

METRIC DISC SPRING WASHERS

Stock sizes in high carbon or chrome vanadium

Manufactured for general purpose use. These items are manufactured under strict quality control to meet the physical dimensions listed in the following tables (pages 150-153). Our HENRY disc spring washers are ideal for general purpose applications where a tight load tolerance is not required. These parts have been set out to minimize height loss after compression.

Stacked disc springs

Additional load or deflection can be obtained by stacking disc springs in series or in parallel. See charts below.

Material

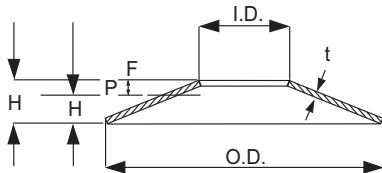
Thickness less than 1.25mm: Carbon Steel per C1074-1075.

Thickness 1.25 mm and up: Carbon Steel per C1074-1075 or Chrome Vanadium per SAE 6150.

Tolerances

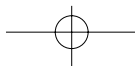
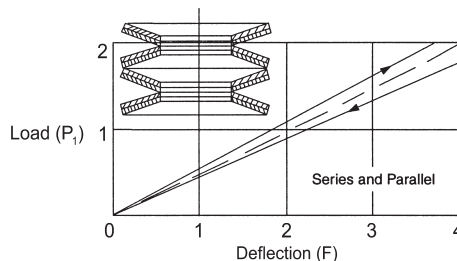
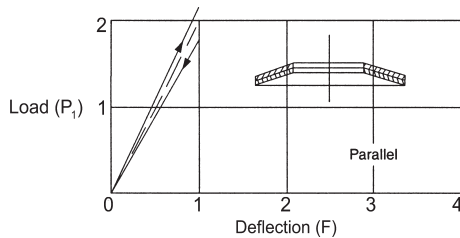
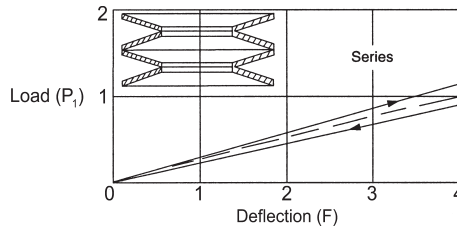
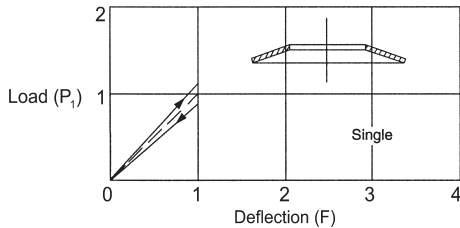
Diameter: I.D. and O.D. shown on pages 150-153 are minimum and maximum dimensions, respectively. For manufacturing tolerances, please contact our Engineering Department at +65 68635636.

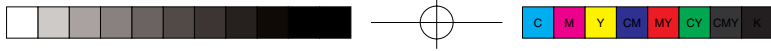
Load: Values shown on pages 150-153 are for reference only. Loads shown are theoretical and approximate. For applications that require tight load tolerances, please contact our Engineering Department at the above number for feasibility.



- O.D. = Outside Diameter
- I.D. = Inside Diameter
- t = Thickness
- H = Approx. Free height
- H₁ = Loaded Height
- P₁ = Load at deflection F (Reference only)
- F = Deflection H-H₁

Shown below are the comparative force/deflection graphs for the alternative methods of stacking.





公制圆盘状弹簧垫圈

高碳钢和铬钒钢材质的常备元件

用于一般应用场合。这些元件经过严格的质量处理，符合第150页到153页的表格中列出的物理规格。我们的HENRY圆盘状弹簧垫圈是不需要紧密载荷公差的应用场合的理想元件。这些元件经过压缩处理，高度损失降至最小。

