



## ISO-D Series

### Raymond® ULTRA STRONG DUTY ISO D-LINE SPRINGS (INCH DIMENSIONS) GRAY

| Hole Dia. (in) | Rod Dia. (in) | Free Length (in) | CATALOG NUMBER | Spring Rate per 1/10 Inch Deflection | LOAD DEFLECTION TABLE     |                 |                             |                 |                           |                 |                                   |                     |      |      |
|----------------|---------------|------------------|----------------|--------------------------------------|---------------------------|-----------------|-----------------------------|-----------------|---------------------------|-----------------|-----------------------------------|---------------------|------|------|
|                |               |                  |                |                                      | Load @ 10% of free length |                 | Load @ 13.5% of free length |                 | Load @ 15% of free length |                 | Load @ Max Recommended Deflection | Max Deflection (in) |      |      |
|                |               |                  |                |                                      | Load (lbs)                | Deflection (in) | Load (lbs)                  | Deflection (in) | Load (lbs)                | Deflection (in) |                                   |                     |      |      |
| A              | B             | C                |                |                                      |                           |                 |                             |                 |                           |                 |                                   |                     |      |      |
| 1              | 1/2           | 2 1/2            | 307-510-D      | 367.7                                | 927                       | 0.25            | 1251                        | 0.34            | 1390                      | 0.38            | 1882                              | 0.51                |      |      |
|                |               | 3                | 307-512-D      | 317.5                                | 950                       | 0.30            | 1282                        | 0.40            | 1425                      | 0.45            | 2000                              | 0.63                |      |      |
|                |               | 3 1/2            | 307-514-D      | 263.8                                | 924                       | 0.35            | 1248                        | 0.47            | 1387                      | 0.53            | 2077                              | 0.79                |      |      |
|                |               | 4                | 307-516-D      | 222.7                                | 894                       | 0.40            | 1207                        | 0.54            | 1341                      | 0.60            | 2017                              | 0.91                |      |      |
|                |               | 4 1/2            | 307-518-D      | 205.6                                | 931                       | 0.45            | 1256                        | 0.61            | 1396                      | 0.68            | 2104                              | 1.02                |      |      |
|                |               | 5                | 307-520-D      | 186.1                                | 931                       | 0.50            | 1256                        | 0.68            | 1396                      | 0.75            | 2052                              | 1.10                |      |      |
|                |               | 6                | 307-524-D      | 145.6                                | 871                       | 0.60            | 1176                        | 0.81            | 1307                      | 0.90            | 1949                              | 1.34                |      |      |
|                |               | 7                | 307-528-D      | 131.3                                | 920                       | 0.70            | 1242                        | 0.95            | 1381                      | 1.05            | 2017                              | 1.54                |      |      |
|                |               | 8                | 307-532-D      | 115.3                                | 922                       | 0.80            | 1244                        | 1.08            | 1383                      | 1.20            | 2044                              | 1.77                |      |      |
|                |               | 12               | 307-548-D      | 77.7                                 | 932                       | 1.20            | 1259                        | 1.62            | 1399                      | 1.80            | 1926                              | 2.48                |      |      |
|                |               | 1 1/4            | 5/8            | 2 1/2                                | 307-610-D                 | 615.0           | 1550                        | 0.25            | 2092                      | 0.34            | 2324                              | 0.38                | 3148 | 0.51 |
|                |               |                  |                | 3                                    | 307-612-D                 | 499.1           | 1493                        | 0.30            | 2016                      | 0.40            | 2240                              | 0.45                | 3144 | 0.63 |
| 3 1/2          | 307-614-D     |                  |                | 411.7                                | 1443                      | 0.35            | 1947                        | 0.47            | 2164                      | 0.53            | 3242                              | 0.79                |      |      |
| 4              | 307-616-D     |                  |                | 354.0                                | 1422                      | 0.40            | 1919                        | 0.54            | 2132                      | 0.60            | 3206                              | 0.91                |      |      |
| 4 1/2          | 307-618-D     |                  |                | 319.8                                | 1448                      | 0.45            | 1954                        | 0.61            | 2172                      | 0.68            | 3273                              | 1.02                |      |      |
| 5              | 307-620-D     |                  |                | 283.2                                | 1416                      | 0.50            | 1912                        | 0.68            | 2124                      | 0.75            | 3122                              | 1.10                |      |      |
| 6              | 307-624-D     |                  |                | 233.0                                | 1394                      | 0.60            | 1882                        | 0.81            | 2091                      | 0.90            | 3119                              | 1.34                |      |      |
