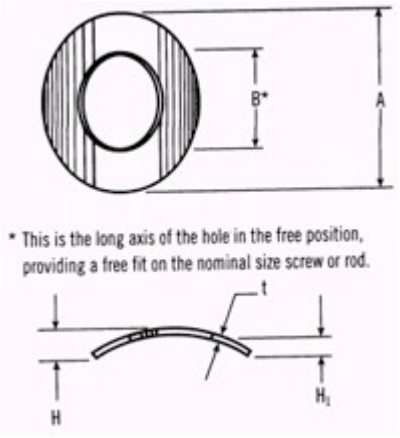
Cylindrical Curved Washers

In today's' world of miniaturization and smaller component design Curved Washers play a very vital role. Curved Washers have distinct advantages over conventional wire springs where weight and space is concerned.

Characteristics of Curved Washers

1. Two point contact with high expansion under load
2. Higher deflection compared to other washers
3. Near to linear spring constant
4. Lighter loads characteristics
5. Readily available size in stock



Applications

1. Fasteners
2. Absorbing Vibrations
3. Compensating for temperature changes
4. Eliminating side & end play
5. Controlling end pressure

IIS Curved Spring Washers are made of tempered steel and stainless in some sizes. All the washers are deburred using our proprietary process to achieve the best round edges for longer life.

Finishes : IIS offers a wide variety of finishes like Natural, Phosphated, Zinc Electroplating, Blackening etc.

IIS has ready stock of some sizes of curved washers. Checkout our website or ask for a catalogue

Cylindrically Curved washers design calculation

$$P = \frac{4 E t^3 f (D - d)}{D3}$$

$$S = \frac{6 f E t}{D2}$$

$$R = \frac{6 f E t}{D2}$$

$$h = R - SQR(R2 - (D/2)2)$$

$$D = 2 * SQR(2hR - h2)$$

t = Stock thickness, mm
P = Applied load, Kgs
h = Height under metal thickness, mm
f = Deflection, mm
d = Inside diameter, mm
D = Outer diameter, mm
S = Maximum induced stress, psi
E = Modulus of elasticity, psi , R = Radius of curve