堆叠式圆盘状弹簧垫圈

通过对合或叠合的方式堆叠垫圈，可得到更大的载荷或变形量，见下图。

材质

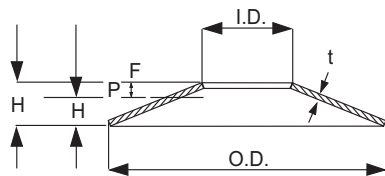
垫圈厚度小于1.25 mm: 碳钢，符合C1074-1075。

垫圈厚度大或等于1.25 mm: 碳钢，符合C1074-1075; 或铬钒钢，符合SAE 6150。

公差

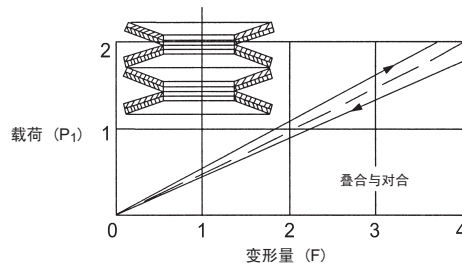
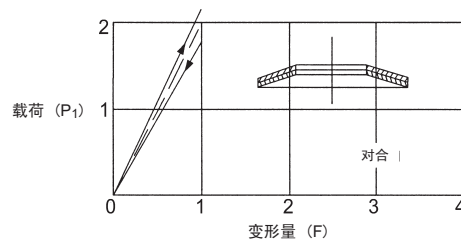
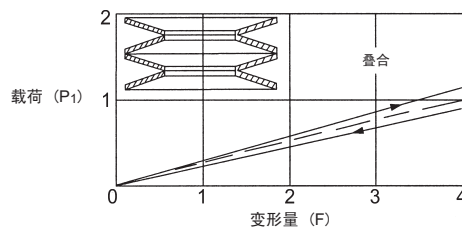
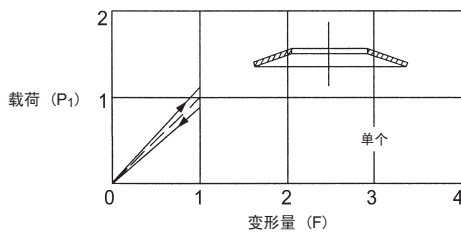
第150页到153页列出的内径和外径分别为最小和最大尺寸。关于部件的具体尺寸公差，请拨打+65 6863 5636联系我们的工程部门。

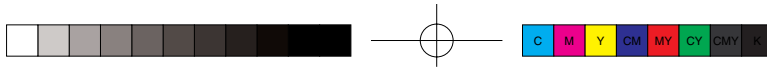
载荷: 第150页到153页列出的值仅供参考。给出的载荷为理论值或估算值。关于需要紧密载荷公差的应用场合，请拨打以上电话联系我们的工程部门。



- O.D. = 外径
- I.D. = 内径
- t = 垫圈厚度
- H = 自由高度 (估算)
- H₁ = 负载高度
- P₁ = 变形量F时的载荷 (仅供参考)
- F = 变形量 H-H₁

