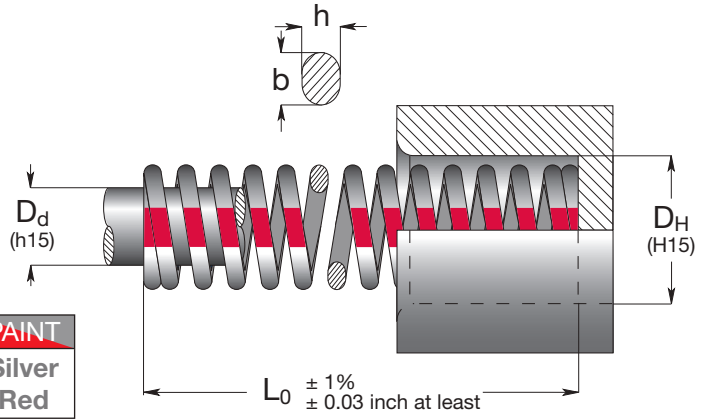







- EN** Medium load springs
Silver-red color
- ES** Muelles carga mediana
Color plateado-rojo
- FR** Ressorts charge moyenne
Couleur argent-rouge








PAINT
 Silver Red

| Code | D _H | | L ₀ | R | A | | B | | C | | D | | E | Pcs | | |
|--------------|----------------|--------------|----------------|-------------|-------------|-----------------|--------------------|--------------------|--------------------|--------------------|------------|-----|------|-----|------|----|
| | Hole Diameter | Rod Diameter | | | Free Length | Spring Constant | 20% L ₀ | 25% L ₀ | 31% L ₀ | 37% L ₀ | do not use | | | | | |
| | b x h | | | ± 10% | + 3.000.000 | ~ 1.500.000 | 300 - 500.000 | 100 - 200.000 | approx. | | do not use | | | | | |
| | inch | inch | inch | lbs/0.1 in. | inch | lbs | inch | lbs | inch | lbs | inch | lbs | inch | | | |
| MHR 10 - 025 | 3/8 | 3/16 | 1 | 10.1 | 0.20 | 20 | 0.25 | 25 | 0.31 | 31 | 0.37 | 37 | 0.40 | 50 | | |
| MHR 10 - 032 | | | 1 1/4 | 8.7 | 0.25 | 22 | 0.31 | 27 | 0.38 | 33 | 0.46 | 40 | 0.56 | 50 | | |
| MHR 10 - 038 | | | 1 1/2 | 7.5 | 0.30 | 23 | 0.38 | 29 | 0.47 | 35 | 0.56 | 42 | 0.66 | 50 | | |
| MHR 10 - 044 | | | 1 3/4 | 6.5 | 0.35 | 23 | 0.44 | 29 | 0.55 | 35 | 0.65 | 42 | 0.76 | 50 | | |
| MHR 10 - 051 | | | 2 | 4.8 | 0.40 | 19 | 0.50 | 24 | 0.62 | 30 | 0.74 | 36 | 0.92 | 25 | | |
| MHR 10 - 064 | | | 2 1/2 | 4.1 | 0.50 | 21 | 0.63 | 26 | 0.78 | 32 | 0.93 | 38 | 1.11 | 25 | | |
| MHR 10 - 076 | | | 3 | 3.3 | 0.60 | 20 | 0.75 | 25 | 0.93 | 31 | 1.11 | 37 | 1.35 | 25 | | |
| MHR 10 - 305 | 0.07 x 0.05 | | 12 | 0.8 | 2.40 | 19 | 3.00 | 24 | 3.72 | 30 | 4.44 | 36 | 5.27 | 10 | | |
| MHR 13 - 025 | 1/2 | 9/32 | 1 | 17.4 | 0.20 | 35 | 0.25 | 44 | 0.31 | 54 | 0.37 | 64 | 0.47 | 50 | | |
| MHR 13 - 032 | | | 1 1/4 | 12.6 | 0.25 | 32 | 0.31 | 39 | 0.38 | 48 | 0.46 | 58 | 0.64 | 50 | | |
| MHR 13 - 038 | | | 1 1/2 | 10.9 | 0.30 | 33 | 0.38 | 41 | 0.47 | 51 | 0.56 | 61 | 0.74 | 50 | | |
| MHR 13 - 044 | | | 1 3/4 | 9.2 | 0.35 | 32 | 0.44 | 40 | 0.55 | 50 | 0.65 | 60 | 0.84 | 25 | | |
| MHR 13 - 051 | | | 2 | 8.6 | 0.40 | 34 | 0.50 | 43 | 0.62 | 53 | 0.74 | 64 | 1.01 | 25 | | |
