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## Westfield Fasteners Product Specification:

### DIN 6796 - Conical Spring Washers (Belleville Type)

This product guide contains the specification for metric sized cone spring washers, as detailed in DIN 6796. These items are a product range available from Westfield Fasteners.

#### Product Description

Spring washers are designed to help prevent loosening of bolted joints under vibration. This particular type is manufactured to DIN 6796 and features an inherent conical shape. Also known as a belleville washer, disc spring, coned-disc spring and cupped disc washer. In addition to use as a single washer on their own, they can also be used stacked in groups where the design need might require it.

#### Scope of the DIN standard.

DIN 6796 specifies a design of conical spring washer intended for use with bolted connections of property classes 8.8 to 10.9, primarily in spring steel. Manufacture in stainless steel is also mentioned in this standard.

The effectiveness of these washers is reduced if they are used with fasteners lower than class 8.8, due to the risk of indentation. They are intended to counteract the effect of the joint loosening, but do not work particularly well with any radial loading and are better with bolts subject to thrust or loading along the axis of the fastener. Figure 1 and table 1 below outline the key dimensions and tolerances of these washers.

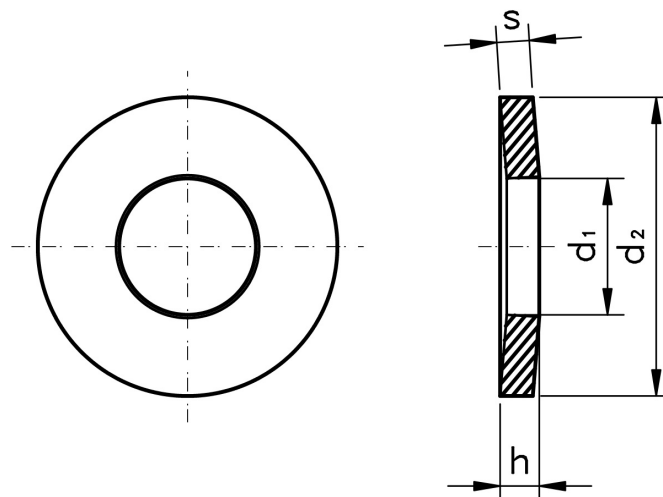


Figure 1: Cone Spring Washer

**Table 1: Dimensions and Tolerances according to DIN 6796 (mm)**

<b>Nominal Size</b>		<b>2</b>	<b>2.5</b>	<b>3</b>	<b>3.5</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>27</b>	<b>30</b>
d <sub>1</sub>	(H14 fit)	2.2	2.7	3.2	3.7	4.3	5.3	6.4	7.4	8.4	10.5	13	15	17	19	21	23	25	28	31
d <sub>2</sub>	(h14 fit)	5	6	7	8	9	11	14	17	18	23	29	35	39	42	45	49	56	60	70
s		0.4	0.5	0.6	0.8	1	1.2	1.5	1.75	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7
h	max.	0.6	0.72	0.85	1.06	1.3	1.55	2	2.3	2.6	3.2	3.95	4.65	5.25	5.8	6.4	7.05	7.75	8.35	9.2
	min.	0.5	0.61	0.72	0.92	1.12	1.35	1.7	2	2.24	2.8	3.43	4.04	4.58	5.08	5.6	6.15	6.77	7.3	8
To Suit Thread		M2	M2.5	M3	M3.5	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30

For further details, please refer to the DIN standard document for this item. E&OE