4                                                                                                               | 183 | 120.5                                                                                                                                                 | 137 | 219                                                                                                                                   |      |      |     |   |
| D64.../13/025             | 12.5                | 6.3 | 25             | 30                               | 32   | 6.3                               | 188 | 200                                                                                                                 | 7.5  | 225                                                                                                                 | 240 | 9.4                                                                                                                                                   | 281 | 300                                                                                                                                   | 9.9  | 10   | 300 |   |
| D64.../13/032             |                     |     | 32             | 24.8                             | 25   | 8                                 | 198 |                                                                                                                     | 9.6  | 238                                                                                                                 |     | 12                                                                                                                                                    | 298 |                                                                                                                                       | 12.6 | 13   | 322 |   |
| D64.../13/038             |                     |     | 38             | 21.4                             | 21.1 | 9.5                               | 203 |                                                                                                                     | 11.4 | 244                                                                                                                 |     | 14.3                                                                                                                                                  | 305 |                                                                                                                                       | 15   | 16   | 342 |   |
| D64.../13/044             |                     |     | 44             | 18.5                             | 18.2 | 11                                | 204 |                                                                                                                     | 13.2 | 244                                                                                                                 |     | 16.5                                                                                                                                                  | 305 |                                                                                                                                       | 17.4 | 20   | 370 |   |
| D64.../13/051             |                     |     | 51             | 15.5                             | 15.7 | 12.8                              | 198 |                                                                                                                     | 15.3 | 237                                                                                                                 |     | 19.1                                                                                                                                                  | 296 |                                                                                                                                       | 20.1 | 25   | 388 |   |
| D64.../13/064             |                     |     | 64             | 12.1                             | 12.5 | 16                                | 194 |                                                                                                                     | 19.2 | 232                                                                                                                 |     | 24                                                                                                                                                    | 290 |                                                                                                                                       | 25.3 | 28   | 339 |   |
| D64.../13/076             |                     |     | 76             | 10.2                             | 10.5 | 19                                | 194 |                                                                                                                     | 22.8 | 233                                                                                                                 |     | 28.5                                                                                                                                                  | 291 |                                                                                                                                       | 30   | 34   | 347 |   |
| D64.../13/089             |                     |     | 89             | 8.4                              | 9    | 22.3                              | 187 |                                                                                                                     | 26.7 | 224                                                                                                                 |     | 33.4                                                                                                                                                  | 280 |                                                                                                                                       | 35.2 | 41   | 344 |   |
| D64.../13/102             | D64J<br>(2.8 x 1.3) |     | 102            | 7.1                              | 7.8  | 25.5                              | 181 | 30.6                                                                                                                | 217  | 38.3                                                                                                                | 272 | 40.3                                                                                                                                                  | 46  | 327                                                                                                                                   |      |      |     |   |
| D64JB/13/115              |                     |     | 115            | -                                | 7    | 28.8                              | -   | 34.5                                                                                                                | -    | 43.1                                                                                                                | -   | 45.4                                                                                                                                                  | -   | -                                                                                                                                     |      |      |     |   |
| D64.../13/305             |                     |     | 305            | 2.1                              | 2.6  | 76.3                              | 160 | 91.5                                                                                                                | 192  | 114.4                                                                                                               | 240 | 120.5                                                                                                                                                 | 128 | 269                                                                                                                                   |      |      |     |   |
| D64.../16/025             | 16                  | 8   | 25             | 49.4                             | 53.3 | 6.3                               | 309 | 333                                                                                                                 | 7.5  | 371                                                                                                                 | 400 | 9.4                                                                                                                                                   | 463 | 500                                                                                                                                   | 9.9  | 11   | 543 |   |
| D64.../16/032             |                     |     | 32             | 37.1                             | 41.7 | 8                                 | 297 |                                                                                                                     | 9.6  | 356                                                                                                                 |     | 12                                                                                                                                                    | 445 |                                                                                                                                       | 12.6 | 15   | 557 |   |
| D64.../16/038             |                     |     | 38             | 33.9                             | 35.1 | 9.5                               | 322 |                                                                                                                     | 11.4 | 386                                                                                                                 |     | 14.3                                                                                                                                                  | 483 |                                                                                                                                       | 15   | 18   | 610 |   |
| D64.../16/044             |                     |     | 44             | 30                               | 30.3 | 11                                | 330 |                                                                                                                     | 13.2 | 396                                                                                                                 |     | 16.5                                                                                                                                                  | 495 |                                                                                                                                       | 17.4 | 22   | 660 |   |
| D64.../16/051             |                     |     | 51             | 26.4                             | 26.1 | 12.8                              | 337 |                                                                                                                     | 15.3 | 404                                                                                                                 |     | 19.1                                                                                                                                                  | 505 |                                                                                                                                       | 20.1 | 24   | 634 |   |
| D64.../16/064             |                     |     | 64             | 20.5                             | 20.8 | 16                                | 328 |                                                                                                                     | 19.2 | 394                                                                                                                 |     | 24                                                                                                                                                    | 492 |                                                                                                                                       | 25.3 | 32   | 656 |   |
| D64.../16/076             |                     |     | 76             | 17.8                             | 17.5 | 19                                | 338 |                                                                                                                     | 22.8 | 406                                                                                                                 |     | 28.5                                                                                                                                                  | 507 |                                                                                                                                       | 30   | 36   | 641 |   |
| D64.../16/089             |                     |     | 89             | 15.2                             | 15   | 22.3                              | 338 |                                                                                                                     | 26.7 | 406                                                                                                                 |     | 33.4                                                                                                                                                  | 507 |                                                                                                                                       | 35.2 | 43   | 654 |   |
| D64.../16/102             | D64J<br>(3.2 x 2.2) |     | 102            | 13.5                             | 13.1 | 25.5                              | 344 | 30.6                                                                                                                | 413  | 38.3                                                                                                                | 516 | 40.3                                                                                                                                                  | 47  | 635                                                                                                                                   |      |      |     |   |
| D64JB/16/115              |                     |     | 115            | -                                | 11.6 | 28.8                              | -   | 34.5                                                                                                                | -    | 48.1                                                                                                                | -   | 45.4                                                                                                                                                  | -   | -                                                                                                                                     |      |      |     |   |
| D64JB/16/127              |                     |     | 127            | -                                | 10.5 | 31.8                              | -   | 38.1                                                                                                                | -    | 47.6                                                                                                                | -   | 50.2                                                                                                                                                  | -   | -                                                                                                                                     |      |      |     |   |
| D64.../16/305             |                     |     | 305            | 4.8                              | 4.4  | 76.3                              | 366 | 91.5                                                                                                                | 439  | 114.4                                                                                                               | 549 | 120.5                                                                                                                                                 | 139 | 667                                                                                                                                   |      |      |     |   |

# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Blue Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ آبی

| کد سفارش<br>Ordering Code | D<br>(b x h)        | d    | L <sub>0</sub> | D64<br>(Rate)<br>ضرب فنر<br>±10% | D64J<br>(Rate)<br>ضرب فنر<br>±10% | A<br>25%<br>دوام 3.000.000 ضرب                                                    |                                                                                   | B<br>30%<br>دوام 1.500.000 ضرب                                                    |                                                                                     | C<br>37.5%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب |      |       | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن |      |       |     |      |     |
|---------------------------|---------------------|------|----------------|----------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|------|-------|------------------------------------------------|------|-------|-----|------|-----|
|                           |                     |      |                |                                  |                                   |  |  |  |  | mm                                                                | N    |       | mm                                             | N    |       | mm  | N    |     |
|                           |                     |      |                |                                  |                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                   | D64  | D64J  |                                                | D64  | D64J  |     | D64J | D64 |
| D64.../20/025             | 20                  | 10   | 25             | 98                               | 85.3                              | 6.3                                                                               | 613                                                                               | 533                                                                               | 7.5                                                                                 | 735                                                               | 640  | 9.4   | 919                                            | 800  | 9.9   | 10  | 980  |     |
| D64.../20/032             |                     |      | 32             | 72.2                             | 66.7                              | 8                                                                                 | 581                                                                               |                                                                                   | 9.6                                                                                 | 697                                                               |      | 12    | 871                                            |      | 12.6  | 13  | 994  |     |
| D64.../20/038             |                     |      | 38             | 56                               | 56.1                              | 9.5                                                                               | 532                                                                               |                                                                                   | 11.4                                                                                | 638                                                               |      | 14.3  | 798                                            |      | 15    | 16  | 896  |     |
| D64.../20/044             |                     |      | 44             | 47.5                             | 48.5                              | 11                                                                                | 523                                                                               |                                                                                   | 13.2                                                                                | 627                                                               |      | 16.5  | 784                                            |      | 17.4  | 19  | 903  |     |
| D64.../20/051             |                     |      | 51             | 41.7                             | 41.8                              | 12.8                                                                              | 532                                                                               |                                                                                   | 15.3                                                                                | 638                                                               |      | 19.1  | 798                                            |      | 20.1  | 21  | 876  |     |
| D64.../20/064             |                     |      | 64             | 32.3                             | 33.3                              | 16                                                                                | 517                                                                               |                                                                                   | 19.2                                                                                | 620                                                               |      | 24    | 775                                            |      | 25.3  | 28  | 904  |     |
| D64.../20/076             |                     |      | 76             | 25.1                             | 28.1                              | 19                                                                                | 477                                                                               |                                                                                   | 22.8                                                                                | 572                                                               |      | 28.5  | 715                                            |      | 30    | 33  | 828  |     |
| D64.../20/089             |                     |      | 89             | 22                               | 24                                | 22.3                                                                              | 490                                                                               |                                                                                   | 26.7                                                                                | 587                                                               |      | 33.4  | 734                                            |      | 35.2  | 41  | 902  |     |
| D64.../20/102             |                     |      | 102            | 19.8                             | 20.9                              | 25.5                                                                              | 505                                                                               |                                                                                   | 30.6                                                                                | 606                                                               |      | 38.3  | 757                                            |      | 40.3  | 48  | 950  |     |
| D64.../20/115             |                     |      | 115            | 18.1                             | 18.6                              | 28.8                                                                              | 520                                                                               |                                                                                   | 34.5                                                                                | 624                                                               |      | 43.1  | 781                                            |      | 45.4  | 55  | 996  |     |
| D64.../20/127             | D64J<br>(4.2 x 2.5) |      | 127            | 16.6                             | 16.8                              | 31.8                                                                              | 527                                                                               | 38.1                                                                              | 632                                                                                 | 47.6                                                              | 791  | 50.2  | 61                                             | 1013 |       |     |      |     |
| D64.../20/139             |                     |      | 139            | 15.1                             | 15.3                              | 34.8                                                                              | 525                                                                               | 41.7                                                                              | 634                                                                                 | 52.1                                                              | 787  | 54.9  | 67                                             | 1012 |       |     |      |     |
| D64.../20/152             |                     |      | 152            | 13.2                             | 14                                | 38                                                                                | 502                                                                               | 45.6                                                                              | 600                                                                                 | 57                                                                | 752  | 60    | 74                                             | 997  |       |     |      |     |
| D64JB/20/178              |                     |      | 178            | -                                | 12                                | 44.5                                                                              | -                                                                                 | 53.4                                                                              | -                                                                                   | 66.8                                                              | -    | 70.3  | -                                              | -    |       |     |      |     |
| D64JB/20/203              |                     |      | 203            | -                                | 10                                | 50.8                                                                              | -                                                                                 | 60.9                                                                              | -                                                                                   | 76.1                                                              | -    | 80.2  | -                                              | -    |       |     |      |     |
| D64.../20/305             |                     |      | 305            | 6.1                              | 7                                 | 76.3                                                                              | 465                                                                               | 91.5                                                                              | 558                                                                                 | 114.4                                                             | 698  | 120.5 | 146                                            | 891  |       |     |      |     |
| D64.../25/025             | 25                  | 12.5 | 25             | 147                              | 128                               | 6.3                                                                               | 919                                                                               | 800                                                                               | 7.5                                                                                 | 1103                                                              | 960  | 9.4   | 1378                                           | 1200 | 9.9   | 11  | 1617 |     |
| D64.../25/032             |                     |      | 32             | 118                              | 100                               | 8                                                                                 | 944                                                                               |                                                                                   | 9.6                                                                                 | 1133                                                              |      | 12    | 1416                                           |      | 12.6  | 13  | 1534 |     |
| D64.../25/038             |                     |      | 38             | 93                               | 84.2                              | 9.5                                                                               | 884                                                                               |                                                                                   | 11.4                                                                                | 1060                                                              |      | 14.3  | 1325                                           |      | 15    | 18  | 1674 |     |
| D64.../25/044             |                     |      | 44             | 80.8                             | 72.7                              | 11                                                                                | 889                                                                               |                                                                                   | 13.2                                                                                | 1067                                                              |      | 16.5  | 1333                                           |      | 17.4  | 21  | 1697 |     |
| D64.../25/051             |                     |      | 51             | 68.6                             | 62.7                              | 12.8                                                                              | 875                                                                               |                                                                                   | 15.3                                                                                | 1050                                                              |      | 19.1  | 1312                                           |      | 20.1  | 23  | 1578 |     |
| D64.../25/064             |                     |      | 64             | 53                               | 50                                | 16                                                                                | 848                                                                               |                                                                                   | 19.2                                                                                | 1018                                                              |      | 24    | 1272                                           |      | 25.3  | 30  | 1590 |     |
| D64.../25/076             |                     |      | 76             | 43.2                             | 42.1                              | 19                                                                                | 821                                                                               |                                                                                   | 22.8                                                                                | 985                                                               |      | 28.5  | 1231                                           |      | 30    | 35  | 1512 |     |
| D64.../25/089             |                     |      | 89             | 38.2                             | 36                                | 22.3                                                                              | 850                                                                               |                                                                                   | 26.7                                                                                | 1020                                                              |      | 33.4  | 1275                                           |      | 35.2  | 43  | 1643 |     |
| D64.../25/102             |                     |      | 102            | 33                               | 31.4                              | 25.5                                                                              | 842                                                                               |                                                                                   | 30.6                                                                                | 1010                                                              |      | 38.3  | 1262                                           |      | 40.3  | 49  | 1617 |     |
| D64.../25/115             |                     |      | 115            | 28                               | 27.8                              | 28.8                                                                              | 805                                                                               |                                                                                   | 34.5                                                                                | 966                                                               |      | 43.1  | 1208                                           |      | 45.4  | 56  | 1568 |     |
| D64.../25/127             | D64J<br>(5.8 x 2.9) |      | 127            | 25.9                             | 25.2                              | 31.8                                                                              | 822                                                                               | 38.1                                                                              | 987                                                                                 | 47.6                                                              | 1233 | 50.2  | 60                                             | 1554 |       |     |      |     |
| D64.../25/139             |                     |      | 139            | 23.2                             | 23                                | 34.8                                                                              | 806                                                                               | 41.7                                                                              | 974                                                                                 | 52.1                                                              | 1209 | 54.9  | 65                                             | 1508 |       |     |      |     |
| D64.../25/152             |                     |      | 152            | 20.8                             | 21.1                              | 38                                                                                | 790                                                                               | 45.6                                                                              | 948                                                                                 | 57                                                                | 1186 | 60    | 71                                             | 1477 |       |     |      |     |
| D64.../25/178             |                     |      | 178            | 17.8                             | 18                                | 44.5                                                                              | 792                                                                               | 53.4                                                                              | 951                                                                                 | 66.8                                                              | 1188 | 70.3  | 85                                             | 1513 |       |     |      |     |
| D64.../25/203             |                     |      | 203            | 15.8                             | 15.8                              | 50.8                                                                              | 802                                                                               | 60.9                                                                              | 962                                                                                 | 76.1                                                              | 1203 | 80.2  | 96                                             | 1517 |       |     |      |     |
| D64JB/25/229              |                     |      | 229            | -                                | 14                                | 57.3                                                                              | -                                                                                 | 68.7                                                                              | -                                                                                   | 85.9                                                              | -    | 90.5  | -                                              | -    |       |     |      |     |
| D64.../25/305             | 305                 | 10.2 | 10.5           | 76.3                             | 778                               | 91.5                                                                              | 933                                                                               | 114.4                                                                             | 1167                                                                                | 120.5                                                             | 150  | 1530  |                                                |      |       |     |      |     |
| D64.../32/038             | 32                  | 16   | 38             | 185                              | 154.4                             | 9.5                                                                               | 1758                                                                              | 1467                                                                              | 11.4                                                                                | 2109                                                              | 1760 | 14.3  | 2636                                           | 2200 | 15    | 17  | 3145 |     |
| D64.../32/044             |                     |      | 44             | 158                              | 133.3                             | 11                                                                                | 1738                                                                              |                                                                                   | 13.2                                                                                | 2086                                                              |      | 16.5  | 2607                                           |      | 17.4  | 19  | 3002 |     |
| D64.../32/051             |                     |      | 51             | 134                              | 115                               | 12.8                                                                              | 1709                                                                              |                                                                                   | 15.3                                                                                | 2050                                                              |      | 19.1  | 2563                                           |      | 20.1  | 23  | 3082 |     |
| D64.../32/064             |                     |      | 64             | 99                               | 91.7                              | 16                                                                                | 1584                                                                              |                                                                                   | 19.2                                                                                | 1901                                                              |      | 24    | 2376                                           |      | 25.3  | 30  | 2970 |     |
| D64.../32/076             |                     |      | 76             | 80.5                             | 77.2                              | 19                                                                                | 1530                                                                              |                                                                                   | 22.8                                                                                | 1835                                                              |      | 28.5  | 2294                                           |      | 30    | 34  | 2737 |     |
| D64.../32/089             |                     |      | 89             | 69.1                             | 65.9                              | 22.3                                                                              | 1537                                                                              |                                                                                   | 26.7                                                                                | 1845                                                              |      | 33.4  | 2306                                           |      | 35.2  | 42  | 2902 |     |
| D64.../32/102             |                     |      | 102            | 58.8                             | 57.5                              | 25.5                                                                              | 1499                                                                              |                                                                                   | 30.6                                                                                | 1799                                                              |      | 38.3  | 2249                                           |      | 40.3  | 47  | 2764 |     |
| D64.../32/115             |                     |      | 115            | 51.5                             | 51.0                              | 28.8                                                                              | 1481                                                                              |                                                                                   | 34.5                                                                                | 1777                                                              |      | 43.1  | 2221                                           |      | 45.4  | 55  | 2833 |     |
| D64.../32/127             |                     |      | 127            | 44.8                             | 46.2                              | 31.8                                                                              | 1422                                                                              |                                                                                   | 38.1                                                                                | 1707                                                              |      | 47.6  | 2134                                           |      | 50.2  | 61  | 2733 |     |
| D64.../32/139             |                     |      | 139            | 42.3                             | 42.2                              | 34.8                                                                              | 1470                                                                              |                                                                                   | 41.7                                                                                | 1777                                                              |      | 52.1  | 2205                                           |      | 54.9  | 68  | 2876 |     |
| D64.../32/152             | D64J<br>(7.4 x 3.8) |      | 152            | 37.8                             | 38.6                              | 38                                                                                | 1436                                                                              | 2000                                                                              | 45.6                                                                                | 1724                                                              | 2400 | 57    | 2155                                           | 3000 | 60    | 75  | 2835 |     |
| D64.../32/178             |                     |      | 178            | 32.5                             | 33                                | 44.5                                                                              | 1446                                                                              |                                                                                   | 53.4                                                                                | 1736                                                              |      | 66.8  | 2169                                           |      | 70.3  | 89  | 2893 |     |
| D64.../32/203             |                     |      | 203            | 28.9                             | 28.9                              | 50.8                                                                              | 1467                                                                              |                                                                                   | 60.9                                                                                | 1760                                                              |      | 76.1  | 2200                                           |      | 80.2  | 101 | 2919 |     |
| D64JB/32/229              |                     |      | 229            | -                                | 25.6                              | 57.3                                                                              | -                                                                                 |                                                                                   | 68.7                                                                                | -                                                                 |      | 85.9  | -                                              |      | 90.5  | -   | -    |     |
| D64.../32/254             |                     |      | 254            | 21.4                             | 23.1                              | 63.5                                                                              | 1359                                                                              |                                                                                   | 76.2                                                                                | 1631                                                              |      | 95.3  | 2038                                           |      | 100.3 | 124 | 2654 |     |
| D64.../32/305             |                     |      | 305            | 18.3                             | 19.2                              | 76.3                                                                              | 1395                                                                              |                                                                                   | 91.5                                                                                | 1674                                                              |      | 114.4 | 2093                                           |      | 120.5 | 150 | 2745 |     |
| D64.../40/051             | 40                  | 20   | 51             | 181.6                            | 156.9                             | 12.8                                                                              | 2315                                                                              | 2000                                                                              | 15.3                                                                                | 2778                                                              | 2400 | 19.1  | 3473                                           | 3000 | 15    | 21  | 3814 |     |
| D64.../40/064             |                     |      | 64             | 140                              | 125                               | 16                                                                                | 2240                                                                              |                                                                                   | 19.2                                                                                | 2688                                                              |      | 24    | 3360                                           |      | 17.4  | 28  | 3920 |     |
| D64.../40/076             |                     |      | 76             | 108                              | 105.3                             | 19                                                                                | 2052                                                                              |                                                                                   | 22.8                                                                                | 2462                                                              |      | 28.5  | 3078                                           |      | 20.1  | 33  | 3564 |     |
| D64.../40/089             |                     |      | 89             | 90.7                             | 89.9                              | 22.3                                                                              | 2018                                                                              |                                                                                   | 26.7                                                                                | 2422                                                              |      | 33.4  | 3027                                           |      | 25.3  | 41  | 3719 |     |
| D64.../40/102             |                     |      | 102            | 81                               | 78.4                              | 25.5                                                                              | 2066                                                                              |                                                                                   | 30.6                                                                                | 2479                                                              |      | 38.3  | 3098                                           |      | 30    | 45  | 3645 |     |

## HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Blue Color

DIN/ISO 10243

## فنر

مقطع مفتول فنر مستطیل - رنگ آبی

| کد سفارش<br>Ordering Code | D<br>d<br>(b x h)            |      | L <sub>0</sub>                | D64<br>(Rate)<br>ضرب فنر<br>±10% |       | D64J<br>(Rate)<br>ضرب فنر<br>±10% |       | A<br>25%<br>دوام 3.000.000 ضرب<br> |      | B<br>30%<br>دوام 1.500.000 ضرب<br> |      | C<br>37.5%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب<br> |      | D<br>Dprox<br>تغییر طول تقریبی<br>تا بسته شدن<br> |       |      |      |   |
|---------------------------|------------------------------|------|-------------------------------|----------------------------------|-------|-----------------------------------|-------|---------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------|-------|------|------|---|
|                           | mm                           | mm   |                               | mm                               | N/mm  | N/mm                              | mm    | N                                                                                                                   |      | mm                                                                                                                  | N    |                                                                                                                                                        | mm   | N                                                                                                                                    |       | mm   |      | N |
|                           |                              |      |                               |                                  |       |                                   |       | D64                                                                                                                 | D64J |                                                                                                                     | D64  | D64J                                                                                                                                                   |      | D64                                                                                                                                  | D64J  | D64J | D64  |   |
| D64.../40/115             | 40<br><br>D64<br>(8.1 x 4.8) | 20   | 115                           | 71.8                             | 69.6  | 28.8                              | 2064  | 2000                                                                                                                | 34.5 | 2477                                                                                                                | 2400 | 43.1                                                                                                                                                   | 3096 | 3000                                                                                                                                 | 45.4  | 52   | 3734 |   |
| D64.../40/127             |                              |      | 127                           | 62.7                             | 63    | 31.8                              | 1991  |                                                                                                                     | 38.1 | 2389                                                                                                                |      | 47.6                                                                                                                                                   | 2986 |                                                                                                                                      | 52.2  | 59   | 3699 |   |
| D64.../40/139             |                              |      | 139                           | 57.5                             | 57.6  | 34.8                              | 1998  |                                                                                                                     | 42   | 2415                                                                                                                |      | 52.1                                                                                                                                                   | 2997 |                                                                                                                                      | 54.9  | 66   | 3795 |   |
| D64.../40/152             |                              |      | 152                           | 51.6                             | 52.6  | 38                                | 1961  |                                                                                                                     | 45.6 | 2353                                                                                                                |      | 57                                                                                                                                                     | 2941 |                                                                                                                                      | 60    | 71   | 3664 |   |
| D64.../40/178             |                              |      | 178                           | 44.1                             | 44.9  | 44.5                              | 1962  |                                                                                                                     | 53.4 | 2355                                                                                                                |      | 66.8                                                                                                                                                   | 2944 |                                                                                                                                      | 70.3  | 83   | 3660 |   |
| D64.../40/203             |                              |      | 203                           | 36.7                             | 39.4  | 50.8                              | 1863  |                                                                                                                     | 60.9 | 2235                                                                                                                |      | 76.1                                                                                                                                                   | 2794 |                                                                                                                                      | 80.2  | 94   | 3450 |   |
| D64JB/40/229              |                              |      | 229                           | -                                | 34.9  | 57.3                              | -     |                                                                                                                     | 68.7 | -                                                                                                                   |      | 85.9                                                                                                                                                   | -    |                                                                                                                                      | 90.5  | -    | -    |   |
| D64.../40/254             |                              |      | 254                           | 30.1                             | 31.5  | 63.5                              | 1911  |                                                                                                                     | 76.2 | 2294                                                                                                                |      | 95.3                                                                                                                                                   | 2867 |                                                                                                                                      | 100.3 | 114  | 3431 |   |
| D64.../40/305             | 305                          | 24.6 | 26.2                          | 76.3                             | 1876  | 91.5                              | 2251  | 114.4                                                                                                               | 2814 | 120.5                                                                                                               | 148  | 3641                                                                                                                                                   |      |                                                                                                                                      |       |      |      |   |
| D64.../50/064             | 50<br><br>D64<br>(10.9 x 6)  | 25   | 64                            | 209                              | 208.3 | 16                                | 3344  | 3333                                                                                                                | 19.2 | 4013                                                                                                                | 4000 | 24                                                                                                                                                     | 5016 | 5000                                                                                                                                 | 25.3  | 30   | 6270 |   |
| D64.../50/076             |                              |      | 76                            | 168                              | 175.4 | 19                                | 3192  |                                                                                                                     | 22.8 | 3830                                                                                                                |      | 28.5                                                                                                                                                   | 4788 |                                                                                                                                      | 30    | 36   | 6048 |   |
| D64.../50/089             |                              |      | 89                            | 140                              | 149.8 | 22.3                              | 3115  |                                                                                                                     | 26.7 | 3738                                                                                                                |      | 33.4                                                                                                                                                   | 4673 |                                                                                                                                      | 35.2  | 43   | 6020 |   |
| D64.../50/102             |                              |      | 102                           | 119                              | 130.7 | 25.5                              | 3035  |                                                                                                                     | 30.6 | 3641                                                                                                                |      | 38.3                                                                                                                                                   | 4552 |                                                                                                                                      | 40.3  | 48   | 5712 |   |
| D64.../50/115             |                              |      | 115                           | 106                              | 115.9 | 28.8                              | 3048  |                                                                                                                     | 34.5 | 3657                                                                                                                |      | 43.1                                                                                                                                                   | 4571 |                                                                                                                                      | 45.4  | 55   | 5830 |   |
| D64.../50/127             |                              |      | 127                           | 97                               | 105   | 31.8                              | 3080  |                                                                                                                     | 38.1 | 3696                                                                                                                |      | 47.6                                                                                                                                                   | 4620 |                                                                                                                                      | 50.2  | 63   | 6111 |   |
| D64.../50/139             |                              |      | 139                           | 87                               | 95.9  | 34.8                              | 3023  |                                                                                                                     | 42   | 3654                                                                                                                |      | 52.1                                                                                                                                                   | 4535 |                                                                                                                                      | 54.9  | 66   | 5742 |   |
| D64.../50/152             |                              |      | 152                           | 80                               | 87.7  | 38                                | 3040  |                                                                                                                     | 45.6 | 3648                                                                                                                |      | 57                                                                                                                                                     | 4560 |                                                                                                                                      | 60    | 72   | 5760 |   |
| D64.../50/178             | D64J<br>(12 x 5.8)           |      | 178                           | 69.5                             | 74.9  | 44.5                              | 3093  | 53.4                                                                                                                | 3711 | 66.8                                                                                                                | 4639 | 70.3                                                                                                                                                   | 85   | 5908                                                                                                                                 |       |      |      |   |
| D64.../50/203             |                              |      | 203                           | 59.8                             | 65.7  | 50.8                              | 3035  | 60.9                                                                                                                | 3642 | 76.1                                                                                                                | 4552 | 80.2                                                                                                                                                   | 95   | 5681                                                                                                                                 |       |      |      |   |
| D64.../50/229             |                              |      | 229                           | 50.9                             | 58.2  | 57.3                              | 2914  | 68.7                                                                                                                | 3497 | 85.9                                                                                                                | 4371 | 90.5                                                                                                                                                   | 114  | 5803                                                                                                                                 |       |      |      |   |
| D64.../50/254             |                              |      | 254                           | 43.9                             | 52.5  | 63.5                              | 2788  | 76.2                                                                                                                | 3345 | 95.3                                                                                                                | 4118 | 100.3                                                                                                                                                  | 125  | 5488                                                                                                                                 |       |      |      |   |
| D64.../50/305             |                              |      | 305                           | 38.6                             | 43.7  | 76.3                              | 2943  | 91.5                                                                                                                | 3532 | 114.4                                                                                                               | 4415 | 120.5                                                                                                                                                  | 150  | 5790                                                                                                                                 |       |      |      |   |
| D64.../63/076             |                              |      | 63<br><br>D64<br>(11.5 x 9.3) | 38                               | 76    | 312                               | 197.4 | 19                                                                                                                  | 5928 | 22.8                                                                                                                | 7114 | 28.5                                                                                                                                                   | 8892 | 30                                                                                                                                   | 30    | 9360 |      |   |
| D64.../63/089             | 89                           | 260  |                               |                                  | 168.5 | 22.3                              | 5785  | 26.7                                                                                                                | 6942 | 33.4                                                                                                                | 8678 | 35.2                                                                                                                                                   | 38   | 9880                                                                                                                                 |       |      |      |   |
| D64.../63/102             | 102                          | 221  |                               |                                  | 147.1 | 25.5                              | 5636  | 30.6                                                                                                                | 6763 | 38.3                                                                                                                | 8453 | 40.3                                                                                                                                                   | 43   | 9503                                                                                                                                 |       |      |      |   |
| D64.../63/115             | 115                          | 187  |                               |                                  | 130.4 | 28.8                              | 5376  | 34.5                                                                                                                | 6452 | 43.1                                                                                                                | 8064 | 45.4                                                                                                                                                   | 50   | 9350                                                                                                                                 |       |      |      |   |
| D64.../63/127             | 127                          | 168  |                               |                                  | 118.1 | 31.8                              | 5334  | 38.1                                                                                                                | 6401 | 47.6                                                                                                                | 8001 | 50.2                                                                                                                                                   | 52   | 8736                                                                                                                                 |       |      |      |   |
| D64.../63/152             | 152                          | 136  |                               |                                  | 98.7  | 38                                | 5168  | 45.6                                                                                                                | 6202 | 57                                                                                                                  | 7752 | 60                                                                                                                                                     | 67   | 9112                                                                                                                                 |       |      |      |   |
| D64.../63/178             | 178                          | 114  |                               |                                  | 84.3  | 44.5                              | 5073  | 53.4                                                                                                                | 6088 | 66.8                                                                                                                | 7610 | 70.3                                                                                                                                                   | 78   | 8892                                                                                                                                 |       |      |      |   |
| D64.../63/203             | 203                          | 100  |                               |                                  | 73.9  | 50.8                              | 5075  | 60.9                                                                                                                | 6090 | 76.1                                                                                                                | 7613 | 80.2                                                                                                                                                   | 88   | 8800                                                                                                                                 |       |      |      |   |
| D64JB/63/229              | D64J<br>(12 x 9.1)           |      | 229                           | -                                | 65.5  | 57.3                              | -     | 68.7                                                                                                                | -    | 85.9                                                                                                                | -    | 90.5                                                                                                                                                   | -    | -                                                                                                                                    |       |      |      |   |
| D64.../63/254             |                              |      | 254                           | 78.4                             | 59.1  | 63.5                              | 4978  | 76.2                                                                                                                | 5974 | 95.3                                                                                                                | 7468 | 100.3                                                                                                                                                  | 115  | 9016                                                                                                                                 |       |      |      |   |
| D64.../63/305             |                              |      | 305                           | 64.7                             | 49.2  | 76.3                              | 4933  | 91.5                                                                                                                | 5920 | 114.4                                                                                                               | 7400 | 120.5                                                                                                                                                  | 134  | 8670                                                                                                                                 |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |
|                           |                              |      |                               |                                  |       |                                   |       |                                                                                                                     |      |                                                                                                                     |      |                                                                                                                                                        |      |                                                                                                                                      |       |      |      |   |