| MHR 13 - 064 | | | 2 1/2 | 6.7 | 0.50 | 34 | 0.63 | 42 | 0.78 | 52 | 0.93 | 62 | 1.28 | 25 | | |
| MHR 13 - 076 | | | 3 | 5.6 | 0.60 | 34 | 0.75 | 42 | 0.93 | 52 | 1.11 | 62 | 1.54 | 25 | | |
| MHR 13 - 089 | | | 3 1/2 | 4.6 | 0.70 | 32 | 0.88 | 40 | 1.09 | 50 | 1.30 | 60 | 1.81 | 20 | | |
| MHR 13 - 102 | | | 4 | 3.6 | 0.80 | 29 | 1.00 | 36 | 1.24 | 45 | 1.48 | 53 | 2.06 | 10 | | |
| MHR 13 - 305 | 0.10 x 0.06 | | 12 | 1.2 | 2.40 | 29 | 3.00 | 36 | 3.72 | 45 | 4.44 | 53 | 6.00 | 10 | | |
| MHR 16 - 025 | 5/8 | 11/32 | 1 | 32.4 | 0.20 | 65 | 0.25 | 81 | 0.31 | 100 | 0.37 | 120 | 0.41 | 50 | | |
| MHR 16 - 032 | | | 1 1/4 | 21.8 | 0.25 | 55 | 0.31 | 68 | 0.38 | 84 | 0.46 | 100 | 0.52 | 50 | | |
| MHR 16 - 038 | | | 1 1/2 | 19.0 | 0.30 | 57 | 0.38 | 72 | 0.47 | 90 | 0.56 | 106 | 0.68 | 25 | | |
| MHR 16 - 044 | | | 1 3/4 | 16.7 | 0.35 | 58 | 0.44 | 73 | 0.55 | 91 | 0.65 | 109 | 0.76 | 25 | | |
| MHR 16 - 051 | | | 2 | 14.6 | 0.40 | 58 | 0.50 | 73 | 0.62 | 91 | 0.74 | 108 | 0.95 | 25 | | |
| MHR 16 - 064 | | | 2 1/2 | 11.2 | 0.50 | 56 | 0.63 | 71 | 0.78 | 87 | 0.93 | 104 | 1.15 | 25 | | |
| MHR 16 - 076 | | | 3 | 9.3 | 0.60 | 56 | 0.75 | 70 | 0.93 | 86 | 1.11 | 103 | 1.43 | 20 | | |
| MHR 16 - 089 | | | 3 1/2 | 7.8 | 0.70 | 55 | 0.88 | 69 | 1.09 | 85 | 1.30 | 101 | 1.64 | 20 | | |
| MHR 16 - 102 | | | 4 | 7.3 | 0.80 | 58 | 1.00 | 73 | 1.24 | 91 | 1.48 | 108 | 1.93 | 20 | | |
| MHR 16 - 115 | | | 4 1/2 | 5.9 | 0.90 | 53 | 1.13 | 67 | 1.4 | 83 | 1.67 | 99 | 2.09 | 10 | | |
| MHR 16 - 305 | | | 0.13 x 0.08 | | 12 | 2.2 | 2.40 | 53 | 3.00 | 66 | 3.72 | 82 | 4.44 | 98 | 5.57 | 10 |
| MHR 19 - 025 | 3/4 | 3/8 | 1 | 56.5 | 0.20 | 113 | 0.25 | 141 | 0.31 | 175 | 0.37 | 209 | 0.43 | 50 | | |
| MHR 19 - 032 | | | 1 1/4 | 44.3 | 0.25 | 111 | 0.31 | 137 | 0.38 | 170 | 0.46 | 204 | 0.55 | 50 | | |
| MHR 19 - 038 | | | 1 1/2 | 31.9 | 0.30 | 96 | 0.38 | 121 | 0.47 | 150 | 0.56 | 179 | 0.67 | 25 | | |
| MHR 19 - 044 | | | 1 3/4 | 28.6 | 0.35 | 100 | 0.44 | 126 | 0.55 | 156 | 0.65 | 186 | 0.77 | 25 | | |
| MHR 19 - 051 | | | 2 | 24.1 | 0.40 | 96 | 0.50 | 121 | 0.62 | 149 | 0.74 | 178 | 0.88 | 25 | | |