以下为不同堆叠方式的载荷/变形量的特性曲线图。





METRIC DISC SPRING WASHERS 公制圆盘状弹簧垫圈

| Catalog Number* 编号* | Minimum I.D. 最小内径 | | Maximum O.D. 最大外径 | | Stock Thickness (t) 垫圈厚度(t) | | Free Height (H) 自由高度 (H) | | Loaded Height (H ₁) 负载高度 (H ₁) | | Load at H ₁ (P ₁) (Reference Only) H ₁ 下的载荷(P ₁) (仅供参考) | |
|------------------------|----------------------|-------|----------------------|-----|--------------------------------|-------|-----------------------------|-------|---|-------|--|--------|
| | in | mm | in | mm | in | mm | in | mm | in | mm | lb | N |
| BD125-500-0061 | 2.4 | 61.0 | 4.92 | 125 | 0.1968 | 5.00 | 0.3543 | 9.00 | 0.2362 | 6.00 | 7631.3 | 33947 |
| BD125-600-0061 | 2.4 | 61.0 | 4.92 | 125 | 0.2362 | 6.00 | 0.3780 | 9.60 | 0.2717 | 6.90 | 11396.0 | 50694 |
| BD125-750-0061 | 2.4 | 61.0 | 4.92 | 125 | 0.2950 | 7.50 | 0.4291 | 10.90 | 0.3433 | 8.72 | 21024.6 | 93526 |
| BD125-350 | 2.52 | 64.0 | 4.92 | 125 | 0.1378 | 3.50 | 0.3150 | 8.00 | 0.1823 | 4.63 | 3463.5 | 15407 |
| BD125-500 | 2.52 | 64.0 | 4.92 | 125 | 0.1968 | 5.00 | 0.3346 | 8.50 | 0.2315 | 5.88 | 6719.7 | 29892 |
| BD125-750 | 2.52 | 64.0 | 4.92 | 125 | 0.2950 | 7.50 | 0.4173 | 10.60 | 0.3406 | 8.65 | 19305.6 | 85879 |
| BD125-600-0710 | 2.8 | 71.0 | 4.92 | 125 | 0.2362 | 6.00 | 0.3661 | 9.30 | 0.2709 | 6.88 | 11507.3 | 51189 |
| BD125-750-0710 | 2.8 | 71.0 | 4.92 | 125 | 0.2913 | 7.50 | 0.4094 | 10.40 | 0.3386 | 8.60 | 19208.5 | 85447 |
| BD125-930-0710 | 2.8 | 71.0 | 4.92 | 125 | 0.3622 | 9.30 | 0.4646 | 11.80 | 0.4114 | 10.45 | 27887.8 | 124056 |
| BD140-380 | 2.84 | 72.0 | 5.51 | 140 | 0.1570 | 3.80 | 0.3300 | 8.38 | 0.1976 | 5.02 | 3863.4 | 17186 |
| BD140-500 | 2.84 | 72.0 | 5.51 | 140 | 0.1968 | 5.00 | 0.3543 | 9.00 | 0.2362 | 6.00 | 6273.0 | 27905 |
| BD140-750 | 2.84 | 72.0 | 5.51 | 140 | 0.2950 | 7.50 | 0.4409 | 11.20 | 0.3465 | 8.80 | 19153.9 | 85204 |
| BD150-500-0610 | 2.4 | 61.0 | 5.91 | 150 | 0.1968 | 5.00 | 0.4055 | 10.30 | 0.2709 | 6.88 | 6974.2 | 31024 |
| BD150-600-0610 | 2.4 | 61.0 | 5.91 | 150 | 0.2362 | 6.00 | 0.4252 | 10.80 | 0.2835 | 7.20 | 10224.1 | 45481 |
| BD150-600 | 2.8 | 71.0 | 5.91 | 150 | 0.2362 | 6.00 | 0.4252 | 10.80 | 0.2835 | 7.20 | 10819.4 | 48129 |
| BD150-750 | 2.8 | 71.0 | 5.91 | 150 | 0.2950 | 7.50 | 0.4724 | 12.00 | 0.3543 | 9.00 | 20187.5 | 89802 |
| BD150-750-0810 | 3.19 | 81.0 | 5.91 | 150 | 0.2950 | 7.50 | 0.4606 | 11.70 | 0.3512 | 8.92 | 20115.8 | 89483 |
| BD150-940-0810 | 3.19 | 81.0 | 5.91 | 150 | 0.3661 | 9.40 | 0.5118 | 13.00 | 0.4232 | 10.75 | 31258.7 | 139051 |
| BD160-430 | 3.23 | 82.0 | 6.30 | 160 | 0.1693 | 4.30 | 0.3898 | 9.90 | 0.2244 | 5.70 | 4907.6 | 21831 |
| BD160-600 | 3.23 | 82.0 | 6.30 | 160 | 0.2362 | 6.00 | 0.4134 | 10.50 | 0.2807 | 7.13 | 9213.4 | 40985 |
| BD160-940 | 3.23 | 82.0 | 6.30 | 160 | 0.3700 | 9.40 | 0.5315 | 13.50 | 0.4283 | 10.88 | 31079.7 | 138255 |
| BD180-480-0920 | 3.62 | 92.0 | 7.09 | 180 | 0.1890 | 4.80 | 0.4331 | 11.00 | 0.2500 | 6.35 | 5950.0 | 26468 |