# High Performance Compression Spring

Rectangular Wire-Red Color

DIN/ISO 10243

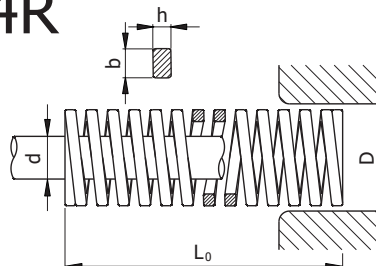
فنر

مقطع مفتول فنر مستطیل - رنگ قرمز

Red  
قرمز



D64JR  
D64R



| کد سفارش<br>Ordering Code | D d<br>(b x h) |     | L <sub>0</sub>      | D64<br>(Rate)<br>فنر<br>±10% | D64J<br>(Rate)<br>فنر<br>±10% | A<br>20%<br>دوام 3.000.000<br> |      | B<br>25%<br>دوام 1.500.000<br> |      | C<br>30%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000<br> |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |      |     |      |      |     |     |
|---------------------------|----------------|-----|---------------------|------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------|------|-----|------|------|-----|-----|
|                           | mm             | mm  |                     | mm                           | N/mm                          | N/mm                                                                                                            | mm   | N                                                                                                               |      | mm                                                                                                                                               | N    |                                                                                                                                       | mm   |     |      |      |     |     |
|                           |                |     |                     |                              |                               |                                                                                                                 |      | D64                                                                                                             | D64J |                                                                                                                                                  | D64  | D64J                                                                                                                                  | D64  | D64 | D64  |      |     |     |
| D64.../10/025             | 10             | 5   | 25                  | 22.1                         | 26.7                          | 5                                                                                                               | 111  | 133                                                                                                             | 6.3  | 139                                                                                                                                              | 167  | 7.5                                                                                                                                   | 166  | 200 | 8    | 9    | 199 |     |
| D64.../10/032             |                |     | 32                  | 17.5                         | 20.8                          | 6.4                                                                                                             | 112  |                                                                                                                 | 8    | 140                                                                                                                                              |      | 9.6                                                                                                                                   | 168  |     | 10.2 | 12   | 210 |     |
| D64.../10/038             |                |     | 38                  | 17.1                         | 17.5                          | 7.6                                                                                                             | 130  |                                                                                                                 | 9.5  | 162                                                                                                                                              |      | 11.4                                                                                                                                  | 195  |     | 12.2 | 15   | 257 |     |
| D64.../10/044             |                |     | 44                  | 15                           | 15.2                          | 8.8                                                                                                             | 132  |                                                                                                                 | 11   | 165                                                                                                                                              |      | 13.2                                                                                                                                  | 198  |     | 14.1 | 17   | 255 |     |
| D64.../10/051             |                |     | 51                  | 12.8                         | 13.1                          | 10.2                                                                                                            | 131  |                                                                                                                 | 12.8 | 164                                                                                                                                              |      | 15.3                                                                                                                                  | 196  |     | 16.3 | 21   | 269 |     |
| D64.../10/064             |                |     | 64                  | 10.7                         | 10.4                          | 12.8                                                                                                            | 137  |                                                                                                                 | 16   | 171                                                                                                                                              |      | 19.2                                                                                                                                  | 205  |     | 20.5 | 26   | 278 |     |
| D64.../10/076             |                |     | 76                  | 7.5                          | 8.8                           | 15.2                                                                                                            | 114  |                                                                                                                 | 19   | 143                                                                                                                                              |      | 22.8                                                                                                                                  | 171  |     | 24.3 | 31   | 233 |     |
| D64JR/10/089              |                |     | D64J<br>(2 x 1.5)   | 89                           | -                             | 7.5                                                                                                             | 17.8 |                                                                                                                 | -    | 22.3                                                                                                                                             |      | -                                                                                                                                     | 26.7 |     | -    | 28.5 | -   | -   |
| D64JR/10/102              |                |     |                     | 102                          | -                             | 6.5                                                                                                             | 20.4 |                                                                                                                 | -    | 25.5                                                                                                                                             |      | -                                                                                                                                     | 30.6 |     | -    | 32.6 | -   | -   |
| D64.../10/305             |                |     |                     | 305                          | 2.1                           | 2.2                                                                                                             | 61   |                                                                                                                 | 128  | 76.3                                                                                                                                             |      | 160                                                                                                                                   | 91.5 |     | 192  | 97.6 | 122 | 256 |
| D64.../13/025             | 12.5           | 6.3 | 25                  | 42.1                         | 44                            | 5                                                                                                               | 211  | 220                                                                                                             | 6.3  | 265                                                                                                                                              | 275  | 7.5                                                                                                                                   | 316  | 330 | 8    | 9    | 379 |     |
| D64.../13/032             |                |     | 32                  | 33.2                         | 34.4                          | 6.4                                                                                                             | 212  |                                                                                                                 | 8    | 266                                                                                                                                              |      | 9.6                                                                                                                                   | 319  |     | 10.2 | 13   | 432 |     |
| D64.../13/038             |                |     | 38                  | 29.3                         | 28.9                          | 7.6                                                                                                             | 223  |                                                                                                                 | 9.5  | 278                                                                                                                                              |      | 11.4                                                                                                                                  | 334  |     | 12.2 | 15   | 440 |     |
| D64.../13/044             |                |     | 44                  | 24.6                         | 25                            | 8.8                                                                                                             | 216  |                                                                                                                 | 11   | 271                                                                                                                                              |      | 13.2                                                                                                                                  | 325  |     | 14.1 | 18   | 443 |     |
| D64.../13/051             |                |     | 51                  | 19.6                         | 21.6                          | 10.2                                                                                                            | 200  |                                                                                                                 | 12.8 | 251                                                                                                                                              |      | 15.3                                                                                                                                  | 300  |     | 16.3 | 20   | 392 |     |
| D64.../13/064             |                |     | 64                  | 15                           | 17.2                          | 12.8                                                                                                            | 192  |                                                                                                                 | 16   | 240                                                                                                                                              |      | 19.2                                                                                                                                  | 288  |     | 20.5 | 26   | 390 |     |
| D64.../13/076             |                |     | 76                  | 13.2                         | 14.5                          | 15.2                                                                                                            | 201  |                                                                                                                 | 19   | 251                                                                                                                                              |      | 22.8                                                                                                                                  | 301  |     | 24.3 | 30   | 396 |     |
| D64.../13/089             |                |     | D64J<br>(2.3 x 2.1) | 89                           | 11.4                          | 12.4                                                                                                            | 17.8 |                                                                                                                 | 203  | 22.3                                                                                                                                             |      | 254                                                                                                                                   | 26.7 |     | 304  | 28.5 | 35  | 399 |
| D64.../13/102             |                |     |                     | 102                          | 9.4                           | 10.8                                                                                                            | 20.4 |                                                                                                                 | 192  | 25.5                                                                                                                                             |      | 249                                                                                                                                   | 30.6 |     | 287  | 32.6 | 41  | 385 |
| D64JR/13/115              |                |     |                     | 115                          | -                             | 9.6                                                                                                             | 23   |                                                                                                                 | -    | 28.8                                                                                                                                             |      | -                                                                                                                                     | 34.5 |     | -    | 36.8 | -   | -   |
| D64.../13/305             | 305            | 2.8 | 3.6                 | 61                           | 171                           | 76.3                                                                                                            | 214  | 91.5                                                                                                            | 256  | 97.6                                                                                                                                             | 123  | 344                                                                                                                                   |      |     |      |      |     |     |
| D64.../16/025             | 16             | 8   | 25                  | 75.7                         | 80                            | 5                                                                                                               | 379  | 400                                                                                                             | 6.3  | 477                                                                                                                                              | 500  | 7.5                                                                                                                                   | 568  | 600 | 8    | 9    | 681 |     |
| D64.../16/032             |                |     | 32                  | 52.8                         | 62.5                          | 6.4                                                                                                             | 338  |                                                                                                                 | 8    | 422                                                                                                                                              |      | 9.6                                                                                                                                   | 507  |     | 10.2 | 14   | 739 |     |
| D64.../16/038             |                |     | 38                  | 48.5                         | 52.6                          | 7.6                                                                                                             | 369  |                                                                                                                 | 9.5  | 461                                                                                                                                              |      | 11.4                                                                                                                                  | 553  |     | 12.2 | 17   | 825 |     |
| D64.../16/044             |                |     | 44                  | 42.8                         | 45.5                          | 8.8                                                                                                             | 377  |                                                                                                                 | 11   | 471                                                                                                                                              |      | 13.2                                                                                                                                  | 565  |     | 14.1 | 20   | 856 |     |
| D64.../16/051             |                |     | 51                  | 37.1                         | 39.2                          | 10.2                                                                                                            | 378  |                                                                                                                 | 12.8 | 475                                                                                                                                              |      | 15.3                                                                                                                                  | 568  |     | 16.3 | 21   | 779 |     |
| D64.../16/064             |                |     | 64                  | 30.3                         | 31.3                          | 12.8                                                                                                            | 388  |                                                                                                                 | 16   | 485                                                                                                                                              |      | 19.2                                                                                                                                  | 582  |     | 20.5 | 28   | 848 |     |
| D64.../16/076             |                |     | 76                  | 25.8                         | 26.3                          | 15.2                                                                                                            | 391  |                                                                                                                 | 19   | 490                                                                                                                                              |      | 22.8                                                                                                                                  | 586  |     | 24.3 | 33   | 848 |     |
| D64.../16/089             |                |     | 89                  | 21.7                         | 22.5                          | 17.8                                                                                                            | 386  |                                                                                                                 | 22.3 | 484                                                                                                                                              |      | 26.7                                                                                                                                  | 579  |     | 28.5 | 39   | 846 |     |
| D64.../16/102             |                |     | D64J<br>(3.2 x 2.5) | 102                          | 19.3                          | 19.6                                                                                                            | 20.4 |                                                                                                                 | 394  | 25.5                                                                                                                                             |      | 492                                                                                                                                   | 30.6 |     | 561  | 32.6 | 44  | 849 |
| D64JR/16/115              |                |     |                     | 115                          | -                             | 17.4                                                                                                            | 23   |                                                                                                                 | -    | 28.8                                                                                                                                             |      | -                                                                                                                                     | 34.5 |     | -    | 36.8 | -   | -   |
| D64JR/16/127              | 127            | -   |                     | 15.7                         | 25.4                          | -                                                                                                               | 31.8 | -                                                                                                               | 38.1 | -                                                                                                                                                | 40.6 | -                                                                                                                                     | -    |     |      |      |     |     |
| D64.../16/305             | 305            | 7.1 | 6.6                 | 61                           | 433                           | 76.3                                                                                                            | 542  | 91.5                                                                                                            | 650  | 97.6                                                                                                                                             | 127  | 902                                                                                                                                   |      |     |      |      |     |     |



# High Performance Compression Spring

Rectangular Wire-Red Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ قرمز

| کد سفارش<br>Ordering Code | D<br>(b x h) | d    | L <sub>0</sub> | D64<br>(Rate)<br>ضریب فنر<br>±10% |       | D64J<br>(Rate)<br>ضریب فنر<br>±10% |      | A<br>20%<br>دوام 3.000.000 ضرب |      | B<br>25%<br>دوام 1.500.000 ضرب |      | C<br>30%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن |      |      |     |      |
|---------------------------|--------------|------|----------------|-----------------------------------|-------|------------------------------------|------|--------------------------------|------|--------------------------------|------|-----------------------------------------------------------------|------|------------------------------------------------|------|------|-----|------|
|                           |              |      |                |                                   |       |                                    |      |                                |      |                                |      |                                                                 |      |                                                |      |      |     |      |
|                           | mm           | mm   | mm             | N/mm                              | N/mm  | mm                                 | N    | D64                            | D64J | mm                             | N    | D64                                                             | D64J | mm                                             | N    | D64  | D64 | D64  |
| D64.../20/025             | 20           | 10   | 25             | 216                               | 160   | 5                                  | 1080 | 800                            | 1000 | 6.3                            | 1361 | 1200                                                            | 7.5  | 1620                                           | 1200 | 8    | 9   | 1944 |
| D64.../20/032             |              |      | 32             | 168                               | 125   | 6.4                                | 1075 |                                |      | 8                              | 1344 |                                                                 | 9.6  | 1613                                           |      | 10.2 | 11  | 1848 |
| D64.../20/038             |              |      | 38             | 129                               | 105.3 | 7.6                                | 980  |                                |      | 9.5                            | 1226 |                                                                 | 11.4 | 1471                                           |      | 12.2 | 13  | 1677 |
| D64.../20/044             |              |      | 44             | 112                               | 90.9  | 8.8                                | 986  |                                |      | 11                             | 1232 |                                                                 | 13.2 | 1478                                           |      | 14.1 | 16  | 1792 |
| D64.../20/051             |              |      | 51             | 94                                | 78.4  | 10.2                               | 959  |                                |      | 12.8                           | 1203 |                                                                 | 15.3 | 1438                                           |      | 16.3 | 20  | 1880 |
| D64.../20/064             |              |      | 64             | 72.1                              | 62.5  | 12.8                               | 923  |                                |      | 16                             | 1154 |                                                                 | 19.2 | 1384                                           |      | 20.5 | 25  | 1803 |
| D64.../20/076             |              |      | 76             | 59.7                              | 52.6  | 15.2                               | 907  |                                |      | 19                             | 1134 |                                                                 | 22.8 | 1361                                           |      | 24.3 | 29  | 1731 |
| D64.../20/089             |              |      | 89             | 50.5                              | 44.9  | 17.8                               | 899  |                                |      | 22.3                           | 1126 |                                                                 | 26.7 | 1348                                           |      | 28.5 | 35  | 1768 |
| D64.../20/102             |              |      | 102            | 44.2                              | 39.2  | 20.4                               | 902  |                                |      | 25.5                           | 1127 |                                                                 | 30.6 | 1353                                           |      | 32.6 | 40  | 1768 |
| D64.../20/115             |              |      | 115            | 38.4                              | 34.8  | 23                                 | 883  |                                |      | 28.8                           | 1106 |                                                                 | 34.5 | 1325                                           |      | 36.8 | 47  | 1805 |
| D64.../20/127             |              |      | 127            | 34.1                              | 31.5  | 25.4                               | 866  |                                |      | 31.8                           | 1084 |                                                                 | 38.1 | 1299                                           |      | 40.6 | 52  | 1773 |
| D64.../20/139             |              |      | 139            | 31                                | 28.8  | 27.8                               | 862  |                                |      | 34.8                           | 1085 |                                                                 | 41.7 | 1293                                           |      | 44.5 | 57  | 1767 |
| D64.../20/152             |              |      | 152            | 28.2                              | 26.3  | 30.4                               | 857  |                                |      | 38                             | 1072 |                                                                 | 45.6 | 1286                                           |      | 48.6 | 62  | 1748 |
| D64JR/20/178              |              |      | 178            | -                                 | 22.5  | 35.6                               | -    |                                |      | 44.5                           | -    |                                                                 | 53.4 | -                                              |      | 57   | -   | -    |
| D64JR/20/203              |              |      | 203            | -                                 | 19.7  | 40.6                               | -    |                                |      | 50.8                           | -    |                                                                 | 60.9 | -                                              |      | 65   | -   | -    |
| D64.../20/305             |              |      | 305            | 15                                | 13.1  | 61                                 | 915  |                                |      | 76.3                           | 1145 |                                                                 | 91.5 | 1373                                           |      | 97.6 | 121 | 1815 |
| D64.../25/025             | 25           | 12.5 | 25             | 375                               | 266.7 | 5                                  | 1875 | 1333                           | 1667 | 6.3                            | 2363 | 2000                                                            | 7.5  | 2813                                           | 2000 | 8    | 9   | 3375 |
| D64.../25/032             |              |      | 32             | 297                               | 208.3 | 6.4                                | 1901 |                                |      | 8                              | 2376 |                                                                 | 9.6  | 2851                                           |      | 10.2 | 11  | 3267 |
| D64.../25/038             |              |      | 38             | 219                               | 175.4 | 7.6                                | 1664 |                                |      | 9.5                            | 2081 |                                                                 | 11.4 | 2497                                           |      | 12.2 | 14  | 3066 |
| D64.../25/044             |              |      | 44             | 187                               | 151.5 | 8.8                                | 1646 |                                |      | 11                             | 2057 |                                                                 | 13.2 | 2468                                           |      | 14.1 | 16  | 2992 |
| D64.../25/051             |              |      | 51             | 156                               | 130.7 | 10.2                               | 1591 |                                |      | 12.8                           | 1997 |                                                                 | 15.3 | 2387                                           |      | 16.3 | 19  | 2964 |
| D64.../25/064             |              |      | 64             | 123                               | 104.2 | 12.8                               | 1574 |                                |      | 16                             | 1968 |                                                                 | 19.2 | 2362                                           |      | 20.5 | 26  | 3198 |
| D64.../25/076             |              |      | 76             | 99                                | 87.7  | 15.2                               | 1505 |                                |      | 19                             | 1881 |                                                                 | 22.8 | 2257                                           |      | 24.3 | 29  | 2871 |
| D64.../25/089             |              |      | 89             | 84                                | 74.9  | 17.8                               | 1495 |                                |      | 22.3                           | 1873 |                                                                 | 26.7 | 2243                                           |      | 28.5 | 35  | 2940 |
| D64.../25/102             |              |      | 102            | 73                                | 65.4  | 20.4                               | 1489 |                                |      | 25.5                           | 1862 |                                                                 | 30.6 | 2234                                           |      | 32.6 | 39  | 2847 |
| D64.../25/115             |              |      | 115            | 65                                | 58.0  | 23                                 | 1495 |                                |      | 28.8                           | 1872 |                                                                 | 34.5 | 2243                                           |      | 36.8 | 45  | 2925 |
| D64.../25/127             |              |      | 127            | 57.7                              | 52.5  | 25.4                               | 1466 |                                |      | 31.8                           | 1835 |                                                                 | 38.1 | 2198                                           |      | 40.6 | 48  | 2770 |
| D64.../25/139             |              |      | 139            | 52.7                              | 48.0  | 27.8                               | 1465 |                                |      | 34.8                           | 1845 |                                                                 | 41.7 | 2198                                           |      | 44.5 | 54  | 2846 |
| D64.../25/152             |              |      | 152            | 47.8                              | 43.9  | 30.4                               | 1453 |                                |      | 38                             | 1816 |                                                                 | 45.6 | 2180                                           |      | 48.6 | 60  | 2868 |
| D64.../25/178             |              |      | 178            | 41                                | 37.5  | 35.6                               | 1460 |                                |      | 44.5                           | 1825 |                                                                 | 53.4 | 2189                                           |      | 57   | 67  | 2747 |
| D64.../25/203             |              |      | 203            | 35.8                              | 32.8  | 40.6                               | 1453 |                                |      | 50.8                           | 1819 |                                                                 | 60.9 | 2180                                           |      | 65   | 80  | 2864 |
| D64JR/25/229              |              |      | 229            | -                                 | 29.1  | 45.8                               | -    |                                |      | 57.3                           | -    |                                                                 | 68.7 | -                                              |      | 73.3 | -   | -    |
| D64.../25/305             | 305          | 22.9 | 21.9           | 61                                | 1397  | 76.3                               | 1747 | 91.5                           | 2095 | 97.6                           | 119  | 2725                                                            |      |                                                |      |      |     |      |
| D64.../32/038             | 32           | 16   | 38             | 388                               | 298.2 | 7.6                                | 2949 | 2267                           | 2833 | 9.5                            | 3686 | 3400                                                            | 11.4 | 4423                                           | 3400 | 12.2 | 13  | 5044 |
| D64.../32/044             |              |      | 44             | 324                               | 257.6 | 8.8                                | 2851 |                                |      | 11                             | 3564 |                                                                 | 13.2 | 4277                                           |      | 14.1 | 16  | 5184 |
| D64.../32/051             |              |      | 51             | 272                               | 222.2 | 10.2                               | 2774 |                                |      | 12.8                           | 3482 |                                                                 | 15.3 | 4162                                           |      | 16.3 | 18  | 4896 |
| D64.../32/064             |              |      | 64             | 212                               | 177.1 | 12.8                               | 2714 |                                |      | 16                             | 3392 |                                                                 | 19.2 | 4070                                           |      | 20.5 | 23  | 4876 |
| D64.../32/076             |              |      | 76             | 172                               | 149.1 | 15.2                               | 2614 |                                |      | 19                             | 3268 |                                                                 | 22.8 | 3922                                           |      | 24.3 | 27  | 4644 |
| D64.../32/089             |              |      | 89             | 141                               | 127.3 | 17.8                               | 2510 |                                |      | 22.3                           | 3144 |                                                                 | 26.7 | 3765                                           |      | 28.5 | 33  | 4653 |
| D64.../32/102             |              |      | 102            | 122                               | 111.1 | 20.4                               | 2489 |                                |      | 25.5                           | 3111 |                                                                 | 30.6 | 3733                                           |      | 32.6 | 39  | 4758 |
| D64.../32/115             |              |      | 115            | 107                               | 98.6  | 23                                 | 2461 |                                |      | 28.8                           | 3082 |                                                                 | 34.5 | 3692                                           |      | 36.8 | 43  | 4601 |
| D64.../32/127             |              |      | 127            | 93                                | 89.2  | 25.4                               | 2362 |                                |      | 31.8                           | 2957 |                                                                 | 38.1 | 3543                                           |      | 40.6 | 47  | 4371 |
| D64.../32/139             |              |      | 139            | 86                                | 81.5  | 27.8                               | 2391 |                                |      | 34.8                           | 3010 |                                                                 | 41.7 | 3586                                           |      | 44.5 | 51  | 4386 |
| D64.../32/152             |              |      | 152            | 78                                | 74.6  | 30.4                               | 2371 |                                |      | 38                             | 2964 |                                                                 | 45.6 | 3557                                           |      | 48.6 | 55  | 4290 |
| D64.../32/178             |              |      | 178            | 67.2                              | 63.7  | 35.6                               | 2392 |                                |      | 44.5                           | 2990 |                                                                 | 53.4 | 3588                                           |      | 57.0 | 69  | 4637 |
| D64.../32/203             |              |      | 203            | 59.1                              | 55.8  | 40.6                               | 2399 |                                |      | 50.8                           | 3002 |                                                                 | 60.9 | 3599                                           |      | 65.0 | 81  | 4787 |
| D64JR/32/229              |              |      | 229            | -                                 | 49.5  | 45.8                               | -    |                                |      | 57.3                           | -    |                                                                 | 68.7 | -                                              |      | 73.3 | -   | -    |
| D64.../32/254             |              |      | 254            | 46.4                              | 44.6  | 50.8                               | 2357 |                                |      | 63.5                           | 2946 |                                                                 | 76.2 | 3536                                           |      | 81.3 | 99  | 4594 |
| D64.../32/305             |              |      | 305            | 38                                | 37.2  | 61                                 | 2318 |                                |      | 76.3                           | 2899 |                                                                 | 91.5 | 3477                                           |      | 97.6 | 119 | 4522 |
| D64.../40/051             | 40           | 20   | 51             | 350                               | 326.8 | 10.2                               | 3570 | 3333                           | 4167 | 12.8                           | 4480 | 5000                                                            | 15.3 | 5355                                           | 5000 | 16.3 | 18  | 6300 |
| D64.../40/064             |              |      | 64             | 269                               | 260.4 | 12.8                               | 3443 |                                |      | 16                             | 4304 |                                                                 | 19.2 | 5165                                           |      | 20.5 | 25  | 6725 |
| D64.../40/076             |              |      | 76             | 219                               | 219.3 | 15.2                               | 3329 |                                |      | 19                             | 4161 |                                                                 | 22.8 | 4993                                           |      | 24.3 | 30  | 6570 |
| D64.../40/089             |              |      | 89             | 190                               | 187.3 | 17.8                               | 3382 |                                |      | 22.3                           | 4237 |                                                                 | 26.7 | 5073                                           |      | 28.5 | 36  | 6840 |
| D64.../40/102             |              |      | 102            | 163                               | 163.4 | 20.4                               | 3325 |                                |      | 25.5                           | 4157 |                                                                 | 30.6 | 4988                                           |      | 32.6 | 41  | 6683 |

## HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Red Color

DIN/ISO 10243

## فنر

مقطع مفتول فئر مستطیل - رنگ قرمز

| کد سفارش<br>Ordering Code | D<br>(b x h)         | d    | L <sub>0</sub>      | D64<br>(Rate)<br>ضرب فنر<br>±10% | D64J<br>(Rate)<br>ضرب فنر<br>±10% | A<br>20%<br>دوام 3.000.000<br> |      | B<br>25%<br>دوام 1.500.000<br> |       | C<br>30%Max. def<br>بیشترین تغییر طول مجاز<br>دوام 200.000<br> |       | D<br>D Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |      |       |      |
|---------------------------|----------------------|------|---------------------|----------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------|------|-------|------|
|                           |                      |      |                     |                                  |                                   | mm                                                                                                              | mm   | mm                                                                                                              | N/mm  | N/mm                                                                                                                                            | mm    | N                                                                                                                                       |      | mm    | N    |
|                           | D64                  | D64J | D64                 | D64J                             | D64                               |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       | D64J                                                                                                                                    | D64  |       | D64J |
| D64.../40/115             | 40                   | 20   | 115                 | 142                              | 144.9                             | 23                                                                                                              | 3266 | 28.8                                                                                                            | 4090  | 34.5                                                                                                                                            | 4899  | 36.8                                                                                                                                    | 47   | 6674  |      |
| D64.../40/127             |                      |      | 127                 | 128                              | 131.2                             | 25.4                                                                                                            | 3251 | 31.8                                                                                                            | 4070  | 38.1                                                                                                                                            | 4877  | 40.6                                                                                                                                    | 53   | 6784  |      |
| D64.../40/139             |                      |      | 139                 | 115                              | 119.9                             | 27.8                                                                                                            | 3197 | 34.8                                                                                                            | 4025  | 41.7                                                                                                                                            | 4796  | 44.5                                                                                                                                    | 56   | 6440  |      |
| D64.../40/152             |                      |      | 152                 | 105                              | 109.6                             | 30.4                                                                                                            | 3192 | 38                                                                                                              | 3990  | 45.6                                                                                                                                            | 4788  | 48.6                                                                                                                                    | 62   | 6510  |      |
| D64.../40/178             |                      |      | 178                 | 89                               | 93.6                              | 35.6                                                                                                            | 3168 | 44.5                                                                                                            | 3961  | 53.4                                                                                                                                            | 4753  | 57                                                                                                                                      | 70   | 6230  |      |
| D64.../40/203             |                      |      | 203                 | 77                               | 82.1                              | 40.6                                                                                                            | 3126 | 50.8                                                                                                            | 3912  | 60.9                                                                                                                                            | 4689  | 65                                                                                                                                      | 83   | 6391  |      |
| D64JR/40/229              |                      |      | D64J<br>(8.7 x 6.3) | 229                              | -                                 | 72.8                                                                                                            | 45.8 | -                                                                                                               | 57.3  | -                                                                                                                                               | 68.7  | -                                                                                                                                       | 73.3 | -     | -    |
| D64.../40/254             |                      |      |                     | 254                              | 61                                | 65.6                                                                                                            | 50.8 | 3099                                                                                                            | 63.5  | 3874                                                                                                                                            | 76.2  | 4648                                                                                                                                    | 81.3 | 101   | 6161 |
| D64.../40/305             |                      | 305  | 51                  | 54.6                             | 61                                | 3111                                                                                                            | 76.3 | 3891                                                                                                            | 91.5  | 4667                                                                                                                                            | 97.6  | 127                                                                                                                                     | 6477 |       |      |
| D64.../50/064             | 50                   | 25   | 64                  | 413                              | 390.6                             | 12.8                                                                                                            | 5286 | 16                                                                                                              | 6608  | 19.2                                                                                                                                            | 7930  | 20.5                                                                                                                                    | 26   | 10738 |      |
| D64.../50/076             |                      |      | 76                  | 339                              | 328.9                             | 15.2                                                                                                            | 5153 | 19                                                                                                              | 6441  | 22.8                                                                                                                                            | 7729  | 24.3                                                                                                                                    | 29   | 9831  |      |
| D64.../50/089             |                      |      | 89                  | 288                              | 280.9                             | 17.8                                                                                                            | 5126 | 22.3                                                                                                            | 6422  | 26.7                                                                                                                                            | 7690  | 28.5                                                                                                                                    | 35   | 10080 |      |
| D64.../50/102             |                      |      | 102                 | 245                              | 245.1                             | 20.4                                                                                                            | 4998 | 25.5                                                                                                            | 6248  | 30.6                                                                                                                                            | 7497  | 32.6                                                                                                                                    | 41   | 10045 |      |
| D64.../50/115             |                      |      | 115                 | 215                              | 217.4                             | 23                                                                                                              | 4945 | 28.8                                                                                                            | 6192  | 34.5                                                                                                                                            | 7418  | 36.8                                                                                                                                    | 47   | 10105 |      |
| D64.../50/127             |                      |      | 127                 | 192                              | 196.9                             | 25.4                                                                                                            | 4877 | 31.8                                                                                                            | 6109  | 38.1                                                                                                                                            | 7315  | 40.6                                                                                                                                    | 55   | 10560 |      |
| D64.../50/139             |                      |      | 139                 | 168                              | 179.9                             | 27.8                                                                                                            | 4670 | 34.8                                                                                                            | 5880  | 41.7                                                                                                                                            | 7006  | 44.5                                                                                                                                    | 61   | 10248 |      |
| D64.../50/152             |                      |      | 152                 | 154                              | 164.5                             | 30.4                                                                                                            | 7682 | 38                                                                                                              | 5852  | 45.6                                                                                                                                            | 7022  | 48.6                                                                                                                                    | 66   | 10164 |      |
| D64.../50/178             | D64J<br>(12.2 x 7.5) |      | 178                 | 134                              | 140.4                             | 35.6                                                                                                            | 4770 | 44.5                                                                                                            | 5963  | 53.4                                                                                                                                            | 7156  | 57                                                                                                                                      | 75   | 10050 |      |
| D64.../50/203             |                      |      | 203                 | 117                              | 123.2                             | 40.6                                                                                                            | 4750 | 50.8                                                                                                            | 5944  | 60.9                                                                                                                                            | 7125  | 65                                                                                                                                      | 87   | 10179 |      |
| D64JR/50/229              |                      |      | 229                 | -                                | 109.2                             | 45.8                                                                                                            | -    | 57.3                                                                                                            | -     | 68.7                                                                                                                                            | -     | 73.3                                                                                                                                    | -    | -     |      |
| D64.../50/254             |                      |      | 254                 | 89                               | 98.4                              | 50.8                                                                                                            | 4521 | 63.5                                                                                                            | 5652  | 76.2                                                                                                                                            | 6782  | 81.3                                                                                                                                    | 108  | 9612  |      |
| D64.../50/305             |                      |      | 305                 | 73                               | 82                                | 61                                                                                                              | 4453 | 76.3                                                                                                            | 5570  | 91.5                                                                                                                                            | 6680  | 97.6                                                                                                                                    | 133  | 9709  |      |
| D64.../63/076             | 63                   | 38   | 76                  | 630                              | 526.3                             | 15.2                                                                                                            | 9576 | 19                                                                                                              | 11970 | 22.8                                                                                                                                            | 14364 | 24.3                                                                                                                                    | 24   | 15120 |      |
| D64.../63/089             |                      |      | 89                  | 485                              | 449.4                             | 17.8                                                                                                            | 8633 | 22.3                                                                                                            | 10815 | 26.7                                                                                                                                            | 12920 | 28.5                                                                                                                                    | 32   | 15520 |      |
| D64.../63/102             |                      |      | 102                 | 434                              | 392.2                             | 20.4                                                                                                            | 8854 | 25.5                                                                                                            | 11067 | 30.6                                                                                                                                            | 13280 | 32.6                                                                                                                                    | 36   | 15624 |      |
| D64.../63/115             |                      |      | 115                 | 484                              | 347.8                             | 23                                                                                                              | 8832 | 28.8                                                                                                            | 11059 | 34.5                                                                                                                                            | 13248 | 36.8                                                                                                                                    | 40   | 15360 |      |
| D64.../63/127             |                      |      | 127                 | 349                              | 315                               | 25.4                                                                                                            | 8865 | 31.8                                                                                                            | 11098 | 38.1                                                                                                                                            | 13297 | 40.6                                                                                                                                    | 44   | 15356 |      |
| D64.../63/152             |                      |      | 152                 | 276                              | 263.2                             | 30.4                                                                                                            | 8390 | 38                                                                                                              | 10488 | 45.6                                                                                                                                            | 12586 | 48.6                                                                                                                                    | 56   | 15456 |      |
| D64.../63/178             |                      |      | 178                 | 237                              | 224.7                             | 35.6                                                                                                            | 8437 | 44.5                                                                                                            | 10546 | 53.4                                                                                                                                            | 12656 | 57                                                                                                                                      | 65   | 15405 |      |
| D64.../63/203             |                      |      | 203                 | 210                              | 197                               | 40.6                                                                                                            | 8526 | 50.8                                                                                                            | 10668 | 60.9                                                                                                                                            | 12789 | 65                                                                                                                                      | 74   | 15540 |      |
| D64JR/63/229              | D64J<br>(12 x 11.5)  |      | 229                 | -                                | 174.7                             | 57.3                                                                                                            | -    | 57.3                                                                                                            | -     | 68.7                                                                                                                                            | -     | 73.3                                                                                                                                    | -    | -     |      |
| D64.../63/254             |                      |      | 254                 | 165                              | 157.5                             | 50.8                                                                                                            | 8382 | 63.5                                                                                                            | 10477 | 76.2                                                                                                                                            | 12573 | 81.3                                                                                                                                    | 94   | 15510 |      |
| D64.../63/305             |                      |      | 305                 | 134                              | 131.1                             | 61                                                                                                              | 8174 | 76.3                                                                                                            | 10224 | 91.5                                                                                                                                            | 12261 | 97.6                                                                                                                                    | 115  | 15410 |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   |                                                                                                                 |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |
|                           |                      |      |                     |                                  |                                   | </                                                                                                              |      |                                                                                                                 |       |                                                                                                                                                 |       |                                                                                                                                         |      |       |      |

# HIGH PERFORMANCE COMPRESSION SPRING

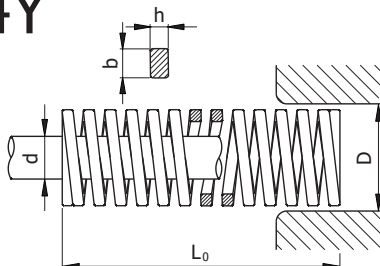
Rectangular Wire-Yellow Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ زرد

D64JY  
D64Y



Yellow  
زرد



| کد سفارش<br>Ordering Code | D d<br>(b x h)      |     | L <sub>0</sub> | D64<br>(Rate)<br>ضریب فنر<br>±10% |      | D64J<br>(Rate)<br>ضریب فنر<br>±10% |      | A<br>17%<br>دوام 3.000.000<br> |      | B<br>20%<br>دوام 1.500.000<br> |      | C<br>25%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضریب<br> |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |      |      |      |   |
|---------------------------|---------------------|-----|----------------|-----------------------------------|------|------------------------------------|------|-----------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------|------|------|------|---|
|                           | mm                  | mm  |                | mm                                | N/mm | N/mm                               | mm   | N                                                                                                               |      | mm                                                                                                              | N    |                                                                                                                                                       | mm   | N                                                                                                                                     |      | mm   |      | N |
|                           |                     |     |                |                                   |      |                                    |      | D64                                                                                                             | D64J |                                                                                                                 | D64  | D64J                                                                                                                                                  |      | D64                                                                                                                                   | D64J | D64J | D64  |   |
| D64.../10/025             | 10                  | 5   | 25             | 36.8                              | 36.8 | 4.3                                | 156  | 156                                                                                                             | 5    | 184                                                                                                             | 184  | 6.3                                                                                                                                                   | 230  | 230                                                                                                                                   | 6.8  | 9    | 331  |   |
| D64.../10/032             |                     |     | 32             | 27.9                              | 28.8 | 5.4                                | 152  |                                                                                                                 | 6.4  | 179                                                                                                             |      | 8                                                                                                                                                     | 223  |                                                                                                                                       | 8.6  | 12   | 335  |   |
| D64.../10/038             |                     |     | 38             | 23.7                              | 24.2 | 6.5                                | 153  |                                                                                                                 | 7.6  | 180                                                                                                             |      | 9.5                                                                                                                                                   | 225  |                                                                                                                                       | 10.3 | 14   | 332  |   |
| D64.../10/044             |                     |     | 44             | 19.2                              | 20.9 | 7.5                                | 144  |                                                                                                                 | 8.8  | 169                                                                                                             |      | 11                                                                                                                                                    | 211  |                                                                                                                                       | 11.9 | 17   | 326  |   |
| D64.../10/051             |                     |     | 51             | 16.5                              | 18   | 8.7                                | 143  |                                                                                                                 | 10.2 | 168                                                                                                             |      | 12.8                                                                                                                                                  | 210  |                                                                                                                                       | 13.8 | 19   | 314  |   |
| D64.../10/064             |                     |     | 64             | 13.2                              | 14.4 | 10.9                               | 144  |                                                                                                                 | 12.8 | 169                                                                                                             |      | 16                                                                                                                                                    | 211  |                                                                                                                                       | 17.3 | 23   | 304  |   |
| D64.../10/076             |                     |     | 76             | 10.9                              | 12.1 | 12.9                               | 141  |                                                                                                                 | 15.2 | 166                                                                                                             |      | 19                                                                                                                                                    | 207  |                                                                                                                                       | 20.5 | 30   | 327  |   |
| D64JY/10/089              |                     |     | D64J           | 89                                | -    | 10.3                               | 15.1 |                                                                                                                 | -    | 17.8                                                                                                            |      | -                                                                                                                                                     | 22.3 |                                                                                                                                       | -    | 24   | -    | - |
| D64JY/10/102              | D64J<br>(1.8 x 1.9) | 102 | -              | 9                                 | 17.3 | -                                  | 20.4 | -                                                                                                               | 25.5 | -                                                                                                               | 27.5 | -                                                                                                                                                     | -    |                                                                                                                                       |      |      |      |   |
| D64.../10/305             |                     | 305 | 2.6            | 3                                 | 51.9 | 135                                | 61   | 159                                                                                                             | 76.3 | 198                                                                                                             | 82.4 | 117                                                                                                                                                   | 304  |                                                                                                                                       |      |      |      |   |
| D64.../13/025             | 12.5                | 6.3 | 25             | 58.5                              | 57.6 | 4.3                                | 249  | 245                                                                                                             | 5    | 293                                                                                                             | 288  | 6.3                                                                                                                                                   | 366  | 360                                                                                                                                   | 6.8  | 9    | 527  |   |
| D64.../13/032             |                     |     | 32             | 43.9                              | 45   | 5.4                                | 239  |                                                                                                                 | 6.4  | 281                                                                                                             |      | 8                                                                                                                                                     | 351  |                                                                                                                                       | 8.6  | 12   | 527  |   |
| D64.../13/038             |                     |     | 38             | 36                                | 37.9 | 6.5                                | 233  |                                                                                                                 | 7.6  | 274                                                                                                             |      | 9.5                                                                                                                                                   | 342  |                                                                                                                                       | 10.3 | 14   | 504  |   |
| D64.../13/044             |                     |     | 44             | 30.3                              | 32.7 | 7.5                                | 227  |                                                                                                                 | 8.8  | 267                                                                                                             |      | 11                                                                                                                                                    | 333  |                                                                                                                                       | 11.9 | 18   | 545  |   |
| D64.../13/051             |                     |     | 51             | 26.2                              | 28.2 | 8.7                                | 227  |                                                                                                                 | 10.2 | 267                                                                                                             |      | 12.8                                                                                                                                                  | 334  |                                                                                                                                       | 13.8 | 20   | 524  |   |
| D64.../13/064             |                     |     | 64             | 21.2                              | 22.5 | 10.9                               | 231  |                                                                                                                 | 12.8 | 271                                                                                                             |      | 16                                                                                                                                                    | 339  |                                                                                                                                       | 17.3 | 27   | 572  |   |
| D64.../13/076             |                     |     | 76             | 17.1                              | 18.9 | 12.9                               | 221  |                                                                                                                 | 15.2 | 260                                                                                                             |      | 19                                                                                                                                                    | 325  |                                                                                                                                       | 20.5 | 32   | 547  |   |
| D64.../13/089             |                     |     | 89             | 14.5                              | 16.2 | 15.1                               | 219  |                                                                                                                 | 17.8 | 258                                                                                                             |      | 22.3                                                                                                                                                  | 323  |                                                                                                                                       | 24   | 38   | 551  |   |
| D64.../13/102             | D64J<br>(2.3 x 2.4) | 102 | 12.5           | 14.1                              | 17.3 | 216                                | 20.4 | 255                                                                                                             | 25.5 | 319                                                                                                             | 27.5 | 41                                                                                                                                                    | 513  |                                                                                                                                       |      |      |      |   |
| D64JY/13/115              |                     | 115 | -              | 12.5                              | 19.6 | -                                  | 23   | -                                                                                                               | 28.8 | -                                                                                                               | 31.1 | -                                                                                                                                                     | -    |                                                                                                                                       |      |      |      |   |
| D64.../13/305             |                     | 305 | 4.3            | 4.7                               | 51.9 | 223                                | 61   | 262                                                                                                             | 76.3 | 328                                                                                                             | 82.4 | 115                                                                                                                                                   | 495  |                                                                                                                                       |      |      |      |   |
| D64.../16/025             | 16                  | 8   | 25             | 118                               | 112  | 4.3                                | 502  | 476                                                                                                             | 5    | 590                                                                                                             | 560  | 6.3                                                                                                                                                   | 738  | 700                                                                                                                                   | 6.8  | 10   | 1180 |   |
| D64.../16/032             |                     |     | 32             | 89                                | 87.5 | 5.4                                | 484  |                                                                                                                 | 6.4  | 570                                                                                                             |      | 8                                                                                                                                                     | 712  |                                                                                                                                       | 8.6  | 12   | 1068 |   |
| D64.../16/038             |                     |     | 38             | 72.1                              | 73.7 | 6.5                                | 466  |                                                                                                                 | 7.6  | 548                                                                                                             |      | 9.5                                                                                                                                                   | 685  |                                                                                                                                       | 10.3 | 14   | 1009 |   |
| D64.../16/044             |                     |     | 44             | 60.9                              | 63.6 | 7.5                                | 456  |                                                                                                                 | 8.8  | 536                                                                                                             |      | 11                                                                                                                                                    | 670  |                                                                                                                                       | 11.9 | 17   | 1035 |   |
| D64.../16/051             |                     |     | 51             | 52.3                              | 54.9 | 8.7                                | 453  |                                                                                                                 | 10.2 | 533                                                                                                             |      | 12.8                                                                                                                                                  | 667  |                                                                                                                                       | 13.8 | 19   | 994  |   |
| D64.../16/064             |                     |     | 64             | 41.2                              | 43.8 | 10.9                               | 448  |                                                                                                                 | 12.8 | 527                                                                                                             |      | 16                                                                                                                                                    | 659  |                                                                                                                                       | 17.3 | 25   | 1030 |   |
| D64.../16/076             |                     |     | 76             | 34.1                              | 36.8 | 12.9                               | 441  |                                                                                                                 | 15.2 | 518                                                                                                             |      | 19                                                                                                                                                    | 648  |                                                                                                                                       | 20.5 | 29   | 989  |   |
| D64.../16/089             |                     |     | 89             | 29.5                              | 31.5 | 15.1                               | 446  |                                                                                                                 | 17.8 | 525                                                                                                             |      | 22.3                                                                                                                                                  | 656  |                                                                                                                                       | 24   | 36   | 1062 |   |
| D64.../16/102             | D64J<br>(3.2 x 3)   | 102 | 25.6           | 27.5                              | 17.3 | 444                                | 20.4 | 522                                                                                                             | 25.5 | 653                                                                                                             | 27.5 | 38                                                                                                                                                    | 973  |                                                                                                                                       |      |      |      |   |
| D64JY/16/115              |                     | 115 | -              | 24.3                              | 19.6 | -                                  | 23   | -                                                                                                               | 28.8 | -                                                                                                               | 31.1 | -                                                                                                                                                     | -    |                                                                                                                                       |      |      |      |   |
| D64JY/16/127              |                     | 127 | -              | 22                                | 21.6 | -                                  | 25.4 | -                                                                                                               | 31.8 | -                                                                                                               | 34.3 | -                                                                                                                                                     | -    |                                                                                                                                       |      |      |      |   |
| D64.../16/305             |                     |     | 305            | 8.4                               | 9.2  | 51.9                               | 436  | 61                                                                                                              | 512  | 76.3                                                                                                            | 641  | 82.4                                                                                                                                                  | 120  | 1008                                                                                                                                  |      |      |      |   |

# HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Yellow Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ زرد

| کد سفارش<br>Ordering Code | D<br>(b x h) | d    | L <sub>0</sub> | D64<br>(Rate)<br>ضرب فنر<br>±10% |       | D64J<br>(Rate)<br>ضرب فنر<br>±10% |      | A<br>17%<br>دوام 3.000.000 ضرب<br> |      | B<br>20%<br>دوام 1.500.000 ضرب<br> |      | C<br>25%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضرب<br> |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن<br> |      |     |       |
|---------------------------|--------------|------|----------------|----------------------------------|-------|-----------------------------------|------|---------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------|------|-----|-------|
|                           |              |      |                | mm                               | N/mm  | mm                                | N/mm | mm                                                                                                                  | N    | mm                                                                                                                  | N    | mm                                                                                                                                                    | N    | mm                                                                                                                                    | N    | mm  | N     |
|                           | mm           | mm   | mm             | N/mm                             | N/mm  | mm                                | D64  | D64J                                                                                                                | mm   | D64                                                                                                                 | D64J | mm                                                                                                                                                    | D64  | D64J                                                                                                                                  | D64J | D64 | D64   |
| D64.../20/025             | 20           | 10   | 25             | 293                              | 240   | 4.3                               | 1245 | 1020                                                                                                                | 5    | 1465                                                                                                                | 1200 | 6.3                                                                                                                                                   | 1831 | 1500                                                                                                                                  | 6.8  | 7   | 2051  |
| D64.../20/032             |              |      | 32             | 224                              | 187.5 | 5.4                               | 1219 |                                                                                                                     | 6.4  | 1434                                                                                                                |      | 8                                                                                                                                                     | 1792 |                                                                                                                                       | 8.6  | 10  | 2240  |
| D64.../20/038             |              |      | 38             | 177                              | 157.9 | 6.5                               | 1143 |                                                                                                                     | 7.6  | 1345                                                                                                                |      | 9.5                                                                                                                                                   | 1682 |                                                                                                                                       | 10.3 | 12  | 2124  |
| D64.../20/044             |              |      | 44             | 149                              | 136.4 | 7.5                               | 1115 |                                                                                                                     | 8.8  | 1311                                                                                                                |      | 11                                                                                                                                                    | 1639 |                                                                                                                                       | 11.9 | 14  | 2086  |
| D64.../20/051             |              |      | 51             | 128                              | 117.6 | 8.7                               | 1110 |                                                                                                                     | 10.2 | 1306                                                                                                                |      | 12.8                                                                                                                                                  | 1632 |                                                                                                                                       | 13.8 | 16  | 2048  |
| D64.../20/064             |              |      | 64             | 99                               | 93.8  | 10.9                              | 1077 |                                                                                                                     | 12.8 | 1267                                                                                                                |      | 16                                                                                                                                                    | 1584 |                                                                                                                                       | 17.3 | 22  | 2178  |
| D64.../20/076             |              |      | 76             | 81.7                             | 78.9  | 12.9                              | 1056 |                                                                                                                     | 15.2 | 1242                                                                                                                |      | 19                                                                                                                                                    | 1552 |                                                                                                                                       | 20.5 | 25  | 2043  |
| D64.../20/089             |              |      | 89             | 69.5                             | 67.4  | 15.1                              | 1052 |                                                                                                                     | 17.8 | 1237                                                                                                                |      | 22.3                                                                                                                                                  | 1546 |                                                                                                                                       | 24   | 31  | 2155  |
| D64.../20/102             |              |      | 102            | 60.6                             | 58.8  | 17.3                              | 1051 |                                                                                                                     | 20.4 | 1236                                                                                                                |      | 25.5                                                                                                                                                  | 1545 |                                                                                                                                       | 27.5 | 36  | 2182  |
| D64.../20/115             |              |      | 115            | 53                               | 52.2  | 19.6                              | 1036 |                                                                                                                     | 23   | 1219                                                                                                                |      | 28.8                                                                                                                                                  | 1524 |                                                                                                                                       | 31.1 | 42  | 2226  |
| D64.../20/127             |              |      | 127            | 47.5                             | 47.2  | 21.6                              | 1026 |                                                                                                                     | 25.4 | 1207                                                                                                                |      | 31.8                                                                                                                                                  | 1508 |                                                                                                                                       | 34.3 | 43  | 2043  |
| D64.../20/139             |              |      | 139            | 43                               | 43.2  | 23.6                              | 1016 |                                                                                                                     | 27.8 | 1204                                                                                                                |      | 34.8                                                                                                                                                  | 1494 |                                                                                                                                       | 37.5 | 48  | 2064  |
| D64.../20/152             |              |      | 152            | 39                               | 39.5  | 25.8                              | 1008 |                                                                                                                     | 30.4 | 1186                                                                                                                |      | 38                                                                                                                                                    | 1482 |                                                                                                                                       | 41   | 52  | 2028  |
| D64JY/20/178              |              |      | 178            | -                                | 33.7  | 30.3                              | -    |                                                                                                                     | 35.6 | -                                                                                                                   |      | 44.5                                                                                                                                                  | -    |                                                                                                                                       | 48.1 | -   | -     |
| D64JY/20/203              |              |      | 203            | -                                | 29.6  | 34.5                              | -    |                                                                                                                     | 40.6 | -                                                                                                                   |      | 50.8                                                                                                                                                  | -    |                                                                                                                                       | 54.8 | -   | -     |
| D64.../20/305             |              |      | 305            | 21.2                             | 19.7  | 51.9                              | 1099 |                                                                                                                     | 61   | 1293                                                                                                                |      | 76.3                                                                                                                                                  | 1617 |                                                                                                                                       | 82.4 | 105 | 2226  |
| D64.../25/025             | 25           | 12.5 | 25             | 459                              | -     | 4.3                               | 1974 | 1700                                                                                                                | 5    | 2295                                                                                                                | 2000 | 6.3                                                                                                                                                   | 2892 | 2500                                                                                                                                  | -    | 7.3 | 3351  |
| D64.../25/032             |              |      | 32             | 374.4                            | 312.5 | 5.4                               | 2037 |                                                                                                                     | 6.4  | 2396                                                                                                                |      | 8                                                                                                                                                     | 2995 |                                                                                                                                       | 8.6  | 11  | 4118  |
| D64.../25/038             |              |      | 38             | 346                              | 263.2 | 6.5                               | 2235 |                                                                                                                     | 7.6  | 2630                                                                                                                |      | 9.5                                                                                                                                                   | 3287 |                                                                                                                                       | 10.3 | 13  | 4498  |
| D64.../25/044             |              |      | 44             | 244                              | 227.3 | 7.5                               | 1825 |                                                                                                                     | 8.8  | 2147                                                                                                                |      | 11                                                                                                                                                    | 2684 |                                                                                                                                       | 11.9 | 16  | 3904  |
| D64.../25/051             |              |      | 51             | 207.5                            | 196.1 | 8.7                               | 1799 |                                                                                                                     | 10.2 | 2111                                                                                                                |      | 12.8                                                                                                                                                  | 2646 |                                                                                                                                       | 13.8 | 18  | 3735  |
| D64.../25/064             |              |      | 64             | 161                              | 156.3 | 10.9                              | 1752 |                                                                                                                     | 12.8 | 2061                                                                                                                |      | 16                                                                                                                                                    | 2576 |                                                                                                                                       | 17.3 | 23  | 3703  |
| D64.../25/076             |              |      | 76             | 130.8                            | 131.6 | 12.9                              | 1690 |                                                                                                                     | 15.2 | 1988                                                                                                                |      | 19                                                                                                                                                    | 2485 |                                                                                                                                       | 20.5 | 26  | 3401  |
| D64.../25/089             |              |      | 89             | 110.5                            | 112.4 | 15.1                              | 1672 |                                                                                                                     | 17.8 | 1967                                                                                                                |      | 22.3                                                                                                                                                  | 2459 |                                                                                                                                       | 24   | 31  | 3426  |
| D64.../25/102             |              |      | 102            | 96.3                             | 98    | 17.3                              | 1670 |                                                                                                                     | 20.4 | 1965                                                                                                                |      | 25.5                                                                                                                                                  | 2456 |                                                                                                                                       | 27.5 | 36  | 3467  |
| D64.../25/115             |              |      | 115            | 85.7                             | 87    | 19.6                              | 1675 |                                                                                                                     | 23   | 1917                                                                                                                |      | 28.8                                                                                                                                                  | 2464 |                                                                                                                                       | 31.1 | 41  | 3514  |
| D64.../25/127             |              |      | 127            | 76.3                             | 78.7  | 21.6                              | 1647 |                                                                                                                     | 25.4 | 1938                                                                                                                |      | 31.8                                                                                                                                                  | 2423 |                                                                                                                                       | 34.3 | 47  | 3586  |
| D64JY/25/139              |              |      | 139            | -                                | 71.9  | 23.6                              | -    |                                                                                                                     | 27.8 | -                                                                                                                   |      | 34.8                                                                                                                                                  | -    |                                                                                                                                       | 37.5 | -   | -     |
| D64.../25/152             |              |      | 152            | 63.5                             | 65.8  | 25.8                              | 1641 |                                                                                                                     | 30.4 | 1930                                                                                                                |      | 38                                                                                                                                                    | 2413 |                                                                                                                                       | 41   | 54  | 3429  |
| D64.../25/178             |              |      | 178            | 53.9                             | 56.2  | 30.3                              | 1631 |                                                                                                                     | 35.6 | 1919                                                                                                                |      | 44.5                                                                                                                                                  | 2399 |                                                                                                                                       | 48.1 | 63  | 3396  |
| D64.../25/203             |              |      | 203            | 47                               | 49.3  | 34.5                              | 1622 |                                                                                                                     | 40.6 | 1908                                                                                                                |      | 50.8                                                                                                                                                  | 2385 |                                                                                                                                       | 54.8 | 72  | 3384  |
| D64JY/25/229              |              |      | 229            | -                                | 43.7  | 38.9                              | -    |                                                                                                                     | 45.8 | -                                                                                                                   |      | 57.3                                                                                                                                                  | -    |                                                                                                                                       | 61.8 | -   | -     |
| D64.../25/305             | 305          | 30.9 | 32.8           | 51.9                             | 1602  | 61                                | 1885 | 76.3                                                                                                                | 2356 | 82.4                                                                                                                | 113  | 3492                                                                                                                                                  |      |                                                                                                                                       |      |     |       |
| D64.../32/038             | 32           | 16   | 38             | 528.2                            | 421.1 | 6.5                               | 3412 | 2720                                                                                                                | 7.6  | 4014                                                                                                                | 3200 | 9.5                                                                                                                                                   | 5018 | 4000                                                                                                                                  | 10.3 | 12  | 6338  |
| D64.../32/044             |              |      | 44             | 424.4                            | 363.6 | 7.5                               | 3175 |                                                                                                                     | 8.8  | 3735                                                                                                                |      | 11                                                                                                                                                    | 4668 |                                                                                                                                       | 11.9 | 15  | 6366  |
| D64.../32/051             |              |      | 51             | 353                              | 313.7 | 8.7                               | 3061 |                                                                                                                     | 10.2 | 3601                                                                                                                |      | 12.8                                                                                                                                                  | 4501 |                                                                                                                                       | 13.8 | 17  | 6001  |
| D64.../32/064             |              |      | 64             | 269.2                            | 250   | 10.9                              | 2929 |                                                                                                                     | 12.8 | 3446                                                                                                                |      | 16                                                                                                                                                    | 4307 |                                                                                                                                       | 17.3 | 22  | 5922  |
| D64.../32/076             |              |      | 76             | 218.5                            | 210.5 | 12.9                              | 2823 |                                                                                                                     | 15.2 | 3321                                                                                                                |      | 19                                                                                                                                                    | 4152 |                                                                                                                                       | 20.5 | 25  | 5436  |
| D64.../32/089             |              |      | 89             | 180.3                            | 179.8 | 15.1                              | 2728 |                                                                                                                     | 17.8 | 3209                                                                                                                |      | 22.3                                                                                                                                                  | 4012 |                                                                                                                                       | 24   | 33  | 5950  |
| D64.../32/102             |              |      | 102            | 155                              | 156.9 | 17.3                              | 2688 |                                                                                                                     | 20.4 | 3162                                                                                                                |      | 25.5                                                                                                                                                  | 3953 |                                                                                                                                       | 27.5 | 36  | 5580  |
| D64.../32/115             |              |      | 115            | 140                              | 139.1 | 19.6                              | 2737 |                                                                                                                     | 23   | 3220                                                                                                                |      | 28.8                                                                                                                                                  | 4025 |                                                                                                                                       | 31.1 | 42  | 5880  |
| D64.../32/127             |              |      | 127            | 124                              | 126   | 21.6                              | 2677 |                                                                                                                     | 25.4 | 3150                                                                                                                |      | 31.8                                                                                                                                                  | 3937 |                                                                                                                                       | 34.3 | 46  | 5704  |
| D64JY/32/139              |              |      | 139            | -                                | 115.1 | 23.6                              | -    |                                                                                                                     | 27.8 | -                                                                                                                   |      | 34.8                                                                                                                                                  | -    |                                                                                                                                       | 37.5 | -   | -     |
| D64.../32/152             |              |      | 152            | 102                              | 105.3 | 25.8                              | 2636 |                                                                                                                     | 30.4 | 3101                                                                                                                |      | 38                                                                                                                                                    | 3876 |                                                                                                                                       | 41   | 56  | 5712  |
| D64.../32/178             |              |      | 178            | 88.2                             | 89.9  | 30.3                              | 3669 |                                                                                                                     | 35.6 | 3140                                                                                                                |      | 44.5                                                                                                                                                  | 3925 |                                                                                                                                       | 48.1 | 64  | 5645  |
| D64.../32/203             |              |      | 203            | 76                               | 78.8  | 34.5                              | 2623 |                                                                                                                     | 40.6 | 3086                                                                                                                |      | 50.8                                                                                                                                                  | 3857 |                                                                                                                                       | 54.8 | 71  | 5396  |
| D64JY/32/229              |              |      | 229            | -                                | 69.9  | 38.9                              | -    |                                                                                                                     | 45.8 | -                                                                                                                   |      | 57.3                                                                                                                                                  | -    |                                                                                                                                       | 61.8 | -   | -     |
| D64.../32/254             |              |      | 254            | 60.8                             | 63    | 43.2                              | 2625 |                                                                                                                     | 50.8 | 3089                                                                                                                |      | 63.5                                                                                                                                                  | 3861 |                                                                                                                                       | 68.6 | 90  | 5472  |
| D64.../32/305             |              |      | 305            | 49                               | 52.5  | 51.9                              | 2541 |                                                                                                                     | 61   | 2989                                                                                                                |      | 76.3                                                                                                                                                  | 3736 |                                                                                                                                       | 82.4 | 103 | 5047  |
| D64.../40/051             | 40           | 20   | 51             | 628                              | 509.8 | 8.7                               | 2445 | 4420                                                                                                                | 10.2 | 6406                                                                                                                | 5200 | 12.8                                                                                                                                                  | 8007 | 6500                                                                                                                                  | 13.8 | 17  | 10676 |
| D64.../40/064             |              |      | 64             | 487                              | 406.3 | 10.9                              | 5299 |                                                                                                                     | 12.8 | 6234                                                                                                                |      | 16                                                                                                                                                    | 7792 |                                                                                                                                       | 17.3 | 23  | 11201 |
| D64.../40/076             |              |      | 76             | 379                              | 342.1 | 12.9                              | 4897 |                                                                                                                     | 15.2 | 5761                                                                                                                |      | 19                                                                                                                                                    | 7201 |                                                                                                                                       | 20.5 | 31  | 10233 |
| D64.../40/089             |              |      | 89             | 321                              | 292.1 | 15.1                              | 4857 |                                                                                                                     | 17.8 | 5714                                                                                                                |      | 22.3                                                                                                                                                  | 7142 |                                                                                                                                       | 24   | 36  | 9951  |
| D64.../40/102             |              |      | 102            | 281                              | 254.9 | 17.3                              | 4873 |                                                                                                                     | 20.4 | 5732                                                                                                                |      | 25.5                                                                                                                                                  | 7166 |                                                                                                                                       | 27.5 | 40  | 10116 |