| MHR 19 - 064 | | | 2 1/2 | 19.0 | 0.50 | 95 | 0.63 | 120 | 0.78 | 148 | 0.93 | 177 | 1.12 | 25 | | |
| MHR 19 - 076 | | | 3 | 14.3 | 0.60 | 86 | 0.75 | 107 | 0.93 | 133 | 1.11 | 159 | 1.32 | 25 | | |
| MHR 19 - 089 | | | 3 1/2 | 13.2 | 0.70 | 92 | 0.88 | 116 | 1.09 | 144 | 1.30 | 172 | 1.58 | 20 | | |
| MHR 19 - 102 | | | 4 | 11.8 | 0.80 | 94 | 1.00 | 118 | 1.24 | 146 | 1.48 | 175 | 1.79 | 20 | | |
| MHR 19 - 115 | | | 4 1/2 | 10.6 | 0.90 | 95 | 1.13 | 120 | 1.4 | 149 | 1.67 | 177 | 1.98 | 10 | | |
| MHR 19 - 127 | | | 5 | 10.1 | 1.00 | 101 | 1.25 | 126 | 1.55 | 157 | 1.85 | 187 | 2.23 | 10 | | |
| MHR 19 - 140 | | | 5 1/2 | 9.3 | 1.10 | 102 | 1.38 | 128 | 1.71 | 159 | 2.04 | 190 | 2.44 | 10 | | |
| MHR 19 - 152 | | | 6 | 7.9 | 1.20 | 95 | 1.50 | 119 | 1.86 | 147 | 2.22 | 175 | 2.66 | 10 | | |
| MHR 19 - 305 | | | 0.16 x 0.09 | | 12 | 3.7 | 2.40 | 89 | 3.00 | 111 | 3.72 | 138 | 4.44 | 164 | 5.37 | 10 |



US standard Oval Wire

SERIES MHR

Inch

| Code | D _H | D _d | L ₀ | R | A | B | C | D | E | Pcs | | | | | | |
|--------------|----------------|----------------|----------------|-----------------|--------------------|--------------------|--------------------|--------------------|------------|------|------|------|------|------|------|---|
| | Hole Diameter | Rod Diameter | Free Length | Spring Constant | 20% L ₀ | 25% L ₀ | 31% L ₀ | 37% L ₀ | do not use | | | | | | | |
| | b x h | | | ± 10% | + 3.000.000 | ~ 1.500.000 | 300 - 500.000 | 100 - 200.000 | approx. | | | | | | | |
| | inch | inch | inch | lbs/0.1 in. | inch | lbs | mm | N | mm | N | mm | N | mm | N | | |
| MHR 26 - 025 | 1 | 1/2 | 1 | 78.4 | 0.20 | 157 | 0.25 | 196 | 0.31 | 243 | 0.37 | 290 | 0.39 | 50 | | |
| MHR 26 - 032 | | | 1 1/4 | 60.5 | 0.25 | 151 | 0.31 | 188 | 0.38 | 233 | 0.46 | 278 | 0.52 | 25 | | |
| MHR 26 - 038 | | | 1 1/2 | 50.4 | 0.30 | 151 | 0.38 | 192 | 0.47 | 237 | 0.56 | 282 | 0.65 | 25 | | |
| MHR 26 - 044 | | | 1 3/4 | 43.7 | 0.35 | 153 | 0.44 | 192 | 0.55 | 238 | 0.65 | 284 | 0.76 | 25 | | |
| MHR 26 - 051 | | | 2 | 36.4 | 0.40 | 146 | 0.50 | 182 | 0.62 | 226 | 0.74 | 269 | 0.87 | 25 | | |