| BD180-600-0920 | 3.62 | 92.0 | 7.09 | 180 | 0.2362 | 6.00 | 0.4370 | 11.10 | 0.2862 | 7.27 | 8425.7 | 37481 |
| BD180-940-0920 | 3.62 | 92.0 | 7.09 | 180 | 0.3700 | 9.40 | 0.5512 | 14.00 | 0.4331 | 11.00 | 28178.5 | 125349 |
| BD200-760-0820 | 3.23 | 82.0 | 7.87 | 200 | 0.2992 | 7.60 | 0.5591 | 14.20 | 0.3760 | 9.55 | 17532.6 | 77992 |
| BD200-960-0820 | 3.23 | 82.0 | 7.87 | 200 | 0.3780 | 9.60 | 0.6102 | 15.50 | 0.4480 | 11.38 | 29083.3 | 129374 |
| BD200-1150-0820 | 3.23 | 82.0 | 7.87 | 200 | 0.4528 | 11.50 | 0.6535 | 16.60 | 0.5177 | 13.15 | 41056.8 | 182637 |
| BD200-950-0920 | 3.62 | 92.0 | 7.87 | 200 | 0.3740 | 9.50 | 0.6142 | 15.60 | 0.4488 | 11.40 | 30935.2 | 137612 |
| BD200-1140-0920 | 3.62 | 92.0 | 7.87 | 200 | 0.4488 | 11.40 | 0.6614 | 16.80 | 0.5197 | 13.20 | 44771.2 | 199160 |
| BD200-1320-0920 | 3.62 | 92.0 | 7.87 | 200 | 0.5160 | 13.20 | 0.7126 | 18.10 | 0.5913 | 15.02 | 60039.8 | 267081 |
| BD200-600 | 4.02 | 102.0 | 7.87 | 200 | 0.2360 | 6.00 | 0.4920 | 12.50 | 0.2854 | 7.25 | 8113.5 | 36092 |
| BD200-750 | 4.02 | 102.0 | 7.87 | 200 | 0.2950 | 7.50 | 0.5354 | 13.60 | 0.3701 | 9.40 | 17160.3 | 76336 |
| BD200-950 | 4.02 | 102.0 | 7.87 | 200 | 0.3700 | 9.50 | 0.6142 | 15.60 | 0.4488 | 11.40 | 32658.3 | 145277 |
| BD200-1140 | 4.02 | 102.0 | 7.87 | 200 | 0.4430 | 11.40 | 0.6375 | 16.19 | 0.5138 | 13.05 | 41120.4 | 182920 |
| BD200-1310 | 4.02 | 102.0 | 7.87 | 200 | 0.5160 | 13.10 | 0.7165 | 18.20 | 0.5925 | 15.05 | 64972.4 | 289023 |
| BD200-1140-1120 | 4.41 | 112.0 | 7.87 | 200 | 0.4370 | 11.40 | 0.6378 | 16.20 | 0.5138 | 13.05 | 43998.5 | 195723 |
| BD200-1310-1120 | 4.41 | 112.0 | 7.87 | 200 | 0.5079 | 13.10 | 0.6890 | 17.50 | 0.5858 | 14.88 | 57687.7 | 256618 |
| BD200-1470-1120 | 4.41 | 112.0 | 7.87 | 200 | 0.5827 | 14.70 | 0.7402 | 18.80 | 0.6575 | 16.70 | 68549.2 | 304934 |
| BD225-620 | 4.41 | 112.0 | 8.86 | 225 | 0.2441 | 6.20 | 0.5354 | 13.60 | 0.3256 | 8.27 | 10016.2 | 44556 |
| BD225-750 | 4.41 | 112.0 | 8.86 | 225 | 0.2950 | 7.50 | 0.5709 | 14.50 | 0.3791 | 9.63 | 15895.6 | 70710 |
| BD225-1130 | 4.41 | 112.0 | 8.86 | 225 | 0.4430 | 11.30 | 0.6693 | 17.00 | 0.5217 | 13.25 | 38423.5 | 170923 |
| BD250-970-1020 | 4.02 | 102.0 | 9.84 | 250 | 0.3780 | 9.70 | 0.7087 | 18.00 | 0.4724 | 12.00 | 28396.3 | 126318 |
| BD250-1130-1020 | 4.02 | 102.0 | 9.84 | 250 | 0.4528 | 11.30 | 0.7480 | 19.00 | 0.5413 | 13.75 | 41107.4 | 182862 |
| BD250-650 | 5 | 127.0 | 9.84 | 250 | 0.2638 | 6.50 | 0.5827 | 14.80 | 0.3524 | 8.95 | 11338.5 | 50438 |
| BD250-940 | 5 | 127.0 | 9.84 | 250 | 0.3700 | 9.40 | 0.6693 | 17.00 | 0.4626 | 11.75 | 26748.5 | 118988 |
| BD250-1130-1030 | 5 | 127.0 | 9.84 | 250 | 0.4430 | 11.30 | 0.7598 | 19.30 | 0.5441 | 13.82 | 47363.3 | 210691 |
| BD250-1310 | 5 | 127.0 | 9.84 | 250 | 0.5160 | 13.10 | 0.7717 | 19.60 | 0.6063 | 15.40 | 55906.0 | 248692 |
| BD250-1510 | 5 | 127.0 | 9.84 | 250 | 0.5910 | 15.10 | 0.8583 | 21.80 | 0.6870 | 17.45 | 86055.0 | 382807 |