## HIGH PERFORMANCE COMPRESSION SPRING

Rectangular Wire-Yellow Color

DIN/ISO 10243

## فنر

مقطع مفتول فنر مستطیل - رنگ زرد

| کد سفارش<br>Ordering Code | D d<br>(b x h)       |      | L <sub>0</sub>      | D64 (Rate)<br>ضریب فتر ±10% |       | D64J (Rate)<br>ضریب فتر ±10% |       | A 17%<br>دوام 3.000.000 ضریب<br> |      | B 20%<br>دوام 1.500.000 ضریب<br> |       | C 25%Max. defl<br>بیشترین تغییر طول مجاز<br>دوام 200.000 ضریب<br> |       | D Dapprox<br>تغییر طول تقریبی<br>تا پسته شدن<br> |      |      |       |      |
|---------------------------|----------------------|------|---------------------|-----------------------------|-------|------------------------------|-------|-------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------|------|------|-------|------|
|                           | mm                   | mm   |                     | mm                          | N/mm  | N/mm                         | mm    | N                                                                                                                 |      | mm                                                                                                                | N     |                                                                                                                                                    | mm    | N                                                                                                                                   |      | mm   |       | N    |
|                           |                      |      | D64                 |                             |       |                              |       | D64J                                                                                                              | D64  |                                                                                                                   | D64J  | D64                                                                                                                                                |       | D64J                                                                                                                                | D64  | D64J |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
| D64.../40/115             | 40                   | 20   | 115                 | 245                         | 226.1 | 19.6                         | 4790  | 4420                                                                                                              | 23   | 5635                                                                                                              | 5200  | 28.8                                                                                                                                               | 7044  | 6500                                                                                                                                | 31.1 | 40   | 9800  |      |
| D64.../40/127             |                      |      | 127                 | 221                         | 204.7 | 21.6                         | 4771  |                                                                                                                   | 25.4 | 5613                                                                                                              |       | 31.8                                                                                                                                               | 7017  |                                                                                                                                     | 34.3 | 44   | 9724  |      |
| D64.../40/139             |                      |      | 139                 | 202                         | 187.1 | 23.6                         | 4773  |                                                                                                                   | 27.8 | 5615                                                                                                              |       | 34.8                                                                                                                                               | 7020  |                                                                                                                                     | 37.5 | 52   | 10504 |      |
| D64.../40/152             |                      |      | 152                 | 168                         | 171.1 | 25.8                         | 4341  |                                                                                                                   | 30.4 | 5107                                                                                                              |       | 38                                                                                                                                                 | 6348  |                                                                                                                                     | 41   | 56   | 9408  |      |
| D64.../40/178             |                      |      | 178                 | 148                         | 146.1 | 30.3                         | 4478  |                                                                                                                   | 35.6 | 5268                                                                                                              |       | 44.5                                                                                                                                               | 6586  |                                                                                                                                     | 48.1 | 61   | 9028  |      |
| D64.../40/203             |                      |      | 203                 | 132                         | 128.1 | 34.5                         | 4555  |                                                                                                                   | 40.6 | 5359                                                                                                              |       | 50.8                                                                                                                                               | 6699  |                                                                                                                                     | 54.8 | 73   | 9636  |      |
| D64JY/40/229              |                      |      | D64J<br>(8.7 x 7.5) | 229                         | -     | 113.5                        | 38.9  |                                                                                                                   | -    | 45.8                                                                                                              |       | -                                                                                                                                                  | 57.3  |                                                                                                                                     | -    | 61.8 | -     | -    |
| D64.../40/254             |                      |      |                     | 254                         | 107   | 102.4                        | 43.2  |                                                                                                                   | 4620 | 50.8                                                                                                              |       | 5436                                                                                                                                               | 63.5  |                                                                                                                                     | 6795 | 68.6 | 93    | 9951 |
| D64.../40/305             | 305                  | 87.8 | 85.2                | 51.9                        | 4552  | 61                           | 5356  | 76.3                                                                                                              | 6695 | 82.4                                                                                                              | 106   | 9307                                                                                                                                               |       |                                                                                                                                     |      |      |       |      |
| D64.../50/064             | 50                   | 25   | 64                  | 709                         | 625   | 10.9                         | 7714  | 6800                                                                                                              | 12.8 | 9075                                                                                                              | 8000  | 16                                                                                                                                                 | 11344 | 10000                                                                                                                               | 17.3 | 21   | 14889 |      |
| D64.../50/076             |                      |      | 76                  | 572                         | 526.3 | 12.9                         | 7390  |                                                                                                                   | 15.2 | 8694                                                                                                              |       | 19                                                                                                                                                 | 10868 |                                                                                                                                     | 20.5 | 25   | 14300 |      |
| D64.../50/089             |                      |      | 89                  | 475                         | 449.4 | 15.1                         | 7187  |                                                                                                                   | 17.8 | 8455                                                                                                              |       | 22.3                                                                                                                                               | 10569 |                                                                                                                                     | 24   | 28   | 13300 |      |
| D64.../50/102             |                      |      | 102                 | 405                         | 392.2 | 17.3                         | 7023  |                                                                                                                   | 20.4 | 8262                                                                                                              |       | 25.5                                                                                                                                               | 10328 |                                                                                                                                     | 27.5 | 33   | 13365 |      |
| D64.../50/115             |                      |      | 115                 | 352                         | 347.8 | 19.6                         | 6882  |                                                                                                                   | 23   | 8096                                                                                                              |       | 28.8                                                                                                                                               | 10120 |                                                                                                                                     | 31.1 | 38   | 13376 |      |
| D64.../50/127             |                      |      | 127                 | 316                         | 315   | 21.6                         | 6822  |                                                                                                                   | 25.4 | 8026                                                                                                              |       | 31.8                                                                                                                                               | 10033 |                                                                                                                                     | 34.3 | 43   | 13588 |      |
| D64.../50/139             |                      |      | 139                 | 289                         | 287.8 | 23.6                         | 6829  |                                                                                                                   | 27.8 | 8092                                                                                                              |       | 34.8                                                                                                                                               | 10043 |                                                                                                                                     | 37.5 | 47   | 13583 |      |
| D64.../50/152             |                      |      | 152                 | 239                         | 263.2 | 25.8                         | 6176  |                                                                                                                   | 30.4 | 7266                                                                                                              |       | 38                                                                                                                                                 | 9082  |                                                                                                                                     | 41   | 53   | 12667 |      |
| D64.../50/178             | D64J<br>(12.1 x 8.8) | 178  | 216                 | 224.7                       | 30.3  | 6536                         | 35.6  | 7689                                                                                                              | 44.5 | 9612                                                                                                              | 48.1  | 60                                                                                                                                                 | 12960 |                                                                                                                                     |      |      |       |      |
| D64.../50/203             |                      | 203  | 187                 | 197                         | 34.5  | 6453                         | 40.6  | 7592                                                                                                              | 50.8 | 9490                                                                                                              | 54.8  | 71                                                                                                                                                 | 13277 |                                                                                                                                     |      |      |       |      |
| D64JY/50/229              |                      | 229  | -                   | 174.7                       | 38.9  | -                            | 45.8  | -                                                                                                                 | 57.3 | -                                                                                                                 | 61.8  | -                                                                                                                                                  | -     |                                                                                                                                     |      |      |       |      |
| D64.../50/254             |                      | 254  | 153                 | 157.5                       | 43.2  | 6607                         | 50.8  | 7772                                                                                                              | 63.5 | 9716                                                                                                              | 68.6  | 91                                                                                                                                                 | 13923 |                                                                                                                                     |      |      |       |      |
| D64.../50/305             | 305                  | 127  | 131.1               | 51.9                        | 6585  | 61                           | 7747  | 76.3                                                                                                              | 9684 | 82.4                                                                                                              | 106   | 13462                                                                                                                                              |       |                                                                                                                                     |      |      |       |      |
| D64.../63/076             | 63                   | 38   | 76                  | 842                         | 842.1 | 12.9                         | 10879 | 8000                                                                                                              | 15.2 | 12798                                                                                                             | 10000 | 19                                                                                                                                                 | 15998 | 12000                                                                                                                               | 18.6 | 24   | 20208 |      |
| D64.../63/089             |                      |      | 89                  | 726                         | 719.1 | 15.1                         | 10984 |                                                                                                                   | 17.8 | 12923                                                                                                             |       | 22.3                                                                                                                                               | 16154 |                                                                                                                                     | 21.8 | 28   | 20328 |      |
| D64.../63/102             |                      |      | 102                 | 656                         | 627.5 | 17.3                         | 11375 |                                                                                                                   | 20.4 | 13382                                                                                                             |       | 25.5                                                                                                                                               | 16728 |                                                                                                                                     | 27.5 | 31   | 20336 |      |
| D64.../63/115             |                      |      | 115                 | 534                         | 556.5 | 19.6                         | 10440 |                                                                                                                   | 23   | 12282                                                                                                             |       | 28.8                                                                                                                                               | 15353 |                                                                                                                                     | 31.1 | 38   | 20292 |      |
| D64.../63/127             |                      |      | 127                 | 480                         | 503.9 | 21.6                         | 10363 |                                                                                                                   | 25.4 | 12192                                                                                                             |       | 31.8                                                                                                                                               | 15240 |                                                                                                                                     | 34.3 | 42   | 20160 |      |
| D64.../63/152             |                      |      | 152                 | 396                         | 421.1 | 25.8                         | 10233 |                                                                                                                   | 30.4 | 12038                                                                                                             |       | 38                                                                                                                                                 | 15048 |                                                                                                                                     | 41   | 51   | 20196 |      |
| D64.../63/178             |                      |      | 178                 | 335                         | 359.6 | 30.3                         | 10137 |                                                                                                                   | 35.6 | 11926                                                                                                             |       | 44.5                                                                                                                                               | 14908 |                                                                                                                                     | 48.1 | 60   | 20100 |      |
| D64.../63/203             |                      |      | 203                 | 297                         | 315.3 | 34.5                         | 10249 |                                                                                                                   | 40.6 | 12058                                                                                                             |       | 50.8                                                                                                                                               | 15073 |                                                                                                                                     | 54.8 | 68   | 20196 |      |
| D64JY/63/229              | D64J<br>(12 x 13.7)  | 229  | -                   | 279.5                       | 38.9  | -                            | 45.8  | -                                                                                                                 | 57.3 | -                                                                                                                 | 61.8  | -                                                                                                                                                  | -     |                                                                                                                                     |      |      |       |      |
| D64.../63/254             |                      | 254  | 235                 | 252.0                       | 43.2  | 10147                        | 50.8  | 11938                                                                                                             | 63.5 | 14923                                                                                                             | 68.6  | 85                                                                                                                                                 | 19975 |                                                                                                                                     |      |      |       |      |
| D64.../63/305             |                      | 305  | 194                 | 209.8                       | 51.9  | 10059                        | 61    | 11834                                                                                                             | 76.3 | 14793                                                                                                             | 82.4  | 103                                                                                                                                                | 19982 |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |
|                           |                      |      |                     |                             |       |                              |       |                                                                                                                   |      |                                                                                                                   |       |                                                                                                                                                    |       |                                                                                                                                     |      |      |       |      |



# High Performance Compression Spring

Rectangular Wire-Brown/Silver Color

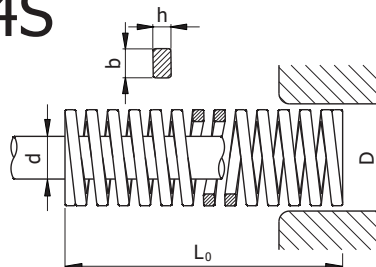
DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ قهوه ای / نقره ای



D64W  
D64S



| کد سفارش<br>Ordering Code                                                                                                                                                                            | D<br>(b x h) | d                   | L <sub>0</sub> | R<br>(Rate)<br>ضریب فنر<br>±10% | A<br>10%<br>دوام 3.000.000<br>ضرب |      | B<br>12.5%<br>دوام 1.500.000<br>ضرب |      | C<br>15% Max Defl<br>دوام 200.000<br>ضرب |      | D<br>Approx<br>تغییر طول تقریبی<br>تا بسته شدن |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------|----------------|---------------------------------|-----------------------------------|------|-------------------------------------|------|------------------------------------------|------|------------------------------------------------|------|
|                                                                                                                                                                                                      |              |                     |                |                                 | mm                                | N    | mm                                  | N    | mm                                       | N    | mm                                             | N    |
| D64W/16/032<br>D64W/16/038<br>D64W/16/044<br>D64W/16/051<br>D64W/16/064<br>D64W/16/076<br>D64W/16/089<br>D64W/16/102<br>D64W/16/115<br>D64W/16/127<br>D64W/16/152<br>D64W/16/305                     | 16           | 8<br>(3.45 x 4.6)   | 32             | 449                             | 3.2                               | 1437 | 4                                   | 1796 | 4.8                                      | 2155 | 6                                              | 2694 |
|                                                                                                                                                                                                      |              |                     | 38             | 363                             | 3.8                               | 1379 | 4.8                                 | 1742 | 5.7                                      | 2069 | 7                                              | 2541 |
|                                                                                                                                                                                                      |              |                     | 44             | 309                             | 4.4                               | 1360 | 5.5                                 | 1700 | 6.6                                      | 2039 | 8                                              | 2472 |
|                                                                                                                                                                                                      |              |                     | 51             | 256                             | 5.1                               | 1306 | 6.4                                 | 1632 | 7.7                                      | 1958 | 9                                              | 2304 |
|                                                                                                                                                                                                      |              |                     | 64             | 203                             | 6.4                               | 1299 | 8                                   | 1624 | 9.6                                      | 1949 | 11                                             | 2233 |
|                                                                                                                                                                                                      |              |                     | 76             | 166                             | 7.6                               | 1262 | 9.5                                 | 1577 | 11.4                                     | 1892 | 14                                             | 2324 |
|                                                                                                                                                                                                      |              |                     | 89             | 139                             | 8.9                               | 1237 | 11.1                                | 1546 | 13.4                                     | 1856 | 16                                             | 2224 |
|                                                                                                                                                                                                      |              |                     | 102            | 114                             | 10.2                              | 1163 | 12.8                                | 1454 | 15.3                                     | 1744 | 19                                             | 2166 |
|                                                                                                                                                                                                      |              |                     | 115            | 105                             | 11.5                              | 1208 | 14.4                                | 1509 | 17.3                                     | 1811 | 22                                             | 2310 |
|                                                                                                                                                                                                      |              |                     | 127            | 94                              | 12.7                              | 1194 | 15.9                                | 1492 | 19.1                                     | 1791 | 25                                             | 2350 |
|                                                                                                                                                                                                      |              |                     | 152            | 69                              | 15.2                              | 1049 | 19                                  | 1311 | 22.8                                     | 1573 | 34                                             | 2346 |
|                                                                                                                                                                                                      |              |                     | 305            | 37                              | 30.5                              | 1129 | 38.1                                | 1411 | 45.8                                     | 1693 | 70                                             | 2590 |
| D64W/20/044<br>D64W/20/051<br>D64W/20/064<br>D64W/20/076<br>D64W/20/089<br>D64W/20/102<br>D64W/20/115<br>D64W/20/127<br>D64W/20/152<br>D64W/20/305                                                   | 20           | 10<br>(4.05 x 5.9)  | 44             | 452                             | 4.4                               | 1989 | 5.5                                 | 2486 | 6.6                                      | 2983 | 8                                              | 3616 |
|                                                                                                                                                                                                      |              |                     | 51             | 378                             | 5.1                               | 1928 | 6.4                                 | 2410 | 7.7                                      | 2892 | 10                                             | 3780 |
|                                                                                                                                                                                                      |              |                     | 64             | 301                             | 6.4                               | 1926 | 8                                   | 2408 | 9.6                                      | 2890 | 13                                             | 3913 |
|                                                                                                                                                                                                      |              |                     | 76             | 247                             | 7.6                               | 1877 | 9.5                                 | 2347 | 11.4                                     | 2816 | 16                                             | 3952 |
|                                                                                                                                                                                                      |              |                     | 89             | 208                             | 8.9                               | 1851 | 11.1                                | 2314 | 13.4                                     | 2777 | 19                                             | 3952 |
|                                                                                                                                                                                                      |              |                     | 102            | 188                             | 10.2                              | 1918 | 12.8                                | 2397 | 15.3                                     | 2876 | 21                                             | 3948 |
|                                                                                                                                                                                                      |              |                     | 115            | 159                             | 11.5                              | 1829 | 14.4                                | 2286 | 17.3                                     | 2743 | 24                                             | 3816 |
|                                                                                                                                                                                                      |              |                     | 127            | 146                             | 12.7                              | 1854 | 15.9                                | 2318 | 19.1                                     | 2781 | 26                                             | 3796 |
|                                                                                                                                                                                                      |              |                     | 152            | 91                              | 15.2                              | 1383 | 19                                  | 1729 | 22.5                                     | 2075 | 45                                             | 4095 |
|                                                                                                                                                                                                      |              |                     | 305            | 60                              | 30.5                              | 1830 | 38.1                                | 2288 | 45.8                                     | 2745 | 70                                             | 4200 |
| D64W/25/044<br>D64W/25/051<br>D64.../25/064<br>D64.../25/076<br>D64.../25/089<br>D64.../25/102<br>D64.../25/115<br>D64.../25/127<br>D64.../25/152<br>D64.../25/178<br>D64.../25/203<br>D64.../25/305 | 25           | 12.5<br>(5.7 x 7.4) | 44             | 1158                            | 4.4                               | 5095 | 5.5                                 | 6369 | 6.6                                      | 7643 | 8                                              | 9264 |
|                                                                                                                                                                                                      |              |                     | 51             | 933                             | 5.1                               | 4758 | 6.4                                 | 5948 | 7.6                                      | 7091 | 10                                             | 9330 |
|                                                                                                                                                                                                      |              |                     | 64             | 644                             | 6.4                               | 4672 | 8                                   | 5840 | 9.6                                      | 7008 | 13                                             | 9490 |
|                                                                                                                                                                                                      |              |                     | 76             | 556                             | 7.6                               | 4226 | 9.5                                 | 5282 | 11.4                                     | 6338 | 16                                             | 8896 |
|                                                                                                                                                                                                      |              |                     | 89             | 462                             | 8.9                               | 4112 | 11.1                                | 5140 | 13.4                                     | 6168 | 20                                             | 9240 |
|                                                                                                                                                                                                      |              |                     | 102            | 390                             | 10.2                              | 3978 | 12.8                                | 4973 | 15.3                                     | 5967 | 23                                             | 8970 |
|                                                                                                                                                                                                      |              |                     | 115            | 360                             | 11.5                              | 4140 | 14.4                                | 5175 | 17.3                                     | 6210 | 26                                             | 9360 |
|                                                                                                                                                                                                      |              |                     | 127            | 326                             | 12.7                              | 4140 | 15.9                                | 5175 | 19.1                                     | 6210 | 28                                             | 9128 |
|                                                                                                                                                                                                      |              |                     | 152            | 255                             | 15.2                              | 3876 | 19                                  | 4845 | 22.8                                     | 5814 | 34                                             | 8670 |
|                                                                                                                                                                                                      |              |                     | 178            | 230                             | 17.8                              | 4094 | 22.3                                | 5118 | 26.7                                     | 6141 | 39                                             | 8970 |
|                                                                                                                                                                                                      |              |                     | 203            | 202                             | 20.3                              | 4101 | 25.4                                | 5126 | 30.5                                     | 6151 | 45                                             | 9090 |
|                                                                                                                                                                                                      |              |                     | 305            | 136                             | 30.5                              | 4148 | 38.1                                | 5185 | 45.8                                     | 6222 | 63                                             | 8568 |