| MHR 26 - 064 | | | 2 1/2 | 28.0 | 0.50 | 140 | 0.63 | 176 | 0.78 | 219 | 0.93 | 260 | 1.08 | 25 | | |
| MHR 26 - 076 | | | 3 | 23.8 | 0.60 | 143 | 0.75 | 179 | 0.93 | 221 | 1.11 | 264 | 1.29 | 20 | | |
| MHR 26 - 089 | | | 3 1/2 | 20.4 | 0.70 | 143 | 0.88 | 180 | 1.09 | 223 | 1.30 | 265 | 1.54 | 20 | | |
| MHR 26 - 102 | | | 4 | 18.2 | 0.80 | 146 | 1.00 | 182 | 1.24 | 226 | 1.48 | 269 | 1.76 | 20 | | |
| MHR 26 - 115 | | | 4 1/2 | 15.4 | 0.90 | 139 | 1.13 | 174 | 1.4 | 216 | 1.67 | 257 | 1.96 | 10 | | |
| MHR 26 - 127 | | | 5 | 14.0 | 1.00 | 140 | 1.25 | 175 | 1.55 | 217 | 1.85 | 259 | 2.22 | 10 | | |
| MHR 26 - 139 | | | 5 1/2 | 12.9 | 1.10 | 142 | 1.38 | 178 | 1.71 | 221 | 2.04 | 263 | 2.48 | 10 | | |
| MHR 26 - 152 | | | 6 | 11.2 | 1.20 | 134 | 1.50 | 168 | 1.86 | 208 | 2.22 | 249 | 2.61 | 10 | | |
| MHR 26 - 178 | | | 7 | 10.1 | 1.40 | 141 | 1.75 | 177 | 2.17 | 219 | 2.59 | 262 | 3.07 | 10 | | |
| MHR 26 - 203 | 8 | 9.0 | 1.60 | 144 | 2.00 | 180 | 2.48 | 223 | 2.96 | 266 | 3.48 | 10 | | | | |
| MHR 26 - 305 | 0.22 x 0.12 | 12 | 6.2 | 2.40 | 149 | 3.00 | 186 | 3.72 | 231 | 4.44 | 275 | 5.38 | 5 | | | |
| MHR 32 - 038 | 1 1/4 | 5/8 | 1 1/2 | 112.0 | 0.30 | 336 | 0.38 | 426 | 0.47 | 528 | 0.56 | 627 | 0.63 | 20 | | |
| MHR 32 - 044 | | | 1 3/4 | 100.8 | 0.35 | 353 | 0.44 | 444 | 0.55 | 550 | 0.65 | 655 | 0.73 | 20 | | |
| MHR 32 - 051 | | | 2 | 84.0 | 0.40 | 336 | 0.50 | 420 | 0.62 | 521 | 0.74 | 622 | 0.84 | 20 | | |
| MHR 32 - 064 | | | 2 1/2 | 61.6 | 0.50 | 308 | 0.63 | 388 | 0.78 | 481 | 0.93 | 573 | 1.08 | 20 | | |
| MHR 32 - 076 | | | 3 | 51.5 | 0.60 | 309 | 0.75 | 386 | 0.93 | 479 | 1.11 | 572 | 1.29 | 20 | | |
| MHR 32 - 089 | | | 3 1/2 | 42.5 | 0.70 | 298 | 0.88 | 374 | 1.09 | 464 | 1.30 | 553 | 1.54 | 10 | | |
| MHR 32 - 102 | | | 4 | 36.9 | 0.80 | 295 | 1.00 | 369 | 1.24 | 458 | 1.48 | 546 | 1.71 | 10 | | |
| MHR 32 - 115 | | | 4 1/2 | 31.9 | 0.90 | 287 | 1.13 | 360 | 1.4 | 447 | 1.67 | 533 | 1.96 | 10 | | |
| MHR 32 - 127 | | | 5 | 26.9 | 1.00 | 269 | 1.25 | 336 | 1.55 | 417 | 1.85 | 498 | 2.13 | 10 | | |
| MHR 32 - 139 | | | 5 1/2 | 25.2 | 1.10 | 277 | 1.38 | 348 | 1.71 | 431 | 2.04 | 514 | 2.36 | 10 | | |