| 7              | 307-628-D     |                  |                | 201.6                                | 1413                      | 0.70            | 1907                        | 0.95            | 2119                      | 1.05            | 3095                              | 1.54                |      |      |
| 8              | 307-632-D     |                  |                | 173.6                                | 1387                      | 0.80            | 1873                        | 1.08            | 2081                      | 1.20            | 3076                              | 1.77                |      |      |
| 10             | 307-640-D     |                  |                | 138.8                                | 1388                      | 1.00            | 1873                        | 1.35            | 2081                      | 1.50            | 3387                              | 2.44                |      |      |
| 12             | 307-648-D     |                  |                | 111.9                                | 1344                      | 1.20            | 1814                        | 1.62            | 2016                      | 1.80            | 3305                              | 2.95                |      |      |
| 1 1/2          | 3/4           |                  |                | 3 1/2                                | 307-714-D                 | 502.5           | 1761                        | 0.35            | 2377                      | 0.47            | 2641                              | 0.53                | 3957 | 0.79 |
|                |               | 4                | 307-716-D      | 435.1                                | 1747                      | 0.40            | 2359                        | 0.54            | 2621                      | 0.60            | 3940                              | 0.91                |      |      |
|                |               | 4 1/2            | 307-718-D      | 387.7                                | 1755                      | 0.45            | 2370                        | 0.61            | 2633                      | 0.68            | 3969                              | 1.02                |      |      |
|                |               | 5                | 307-720-D      | 355.2                                | 1776                      | 0.50            | 2397                        | 0.68            | 2664                      | 0.75            | 3915                              | 1.10                |      |      |
|                |               | 6                | 307-724-D      | 290.6                                | 1739                      | 0.60            | 2348                        | 0.81            | 2609                      | 0.90            | 4120                              | 1.42                |      |      |
|                |               | 7                | 307-728-D      | 245.0                                | 1717                      | 0.70            | 2317                        | 0.95            | 2575                      | 1.05            | 4147                              | 1.69                |      |      |
|                |               | 8                | 307-732-D      | 213.6                                | 1707                      | 0.80            | 2304                        | 1.08            | 2560                      | 1.20            | 4120                              | 1.93                |      |      |
|                |               | 10               | 307-740-D      | 169.0                                | 1690                      | 1.00            | 2282                        | 1.35            | 2535                      | 1.50            | 4126                              | 2.44                |      |      |
|                |               | 12               | 307-748-D      | 140.5                                | 1687                      | 1.20            | 2277                        | 1.62            | 2530                      | 1.80            | 4148                              | 2.95                |      |      |
|                |               | 2                | 1              | 3 1/2                                | 307-814-D                 | 805.1           | 2821                        | 0.35            | 3808                      | 0.47            | 4232                              | 0.53                | 6023 | 0.75 |
|                |               |                  |                | 4                                    | 307-816-D                 | 693.8           | 2786                        | 0.40            | 3761                      | 0.54            | 4179                              | 0.60                | 6009 | 0.87 |
|                |               |                  |                | 4 1/2                                | 307-818-D                 | 614.4           | 2782                        | 0.45            | 3755                      | 0.61            | 4173                              | 0.68                | 6048 | 0.98 |
| 5              | 307-820-D     |                  |                | 552.7                                | 2764                      | 0.50            | 3731                        | 0.68            | 4145                      | 0.75            | 6094                              | 1.10                |      |      |
| 6              | 307-824-D     |                  |                | 460.2                                | 2754                      | 0.60            | 3718                        | 0.81            | 4131                      | 0.90            | 6161                              | 1.34                |      |      |
| 7              | 307-828-D     |                  |                | 398.6                                | 2793                      | 0.70            | 3771                        | 0.95            | 4190                      | 1.05            | 6277                              | 1.57                |      |      |
| 8              | 307-832-D     |                  |                | 349.5                                | 2793                      | 0.80            | 3770                        | 1.08            | 4189                      | 1.20            | 6192                              | 1.77                |      |      |
| 10             | 307-840-D     |                  |                | 269.5                                | 2695                      | 1.00            | 3638                        | 1.35            | 4043                      | 1.50            | 6155                              | 2.28                |      |      |
| 12             | 307-848-D     |                  |                | 221.5                                | 2660                      | 1.20            | 3591                        | 1.62            | 3990                      | 1.80            | 6106                              | 2.76                |      |      |

\*Tabulated deflections shown represent near solid and are for design information only.