# High Performance Compression Spring

Rectangular Wire-Brown/Silver Color

DIN/ISO 10243

فنر

مقطع مفتول فنر مستطیل - رنگ قهوه ای / نقره ای

| کد سفارش<br>Ordering Code | D<br>(b x h) | d  | L <sub>0</sub> | R<br>(Rate)<br>ضریب فنر<br>±10% | A<br>10%<br>دوام 3.000.000 ضرب |       | B<br>12.5%<br>دوام 1.500.000 ضرب |       | C<br>15% Max Defl<br>دوام 200.000 ضرب |       | D<br>Approx<br>تغییر طول تقریبی<br>تا پسته شدن |       |
|---------------------------|--------------|----|----------------|---------------------------------|--------------------------------|-------|----------------------------------|-------|---------------------------------------|-------|------------------------------------------------|-------|
|                           |              |    |                |                                 | mm                             | N     | mm                               | N     | mm                                    | N     | mm                                             | N     |
| D64W/32/044               | 32           | 16 | 44             | 1300                            | 4.4                            | 5720  | 5.5                              | 7150  | 6.6                                   | 8580  | 8                                              | 10400 |
| D64W/32/051               |              |    | 51             | 1150                            | 5.1                            | 5865  | 6.4                              | 7331  | 7.6                                   | 8740  | 11                                             | 12650 |
| D64.../32/064             |              |    | 64             | 887                             | 6.4                            | 5677  | 8                                | 7096  | 9.6                                   | 8515  | 14                                             | 12418 |
| D64.../32/076             |              |    | 76             | 733                             | 7.6                            | 5570  | 9.5                              | 6964  | 11.4                                  | 8356  | 17                                             | 12460 |
| D64.../32/089             |              |    | 89             | 612                             | 8.9                            | 5447  | 11.1                             | 6808  | 13.4                                  | 8171  | 21                                             | 12853 |
| D64.../32/102             |              |    | 102            | 544                             | 10.2                           | 5544  | 12.8                             | 6936  | 15.3                                  | 8316  | 23                                             | 12502 |
| D64.../32/115             |              |    | 115            | 494                             | 11.5                           | 5685  | 14.4                             | 7101  | 17.3                                  | 8527  | 25                                             | 12359 |
| D64.../32/127             |              |    | 127            | 432                             | 12.7                           | 5490  | 15.9                             | 6858  | 19.1                                  | 8235  | 30                                             | 12968 |
| D64.../32/152             |              |    | 152            | 356                             | 15.2                           | 5416  | 19                               | 6764  | 22.8                                  | 8124  | 35                                             | 12471 |
| D64.../32/178             |              |    | 178            | 304                             | 17.8                           | 5409  | 22.3                             | 6764  | 26.7                                  | 8114  | 41                                             | 12459 |
| D64.../32/203             |              |    | 203            | 265                             | 20.3                           | 5387  | 25.4                             | 6699  | 30.5                                  | 8080  | 47                                             | 12472 |
| D64.../32/254             |              |    | 254            | 214                             | 25.4                           | 5436  | 31.8                             | 6795  | 38.1                                  | 8153  | 58                                             | 12412 |
| D64.../32/305             |              |    | 305            | 177                             | 30.5                           | 5385  | 38.1                             | 6748  | 45.8                                  | 8077  | 70                                             | 12359 |
| D64W/40/064               | 40           | 20 | 64             | 1228                            | 6.4                            | 7859  | 8                                | 9824  | 9.6                                   | 11789 | 13                                             | 15964 |
| D64W/40/076               |              |    | 76             | 1017                            | 7.6                            | 7729  | 9.5                              | 9662  | 11.4                                  | 11594 | 16                                             | 16272 |
| D64.../40/089             |              |    | 89             | 880                             | 8.9                            | 7832  | 11.1                             | 9790  | 13.4                                  | 11748 | 20                                             | 17600 |
| D64.../40/102             |              |    | 102            | 762                             | 10.2                           | 7772  | 12.8                             | 9716  | 15.3                                  | 11649 | 23                                             | 17526 |
| D64.../40/115             |              |    | 115            | 679                             | 12.5                           | 7809  | 14.4                             | 9761  | 17.3                                  | 11713 | 26                                             | 17654 |
| D64.../40/127             |              |    | 127            | 622                             | 12.7                           | 7899  | 15.9                             | 9874  | 19.1                                  | 11849 | 28                                             | 17416 |
| D64.../40/152             |              |    | 152            | 509                             | 15.2                           | 7737  | 19                               | 9671  | 22.8                                  | 11605 | 36                                             | 18324 |
| D64.../40/178             |              |    | 178            | 429                             | 17.8                           | 7636  | 22.3                             | 9545  | 26.7                                  | 11454 | 43                                             | 18447 |
| D64.../40/203             |              |    | 203            | 374                             | 20.3                           | 7592  | 25.4                             | 9490  | 30.5                                  | 11388 | 49                                             | 18326 |
| D64.../40/254             |              |    | 254            | 296                             | 25.4                           | 7518  | 31.8                             | 9398  | 38.1                                  | 11278 | 62                                             | 18325 |
| D64.../40/305             |              |    | 305            | 246                             | 30.5                           | 7503  | 38.1                             | 9379  | 45.8                                  | 11255 | 75                                             | 18450 |
| D64W/50/064               | 50           | 25 | 64             | 1980                            | 6.4                            | 12672 | 8                                | 15840 | 9.6                                   | 19008 | 11                                             | 21780 |
| D64W/50/076               |              |    | 76             | 1811                            | 7.6                            | 13764 | 9.5                              | 17205 | 11.4                                  | 20645 | 14                                             | 25354 |
| D64.../50/089             |              |    | 89             | 1410                            | 8.9                            | 12549 | 11.1                             | 15686 | 13.4                                  | 18824 | 19                                             | 26790 |
| D64.../50/102             |              |    | 102            | 1215                            | 10.2                           | 12393 | 12.8                             | 15491 | 15.3                                  | 18590 | 22                                             | 26730 |
| D64.../50/115             |              |    | 115            | 1076                            | 11.5                           | 12374 | 14.4                             | 15468 | 17.3                                  | 18561 | 25                                             | 26900 |
| D64.../50/127             |              |    | 127            | 968                             | 12.7                           | 12294 | 15.9                             | 15367 | 19.1                                  | 18440 | 28                                             | 27104 |
| D64.../50/152             |              |    | 152            | 806                             | 15.2                           | 12251 | 19                               | 15314 | 22.8                                  | 18377 | 34                                             | 27404 |
| D64.../50/178             |              |    | 178            | 698                             | 17.8                           | 12424 | 22.3                             | 15531 | 26.7                                  | 18637 | 40                                             | 27920 |
| D64.../50/203             |              |    | 203            | 612                             | 20.3                           | 12424 | 25.4                             | 15530 | 30.5                                  | 18635 | 45                                             | 27540 |
| D64.../50/254             |              |    | 254            | 472                             | 25.4                           | 11989 | 31.8                             | 14986 | 38.1                                  | 17983 | 58                                             | 27376 |
| D64.../50/305             |              |    | 305            | 388                             | 30.5                           | 11834 | 38.1                             | 14793 | 45.8                                  | 17751 | 70                                             | 27160 |

Points:

نکات:

- Any damages on the surface of the springs (cutting, grinding, scratches, etc.) May significantly affect the expected lifetime.
- Apply a minimum pre-load of 5% of the total length.

۱. هرگونه آسیب بر روی سطح فنر (بریدگی، خراش، سایش و...) بطور قابل توجهی در طول عمر فنر موثر می باشد.

۲. پیش بار حداقل ۵ درصد از طول کل فنر در نظر گرفته شود.

# SPRING

Pressure Elastomer

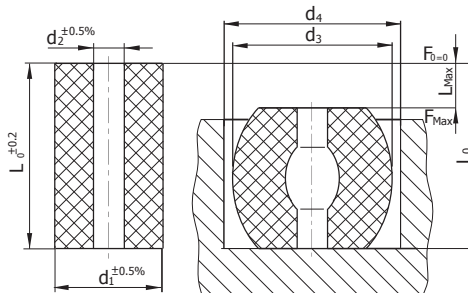
Material: PUR/80 Shore A

فنر

الاستومر فشاری



## D63/80



| کد سفارش<br>Ordering Code | L <sub>0</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | F <sub>max</sub><br>(N) | L <sub>max</sub><br>35%L <sub>0</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|---------------------------------------|
| D63/80/16/12              | 12             | 16             | 6.5            | 22             | 26             | 940                     | 4.2                                   |
| D63/80/16/16              | 16             |                |                |                |                | 900                     | 5.6                                   |
| D63/80/16/20              | 20             |                |                |                |                | 880                     | 7                                     |
| D63/80/16/25              | 25             |                |                |                |                | 860                     | 8.7                                   |
| D63/80/16/32              | 32             |                |                |                |                | 830                     | 11.2                                  |
| D63/80/20/12              | 12             | 20             | 8.5            | 27             | 32             | 1440                    | 4.2                                   |
| D63/80/20/16              | 16             |                |                |                |                | 1400                    | 5.6                                   |
| D63/80/20/20              | 20             |                |                |                |                | 1350                    | 7                                     |
| D63/80/20/25              | 25             |                |                |                |                | 1330                    | 8.7                                   |
| D63/80/20/32              | 32             |                |                |                |                | 1280                    | 11.2                                  |
| D63/80/20/40              | 40             |                |                |                |                | 1260                    | 14                                    |
| D63/80/25/16              | 16             | 25             | 10.5           | 34             | 38             | 2270                    | 5.6                                   |
| D63/80/25/20              | 20             |                |                |                |                | 2200                    | 7                                     |
| D63/80/25/25              | 25             |                |                |                |                | 2160                    | 8.7                                   |
| D63/80/25/32              | 32             |                |                |                |                | 2090                    | 11.2                                  |
| D63/80/25/40              | 40             |                |                |                |                | 2050                    | 14                                    |
| D63/80/25/50              | 50             |                |                |                |                | 1980                    | 17.5                                  |
| D63/80/32/16              | 16             | 32             | 13.5           | 43             | 48             | 3850                    | 5.6                                   |
| D63/80/32/20              | 20             |                |                |                |                | 3740                    | 7                                     |
| D63/80/32/25              | 25             |                |                |                |                | 3600                    | 8.7                                   |
| D63/80/32/32              | 32             |                |                |                |                | 3460                    | 11.2                                  |
| D63/80/32/40              | 40             |                |                |                |                | 3420                    | 14                                    |
| D63/80/32/50              | 50             |                |                |                |                | 3350                    | 17.5                                  |
| D63/80/40/20              | 20             | 40             | 13.5           | 54             | 61             | 6660                    | 7                                     |
| D63/80/40/25              | 25             |                |                |                |                | 6410                    | 8.7                                   |
| D63/80/40/32              | 32             |                |                |                |                | 6190                    | 11.2                                  |
| D63/80/40/40              | 40             |                |                |                |                | 6010                    | 14                                    |
| D63/80/40/50              | 50             |                |                |                |                | 5870                    | 17.5                                  |
| D63/40/63                 | 63             |                |                |                |                | 5760                    | 22                                    |
| D63/80/50/25              | 25             | 50             | 17             | 68             | 75             | 10400                   | 8.7                                   |
| D63/80/50/32              | 32             |                |                |                |                | 9970                    | 11.2                                  |
| D63/80/50/40              | 40             |                |                |                |                | 9650                    | 14                                    |
| D63/80/50/50              | 50             |                |                |                |                | 9400                    | 17.5                                  |
| D63/80/50/63              | 63             |                |                |                |                | 9140                    | 22                                    |
| D63/80/50/80              | 80             |                |                |                |                | 8980                    | 28                                    |
| D63/80/63/32              | 32             | 63             | 17             | 85             | 94             | 17600                   | 11.2                                  |
| D63/80/63/40              | 40             |                |                |                |                | 16880                   | 14                                    |
| D63/80/63/50              | 50             |                |                |                |                | 16300                   | 17.5                                  |
| D63/80/63/63              | 63             |                |                |                |                | 15770                   | 22                                    |
| D63/80/63/80              | 80             |                |                |                |                | 15260                   | 28                                    |
| D63/80/63/100             | 100            |                |                |                |                | 14940                   | 35                                    |
| D63/80/80/40              | 40             | 80             | 21             | 108            | 118            | 28690                   | 14                                    |

| کد سفارش<br>Ordering Code | L <sub>0</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | F <sub>max</sub><br>(N) | L <sub>max</sub><br>35%L <sub>0</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|---------------------------------------|
| D63/80/80/50              | 50             | 80             | 21             | 108            | 118            | 27500                   | 17.5                                  |
| D63/80/80/63              | 63             |                |                |                |                | 26400                   | 22                                    |
| D63/80/80/80              | 80             |                |                |                |                | 25500                   | 28                                    |
| D63/80/80/100             | 100            |                |                |                |                | 24900                   | 35                                    |
| D63/80/80/125             | 125            |                |                |                |                | 24200                   | 43.7                                  |
| D63/80/100/50             | 50             | 100            | 21             | 135            | 150            | 46700                   | 17.5                                  |
| D63/80/100/63             | 63             |                |                |                |                | 44500                   | 22                                    |
| D63/80/100/80             | 80             |                |                |                |                | 42700                   | 28                                    |
| D63/80/100/100            | 100            |                |                |                |                | 41500                   | 35                                    |
| D63/80/100/125            | 125            |                |                |                |                | 40000                   | 43.7                                  |
| D63/80/125/63             | 63             | 125            | 27             | 169            | 188            | 73900                   | 22                                    |
| D63/80/125/80             | 80             |                |                |                |                | 69500                   | 28                                    |
| D63/80/125/100            | 100            |                |                |                |                | 66100                   | 35                                    |
| D63/80/125/125            | 125            |                |                |                |                | 64800                   | 43.7                                  |
| D63/80/125/160            | 160            |                |                |                |                | 62300                   | 56                                    |

# SPRING

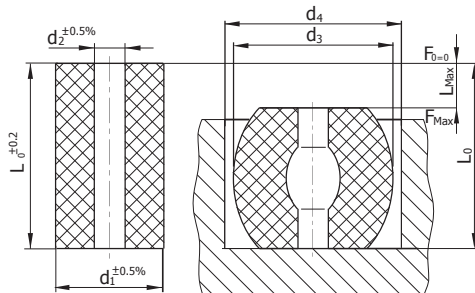
Pressure Elastomer

Material: PUR/90 Shore A

فنر

الاستومر فشاری

## D63/90



| کد سفارش<br>Ordering Code | L <sub>0</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | F <sub>max</sub><br>(N) | L <sub>max</sub><br>30%L <sub>0</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|---------------------------------------|
| D63/90/16/12              | 12             | 16             | 6.5            | 22             | 26             | 1790                    | 3.6                                   |
| D63/90/16/16              | 16             |                |                |                |                | 1730                    | 4.8                                   |
| D63/90/16/20              | 20             |                |                |                |                | 1690                    | 6                                     |
| D63/90/16/25              | 25             |                |                |                |                | 1660                    | 7.5                                   |
| D63/90/16/32              | 32             |                |                |                |                | 1590                    | 6.9                                   |
| D63/90/20/12              | 12             | 20             | 8.5            | 26             | 32             | 2760                    | 3.6                                   |
| D63/90/20/16              | 16             |                |                |                |                | 2690                    | 4.8                                   |
| D63/90/20/20              | 20             |                |                |                |                | 2590                    | 6                                     |
| D63/90/20/25              | 25             |                |                |                |                | 2550                    | 7.5                                   |
| D63/90/20/32              | 32             |                |                |                |                | 2450                    | 9.6                                   |
| D63/90/20/40              | 40             |                |                |                |                | 2420                    | 12                                    |
| D63/90/25/16              | 16             | 25             | 10.5           | 33             | 37             | 4350                    | 4.8                                   |
| D63/90/25/20              | 20             |                |                |                |                | 4210                    | 6                                     |
| D63/90/25/25              | 25             |                |                |                |                | 4140                    | 7.5                                   |
| D63/90/25/32              | 32             |                |                |                |                | 4000                    | 9.6                                   |
| D63/90/25/40              | 40             |                |                |                |                | 3930                    | 12                                    |
| D63/90/25/50              | 50             |                |                |                |                | 3800                    | 15                                    |
| D63/90/32/16              | 16             | 32             | 13.5           | 42             | 47             | 7380                    | 4.8                                   |
| D63/90/32/20              | 20             |                |                |                |                | 7180                    | 6                                     |
| D63/90/32/25              | 25             |                |                |                |                | 6900                    | 7.5                                   |
| D63/90/32/32              | 32             |                |                |                |                | 6620                    | 9.6                                   |
| D63/90/32/40              | 40             |                |                |                |                | 6560                    | 12                                    |
| D63/90/32/50              | 50             |                |                |                |                | 6420                    | 15                                    |
| D63/90/40/20              | 20             | 40             | 13.5           | 52             | 59             | 12770                   | 6                                     |
| D63/90/40/25              | 25             |                |                |                |                | 12280                   | 7.5                                   |
| D63/90/40/32              | 32             |                |                |                |                | 11870                   | 9.6                                   |
| D63/90/40/40              | 40             |                |                |                |                | 11520                   | 12                                    |
| D63/90/40/50              | 50             |                |                |                |                | 11250                   | 15                                    |
| D63/90/40/63              | 63             |                |                |                |                | 11049                   | 18.9                                  |
| D63/90/50/25              | 25             | 50             | 17             | 65             | 72             | 19940                   | 7.5                                   |
| D63/90/50/32              | 32             |                |                |                |                | 19110                   | 9.6                                   |
| D63/90/50/40              | 40             |                |                |                |                | 18500                   | 12                                    |
| D63/90/50/50              | 50             |                |                |                |                | 18000                   | 15                                    |
| D63/90/50/63              | 63             |                |                |                |                | 17530                   | 18.9                                  |
| D63/90/50/80              | 80             |                |                |                |                | 17220                   | 24                                    |
| D63/90/63/32              | 32             | 63             | 17             | 82             | 91             | 33740                   | 9.6                                   |
| D63/90/63/40              | 40             |                |                |                |                | 32360                   | 12                                    |
| D63/90/63/50              | 50             |                |                |                |                | 31260                   | 15                                    |
| D63/90/63/63              | 63             |                |                |                |                | 30220                   | 18.9                                  |
| D63/90/63/80              | 80             |                |                |                |                | 29260                   | 24                                    |
| D63/90/63/100             | 100            |                |                |                |                | 28640                   | 30                                    |
| D63/90/80/40              | 40             | 80             | 21             | 104            | 114            | 55000                   | 12                                    |

| کد سفارش<br>Ordering Code | L <sub>0</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | F <sub>max</sub><br>(N) | L <sub>max</sub><br>30%L <sub>0</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|---------------------------------------|
| D63/90/80/50              | 50             | 80             | 21             | 104            | 114            | 52700                   | 15                                    |
| D63/90/80/63              | 63             |                |                |                |                | 50600                   | 18.9                                  |
| D63/90/80/80              | 80             |                |                |                |                | 49000                   | 24                                    |
| D63/90/80/100             | 100            |                |                |                |                | 47700                   | 30                                    |
| D63/90/80/125             | 125            |                |                |                |                | 46400                   | 37.5                                  |
| D63/90/100/50             | 50             | 100            | 21             | 130            | 145            | 89500                   | 15                                    |
| D63/90/100/63             | 63             |                |                |                |                | 85400                   | 18.9                                  |
| D63/90/100/80             | 80             |                |                |                |                | 82000                   | 24                                    |
| D63/90/100/100            | 100            |                |                |                |                | 79600                   | 30                                    |
| D63/90/100/125            | 125            |                |                |                |                | 76600                   | 37.5                                  |
| D63/90/125/63             | 63             | 125            | 27             | 163            | 182            | 142000                  | 18.9                                  |
| D63/90/125/80             | 80             |                |                |                |                | 133000                  | 24                                    |
| D63/90/125/100            | 100            |                |                |                |                | 127000                  | 30                                    |
| D63/90/125/125            | 125            |                |                |                |                | 124000                  | 37                                    |
| D63/90/125/160            | 160            |                |                |                |                | 119000                  | 48                                    |