| MHR 32 - 152 | | | 6 | 23.2 | 1.20 | 278 | 1.50 | 348 | 1.86 | 432 | 2.22 | 515 | 2.63 | 10 | | |
| MHR 32 - 178 | | | 7 | 19.6 | 1.40 | 274 | 1.75 | 343 | 2.17 | 425 | 2.59 | 508 | 3.08 | 5 | | |
| MHR 32 - 203 | | | 8 | 17.9 | 1.60 | 286 | 2.00 | 358 | 2.48 | 444 | 2.96 | 530 | 3.43 | 5 | | |
| MHR 32 - 254 | | | 10 | 12.6 | 2.00 | 252 | 2.50 | 315 | 3.1 | 391 | 3.70 | 466 | 4.34 | 5 | | |
| MHR 32 - 305 | 0.28 x 0.16 | 12 | 11.8 | 2.40 | 283 | 3.00 | 354 | 3.72 | 439 | 4.44 | 524 | 5.25 | 5 | | | |
| MHR 38 - 051 | 1 1/2 | 3/4 | 2 | 101.9 | 0.40 | 408 | 0.50 | 510 | 0.62 | 632 | 0.74 | 754 | 0.85 | 20 | | |
| MHR 38 - 064 | | | 2 1/2 | 75.6 | 0.50 | 378 | 0.63 | 476 | 0.78 | 591 | 0.93 | 703 | 1.04 | 10 | | |
| MHR 38 - 076 | | | 3 | 61.6 | 0.60 | 370 | 0.75 | 462 | 0.93 | 573 | 1.11 | 684 | 1.31 | 10 | | |
| MHR 38 - 089 | | | 3 1/2 | 53.7 | 0.70 | 376 | 0.88 | 473 | 1.09 | 586 | 1.30 | 698 | 1.57 | 10 | | |
| MHR 38 - 102 | | | 4 | 47.1 | 0.80 | 377 | 1.00 | 471 | 1.24 | 584 | 1.48 | 697 | 1.76 | 10 | | |
| MHR 38 - 115 | | | 4 1/2 | 42.1 | 0.90 | 379 | 1.13 | 476 | 1.4 | 590 | 1.67 | 703 | 1.97 | 10 | | |
| MHR 38 - 127 | | | 5 | 35.9 | 1.00 | 359 | 1.25 | 449 | 1.55 | 556 | 1.85 | 664 | 2.17 | 5 | | |
| MHR 38 - 139 | | | 5 1/2 | 33.6 | 1.10 | 370 | 1.38 | 464 | 1.71 | 575 | 2.04 | 685 | 2.41 | 5 | | |
| MHR 38 - 152 | | | 6 | 29.7 | 1.20 | 356 | 1.50 | 446 | 1.86 | 552 | 2.22 | 659 | 2.66 | 5 | | |
| MHR 38 - 178 | | | 7 | 25.2 | 1.40 | 353 | 1.75 | 441 | 2.17 | 547 | 2.59 | 653 | 3.12 | 5 | | |
| MHR 38 - 203 | | | 8 | 21.3 | 1.60 | 341 | 2.00 | 426 | 2.48 | 528 | 2.96 | 630 | 3.53 | 5 | | |
| MHR 38 - 254 | | | 10 | 17.9 | 2.00 | 358 | 2.50 | 448 | 3.1 | 555 | 3.70 | 662 | 4.45 | 2 | | |
| MHR 38 - 305 | | | 0.31 x 0.20 | 12 | 14.0 | 2.40 | 336 | 3.00 | 420 | 3.72 | 521 | 4.44 | 622 | 5.46 | 2 | |
| MHR 51 - 064 | | | 2 | 1 | 2 1/2 | 120.4 | 0.50 | 602 | 0.63 | 759 | 0.78 | 941 | 0.93 | 1120 | 1.07 | 5 |
| MHR 51 - 076 | 3 | 98.0 | | | 0.60 | 588 | 0.75 | 735 | 0.93 | 911 | 1.11 | 1088 | 1.22 | 5 | | |
| MHR 51 - 089 | 3 1/2 | 81.2 | | | 0.70 | 568 | 0.88 | 715 | 1.09 | 886 | 1.30 | 1056 | 1.50 | 5 | | |
| MHR 51 - 102 | 4 | 68.3 | | | 0.80 | 546 | 1.00 | 683 | 1.24 | 847 | 1.48 | 1011 | 1.71 | 5 | | |
| MHR 51 - 115 | 4 1/2 | 61.6 | | | 0.90 | 554 | 1.13 | 696 | 1.4 | 863 | 1.67 | 1029 | 1.90 | 5 | | |
| MHR 51 - 127 | 5 | 57.1 | | | 1.00 | 571 | 1.25 | 714 | 1.55 | 885 | 1.85 | 1056 | 2.17 | 5 | | |
| MHR 51 - 139 | 5 1/2 | 51.5 | | | 1.10 | 567 | 1.38 | 711 | 1.71 | 881 | 2.04 | 1051 | 2.42 | 5 | | |
| MHR 51 - 152 | 6 | 48.1 | | | 1.20 | 577 | 1.50 | 722 | 1.86 | 895 | 2.22 | 1068 | 2.66 | 2 | | |
| MHR 51 - 178 | 7 | 40.6 | | | 1.40 | 568 | 1.75 | 711 | 2.17 | 881 | 2.59 | 1052 | 3.11 | 2 | | |
| MHR 51 - 203 | 8 | 35.3 | | | 1.60 | 565 | 2.00 | 706 | 2.48 | 875 | 2.96 | 1045 | 3.51 | 2 | | |
| MHR 51 - 254 | 10 | 28.3 | | | 2.00 | 566 | 2.50 | 708 | 3.1 | 877 | 3.70 | 1047 | 4.46 | 2 | | |
| MHR 51 - 305 | 0.44 x 0.28 | 12 | | | 24.6 | 2.40 | 590 | 3.00 | 738 | 3.72 | 915 | 4.44 | 1092 | 5.65 | 2 | |
| MHR 63 - 076 | 2 1/2 | 1 1/2 | | | 3 | 171.4 | 0.60 | 1028 | 0.75 | 1286 | 0.93 | 1594 | 1.11 | 1903 | 1.15 | 5 |
| MHR 63 - 089 | | | | | 3 1/2 | 137.2 | 0.70 | 960 | 0.88 | 1207 | 1.09 | 1497 | 1.30 | 1784 | 1.42 | 5 |
| MHR 63 - 102 | | | 4 | 120.9 | 0.80 | 967 | 1.00 | 1209 | 1.24 | 1499 | 1.48 | 1789 | 1.73 | 5 | | |
| MHR 63 - 115 | | | 4 1/2 | 107.5 | 0.90 | 968 | 1.13 | 1215 | 1.4 | 1506 | 1.67 | 1795 | 1.91 | 5 | | |
| MHR 63 - 127 | | | 5 | 93.0 | 1.00 | 930 | 1.25 | 1163 | 1.55 | 1442 | 1.85 | 1721 | 2.17 | 2 | | |
| MHR 63 - 140 | | | 5 1/2 | 89.6 | 1.10 | 985 | 1.38 | 1232 | 1.71 | 1533 | 2.03 | 1819 | 2.39 | 2 | | |
| MHR 63 - 152 | | | 6 | 84.0 | 1.20 | 1008 | 1.50 | 1260 | 1.86 | 1562 | 2.22 | 1865 | 2.60 | 2 | | |
| MHR 63 - 178 | | | 7 | 62.2 | 1.40 | 871 | 1.75 | 1089 | 2.17 | 1350 | 2.59 | 1611 | 3.03 | 2 | | |
| MHR 63 - 203 | | | 8 | 53.7 | 1.60 | 859 | 2.00 | 1074 | 2.48 | 1332 | 2.96 | 1590 | 3.41 | 2 | | |
| MHR 63 - 229 | | | 9 | 49.3 | 1.80 | 887 | 2.25 | 1109 | 2.79 | 1375 | 3.33 | 1642 | 3.90 | 2 | | |
| MHR 63 - 254 | | | 10 | 43.1 | 2.00 | 862 | 2.50 | 1078 | 3.1 | 1336 | 3.70 | 1595 | 4.42 | 2 | | |
| MHR 63 - 305 | | | 0.45 x 0.38 | 12 | 36.9 | 2.40 | 886 | 3.00 | 1107 | 3.72 | 1373 | 4.44 | 1638 | 5.23 | 2 | |

MHR