## SPRING

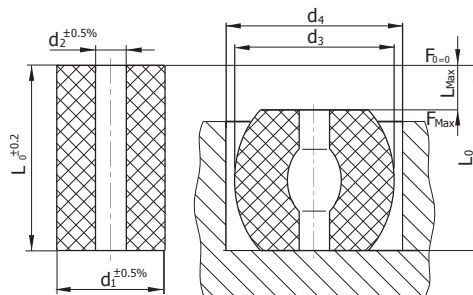
Pressure Elastomer  
Material: PUR/95 Shore A

## فنر

## الاستومر فشاری



# D63/95



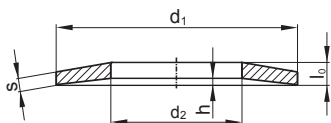
| کد سفارش<br>Ordering Code | L <sub>0</sub> | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | F <sub>max</sub><br>(N) | L <sub>max</sub><br>25%L <sub>0</sub> |
|---------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|---------------------------------------|
| D63/95/16/12              | 12             | 16             | 6.5            | 20             | 26             | 2260                    | 3                                     |
| D63/95/16/16              | 16             |                |                |                |                | 2150                    | 4                                     |
| D63/95/16/20              | 20             |                |                |                |                | 2130                    | 5                                     |
| D63/95/16/25              | 25             |                |                |                |                | 2080                    | 6.2                                   |
| D63/95/16/32              | 32             |                |                |                |                | 2000                    | 8                                     |
| D63/95/20/12              | 12             | 20             | 8.5            | 25             | 32             | 3470                    | 3                                     |
| D63/95/20/16              | 16             |                |                |                |                | 3390                    | 4                                     |
| D63/95/20/20              | 20             |                |                |                |                | 3260                    | 5                                     |
| D63/95/20/25              | 25             |                |                |                |                | 3210                    | 6.2                                   |
| D63/95/20/32              | 32             |                |                |                |                | 3080                    | 8                                     |
| D63/95/20/40              | 40             |                |                |                |                | 3040                    | 10                                    |
| D63/95/25/16              | 16             | 25             | 10.5           | 31             | 36             | 5470                    | 4                                     |
| D63/95/25/20              | 20             |                |                |                |                | 5290                    | 5                                     |
| D63/95/25/25              | 25             |                |                |                |                | 5210                    | 6.2                                   |
| D63/95/25/32              | 32             |                |                |                |                | 5030                    | 8                                     |
| D63/95/25/40              | 40             |                |                |                |                | 4950                    | 10                                    |
| D63/95/25/50              | 50             |                |                |                |                | 4770                    | 12.5                                  |
| D63/95/32/16              | 16             | 32             | 13.5           | 40             | 47             | 9290                    | 4                                     |
| D63/95/32/20              | 20             |                |                |                |                | 9030                    | 5                                     |
| D63/95/32/25              | 25             |                |                |                |                | 8680                    | 6.2                                   |
| D63/95/32/32              | 32             |                |                |                |                | 8330                    | 8                                     |
| D63/95/32/40              | 40             |                |                |                |                | 8250                    | 10                                    |
| D63/95/32/50              | 50             |                |                |                |                | 8070                    | 12.5                                  |
| D63/95/40/20              | 20             | 40             | 13.5           | 50             | 57             | 16060                   | 5                                     |
| D63/95/40/25              | 25             |                |                |                |                | 15450                   | 6.2                                   |
| D63/95/40/32              | 32             |                |                |                |                | 14930                   | 8                                     |
| D63/95/40/40              | 40             |                |                |                |                | 14500                   | 10                                    |
| D63/95/40/50              | 50             |                |                |                |                | 14150                   | 12.5                                  |
| D63/95/40/63              | 63             |                |                |                |                | 13890                   | 15.7                                  |
| D63/95/50/25              | 25             | 50             | 17             | 62             | 69             | 25090                   | 6.2                                   |
| D63/95/50/32              | 32             |                |                |                |                | 24040                   | 8                                     |
| D63/95/50/40              | 40             |                |                |                |                | 23260                   | 10                                    |
| D63/95/50/50              | 50             |                |                |                |                | 22650                   | 12.5                                  |
| D63/95/50/63              | 63             |                |                |                |                | 22050                   | 15.7                                  |
| D63/95/50/80              | 80             |                |                |                |                | 21660                   | 20                                    |
| D63/95/63/32              | 32             | 63             | 17             | 78             | 84             | 42450                   | 8                                     |
| D63/95/63/40              | 40             |                |                |                |                | 40700                   | 10                                    |
| D63/95/63/50              | 50             |                |                |                |                | 39300                   | 12.5                                  |
| D63/95/63/63              | 63             |                |                |                |                | 38020                   | 15.7                                  |
| D63/95/63/80              | 80             |                |                |                |                | 36800                   | 20                                    |
| D63/95/63/100             | 100            |                |                |                |                | 36020                   | 25                                    |
| D63/95/80/40              | 40             | 80             | 21             | 99             | 109            | 69180                   | 10                                    |

[illegible]



## فنر بشقابی

D62

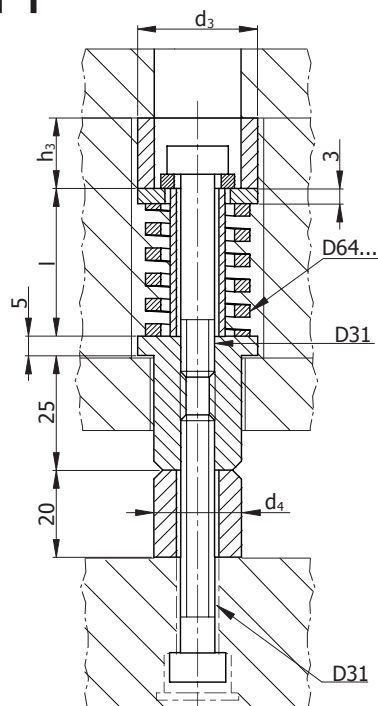


| کد سفارش<br>Ordering Code | d <sub>1</sub> | d <sub>2</sub> | S    | h    | l <sub>0</sub> | A<br>0.2h |      | B<br>0.4h |      | C<br>0.6h |       | D<br>0.7h |       | E<br>0.8h |       |
|---------------------------|----------------|----------------|------|------|----------------|-----------|------|-----------|------|-----------|-------|-----------|-------|-----------|-------|
|                           | mm             | mm             | mm   | mm   | mm             | mm        | N    | mm        | N    | mm        | N     | mm        | N     | mm        | N     |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
| D62/8/3.2/0.4             | 8              | 3.2            | 0.4  | 0.2  | 0.6            | 0.04      | 58   | 0.08      | 110  | 0.12      | 160   | 0.14      | 180   | 0.16      | 200   |
| D62/10/5.2/0.4            | 10             | 5.2            | 0.4  | 0.3  | 0.7            | 0.06      | 73   | 0.12      | 134  | 0.18      | 180   | 0.21      | 200   | 0.24      | 220   |
| D62/12.5/6.2/0.5          | 12.5           | 6.2            | 0.5  | 0.35 | 0.85           | 0.07      | 100  | 0.14      | 180  | 0.21      | 250   | 0.24      | 280   | 0.28      | 310   |
| D62/14/7.2/0.8            | 14             | 7.2            | 0.8  | 0.3  | 1.1            | 0.06      | 230  | 0.12      | 450  | 0.18      | 660   | 0.21      | 770   | 0.24      | 870   |
| D62/15/5.2/0.7            | 15             | 5.2            | 0.7  | 0.4  | 1.1            | 0.08      | 180  | 0.16      | 340  | 0.24      | 470   | 0.28      | 540   | 0.32      | 610   |
| D62/16/8.2/0.6            | 16             | 8.2            | 0.6  | 0.45 | 1.05           | 0.09      | 145  | 0.18      | 260  | 0.27      | 360   | 0.31      | 400   | 0.36      | 440   |
| D62/16/8.2/0.9            | 16             | 8.2            | 0.9  | 0.35 | 1.25           | 0.07      | 300  | 0.14      | 580  | 0.21      | 850   | 0.24      | 970   | 0.28      | 1100  |
| D62/18/9.2/1              | 18             | 9.2            | 1.0  | 0.4  | 1.4            | 0.08      | 370  | 0.16      | 720  | 0.24      | 1050  | 0.28      | 1200  | 0.32      | 1350  |
| D62/20/10.2/0.8           | 20             | 10.2           | 0.8  | 0.55 | 1.35           | 0.11      | 250  | 0.22      | 470  | 0.33      | 650   | 0.38      | 370   | 0.44      | 800   |
| D62/20/10.2/0.9           | 20             | 10.2           | 0.9  | 0.55 | 1.45           | 0.11      | 340  | 0.22      | 640  | 0.33      | 900   | 0.38      | 1000  | 0.44      | 1150  |
| D62/20/10.2/1.1           | 20             | 10.2           | 1.1  | 0.45 | 1.55           | 0.09      | 450  | 0.18      | 870  | 0.27      | 1350  | 0.31      | 1450  | 0.36      | 1650  |
| D62/23/12.2/1.25          | 23             | 12.2           | 1.25 | 0.6  | 1.85           | 0.12      | 710  | 0.24      | 1360 | 0.36      | 1960  | 0.42      | 2240  | 0.48      | 2520  |
| D62/25/12.2/1.5           | 25             | 12.2           | 1.5  | 0.55 | 2.05           | 0.11      | 860  | 0.22      | 1650 | 0.33      | 2450  | 0.38      | 2800  | 0.44      | 3100  |
| D62/25/12.2/1             | 25             | 12.2           | 1.0  | 0.6  | 1.6            | 0.12      | 320  | 0.24      | 600  | 0.36      | 840   | 0.42      | 950   | 0.48      | 1050  |
| D62/28/14.2/1             | 28             | 14.2           | 1.0  | 0.8  | 1.8            | 0.16      | 400  | 0.32      | 720  | 0.48      | 970   | 0.56      | 1100  | 0.64      | 1200  |
| D62/28/14.2/1.5           | 28             | 14.2           | 1.5  | 0.65 | 2.15           | 0.13      | 850  | 0.26      | 1650 | 0.39      | 2400  | 0.45      | 2700  | 0.52      | 3100  |
| D62/31.5/16.3/1.25        | 31.5           | 16.3           | 1.25 | 0.9  | 2.15           | 0.18      | 660  | 0.36      | 1200 | 0.54      | 1650  | 0.63      | 1850  | 0.72      | 2000  |
| D62/31.5/16.3/1.75        | 31.5           | 16.3           | 1.75 | 0.7  | 2.45           | 0.14      | 1150 | 0.28      | 2200 | 0.42      | 3200  | 0.49      | 3700  | 0.56      | 4200  |
| D62/35.5/18.3/2           | 35.5           | 18.3           | 2.0  | 0.8  | 2.8            | 0.16      | 1550 | 0.32      | 3000 | 0.48      | 4300  | 0.56      | 5000  | 0.64      | 5600  |
| D62/40/14.3/1.5           | 40             | 14.3           | 1.5  | 1.25 | 2.75           | 0.25      | 950  | 0.50      | 1700 | 0.75      | 2200  | 0.87      | 2500  | 1.00      | 2700  |
| D62/40/20.4/2.25          | 40             | 20.4           | 2.25 | 0.9  | 3.15           | 0.18      | 1900 | 0.36      | 3700 | 0.54      | 5400  | 0.63      | 5200  | 0.72      | 7000  |
| D62/45/22.4/2.5           | 45             | 22.4           | 2.5  | 1    | 3.5            | 0.20      | 2300 | 0.40      | 4500 | 0.60      | 6400  | 0.70      | 7400  | 0.80      | 8500  |
| D62/50/18.3/1.5           | 50             | 18.3           | 1.5  | 1.8  | 3.3            | 0.36      | 1200 | 0.72      | 2000 | 1.08      | 2400  | 1.26      | 2600  | 1.44      | 2700  |
| D62/50/25.4/2.5           | 50             | 25.4           | 2.5  | 1.4  | 3.9            | 0.28      | 2850 | 0.56      | 5350 | 0.84      | 7600  | 0.98      | 8650  | 1.12      | 9650  |
| D62/50/25.4/3             | 50             | 25.4           | 3    | 1.1  | 4.1            | 0.22      | 3500 | 0.44      | 6800 | 0.66      | 10000 | 0.77      | 11500 | 0.88      | 13000 |
| D62/56/28.5/2             | 56             | 28.5           | 2    | 1.6  | 3.6            | 0.32      | 1600 | 0.64      | 2900 | 0.96      | 3900  | 1.12      | 4300  | 1.28      | 4700  |
| D62/60/20.4/2             | 60             | 20.4           | 2    | 2.1  | 4.1            | 0.42      | 2000 | 0.84      | 3400 | 1.26      | 4300  | 1.47      | 4700  | 1.68      | 5000  |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           |       |           |       |           |       |
|                           |                |                |      |      |                |           |      |           |      |           | </    |           |       |           |       |

## COMBINATION SPRING AND SPACER UNIT

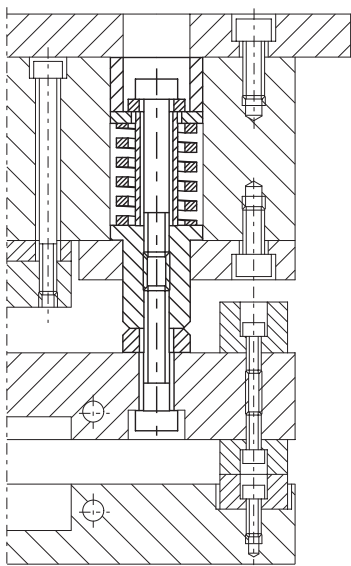
واحد فنر بندی (و اصلاح ارتفاع)

D244

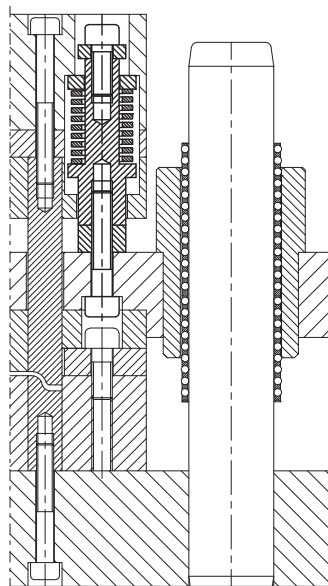


ساخت مطابق سفارش مشتری انجام می پذیرد. Producing on request.

Example:



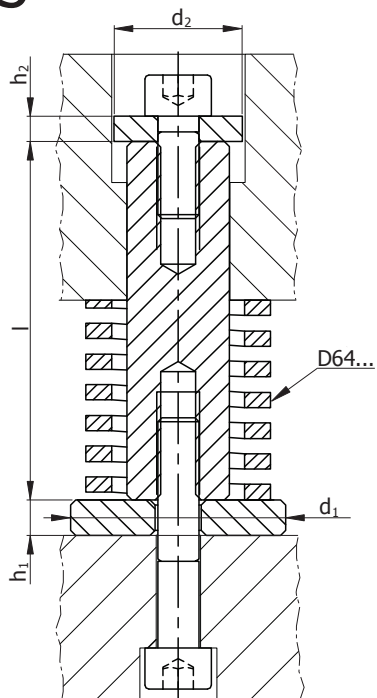
مثال:



## COMBINATION SPRING AND SPACER UNIT

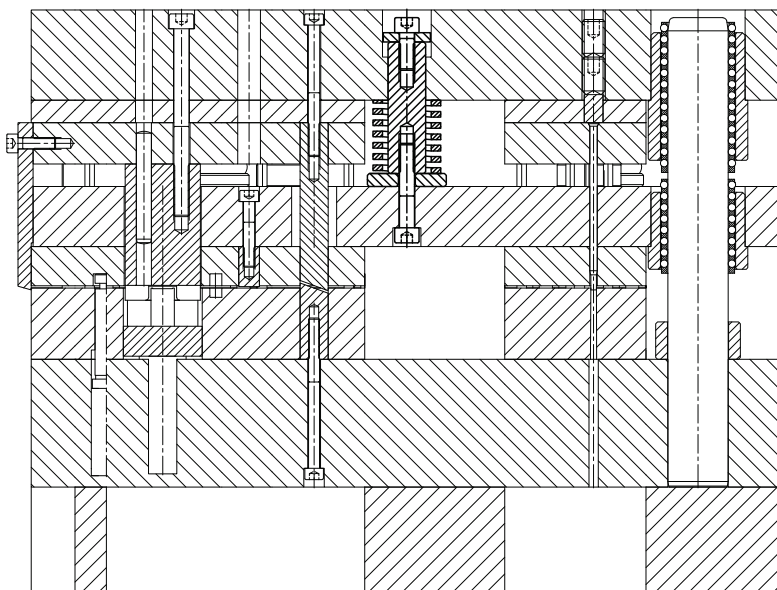
واحد فنر بندی (و اصلاح ارتفاع)

D245



ساخت مطابق سفارش مشتری انجام می پذیرد. Producing on request.

Example:



مثال:

## GAS SPRING

فنر گازی



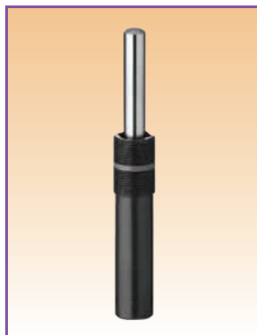
D611



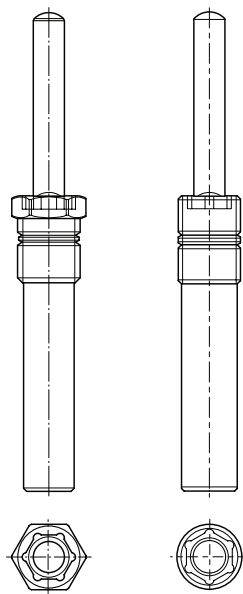
## SPRING PLUNGERS

With Gas Spring (Ejector Pin Units)

بیرون انداز (فنر گازی)



D612



Example:

مثال:

