

MBA

2022.1

Disc Springs

Stainless Steel & Carbon Steel



Disc Springs for ball bearings are identified in the 'TYPE' column, and the matching ball bearing part numbers are shown in the comments below each part number.

Type the part number from this catalogue into the search box on any web page for delivery, stock levels and pricing.

Prefixes and Suffixes

W	0160	-	D	-	040	-	015	-	BB	-	S17
1	2		3		4		5		6		7

1. Product Identifier:

W: Washer

2. Nominal ID Code:

inside diameter in mm using 4 digits and 1 decimal place with decimal point removed.
ie, 0160 = 16mm, 0095 = 9.525mm, 1000 = 10mm

3. Type of Washer Identifier:

D: Disc Spring

4. Nominal OD Code:

Washer OD identifier in mm using 3 digits and 0 decimal places.
ie, 040 = 40mm

Always consider the tolerances listed.

5. Thickness Identifier Code:

Material thickness identifier in mm using 3 digits and 1 decimal place.
ie, 015 is a thickness between 1.45 and 1.55mm

6. Ball Bearing Type Identifier:

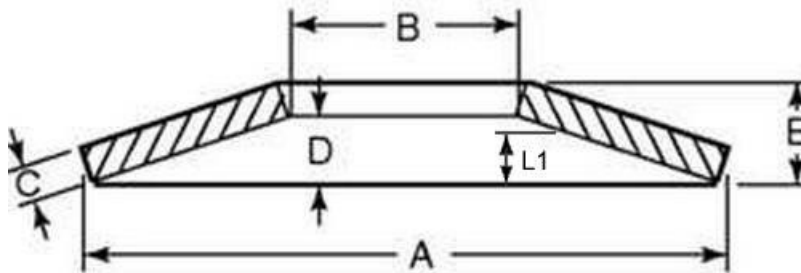
BB: If present identifies the disc spring as a special thin type designed for preloading the outer races of ball bearings. See the comments below these types for suitable bearings.

7. Material:

C: Carbon Steel
S17: Stainless Steel 17-7 PH
S2: Stainless Steel 302
S3: Stainless Steel 303
S4: Stainless Steel 304
S400: Stainless Steel 400 Grade
S6: Stainless Steel 316

These are just some of the most commonly used suffixes. Please refer to MBA for information on suffixes not listed.

Example Diagram



Only the most common diagrams are shown. Other types are also listed in this catalogue.

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
4.76 mm (0.187 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
4.76 <i>+0.01/+0.07</i>	2.38 <i>+0.10/-0.00</i>	0.25	0.38	302 Stainless	W0024-D-005-003-S2 <i>Load to flatten: 12.41 -- Loaded Height (L1): 0.30 -- Load at L1: 6.8 -- Inside Height (D): 0.13</i>
4.76 <i>+0.01/+0.07</i>	2.38 <i>+0.10/-0.00</i>	0.25	0.38	AISI C1095 Spring Steel	* W0024-D-005-003-C <i>Load to flatten: 12.41 -- Loaded Height (L1): 0.30 -- Load at L1: 6.8 -- Actual ID (Ref): 2.4 -- Inside Height (D): 0.13</i>
6.00 mm (0.236 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
6.00	3.00 <i>+0.10/-0.00</i>	0.30	0.45	Stainless Steel (17-7 PH)	W0030-D-006-003-S17 <i>Loaded Height (L1): 0.34 -- Load at L1: 12.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.15</i>
6.35 mm (0.250 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
6.35 <i>+0.01/+0.07</i>	3.20 <i>+0.10/-0.00</i>	0.34	0.51	302 Stainless	* W0032-D-006-003-S2 <i>Load to flatten: 21.43 -- Loaded Height (L1): 0.43 -- Load at L1: 11.7 -- Inside Height (D): 0.17</i>
6.35 <i>+0.01/+0.07</i>	3.20 <i>+0.10/-0.00</i>	0.34	0.51	AISI C1095 Spring Steel	* W0032-D-006-003-C <i>Load to flatten: 21.43 -- Loaded Height (L1): 0.43 -- Load at L1: 11.7 -- Actual ID (Ref): 3.4 -- Inside Height (D): 0.17</i>
7.94 mm (0.313 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
7.94 <i>+0.01/+0.07</i>	3.96 <i>+0.10/-0.00</i>	0.41	0.64	304 Stainless	W0040-D-008-004-S4 <i>Load to flatten: 33.48 -- Loaded Height (L1): 0.53 -- Load at L1: 18.3 -- Inside Height (D): 0.23</i>
8.00 mm (0.315 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
8.00	3.00 <i>+0.20/-0.00</i>	0.30	0.55	Stainless Steel (17-7 PH)	W0030-D-008-003-S17 <i>Loaded Height (L1): 0.36 -- Load at L1: 10.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.25</i>
8.00	3.00 <i>+0.20/-0.00</i>	0.30	0.55	Carbon Steel	W0030-D-008-003-C <i>Loaded Height (L1): 0.36 -- Load at L1: 10.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.25</i>
8.00	3.00 <i>+0.20/-0.00</i>	0.40	0.60	Carbon Steel	W0030-D-008-004-C <i>Loaded Height (L1): 0.45 -- Load at L1: 19.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.20</i>
8.00	3.00 <i>+0.20/-0.00</i>	0.40	0.60	Stainless Steel (17-7 PH)	W0030-D-008-004-S17 <i>Loaded Height (L1): 0.45 -- Load at L1: 19.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.20</i>
8.00	3.00 <i>+0.20/-0.00</i>	0.50	0.70	Carbon Steel	W0030-D-008-005-C <i>Loaded Height (L1): 0.55 -- Load at L1: 36.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.20</i>
8.00	4.00 <i>+0.20/-0.00</i>	0.20	0.45	Carbon Steel	W0040-D-008-002-C <i>Loaded Height (L1): 0.26 -- Load at L1: 4.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.25</i>
8.00	4.00 <i>+0.20/-0.00</i>	0.30	0.55	Stainless Steel (17-7 PH)	W0040-D-008-003-S17 <i>Loaded Height (L1): 0.36 -- Load at L1: 12.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.25</i>
8.00	4.00 <i>+0.20/-0.00</i>	0.30	0.55	Carbon Steel	W0040-D-008-003-C <i>Loaded Height (L1): 0.36 -- Load at L1: 12.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.25</i>
8.00	4.00 <i>+0.20/-0.00</i>	0.40	0.60	Carbon Steel	W0040-D-008-004-C <i>Loaded Height (L1): 0.45 -- Load at L1: 21.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.20</i>
8.00	4.00 <i>+0.20/-0.00</i>	0.40	0.60	Stainless Steel (17-7 PH)	W0040-D-008-004-S17 <i>Loaded Height (L1): 0.45 -- Load at L1: 21.0 -- Load at 0.75 Height: 23.4 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.20</i>
9.30 mm (0.366 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
9.30	5.60 <i>+0.20/-0.00</i>	0.20	0.40	Ball Bearing Type - Carbon Steel	W0058-D-009-002-BB-C <i>Suits Bearing Size: R2 -- Load at 0.75 height: 2.67 -- Inside Height (D): 0.20</i>
9.53 mm (0.375 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
9.53 <i>+0.01/+0.07</i>	4.76 <i>+0.20/-0.00</i>	0.51	0.76	302 Stainless	W0048-D-010-005-S2 <i>Load to flatten: 49.11 -- Loaded Height (L1): 0.64 -- Load at L1: 26.8 -- Inside Height (D): 0.25</i>
9.53 <i>+0.01/+0.07</i>	4.76 <i>+0.20/-0.00</i>	0.51	0.76	302 Stainless	W0048-D-010-005-S2-2 <i>Load to flatten: 49.11 -- Loaded Height (L1): 0.64 -- Load at L1: 26.8 -- Inside Height (D): 0.25</i>
9.53 <i>+0.01/+0.07</i>	4.76 <i>+0.20/-0.00</i>	0.51	0.76	AISI C1095 Spring Steel	* W0048-D-010-005-C <i>Load to flatten: 49.11 -- Loaded Height (L1): 0.64 -- Load at L1: 26.8 -- Actual ID (Ref): 5.0 -- Inside Height (D): 0.25</i>
9.80 mm (0.386 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
9.80	6.00 <i>+0.20/-0.00</i>	0.20		Ball Bearing Type - Carbon Steel	W0062-D-010-020-BB-C <i>Suits Bearing Size: 623 -- Inside Height (D): 1.60</i>
10.00 mm (0.394 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
10.00	3.00 <i>+0.20/-0.00</i>	0.30	0.65	Carbon Steel	W0030-D-010-003-C <i>Loaded Height (L1): 0.39 -- Load at L1: 10.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.35</i>
10.00	3.00 <i>+0.20/-0.00</i>	0.40	0.70	Carbon Steel	W0030-D-010-004-C <i>Loaded Height (L1): 0.48 -- Load at L1: 18.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.30</i>
10.00	3.00 <i>+0.20/-0.00</i>	0.50	0.75	Carbon Steel	W0030-D-010-005-C <i>Loaded Height (L1): 0.56 -- Load at L1: 28.0 -- Actual ID (Ref): 3.2 -- Inside Height (D): 0.25</i>
10.00	4.00 <i>+0.20/-0.00</i>	0.40	0.70	Carbon Steel	W0040-D-010-004-C <i>Loaded Height (L1): 0.48 -- Load at L1: 19.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.30</i>
10.00	4.00 <i>+0.20/-0.00</i>	0.50	0.75	Carbon Steel	W0040-D-010-005-C <i>Loaded Height (L1): 0.56 -- Load at L1: 29.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.25</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
10.00 mm (0.394 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
10.00	4.00 <i>+0.20/-0.00</i>	0.60	0.85	Carbon Steel	W0040-D-010-006-C <i>Loaded Height (L1): 0.66 -- Load at L1: 50.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.25</i>
10.00	5.00 <i>+0.20/-0.00</i>	0.25	0.55	Carbon Steel	W0050-D-010-003-C <i>Loaded Height (L1): 0.33 -- Load at L1: 6.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.30</i>
10.00	5.00 <i>+0.20/-0.00</i>	0.40	0.70	Stainless Steel (17-7 PH)	W0050-D-010-004-S17 <i>Loaded Height (L1): 0.48 -- Load at L1: 21.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.30</i>
10.00	5.00 <i>+0.20/-0.00</i>	0.40	0.70	Carbon Steel	W0050-D-010-004-C <i>Loaded Height (L1): 0.48 -- Load at L1: 21.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.30</i>
10.00	5.00 <i>+0.20/-0.00</i>	0.50	0.75	304 Stainless	W0050-D-010-005-S4 <i>Loaded Height (L1): 0.56 -- Load at L1: 33.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.25</i>
10.00	5.00 <i>+0.20/-0.00</i>	0.50	0.75	Carbon Steel	W0050-D-010-005-C <i>Loaded Height (L1): 0.56 -- Load at L1: 33.0 -- Load at 0.75 Height: 36.4 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.25</i>
12.00 mm (0.472 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
12.00	4.00 <i>+0.20/-0.00</i>	0.40	0.80	Carbon Steel	W0040-D-012-004-C <i>Loaded Height (L1): 0.50 -- Load at L1: 18.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.40</i>
12.00	4.00 <i>+0.20/-0.00</i>	0.50	0.85	Carbon Steel	W0040-D-012-005-C <i>Loaded Height (L1): 0.59 -- Load at L1: 28.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.35</i>
12.00	4.00 <i>+0.20/-0.00</i>	0.60	1.00	Carbon Steel	W0040-D-012-006-C <i>Loaded Height (L1): 0.70 -- Load at L1: 56.0 -- Actual ID (Ref): 4.2 -- Inside Height (D): 0.40</i>
12.00	5.00 <i>+0.20/-0.00</i>	0.50	0.90	Carbon Steel	W0050-D-012-005-C <i>Loaded Height (L1): 0.60 -- Load at L1: 35.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.40</i>
12.00	5.00 <i>+0.20/-0.00</i>	0.60	0.95	Carbon Steel	W0050-D-012-006-C <i>Loaded Height (L1): 0.69 -- Load at L1: 51.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.35</i>
12.00	5.00 <i>+0.20/-0.00</i>	0.60	0.95	Stainless Steel (17-7 PH)	W0050-D-012-006-S17 <i>Loaded Height (L1): 0.69 -- Load at L1: 51.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.35</i>
12.00	6.00 <i>+0.20/-0.00</i>	0.50	0.85	Carbon Steel	W0060-D-012-005-C <i>Loaded Height (L1): 0.59 -- Load at L1: 33.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.35</i>
12.00	6.00 <i>+0.20/-0.00</i>	0.50	0.85	Stainless Steel (17-7 PH)	W0060-D-012-005-S17 <i>Loaded Height (L1): 0.59 -- Load at L1: 33.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.35</i>
12.00	6.00 <i>+0.20/-0.00</i>	0.60	0.95	Carbon Steel	W0060-D-012-006-C <i>Loaded Height (L1): 0.69 -- Load at L1: 55.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.35</i>
12.50 mm (0.492 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
12.50	5.00 <i>+0.20/-0.00</i>	0.50	0.85	Carbon Steel	W0050-D-013-005-C <i>Loaded Height (L1): 0.59 -- Load at L1: 27.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.35</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.35	0.80	Carbon Steel	W0060-D-013-004-C <i>Loaded Height (L1): 0.46 -- Load at L1: 15.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.45</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.50	0.85	Carbon Steel	W0060-D-013-005-C <i>Loaded Height (L1): 0.59 -- Load at L1: 29.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.35</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.50	0.85	Stainless Steel (17-7 PH)	W0060-D-013-005-S17 <i>Loaded Height (L1): 0.59 -- Load at L1: 29.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.35</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.70	1.00	304 Stainless	W0060-D-013-007-S4 <i>Loaded Height (L1): 0.22 -- Load at L1: 60.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.30</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.70	1.00	Stainless Steel (17-7 PH)	W0060-D-013-007-S17 <i>Loaded Height (L1): 0.78 -- Load at L1: 66.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.30</i>
12.50	6.00 <i>+0.20/-0.00</i>	0.70	1.00	Carbon Steel	W0060-D-013-007-C <i>Loaded Height (L1): 0.78 -- Load at L1: 66.0 -- Load at 0.75 Height: 74.3 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.30</i>
12.70 mm (0.500 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
12.70	6.35 <i>+0.20/-0.00</i>	0.64	0.97	302 Stainless	** W0064-D-013-006-S2 <i>Load to flatten: 71.43 -- Loaded Height (L1): 0.79 -- Load at L1: 42.4 -- Inside Height (D): 0.33</i>
12.70	6.50 <i>+0.20/-0.00</i>	0.64	0.97	AISI C1095 Spring Steel	* W0065-D-013-006-C <i>Load to flatten: 71.43 -- Loaded Height (L1): 0.79 -- Load at L1: 42.4 -- Actual ID (Ref): 6.7 -- Inside Height (D): 0.33</i>
12.80 mm (0.504 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
12.8	7.00 <i>+0.20/-0.00</i>	0.25	0.50	Ball Bearing Type - Carbon Steel	W0072-D-013-002-BB-C <i>Suits Bearing Size: 624 / EL-4 -- Load at 0.75 height: 3.04 -- Inside Height (D): 0.25</i>
14.00 mm (0.551 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
14.00	7.00 <i>+0.20/-0.00</i>	0.35	0.80	Carbon Steel	* W0070-D-014-004-C <i>Loaded Height (L1): 0.46 -- Load at L1: 12.0 -- Actual ID (Ref): 7.2 -- Inside Height (D): 0.45</i>
14.00	7.00 <i>+0.20/-0.00</i>	0.50	0.90	Stainless Steel (17-7 PH)	W0070-D-014-005-S17 <i>Loaded Height (L1): 0.60 -- Load at L1: 28.0 -- Actual ID (Ref): 7.2 -- Inside Height (D): 0.40</i>
14.00	7.00 <i>+0.20/-0.00</i>	0.50	0.90	Carbon Steel	W0070-D-014-005-C <i>Loaded Height (L1): 0.60 -- Load at L1: 28.0 -- Actual ID (Ref): 7.2 -- Inside Height (D): 0.40</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
14.00 mm (0.551 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
14.00	7.00 <i>+0.20/-0.00</i>	0.80	1.10	Stainless Steel (17-7 PH)	W0070-D-014-008-S17 <i>Loaded Height (L1): 0.23 -- Load at 0.75 Height: 86.64 -- Actual ID (Ref): 7.2 -- Inside Height (D): 0.30</i>
14.00	7.00 <i>+0.20/-0.00</i>	0.80	1.10	Carbon Steel	W0070-D-014-008-C <i>Loaded Height (L1): 0.87 -- Load at L1: 80.0 -- Actual ID (Ref): 7.2 -- Inside Height (D): 0.30</i>
15.00 mm (0.591 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
15.00	5.00 <i>+0.20/-0.00</i>	0.40	0.95	Stainless Steel (17-7 PH)	W0050-D-015-004-S17 <i>Loaded Height (L1): 0.54 -- Load at L1: 18.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.55</i>
15.00	5.00 <i>+0.20/-0.00</i>	0.40	0.95	Carbon Steel	W0050-D-015-004-C <i>Loaded Height (L1): 0.54 -- Load at L1: 18.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.55</i>
15.00	5.00 <i>+0.20/-0.00</i>	0.50	1.00	Carbon Steel	W0050-D-015-005-C <i>Loaded Height (L1): 0.63 -- Load at L1: 28.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.50</i>
15.00	5.00 <i>+0.20/-0.00</i>	0.60	1.05	Carbon Steel	W0050-D-015-006-C <i>Loaded Height (L1): 0.71 -- Load at L1: 41.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.45</i>
15.00	5.00 <i>+0.20/-0.00</i>	0.70	1.10	Carbon Steel	W0050-D-015-007-C <i>Loaded Height (L1): 0.80 -- Load at L1: 56.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.40</i>
15.00	5.00 <i>+0.20/-0.00</i>	0.70	1.10	Stainless Steel (17-7 PH)	W0050-D-015-007-S17 <i>Loaded Height (L1): 0.80 -- Load at L1: 56.0 -- Actual ID (Ref): 5.2 -- Inside Height (D): 0.40</i>
15.00	6.00 <i>+0.20/-0.00</i>	0.50	1.00	Stainless Steel (17-7 PH)	W0060-D-015-005-S17 <i>Loaded Height (L1): 0.63 -- Load at L1: 29.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.50</i>
15.00	6.00 <i>+0.20/-0.00</i>	0.50	1.00	Carbon Steel	W0060-D-015-005-C <i>Loaded Height (L1): 0.63 -- Load at L1: 29.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.50</i>
15.00	6.00 <i>+0.20/-0.00</i>	0.60	1.05	Carbon Steel	W0060-D-015-006-C <i>Loaded Height (L1): 0.71 -- Load at L1: 42.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.45</i>
15.00	6.00 <i>+0.20/-0.00</i>	0.70	1.10	Carbon Steel	W0060-D-015-007-C <i>Loaded Height (L1): 0.80 -- Load at L1: 58.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.40</i>
15.00	8.00 <i>+0.20/-0.00</i>	0.50	1.00	Carbon Steel	W0080-D-015-005-C <i>Loaded Height (L1): 0.63 -- Load at L1: 33.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.50</i>
15.00	8.00 <i>+0.20/-0.00</i>	0.70	1.10	Stainless Steel (17-7 PH)	W0080-D-015-007-S17 <i>Loaded Height (L1): 0.80 -- Load at L1: 67.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
15.00	8.00 <i>+0.20/-0.00</i>	0.70	1.10	Carbon Steel	W0080-D-015-007-C <i>Loaded Height (L1): 0.80 -- Load at L1: 67.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
15.00	8.00 <i>+0.20/-0.00</i>	0.80	1.20	304 Stainless	* W0080-D-015-008-S4 <i>Loaded Height (L1): 0.25 -- Load at L1: 89.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
15.00	8.00 <i>+0.20/-0.00</i>	0.80	1.20	Carbon Steel	W0080-D-015-008-C <i>Loaded Height (L1): 0.90 -- Load at L1: 98.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
15.80 mm (0.622 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
15.8	8.00 <i>+0.20/-0.00</i>	0.25	0.55	Ball Bearing Type - Carbon Steel	W0082-D-016-002-BB-C <i>Suits Bearing Size: 625 / 634 / EL-5 -- Load at 0.75 height: 2.40 -- Inside Height (D): 0.30</i>
15.88 mm (0.625 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
15.88	7.94 <i>+0.20/-0.00</i>	0.81	1.22	AISI C1095 Spring Steel	* W0079-D-016-008-C <i>Load to flatten: 116.07 -- Loaded Height (L1): 1.02 -- Load at L1: 64.7 -- Actual ID (Ref): 8.1 -- Inside Height (D): 0.41</i>
15.88 mm (0.625 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
15.88	7.94 <i>+0.20/-0.00</i>	0.81	1.22	302 Stainless	* W0079-D-016-008-S2 <i>Load to flatten: 116.07 -- Loaded Height (L1): 1.02 -- Load at L1: 64.7 -- Inside Height (D): 0.41</i>
16.00 mm (0.630 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
16.00	8.00 <i>+0.20/-0.00</i>	0.40	0.90	Carbon Steel	W0080-D-016-004-C <i>Loaded Height (L1): 0.53 -- Load at L1: 15.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.50</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.40	0.90	Stainless Steel (17-7 PH)	W0080-D-016-004-S17 <i>Loaded Height (L1): 0.53 -- Load at L1: 15.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.50</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.60	1.05	Stainless Steel (17-7 PH)	W0080-D-016-006-S17 <i>Loaded Height (L1): 0.71 -- Load at L1: 41.0 -- Load at 0.75 Height: 45.3 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.45</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.60	1.05	Carbon Steel	W0080-D-016-006-C <i>Loaded Height (L1): 0.71 -- Load at L1: 41.0 -- Load at 0.75 Height: 45.3 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.45</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.70	1.15	Carbon Steel	W0080-D-016-007-C <i>Loaded Height (L1): 0.81 -- Load at L1: 64.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.45</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.80	1.20	Stainless Steel (17-7 PH)	W0080-D-016-008-S17 <i>Loaded Height (L1): 0.90 -- Load at L1: 83.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.80	1.20	Carbon Steel	W0080-D-016-008-C <i>Loaded Height (L1): 0.90 -- Load at L1: 83.0 -- Load at 0.75 Height: 92.1 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.90	1.25	Carbon Steel	W0080-D-016-009-C <i>Loaded Height (L1): 0.99 -- Load at L1: 101.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.35</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
16.00 mm (0.630 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
16.00	8.00 <i>+0.20/-0.00</i>	0.90	1.25	Stainless Steel (17-7 PH)	W0080-D-016-009-S17 <i>Loaded Height (L1): 0.99 -- Load at L1: 101.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.35</i>
16.00	8.00 <i>+0.20/-0.00</i>	0.90	1.25	304 Stainless	W0080-D-016-009-S4 <i>Load to flatten: N/A -- Loaded Height (L1): 0.26 -- Load at L1: 93.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.35</i>
18.00 mm (0.709 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
18.00	6.00 <i>+0.20/-0.00</i>	0.40	1.00	Carbon Steel	W0060-D-018-004-C <i>Loaded Height (L1): 0.55 -- Load at L1: 14.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.60</i>
18.00	6.00 <i>+0.20/-0.00</i>	0.50	1.10	Carbon Steel	W0060-D-018-005-C <i>Loaded Height (L1): 0.65 -- Load at L1: 25.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.60</i>
18.00	6.00 <i>+0.20/-0.00</i>	0.60	1.20	Carbon Steel	W0060-D-018-006-C <i>Loaded Height (L1): 0.75 -- Load at L1: 40.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.60</i>
18.00	6.00 <i>+0.20/-0.00</i>	0.70	1.25	Carbon Steel	W0060-D-018-007-C <i>Loaded Height (L1): 0.84 -- Load at L1: 55.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.55</i>
18.00	6.00 <i>+0.20/-0.00</i>	0.80	1.30	Carbon Steel	W0060-D-018-008-C <i>Loaded Height (L1): 0.92 -- Load at L1: 73.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.50</i>
18.00	6.00 <i>+0.20/-0.00</i>	0.80	1.30	Stainless Steel (17-7 PH)	W0060-D-018-008-S17 <i>Loaded Height (L1): 0.92 -- Load at L1: 73.0 -- Actual ID (Ref): 6.2 -- Inside Height (D): 0.50</i>
18.00	8.00 <i>+0.20/-0.00</i>	0.50	1.10	Carbon Steel	W0080-D-018-005-C <i>Loaded Height (L1): 0.65 -- Load at L1: 27.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.60</i>
18.00	8.00 <i>+0.20/-0.00</i>	0.70	1.25	Carbon Steel	W0080-D-018-007-C <i>Loaded Height (L1): 0.84 -- Load at L1: 60.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.55</i>
18.00	8.00 <i>+0.20/-0.00</i>	0.80	1.30	Stainless Steel (17-7 PH)	W0080-D-018-008-S17 <i>Loaded Height (L1): 0.38 -- Load at 0.75 Height: 84.82 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.51</i>
18.00	8.00 <i>+0.20/-0.00</i>	0.80	1.30	Carbon Steel	W0080-D-018-008-C <i>Loaded Height (L1): 0.92 -- Load at L1: 58.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.50</i>
18.00	8.00 <i>+0.20/-0.00</i>	1.00	1.40	Carbon Steel	W0080-D-018-010-C <i>Loaded Height (L1): 1.10 -- Load at L1: 118.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.40</i>
18.00	9.00 <i>+0.20/-0.00</i>	0.45	1.05	Carbon Steel	W0090-D-018-005-C <i>Loaded Height (L1): 0.60 -- Load at L1: 21.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.60</i>
18.00	9.00 <i>+0.20/-0.00</i>	0.45	1.05	Stainless Steel (17-7 PH)	W0090-D-018-005-S17 <i>Loaded Height (L1): 0.60 -- Load at L1: 21.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.60</i>
18.00	9.00 <i>+0.20/-0.00</i>	0.70	1.20	Carbon Steel	W0090-D-018-007-C <i>Loaded Height (L1): 0.83 -- Load at L1: 57.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.50</i>
18.00	9.00 <i>+0.20/-0.00</i>	0.70	1.20	Stainless Steel (17-7 PH)	W0090-D-018-007-S17 <i>Loaded Height (L1): 0.83 -- Load at L1: 57.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.50</i>
18.00	9.00 <i>+0.20/-0.00</i>	1.00	1.40	Stainless Steel (17-7 PH)	W0090-D-018-010-S17 <i>Loaded Height (L1): 1.10 -- Load at L1: 125.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.40</i>
18.00	9.00 <i>+0.20/-0.00</i>	1.00	1.40	Carbon Steel	W0090-D-018-010-C <i>Loaded Height (L1): 1.10 -- Load at L1: 125.0 -- Actual ID (Ref): 9.2 -- Inside Height (D): 0.40</i>
18.10 mm (0.713 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
18.10	9.90 <i>+0.20/-0.00</i>	2.03	2.18	Carbon Steel	W0099-D-018-020-F-C <i>Suits Bolt Size: 3/8 in -- Load At Flat: 544.0 -- Inside Height (D): 0.15</i>
18.80 mm (0.740 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
18.8	9.00 <i>+0.20/-0.00</i>	0.30		Ball Bearing Type - Carbon Steel	W0092-D-019-030-BB-C <i>Suits Bearing Size: 626, 635 -- Inside Height (D): 1.60</i>
18.8	10.00 <i>+0.20/-0.00</i>	0.35	0.70	Ball Bearing Type - Carbon Steel	W0102-D-019-004-BB-C <i>Suits Bearing Size: 607 / EL-7 -- Load at 0.75 height: 5.35 -- Inside Height (D): 0.35</i>
19.05 mm (0.750 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
19.05	9.53 <i>+0.20/-0.00</i>	1.02	1.50	AISI C1095 Spring Steel	* W0095-D-019-010-C <i>Load to flatten: 185.27 -- Loaded Height (L1): 1.24 -- Load at L1: 104.9 -- Inside Height (D): 0.48</i>
19.05	9.53 <i>+0.20/-0.00</i>	1.02	1.50	302 Stainless	* W0095-D-019-010-S2 <i>Load to flatten: 185.27 -- Loaded Height (L1): 1.24 -- Load at L1: 104.9 -- Inside Height (D): 0.48</i>
20.00 mm (0.787 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
20.00	8.00 <i>+0.20/-0.00</i>	0.60	1.30	Carbon Steel	W0080-D-020-006-C <i>Loaded Height (L1): 0.77 -- Load at L1: 41.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.70</i>
20.00	8.00 <i>+0.20/-0.00</i>	0.70	1.35	Carbon Steel	W0080-D-020-007-C <i>Loaded Height (L1): 0.86 -- Load at L1: 57.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.65</i>
20.00	8.00 <i>+0.20/-0.00</i>	0.80	1.40	Carbon Steel	W0080-D-020-008-C <i>Loaded Height (L1): 0.95 -- Load at L1: 75.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.60</i>
20.00	8.00 <i>+0.20/-0.00</i>	0.90	1.45	Carbon Steel	W0080-D-020-009-C <i>Loaded Height (L1): 1.04 -- Load at L1: 95.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.55</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
20.00 mm (0.787 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
20.00	8.00 <i>+0.20/-0.00</i>	0.90	1.45	Stainless Steel (17-7 PH)	W0080-D-020-009-S17 <i>Loaded Height (L1): 1.04 -- Load at L1: 95.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.55</i>
20.00	8.00 <i>+0.20/-0.00</i>	1.00	1.55	Carbon Steel	W0080-D-020-010-C <i>Loaded Height (L1): 1.14 -- Load at L1: 129.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.50	1.15	Carbon Steel	W0100-D-020-005-C <i>Loaded Height (L1): 0.66 -- Load at L1: 25.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.65</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.50	1.15	Stainless Steel (17-7 PH)	W0100-D-020-005-S17 <i>Loaded Height (L1): 0.66 -- Load at L1: 25.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.65</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.80	1.35	Carbon Steel	W0100-D-020-008-C <i>Loaded Height (L1): 0.94 -- Load at L1: 75.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.80	1.35	Stainless Steel (17-7 PH)	W0100-D-020-008-S17 <i>Loaded Height (L1): 0.94 -- Load at L1: 75.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.90	1.45	Carbon Steel	W0100-D-020-009-C <i>Loaded Height (L1): 1.04 -- Load at L1: 105.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	0.90	1.45	Stainless Steel (17-7 PH)	W0100-D-020-009-S17 <i>Loaded Height (L1): 1.04 -- Load at L1: 105.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.00	1.55	Carbon Steel	W0100-D-020-010-C <i>Loaded Height (L1): 1.14 -- Load at L1: 142.0 -- Load at 0.75 Height: 160.3 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.55</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.00	1.55	Stainless Steel (17-7 PH)	W0100-D-020-010-S17 <i>Loaded Height (L1): 0.42 -- Load at 0.75 Height: 155.58 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.56</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.10	1.55	Carbon Steel	W0100-D-020-011-C-L03 <i>Loaded Height (L1): 0.34 -- Load at 0.75 Height: 170.1 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.46</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.10	1.55	Stainless Steel (17-7 PH)	W0100-D-020-011-S17 <i>Loaded Height (L1): 0.34 -- Load at 0.75 Height: 170.1 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.46</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.10	1.55	Carbon Steel	W0100-D-020-011-C-L12 <i>Loaded Height (L1): 1.21 -- Load at L1: 152.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.45</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.10	1.55	304 Stainless	W0100-D-020-011-S4 <i>Load to flatten: N/A -- Loaded Height (L1): 0.34 -- Load at L1: 140.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.45</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.20	1.75	Carbon Steel	W0100-D-020-013-C <i>Loaded Height (L1): 1.38 -- Load at L1: 248.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.50</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.20	1.75	Stainless Steel (17-7 PH)	W0100-D-020-013-S17 <i>Loaded Height (L1): 1.38 -- Load at L1: 248.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.50</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.50	1.80	Carbon Steel	W0100-D-020-015-C <i>Loaded Height (L1): 1.58 -- Load at L1: 252.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.30</i>
20.00	10.00 <i>+0.20/-0.00</i>	1.50	1.80	Stainless Steel (17-7 PH)	W0100-D-020-015-S17 <i>Loaded Height (L1): 1.58 -- Load at L1: 252.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.30</i>
20.80 mm (0.819 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
20.80	11.50 <i>+0.20/-0.00</i>	2.03	2.46	Carbon Steel	W0115-D-021-020-F-C <i>Suits Bolt Size: 7/16 in -- Load At Flat: 1270.0 -- Inside Height (D): 0.43</i>
21.80 mm (0.858 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
21.8	12.10 <i>+0.20/-0.00</i>	0.35		Ball Bearing Type - Carbon Steel	W0123-D-022-035-BB-C <i>Suits Bearing Size: 608, 627 -- Inside Height (D): 1.60</i>
21.90 mm (0.862 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
21.9	13.50 <i>+0.20/-0.00</i>	0.35	0.75	Ball Bearing Type - Carbon Steel	W0137-D-022-004-BB-C <i>Suits Bearing Size: R6 -- Load at 0.75 height: 5.35 -- Inside Height (D): 0.40</i>
22.50 mm (0.886 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
22.50	11.00 <i>+0.20/-0.00</i>	0.60	1.40	Stainless Steel (17-7 PH)	W0110-D-023-006-S17 <i>Loaded Height (L1): 0.80 -- Load at L1: 43.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.80</i>
22.50	11.00 <i>+0.20/-0.00</i>	0.60	1.40	Carbon Steel	W0110-D-023-006-C <i>Loaded Height (L1): 0.80 -- Load at L1: 43.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.80</i>
22.50	11.00 <i>+0.20/-0.00</i>	0.80	1.45	Stainless Steel (17-7 PH)	W0110-D-023-008-S17 <i>Loaded Height (L1): 0.96 -- Load at L1: 71.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.65</i>
22.50	11.00 <i>+0.20/-0.00</i>	0.80	1.45	Carbon Steel	W0110-D-023-008-C <i>Loaded Height (L1): 0.96 -- Load at L1: 71.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.65</i>
22.50	11.00 <i>+0.20/-0.00</i>	1.25	1.75	Stainless Steel (17-7 PH)	W0110-D-023-013-S17 <i>Loaded Height (L1): 1.38 -- Load at L1: 193.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.50</i>
22.50	11.00 <i>+0.20/-0.00</i>	1.25	1.75	Carbon Steel	W0110-D-023-013-C <i>Loaded Height (L1): 1.38 -- Load at L1: 193.0 -- Actual ID (Ref): 11.2 -- Inside Height (D): 0.50</i>
22.80 mm (0.898 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
22.80	13.10 <i>+0.20/-0.00</i>	2.26	2.54	Carbon Steel	W0131-D-023-023-F-C <i>Suits Bolt Size: 1/2 in -- Load At Flat: 952.0 -- Inside Height (D): 0.28</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
23.00 mm (0.906 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
23.00	8.00 <i>+0.20/-0.00</i>	0.70	1.50	Carbon Steel	W0080-D-023-007-C <i>Loaded Height (L1): 0.90 -- Load at L1: 54.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.80</i>
23.00	8.00 <i>+0.20/-0.00</i>	0.70	1.50	Stainless Steel (17-7 PH)	* W0080-D-023-007-S17 <i>Loaded Height (L1): 0.90 -- Load at L1: 54.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.80</i>
23.00	8.00 <i>+0.20/-0.00</i>	0.80	1.55	Stainless Steel (17-7 PH)	W0080-D-023-008-S17 <i>Loaded Height (L1): 0.99 -- Load at L1: 72.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.75</i>
23.00	8.00 <i>+0.20/-0.00</i>	0.80	1.55	Carbon Steel	W0080-D-023-008-C <i>Loaded Height (L1): 0.99 -- Load at L1: 72.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.75</i>
23.00	8.00 <i>+0.20/-0.00</i>	0.90	1.60	Carbon Steel	W0080-D-023-009-C <i>Loaded Height (L1): 1.07 -- Load at L1: 92.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.70</i>
23.00	8.00 <i>+0.20/-0.00</i>	1.00	1.70	Carbon Steel	W0080-D-023-010-C <i>Loaded Height (L1): 1.17 -- Load at L1: 124.0 -- Actual ID (Ref): 8.2 -- Inside Height (D): 0.70</i>
23.00	10.00 <i>+0.20/-0.00</i>	0.90	1.65	Carbon Steel	W0100-D-023-009-C <i>Loaded Height (L1): 1.09 -- Load at L1: 106.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.75</i>
23.00	10.00 <i>+0.20/-0.00</i>	1.00	1.70	Carbon Steel	W0100-D-023-010-C <i>Loaded Height (L1): 1.17 -- Load at L1: 132.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.70</i>
23.00	10.00 <i>+0.20/-0.00</i>	1.00	1.70	Stainless Steel (17-7 PH)	W0100-D-023-010-S17 <i>Loaded Height (L1): 1.17 -- Load at L1: 132.0 -- Load at 0.75 Height: 146.7 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.70</i>
23.00	10.00 <i>+0.20/-0.00</i>	1.25	1.90	Carbon Steel	W0100-D-023-013-C <i>Loaded Height (L1): 1.41 -- Load at L1: 204.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.65</i>
23.00	12.00 <i>+0.20/-0.00</i>	1.25	1.85	Carbon Steel	W0120-D-023-013-C <i>Loaded Height (L1): 1.40 -- Load at L1: 233.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.60</i>
23.00	12.00 <i>+0.20/-0.00</i>	1.50	2.00	Carbon Steel	W0120-D-023-015-C <i>Loaded Height (L1): 1.63 -- Load at L1: 330.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.50</i>
23.00	12.00 <i>+0.20/-0.00</i>	1.50	2.00	Stainless Steel (17-7 PH)	W0120-D-023-015-S17 <i>Loaded Height (L1): 1.63 -- Load at L1: 330.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.50</i>
23.70 mm (0.933 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
23.7	14.00 <i>+0.30/-0.00</i>	0.40	0.90	Ball Bearing Type - Carbon Steel	W0143-D-024-004-BB-C <i>Suits Bearing Size: 609 / EL-9 -- Load at 0.75 height: 8.39 -- Inside Height (D): 0.50</i>
25.00 mm (0.984 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
25.00	10.00 <i>+0.20/-0.00</i>	1.00	1.75	Carbon Steel	W0100-D-025-010-C <i>Loaded Height (L1): 1.19 -- Load at L1: 117.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.75</i>
25.00	12.00 <i>+0.20/-0.00</i>	0.70	1.60	Stainless Steel (17-7 PH)	W0120-D-025-007-S17 <i>Loaded Height (L1): 0.92 -- Load at L1: 60.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.90</i>
25.00	12.00 <i>+0.20/-0.00</i>	0.70	1.60	Carbon Steel	W0120-D-025-007-C <i>Loaded Height (L1): 0.92 -- Load at L1: 60.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.90</i>
25.00	12.00 <i>+0.20/-0.00</i>	0.90	1.60	Carbon Steel	W0120-D-025-009-C <i>Loaded Height (L1): 1.07 -- Load at L1: 86.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.70</i>
25.00	12.00 <i>+0.20/-0.00</i>	0.90	1.60	Stainless Steel (17-7 PH)	W0120-D-025-009-S17 <i>Loaded Height (L1): 1.07 -- Load at L1: 86.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.70</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.00	1.80	Carbon Steel	W0120-D-025-010-C <i>Loaded Height (L1): 1.20 -- Load at L1: 136.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.80</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.25	1.95	Stainless Steel (17-7 PH)	W0120-D-025-013-S17 <i>Loaded Height (L1): 1.42 -- Load at L1: 221.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.70</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.25	1.95	Carbon Steel	W0120-D-025-013-C <i>Loaded Height (L1): 1.42 -- Load at L1: 221.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.70</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.50	2.05	304 Stainless	W0120-D-025-015-S4 <i>Loaded Height (L1): 0.41 -- Load at L1: 268.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.55</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.50	2.05	Carbon Steel	W0120-D-025-015-C <i>Loaded Height (L1): 1.64 -- Load at L1: 292.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.55</i>
25.00	12.00 <i>+0.20/-0.00</i>	1.50	2.05	Stainless Steel (17-7 PH)	W0120-D-025-015-S17 <i>Loaded Height (L1): 0.42 -- Load at 0.75 Height: 318.42 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.55</i>
25.40 mm (1.000 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
25.40	12.70 <i>+0.20/-0.00</i>	1.27	1.91	AISI C1095 Spring Steel	* W0127-D-025-013-C <i>Load to flatten: 267.86 -- Loaded Height (L1): 1.57 -- Load at L1: 151.8 -- Actual ID (Ref): 12.9 -- Inside Height (D): 0.64</i>
25.40	12.70 <i>+0.20/-0.00</i>	1.27	1.91	302 Stainless	* W0127-D-025-013-S2 <i>Load to flatten: 267.86 -- Loaded Height (L1): 1.57 -- Load at L1: 151.8 -- Inside Height (D): 0.64</i>
25.70 mm (1.012 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
25.7	14.00 <i>+0.30/-0.00</i>	0.40	0.90	Ball Bearing Type - Carbon Steel	W0143-D-026-004-BB-C <i>Suits Bearing Size: 6000 / 629 -- Load at 0.75 height: 6.58 -- Inside Height (D): 0.50</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
27.71 mm (1.091 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
27.71 <i>+0.30/-0.00</i>	17.00	0.40	1.00	Ball Bearing Type - Carbon Steel	W0173-D-026-004-BB-C <i>Suits Bearing Size: 6001 -- Load at 0.75 height: 8.35 -- Inside Height (D): 0.61</i>
28.00 mm (1.102 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
28.00 <i>+0.20/-0.00</i>	10.00	0.80	1.75	Carbon Steel	W0100-D-028-008-C <i>Loaded Height (L1): 1.04 -- Load at L1: 66.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.95</i>
28.00 <i>+0.20/-0.00</i>	10.00	1.00	1.90	Carbon Steel	W0100-D-028-010-C <i>Loaded Height (L1): 1.23 -- Load at L1: 113.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.90</i>
28.00 <i>+0.20/-0.00</i>	10.00	1.25	2.05	Carbon Steel	W0100-D-028-013-C <i>Loaded Height (L1): 1.45 -- Load at L1: 185.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.80</i>
28.00 <i>+0.20/-0.00</i>	10.00	1.25	2.05	Stainless Steel (17-7 PH)	W0100-D-028-013-S17 <i>Loaded Height (L1): 1.45 -- Load at L1: 185.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.80</i>
28.00 <i>+0.20/-0.00</i>	10.00	1.50	2.20	Carbon Steel	W0100-D-028-015-C <i>Loaded Height (L1): 1.67 -- Load at L1: 272.0 -- Actual ID (Ref): 10.2 -- Inside Height (D): 0.70</i>
28.00 <i>+0.20/-0.00</i>	12.00	1.00	1.95	Carbon Steel	W0120-D-028-010-C <i>Loaded Height (L1): 1.24 -- Load at L1: 127.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.95</i>
28.00 <i>+0.20/-0.00</i>	12.00	1.00	1.95	Stainless Steel (17-7 PH)	W0120-D-028-010-S17 <i>Loaded Height (L1): 1.24 -- Load at L1: 127.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.95</i>
28.00 <i>+0.20/-0.00</i>	12.00	1.25	2.10	Carbon Steel	W0120-D-028-013-C <i>Loaded Height (L1): 1.46 -- Load at L1: 208.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.85</i>
28.00 <i>+0.20/-0.00</i>	12.00	1.50	2.25	Stainless Steel (17-7 PH)	W0120-D-028-015-S17 <i>Loaded Height (L1): 1.69 -- Load at L1: 308.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.75</i>
28.00 <i>+0.20/-0.00</i>	12.00	1.50	2.25	Carbon Steel	W0120-D-028-015-C <i>Loaded Height (L1): 1.69 -- Load at L1: 308.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.75</i>
28.00 <i>+0.30/-0.00</i>	14.00	0.80	1.80	Stainless Steel (17-7 PH)	W0140-D-028-008-S17 <i>Loaded Height (L1): 1.05 -- Load at L1: 80.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.00</i>
28.00 <i>+0.30/-0.00</i>	14.00	0.80	1.80	Carbon Steel	W0140-D-028-008-C <i>Loaded Height (L1): 1.05 -- Load at L1: 80.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.00</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.00	1.80	Carbon Steel	W0140-D-028-010-C <i>Loaded Height (L1): 1.20 -- Load at L1: 111.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.80</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.00	1.80	Stainless Steel (17-7 PH)	W0140-D-028-010-S17 <i>Loaded Height (L1): 0.61 -- Load at 0.75 Height: 119.75 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.81</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.25	2.10	Carbon Steel	W0140-D-028-013-C <i>Loaded Height (L1): 1.46 -- Load at L1: 224.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.85</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.25	2.10	Stainless Steel (17-7 PH)	W0140-D-028-013-S17 <i>Loaded Height (L1): 1.46 -- Load at L1: 224.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.85</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.50	2.15	Carbon Steel	W0140-D-028-015-C <i>Loaded Height (L1): 1.66 -- Load at L1: 284.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.65</i>
28.00 <i>+0.30/-0.00</i>	14.00	1.50	2.15	Stainless Steel (17-7 PH)	W0140-D-028-015-S17 <i>Loaded Height (L1): 0.49 -- Load at 0.75 Height: 309.80 -- Actual ID (Ref): 14.2 -- Inside Height (D): 0.66</i>
29.00 mm (1.142 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
29.00 <i>+0.30/-0.00</i>	16.30	3.18	3.63	Carbon Steel	W0166-D-029-032-F-C <i>Suits Bolt Size: 5/8 in -- Load At Flat: 2721.0 -- Inside Height (D): 0.45</i>
29.70 mm (1.169 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
29.70 <i>+0.30/-0.00</i>	17.00	0.40	1.10	Ball Bearing Type - Carbon Steel	W0173-D-030-004-BB-C <i>Suits Bearing Size: 6200 -- Load at 0.75 height: 8.62 -- Inside Height (D): 0.70</i>
31.50 mm (1.240 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
31.50 <i>+0.20/-0.00</i>	12.00	1.50	2.35	Carbon Steel	W0120-D-032-015-C <i>Loaded Height (L1): 1.71 -- Load at L1: 269.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 0.85</i>
31.50 <i>+0.30/-0.00</i>	16.00	0.80	1.85	Carbon Steel	W0160-D-032-008-C <i>Loaded Height (L1): 1.06 -- Load at L1: 69.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.05</i>
31.50 <i>+0.30/-0.00</i>	16.00	0.80	1.85	Stainless Steel (17-7 PH)	W0160-D-032-008-S17 <i>Loaded Height (L1): 1.06 -- Load at L1: 69.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.05</i>
31.50 <i>+0.30/-0.00</i>	16.00	1.25	2.15	Stainless Steel (17-7 PH)	W0160-D-032-013-S17 <i>Loaded Height (L1): 1.48 -- Load at L1: 191.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.90</i>
31.50 <i>+0.30/-0.00</i>	16.00	1.25	2.15	Carbon Steel	W0160-D-032-013-C <i>Loaded Height (L1): 1.48 -- Load at L1: 191.0 -- Load at 0.75 Height: 212.1 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.90</i>
31.50 <i>+0.30/-0.00</i>	16.00	1.50	2.40	Carbon Steel	W0160-D-032-015-C <i>Loaded Height (L1): 1.73 -- Load at L1: 323.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.90</i>
31.50 <i>+0.30/-0.00</i>	16.00	1.50	2.40	Stainless Steel (17-7 PH)	W0160-D-032-015-S17 <i>Loaded Height (L1): 1.73 -- Load at L1: 323.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.90</i>
31.50 <i>+0.30/-0.00</i>	16.00	1.75	2.45	Stainless Steel (17-7 PH)	W0160-D-032-018-S17 <i>Loaded Height (L1): 1.92 -- Load at L1: 387.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.70</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Page 9 of 19

E&OE

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
31.50 mm (1.240 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
31.50	16.00 <i>+0.30/-0.00</i>	1.75	2.45	Carbon Steel	W0160-D-032-018-C <i>Loaded Height (L1): 1.92 -- Load at L1: 387.0 -- Load at 0.75 Height: 434.6 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.70</i>
31.50	16.00 <i>+0.30/-0.00</i>	1.75	2.45	304 Stainless	W0160-D-032-018-S4 <i>Load to flatten: N/A -- Loaded Height (L1): 0.52 -- Load at L1: 356.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.70</i>
31.50	16.00 <i>+0.30/-0.00</i>	2.00	2.75	Carbon Steel	W0160-D-032-020-C <i>Loaded Height (L1): 2.19 -- Load at L1: 617.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.75</i>
31.50	16.00 <i>+0.30/-0.00</i>	2.00	2.75	Stainless Steel (17-7 PH)	W0160-D-032-020-S17 <i>Loaded Height (L1): 2.19 -- Load at L1: 617.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.75</i>
31.70 mm (1.248 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
31.7	20.00 <i>+0.40/-0.00</i>	0.40	1.10	Ball Bearing Type - Carbon Steel	W0204-D-032-004-BB-C <i>Suits Bearing Size: 6002 / 6201 -- Load at 0.75 height: 8.44 -- Inside Height (D): 0.70</i>
31.75 mm (1.250 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
31.75	15.88 <i>+0.30/-0.00</i>	1.57	2.34	302 Stainless	* W0159-D-032-016-S2 <i>Load to flatten: 388.39 -- Loaded Height (L1): 1.96 -- Load at L1: 212.1 -- Inside Height (D): 0.77</i>
31.75	15.88 <i>+0.30/-0.00</i>	1.57	2.34	AISI C1095 Spring Steel	* W0159-D-032-016-C <i>Load to flatten: 388.39 -- Loaded Height (L1): 1.96 -- Load at L1: 212.1 -- Actual ID (Ref): 16.2 -- Inside Height (D): 0.77</i>
34.00 mm (1.339 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
34.00	12.00 <i>+0.30/-0.00</i>	1.00	2.25	Carbon Steel	W0120-D-034-010-C <i>Loaded Height (L1): 1.31 -- Load at L1: 117.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 1.25</i>
34.00	12.00 <i>+0.30/-0.00</i>	1.25	2.35	Carbon Steel	W0120-D-034-013-C <i>Loaded Height (L1): 1.53 -- Load at L1: 181.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 1.10</i>
34.00	12.00 <i>+0.30/-0.00</i>	1.50	2.50	Carbon Steel	W0120-D-034-015-C <i>Loaded Height (L1): 1.75 -- Load at L1: 272.0 -- Actual ID (Ref): 12.2 -- Inside Height (D): 1.00</i>
34.00	14.00 <i>+0.30/-0.00</i>	1.25	2.40	Stainless Steel (17-7 PH)	W0140-D-034-013-S17 <i>Loaded Height (L1): 1.54 -- Load at L1: 199.0 -- Actual ID (Ref): 14.3 -- Inside Height (D): 1.15</i>
34.00	14.00 <i>+0.30/-0.00</i>	1.25	2.40	Carbon Steel	W0140-D-034-013-C <i>Loaded Height (L1): 1.54 -- Load at L1: 199.0 -- Actual ID (Ref): 14.3 -- Inside Height (D): 1.15</i>
34.00	14.00 <i>+0.30/-0.00</i>	1.50	2.55	Stainless Steel (17-7 PH)	W0140-D-034-015-S17 <i>Loaded Height (L1): 1.76 -- Load at L1: 298.0 -- Actual ID (Ref): 14.3 -- Inside Height (D): 1.05</i>
34.00	14.00 <i>+0.30/-0.00</i>	1.50	2.55	Carbon Steel	W0140-D-034-015-C <i>Loaded Height (L1): 1.76 -- Load at L1: 298.0 -- Actual ID (Ref): 14.3 -- Inside Height (D): 1.05</i>
34.00	16.00 <i>+0.30/-0.00</i>	1.50	2.55	Stainless Steel (17-7 PH)	W0160-D-034-015-S17 <i>Loaded Height (L1): 1.76 -- Load at L1: 315.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.05</i>
34.00	16.00 <i>+0.30/-0.00</i>	1.50	2.55	Carbon Steel	W0160-D-034-015-C <i>Loaded Height (L1): 1.76 -- Load at L1: 315.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.05</i>
34.00	16.00 <i>+0.30/-0.00</i>	2.00	2.85	Stainless Steel (17-7 PH)	W0160-D-034-020-S17 <i>Loaded Height (L1): 2.21 -- Load at L1: 578.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.85</i>
34.00	16.00 <i>+0.30/-0.00</i>	2.00	2.85	Carbon Steel	W0160-D-034-020-C <i>Loaded Height (L1): 2.21 -- Load at L1: 578.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 0.85</i>
34.50 mm (1.358 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
34.5	25.00 <i>+0.40/-0.00</i>	0.50	1.88	Ball Bearing Type - Carbon Steel	W0254-D-035-005-BB-C <i>Suits Bearing Size: R10 -- Load at 0.75 height: 15.78 -- Inside Height (D): 0.70</i>
34.60 mm (1.362 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
34.60	19.80 <i>+0.30/-0.00</i>	3.33	3.81	Carbon Steel	W0198-D-035-033-F-C <i>Suits Bolt Size: 3/4 in -- Load At Flat: 2313.0 -- Inside Height (D): 0.48</i>
34.60	20.00 <i>+0.40/-0.00</i>	0.40		Ball Bearing Type - Carbon Steel	W0204-D-035-040-BB-C <i>Suits Bearing Size: 6300 -- Inside Height (D): 1.60</i>
34.6	22.00 <i>+0.40/-0.00</i>	0.50	1.88	Ball Bearing Type - Carbon Steel	W0224-D-035-005-BB-C <i>Suits Bearing Size: 6003 / 6202 -- Load at 0.75 height: 12.38 -- Inside Height (D): 0.70</i>
35.50 mm (1.398 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
35.50	18.00 <i>+0.30/-0.00</i>	0.90	2.05	Carbon Steel	W0180-D-036-009-C <i>Loaded Height (L1): 1.19 -- Load at L1: 83.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 1.15</i>
35.50	18.00 <i>+0.50/-0.00</i>	0.90	2.05	Stainless Steel (17-7 PH)	W0180-D-036-009-S17 <i>Loaded Height (L1): 1.19 -- Load at L1: 83.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 1.15</i>
35.50	18.00 <i>+0.30/-0.00</i>	1.25	2.25	Carbon Steel	W0180-D-036-013-C <i>Loaded Height (L1): 1.50 -- Load at L1: 170.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 1.00</i>
35.50	18.00 <i>+0.30/-0.00</i>	1.25	2.25	Stainless Steel (17-7 PH)	W0180-D-036-013-S17 <i>Loaded Height (L1): 1.50 -- Load at L1: 170.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 1.00</i>
35.50	18.00 <i>+0.30/-0.00</i>	2.00	2.80	Carbon Steel	W0180-D-036-020-C <i>Loaded Height (L1): 0.61 -- Load at 0.75 Height: 560.6 -- Actual ID (Ref): 18.3 -- Inside Height (D): 0.81</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
35.50 mm (1.398 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
35.50 <i>+0.30/-0.00</i>	18.00	2.00	2.80	Stainless Steel (17-7 PH)	W0180-D-036-020-S17 <i>Loaded Height (L1): 2.20 -- Load at L1: 518.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 0.80</i>
36.60 mm (1.441 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
36.60 <i>+0.40/-0.00</i>	20.40	0.50		Ball Bearing Type - Carbon Steel	W0204-D-037-040-BB-C <i>Suits Bearing Size: 6301 -- Inside Height (D): 1.60</i>
38.10 mm (1.500 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
38.10 <i>+0.30/-0.00</i>	19.05	1.83	2.73	AISI C1095 Spring Steel	* W0191-D-038-018-C <i>Load to flatten: 526.79 -- Loaded Height (L1): 2.26 -- Load at L1: 294.6 -- Actual ID (Ref): 19.5 -- Inside Height (D): 0.90</i>
38.10 <i>+0.30/-0.00</i>	19.05	1.83	2.73	302 Stainless	* W0191-D-038-018-S2 <i>Load to flatten: 526.79 -- Loaded Height (L1): 2.26 -- Load at L1: 294.6 -- Inside Height (D): 0.90</i>
39.60 mm (1.559 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
39.6 <i>+0.40/-0.00</i>	25.00	0.50	1.30	Ball Bearing Type - Carbon Steel	W0255-D-040-005-BB-C <i>Suits Bearing Size: 6203 -- Load at 0.75 height: 11.47 -- Inside Height (D): 0.80</i>
39.88 mm (1.570 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
39.88 <i>+0.30/-0.00</i>	16.00	1.50	2.80	Carbon Steel	W0160-D-040-015-C <i>Loaded Height (L1): 0.98 -- Load at 0.75 Height: 298.5 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.31</i>
40.00 mm (1.575 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
40.00 <i>+0.30/-0.00</i>	14.00	1.25	2.65	Carbon Steel	W0140-D-040-013-C <i>Loaded Height (L1): 1.60 -- Load at L1: 178.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.40</i>
40.00 <i>+0.30/-0.00</i>	14.00	1.50	2.75	Carbon Steel	W0140-D-040-015-C <i>Loaded Height (L1): 1.81 -- Load at L1: 254.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.25</i>
40.00 <i>+0.30/-0.00</i>	14.00	1.50	2.75	Stainless Steel (17-7 PH)	W0140-D-040-015-S17 <i>Loaded Height (L1): 1.81 -- Load at L1: 254.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.25</i>
40.00 <i>+0.30/-0.00</i>	14.00	2.00	3.05	Carbon Steel	W0140-D-040-020-C <i>Loaded Height (L1): 2.26 -- Load at L1: 477.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.05</i>
40.00 <i>+0.30/-0.00</i>	14.00	2.00	3.05	Stainless Steel (17-7 PH)	W0140-D-040-020-S17 <i>Loaded Height (L1): 2.26 -- Load at L1: 477.0 -- Actual ID (Ref): 14.2 -- Inside Height (D): 1.05</i>
40.00 <i>+0.30/-0.00</i>	16.00	1.50	2.80	Stainless Steel (17-7 PH)	W0160-D-040-015-S17 <i>Loaded Height (L1): 0.98 -- Load at 0.75 Height: 298.5 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.31</i>
40.00 <i>+0.30/-0.00</i>	16.00	2.00	3.10	Carbon Steel	W0160-D-040-020-C <i>Loaded Height (L1): 2.28 -- Load at L1: 517.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.10</i>
40.00 <i>+0.30/-0.00</i>	16.00	2.00	3.10	Stainless Steel (17-7 PH)	W0160-D-040-020-S17 <i>Loaded Height (L1): 2.28 -- Load at L1: 517.0 -- Actual ID (Ref): 16.3 -- Inside Height (D): 1.10</i>
40.00 <i>+0.30/-0.00</i>	18.00	2.00	3.15	Carbon Steel	W0180-D-040-020-C <i>Loaded Height (L1): 2.29 -- Load at L1: 565.0 -- Actual ID (Ref): 18.3 -- Inside Height (D): 1.15</i>
40.00 <i>+0.40/-0.00</i>	20.00	1.00	2.30	Carbon Steel	W0200-D-040-010-C <i>Loaded Height (L1): 1.33 -- Load at L1: 102.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.30</i>
40.00 <i>+0.40/-0.00</i>	20.00	1.00	2.30	Stainless Steel (17-7 PH)	W0200-D-040-010-S17 <i>Loaded Height (L1): 1.33 -- Load at L1: 102.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.30</i>
40.00 <i>+0.40/-0.00</i>	20.00	1.50	2.65	Carbon Steel	W0200-D-040-015-C <i>Loaded Height (L1): 1.79 -- Load at L1: 262.0 -- Load at 0.75 Height: 293.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.15</i>
40.00 <i>+0.40/-0.00</i>	20.00	1.50	2.65	Stainless Steel (17-7 PH)	W0200-D-040-015-S17 <i>Loaded Height (L1): 0.87 -- Load at 0.75 Height: 284.4 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.16</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.00	3.10	Carbon Steel	W0200-D-040-020-C <i>Loaded Height (L1): 2.28 -- Load at L1: 570.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.10</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.00	3.10	Stainless Steel (17-7 PH)	W0200-D-040-020-S17 <i>Loaded Height (L1): 2.28 -- Load at L1: 570.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.10</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.25	3.15	Carbon Steel	W0200-D-040-023-C <i>Loaded Height (L1): 0.68 -- Load at 0.75 Height: 712.1 -- Actual ID (Ref): 20.4 -- Inside Height (D): 0.91</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.25	3.15	Stainless Steel (17-7 PH)	W0200-D-040-023-S17 <i>Loaded Height (L1): 0.68 -- Load at 0.75 Height: 712.1 -- Actual ID (Ref): 20.4 -- Inside Height (D): 0.91</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.25	3.15	304 Stainless	W0200-D-040-023-S4 <i>Load to flatten: N/A -- Loaded Height (L1): 0.67 -- Load at L1: 597.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 0.90</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.50	3.45	Carbon Steel	W0200-D-040-025-C <i>Loaded Height (L1): 0.72 -- Load at 0.75 Height: 1036.9 -- Actual ID (Ref): 20.4 -- Inside Height (D): 0.96</i>
40.00 <i>+0.40/-0.00</i>	20.00	2.50	3.45	Stainless Steel (17-7 PH)	W0200-D-040-025-S17 <i>Loaded Height (L1): 2.74 -- Load at L1: 938.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 0.95</i>
40.50 mm (1.594 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
40.50 <i>+0.50/-0.00</i>	54.00	0.60		Ball Bearing Type - Carbon Steel	W0405-D-055-060-BB-C <i>Suits Bearing Size: 6006 -- Inside Height (D): 1.60</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
41.60 mm (1.638 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
41.6	25.00 <i>+0.40/-0.00</i>	0.50	1.40	Ball Bearing Type - Carbon Steel	W0255-D-042-005-BB-C <i>Suits Bearing Size: 6004 / 6302 -- Load at 0.75 height: 11.83 -- Inside Height (D): 0.90</i>
45.00 mm (1.772 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
45.00	22.00 <i>+0.40/-0.00</i>	1.25	2.85	Carbon Steel	W0220-D-045-013-C <i>Loaded Height (L1): 1.65 -- Load at L1: 189.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.60</i>
45.00	22.00 <i>+0.40/-0.00</i>	1.75	3.05	Carbon Steel	W0220-D-045-018-C <i>Loaded Height (L1): 2.08 -- Load at L1: 364.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.30</i>
45.00	22.00 <i>+0.40/-0.00</i>	1.75	3.05	Stainless Steel (17-7 PH)	W0220-D-045-018-S17 <i>Loaded Height (L1): 2.08 -- Load at L1: 364.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.30</i>
45.00	22.00 <i>+0.40/-0.00</i>	2.50	3.50	Carbon Steel	W0220-D-045-025-C <i>Loaded Height (L1): 2.75 -- Load at L1: 771.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.00</i>
45.00	22.00 <i>+0.40/-0.00</i>	2.50	3.50	Stainless Steel (17-7 PH)	W0220-D-045-025-S17 <i>Loaded Height (L1): 2.75 -- Load at L1: 771.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.00</i>
45.80 mm (1.803 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
45.80	25.80 <i>+0.40/-0.00</i>	4.27	4.95	Carbon Steel	W0262-D-046-043-F-C <i>Suits Bolt Size: 1 Inch -- Load At Flat: 3900.0 -- Inside Height (D): 0.68</i>
46.50 mm (1.831 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
46.50	30.00 <i>+0.50/-0.00</i>	0.60		Ball Bearing Type - Carbon Steel	W0304-D-047-060-BB-C <i>Suits Bearing Size: 6005, 6204, 6303 -- Inside Height (D): 1.60</i>
50.00 mm (1.969 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
50.00	18.00 <i>+0.30/-0.00</i>	1.50	3.30	Stainless Steel (17-7 PH)	W0180-D-050-015-S17 <i>Loaded Height (L1): 1.95 -- Load at L1: 260.0 -- Actual ID (Ref): 18.4 -- Inside Height (D): 1.80</i>
50.00	18.00 <i>+0.30/-0.00</i>	1.50	3.30	Carbon Steel	W0180-D-050-015-C <i>Loaded Height (L1): 1.95 -- Load at L1: 260.0 -- Actual ID (Ref): 18.4 -- Inside Height (D): 1.80</i>
50.00	18.00 <i>+0.30/-0.00</i>	2.00	3.50	Carbon Steel	W0180-D-050-020-C <i>Loaded Height (L1): 2.38 -- Load at L1: 456.0 -- Actual ID (Ref): 18.4 -- Inside Height (D): 1.50</i>
50.00	18.00 <i>+0.30/-0.00</i>	2.50	4.10	Carbon Steel	W0180-D-050-025-C <i>Loaded Height (L1): 2.90 -- Load at L1: 930.0 -- Actual ID (Ref): 18.4 -- Inside Height (D): 1.60</i>
50.00	18.00 <i>+0.30/-0.00</i>	3.00	4.40	Carbon Steel	W0180-D-050-030-C <i>Loaded Height (L1): 3.35 -- Load at L1: 1367.0 -- Actual ID (Ref): 18.4 -- Inside Height (D): 1.40</i>
50.00	20.00 <i>+0.40/-0.00</i>	2.00	3.50	Carbon Steel	W0200-D-050-020-C <i>Loaded Height (L1): 2.38 -- Load at L1: 469.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.50</i>
50.00	20.00 <i>+0.40/-0.00</i>	2.50	3.85	Stainless Steel (17-7 PH)	W0200-D-050-025-S17 <i>Loaded Height (L1): 2.84 -- Load at L1: 792.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.35</i>
50.00	20.00 <i>+0.40/-0.00</i>	2.50	3.85	Carbon Steel	W0200-D-050-025-C <i>Loaded Height (L1): 2.84 -- Load at L1: 792.0 -- Actual ID (Ref): 20.4 -- Inside Height (D): 1.35</i>
50.00	22.00 <i>+0.40/-0.00</i>	2.00	3.60	Carbon Steel	W0220-D-050-020-C <i>Loaded Height (L1): 2.40 -- Load at L1: 522.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.60</i>
50.00	22.00 <i>+0.40/-0.00</i>	2.50	3.90	Stainless Steel (17-7 PH)	W0220-D-050-025-S17 <i>Loaded Height (L1): 2.85 -- Load at L1: 851.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.40</i>
50.00	22.00 <i>+0.40/-0.00</i>	2.50	3.90	Carbon Steel	W0220-D-050-025-C <i>Loaded Height (L1): 2.85 -- Load at L1: 851.0 -- Actual ID (Ref): 22.4 -- Inside Height (D): 1.40</i>
50.00	25.00 <i>+0.50/-0.00</i>	1.25	2.85	Carbon Steel	W0250-D-050-013-C <i>Loaded Height (L1): 1.65 -- Load at L1: 155.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.60</i>
50.00	25.00 <i>+0.50/-0.00</i>	2.00	3.40	Stainless Steel (17-7 PH)	W0250-D-050-020-S17 <i>Loaded Height (L1): 1.06 -- Load at 0.75 Height: 512.1 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.42</i>
50.00	25.00 <i>+0.50/-0.00</i>	2.00	3.40	Carbon Steel	W0250-D-050-020-C <i>Loaded Height (L1): 2.35 -- Load at L1: 476.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.40</i>
50.00	25.00 <i>+0.50/-0.00</i>	2.50	3.90	Stainless Steel (17-7 PH)	W0250-D-050-025-S17 <i>Loaded Height (L1): 2.85 -- Load at L1: 906.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.40</i>
50.00	25.00 <i>+0.50/-0.00</i>	2.50	3.90	Carbon Steel	W0250-D-050-025-C <i>Loaded Height (L1): 2.85 -- Load at L1: 906.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.40</i>
50.00	25.00 <i>+0.50/-0.00</i>	3.00	4.10	Stainless Steel (17-7 PH)	W0250-D-050-030-S17-L08 <i>Loaded Height (L1): 0.83 -- Load at 0.75 Height: 1302.3 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.11</i>
50.00	25.00 <i>+0.50/-0.00</i>	3.00	4.10	Stainless Steel (17-7 PH)	W0250-D-050-030-S17-L32 <i>Loaded Height (L1): 3.28 -- Load at L1: 1197.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.10</i>
50.00	25.00 <i>+0.50/-0.00</i>	3.00	4.10	Carbon Steel	W0250-D-050-030-C <i>Loaded Height (L1): 3.28 -- Load at L1: 1197.0 -- Load at 0.75 Height: 1341.6 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.10</i>
51.50 mm (2.028 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
51.5	35.5	0.60	1.50	Ball Bearing Type - Carbon Steel	W0350-D-052-006-BB-C <i>Suits Bearing Size: 6205 / 6304 -- Load at 0.75 height: 14.10 -- Inside Height (D): 0.91</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
56.00 mm (2.205 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
56.00	28.00 <i>+0.50/-0.00</i>	1.50	3.45	Carbon Steel	W0280-D-056-015-C <i>Loaded Height (L1): 1.99 -- Load at L1: 262.0 -- Actual ID (Ref): 28.5 -- Inside Height (D): 1.95</i>
56.00	28.00 <i>+0.50/-0.00</i>	2.00	3.60	Carbon Steel	W0280-D-056-020-C <i>Loaded Height (L1): 2.40 -- Load at L1: 444.0 -- Actual ID (Ref): 28.5 -- Inside Height (D): 1.60</i>
56.00	28.00 <i>+0.50/-0.00</i>	2.00	3.60	Stainless Steel (17-7 PH)	W0280-D-056-020-S17 <i>Loaded Height (L1): 2.40 -- Load at L1: 444.0 -- Actual ID (Ref): 28.5 -- Inside Height (D): 1.60</i>
56.00	28.00 <i>+0.50/-0.00</i>	3.00	4.30	Stainless Steel (17-7 PH)	W0280-D-056-030-S17 <i>Loaded Height (L1): 3.33 -- Load at L1: 1138.0 -- Actual ID (Ref): 28.5 -- Inside Height (D): 1.30</i>
56.00	28.00 <i>+0.50/-0.00</i>	3.00	4.30	Carbon Steel	W0280-D-056-030-C <i>Loaded Height (L1): 3.33 -- Load at L1: 1138.0 -- Actual ID (Ref): 28.5 -- Inside Height (D): 1.30</i>
60.00 mm (2.362 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
60.00	20.00 <i>+0.40/-0.00</i>	2.00	4.10	Carbon Steel	W0200-D-060-020-C <i>Loaded Height (L1): 2.52 -- Load at L1: 472.0 -- Actual ID (Ref): 20.5 -- Inside Height (D): 2.10</i>
60.00	20.00 <i>+0.40/-0.00</i>	2.50	4.30	Carbon Steel	W0200-D-060-025-C <i>Loaded Height (L1): 2.95 -- Load at L1: 729.0 -- Actual ID (Ref): 20.5 -- Inside Height (D): 1.80</i>
60.00	20.00 <i>+0.40/-0.00</i>	3.00	4.70	Carbon Steel	W0200-D-060-030-C <i>Loaded Height (L1): 3.42 -- Load at L1: 1156.0 -- Actual ID (Ref): 20.5 -- Inside Height (D): 1.70</i>
60.00	25.00 <i>+0.50/-0.00</i>	2.50	4.40	Stainless Steel (17-7 PH)	W0250-D-060-025-S17 <i>Loaded Height (L1): 2.97 -- Load at L1: 816.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.90</i>
60.00	25.00 <i>+0.50/-0.00</i>	2.50	4.40	Carbon Steel	W0250-D-060-025-C <i>Loaded Height (L1): 2.97 -- Load at L1: 816.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.90</i>
60.00	25.00 <i>+0.50/-0.00</i>	3.00	4.65	Carbon Steel	W0250-D-060-030-C <i>Loaded Height (L1): 3.41 -- Load at L1: 1176.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.65</i>
60.00	25.00 <i>+0.50/-0.00</i>	3.00	4.65	Stainless Steel (17-7 PH)	W0250-D-060-030-S17 <i>Loaded Height (L1): 3.41 -- Load at L1: 1176.0 -- Actual ID (Ref): 25.4 -- Inside Height (D): 1.65</i>
60.00	30.00 <i>+0.50/-0.00</i>	2.50	4.30	Carbon Steel	W0300-D-060-025-C <i>Loaded Height (L1): 2.95 -- Load at L1: 834.0 -- Actual ID (Ref): 30.5 -- Inside Height (D): 1.80</i>
60.00	30.00 <i>+0.50/-0.00</i>	3.00	4.70	Carbon Steel	W0300-D-060-030-C <i>Loaded Height (L1): 1.29 -- Load at 0.75 Height: 1444.2 -- Actual ID (Ref): 30.5 -- Inside Height (D): 1.72</i>
60.00	30.00 <i>+0.50/-0.00</i>	3.50	5.00	Stainless Steel (17-7 PH)	W0300-D-060-035-S17 <i>Loaded Height (L1): 3.88 -- Load at L1: 1814.0 -- Actual ID (Ref): 30.5 -- Inside Height (D): 1.50</i>
60.00	30.00 <i>+0.50/-0.00</i>	3.50	5.00	Carbon Steel	W0300-D-060-035-C <i>Loaded Height (L1): 3.88 -- Load at L1: 1814.0 -- Actual ID (Ref): 30.5 -- Inside Height (D): 1.50</i>
61.50 mm (2.421 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
61.50	40.00 <i>+0.50/-0.00</i>	0.70		Ball Bearing Type - Carbon Steel	W0405-D-062-070-BB-C <i>Suits Bearing Size: 6007, 6206, 6305 -- Inside Height (D): 1.60</i>
63.00 mm (2.480 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
63.00	30.00 <i>+1.00/-0.00</i>	1.80	4.15	Carbon Steel	W0310-D-063-018-C <i>Loaded Height (L1): 2.39 -- Load at L1: 424.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 2.35</i>
63.00	30.00 <i>+1.00/-0.00</i>	2.50	4.25	Carbon Steel	W0310-D-063-025-C <i>Loaded Height (L1): 2.94 -- Load at L1: 719.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 1.75</i>
63.00	30.00 <i>+1.00/-0.00</i>	2.50	4.25	Stainless Steel (17-7 PH)	W0310-D-063-025-S17 <i>Loaded Height (L1): 2.94 -- Load at L1: 719.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 1.75</i>
63.00	30.00 <i>+1.00/-0.00</i>	3.00	4.80	Carbon Steel	W0310-D-063-030-C <i>Loaded Height (L1): 3.45 -- Load at L1: 1253.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 1.80</i>
63.00	30.00 <i>+1.00/-0.00</i>	3.50	4.90	Carbon Steel	W0310-D-063-035-C <i>Loaded Height (L1): 3.85 -- Load at L1: 1502.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 1.40</i>
63.00	30.16 <i>+1.00/-0.00</i>	2.50	4.25	Carbon Steel	W0302-D-063-025-C <i>Loaded Height (L1): 1.32 -- Load at 0.75 Height: 773.4 -- Actual ID (Ref): 30.7 -- Inside Height (D): 1.77</i>
67.50 mm (2.657 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
67.50	50.00 <i>+0.50/-0.00</i>	0.70		Ball Bearing Type - Carbon Steel	W0505-D-068-070-BB-C <i>Suits Bearing Size: 6008 -- Inside Height (D): 1.60</i>
70.00 mm (2.756 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
70.00	25.00 <i>+0.40/-0.00</i>	2.00	4.50	Carbon Steel	W0250-D-070-020-C <i>Loaded Height (L1): 2.63 -- Load at L1: 444.0 -- Actual ID (Ref): 25.5 -- Inside Height (D): 2.50</i>
70.00	25.00 <i>+0.40/-0.00</i>	2.00	4.50	Stainless Steel (17-7 PH)	W0250-D-070-020-S17 <i>Loaded Height (L1): 2.63 -- Load at L1: 444.0 -- Actual ID (Ref): 25.5 -- Inside Height (D): 2.50</i>
70.00	30.00 <i>+0.50/-0.00</i>	2.50	4.90	Carbon Steel	W0300-D-070-025-C <i>Loaded Height (L1): 3.10 -- Load at L1: 803.0 -- Actual ID (Ref): 30.5 -- Inside Height (D): 2.40</i>
70.00	30.00 <i>+0.50/-0.00</i>	3.00	5.10	Carbon Steel	W0300-D-070-030-C <i>Loaded Height (L1): 3.52 -- Load at L1: 1142.0 -- Actual ID (Ref): 30.5 -- Inside Height (D): 2.10</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
70.00 mm (2.756 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
70.00	35.00 <i>+0.50/-0.00</i>	4.00	5.80	Carbon Steel	W0350-D-070-040-C <i>Loaded Height (L1): 4.45 -- Load at L1: 2391.0 -- Actual ID (Ref): 35.5 -- Inside Height (D): 1.80</i>
70.00	35.00 <i>+0.50/-0.00</i>	4.00	5.80	Stainless Steel (17-7 PH)	W0350-D-070-040-S17 <i>Loaded Height (L1): 4.45 -- Load at L1: 2391.0 -- Actual ID (Ref): 35.5 -- Inside Height (D): 1.80</i>
70.00	40.00 <i>+0.50/-0.00</i>	4.00	5.60	Stainless Steel (17-7 PH)	W0400-D-070-040-S17 <i>Loaded Height (L1): 4.40 -- Load at L1: 2334.0 -- Actual ID (Ref): 40.5 -- Inside Height (D): 1.60</i>
70.00	40.00 <i>+0.50/-0.00</i>	4.00	5.60	Carbon Steel	W0405-D-070-040-C <i>Loaded Height (L1): 1.22 -- Load at 0.75 Height: 2548.7 -- Actual ID (Ref): 40.5 -- Inside Height (D): 1.63</i>
70.00	40.00 <i>+0.50/-0.00</i>	5.00	6.20	Carbon Steel	W0405-D-070-050-C <i>Loaded Height (L1): 5.30 -- Load at L1: 3365.0 -- Actual ID (Ref): 40.5 -- Inside Height (D): 1.20</i>
70.00	40.00 <i>+0.50/-0.00</i>	5.00	6.20	Stainless Steel (17-7 PH)	W0400-D-070-050-S17 <i>Loaded Height (L1): 5.30 -- Load at L1: 3365.0 -- Actual ID (Ref): 40.5 -- Inside Height (D): 1.20</i>
71.00 mm (2.795 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
71.00	35.00 <i>+1.00/-0.00</i>	2.00	4.60	Carbon Steel	W0360-D-071-020-C <i>Loaded Height (L1): 2.65 -- Load at L1: 514.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.60</i>
71.00	35.00 <i>+1.00/-0.00</i>	2.00	4.60	Stainless Steel (17-7 PH)	W0360-D-071-020-S17 <i>Loaded Height (L1): 2.65 -- Load at L1: 514.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.60</i>
71.00	35.00 <i>+1.00/-0.00</i>	2.50	4.50	Carbon Steel	W0360-D-071-025-C <i>Loaded Height (L1): 3.00 -- Load at L1: 672.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.00</i>
71.00	35.00 <i>+1.00/-0.00</i>	2.50	4.50	Stainless Steel (17-7 PH)	W0360-D-071-025-S17 <i>Loaded Height (L1): 3.00 -- Load at L1: 672.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.00</i>
71.00	35.00 <i>+1.00/-0.00</i>	3.00	5.10	Carbon Steel	W0350-D-070-030-C <i>Loaded Height (L1): 1.59 -- Load at 0.75 Height: 1326.3 -- Actual ID (Ref): 35.5 -- Inside Height (D): 2.12</i>
71.00	35.00 <i>+1.00/-0.00</i>	4.00	5.60	Stainless Steel (17-7 PH)	W0360-D-071-040-S17 <i>Loaded Height (L1): 4.40 -- Load at L1: 2052.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 1.60</i>
71.00	35.00 <i>+1.00/-0.00</i>	4.00	5.60	Carbon Steel	W0360-D-071-040-C <i>Loaded Height (L1): 4.40 -- Load at L1: 2052.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 1.60</i>
71.50 mm (2.815 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
71.50	45.00 <i>+0.50/-0.00</i>	0.70		Ball Bearing Type - Carbon Steel	W0455-D-072-070-BB-C <i>Suits Bearing Size: 6306 -- Inside Height (D): 1.60</i>
80.00 mm (3.150 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
80.00	30.00 <i>+0.50/-0.00</i>	2.50	5.30	Carbon Steel	W0310-D-080-025-C <i>Loaded Height (L1): 3.20 -- Load at L1: 724.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 2.80</i>
80.00	30.00 <i>+0.50/-0.00</i>	3.00	5.50	Carbon Steel	W0310-D-080-030-C <i>Loaded Height (L1): 3.63 -- Load at L1: 1035.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 2.50</i>
80.00	30.00 <i>+0.50/-0.00</i>	4.00	6.10	Carbon Steel	W0310-D-080-040-C <i>Loaded Height (L1): 4.52 -- Load at L1: 1938.0 -- Actual ID (Ref): 31.0 -- Inside Height (D): 2.10</i>
80.00	35.00 <i>+0.50/-0.00</i>	3.00	5.70	Carbon Steel	W0360-D-080-030-C <i>Loaded Height (L1): 3.67 -- Load at L1: 1191.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.70</i>
80.00	35.00 <i>+0.50/-0.00</i>	4.00	6.20	Carbon Steel	W0360-D-080-040-C <i>Loaded Height (L1): 4.55 -- Load at L1: 2139.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.20</i>
80.00	35.00 <i>+0.50/-0.00</i>	4.00	6.20	Stainless Steel (17-7 PH)	W0360-D-080-040-S17 <i>Loaded Height (L1): 4.55 -- Load at L1: 2139.0 -- Actual ID (Ref): 36.0 -- Inside Height (D): 2.20</i>
80.00	40.00 <i>+1.00/-0.00</i>	2.25	5.20	Carbon Steel	W0410-D-080-023-C <i>Loaded Height (L1): 2.99 -- Load at L1: 661.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.95</i>
80.00	40.00 <i>+1.00/-0.00</i>	2.25	5.20	Stainless Steel (17-7 PH)	W0410-D-080-023-S17 <i>Loaded Height (L1): 2.99 -- Load at L1: 661.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.95</i>
80.00	40.00 <i>+1.00/-0.00</i>	3.00	5.30	Carbon Steel	W0405-D-080-030-C <i>Loaded Height (L1): 1.74 -- Load at 0.75 Height: 1129.9 -- Actual ID (Ref): 40.5 -- Inside Height (D): 2.32</i>
80.00	40.00 <i>+1.00/-0.00</i>	3.00	5.30	Carbon Steel	W0410-D-080-030-C <i>Loaded Height (L1): 3.58 -- Load at L1: 1051.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.30</i>
80.00	40.00 <i>+1.00/-0.00</i>	3.00	5.30	Stainless Steel (17-7 PH)	W0410-D-080-030-S17 <i>Loaded Height (L1): 3.58 -- Load at L1: 1051.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.30</i>
80.00	40.00 <i>+1.00/-0.00</i>	4.00	6.20	Carbon Steel	W0410-D-080-040-C <i>Loaded Height (L1): 4.55 -- Load at L1: 2286.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.20</i>
80.00	40.00 <i>+1.00/-0.00</i>	5.00	6.70	Carbon Steel	W0405-D-080-050-C <i>Loaded Height (L1): 1.29 -- Load at 0.75 Height: 3656.9 -- Actual ID (Ref): 40.5 -- Inside Height (D): 1.72</i>
80.00	40.00 <i>+1.00/-0.00</i>	5.00	6.70	Carbon Steel	W0410-D-080-050-C <i>Loaded Height (L1): 5.42 -- Load at L1: 3354.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 1.70</i>
90.00 mm (3.543 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
90.00	45.00 <i>+1.00/-0.00</i>	2.50	5.70	Stainless Steel (17-7 PH)	W0460-D-090-025-S17 <i>Loaded Height (L1): 3.30 -- Load at L1: 768.0 -- Actual ID (Ref): 46.0 -- Inside Height (D): 3.20</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
90.00 mm (3.543 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
90.00	45.00 <i>+1.00/-0.00</i>	2.50	5.70	Carbon Steel	* W0460-D-090-025-C <i>Loaded Height (L1): 3.30 -- Load at L1: 768.0 -- Actual ID (Ref): 46.0 -- Inside Height (D): 3.20</i>
90.00	45.00 <i>+1.00/-0.00</i>	3.50	6.00	Carbon Steel	W0460-D-090-035-C <i>Loaded Height (L1): 4.13 -- Load at L1: 1415.0 -- Actual ID (Ref): 46.0 -- Inside Height (D): 2.50</i>
90.00	45.00 <i>+1.00/-0.00</i>	5.00	7.00	Carbon Steel	W0460-D-090-050-C <i>Loaded Height (L1): 5.50 -- Load at L1: 3134.0 -- Actual ID (Ref): 46.0 -- Inside Height (D): 2.00</i>
99.00 mm (3.898 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
99	65.50 <i>+0.50/-0.00</i>	1.00	2.60	Ball Bearing Type - Carbon Steel	W0665-D-099-010-BB-C <i>Suits Bearing Size: 6309 -- Inside Height (D): 1.60</i>
100.00 mm (3.937 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
100.00	40.00 <i>+1.00/-0.00</i>	4.00	7.20	Carbon Steel	W0410-D-100-040-C <i>Loaded Height (L1): 4.80 -- Load at L1: 2024.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 3.20</i>
100.00	40.00 <i>+1.00/-0.00</i>	5.00	7.75	Carbon Steel	W0410-D-100-050-C <i>Loaded Height (L1): 5.69 -- Load at L1: 3234.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 2.75</i>
100.00	50.00 <i>+1.00/-0.00</i>	2.70	6.20	Carbon Steel	* W0510-D-100-027-C <i>Loaded Height (L1): 3.58 -- Load at L1: 860.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 3.50</i>
100.00	50.00 <i>+1.00/-0.00</i>	3.50	6.30	Carbon Steel	W0510-D-100-035-C <i>Loaded Height (L1): 4.20 -- Load at L1: 1306.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 2.80</i>
100.00	50.00 <i>+1.00/-0.00</i>	4.00	7.00	Carbon Steel	W0510-D-100-040-C <i>Loaded Height (L1): 2.27 -- Load at 0.75 Height: 2230.77 -- Actual ID (Ref): 51.0 -- Inside Height (D): 3.03</i>
100.00	50.00 <i>+1.00/-0.00</i>	5.00	7.80	Carbon Steel	W0510-D-100-050-C <i>Loaded Height (L1): 5.70 -- Load at L1: 3632.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 2.80</i>
100.00	50.00 <i>+1.00/-0.00</i>	6.00	8.20	Carbon Steel	W0510-D-100-060-C <i>Loaded Height (L1): 1.67 -- Load at 0.75 Height: 5225.38 -- Actual ID (Ref): 51.0 -- Inside Height (D): 2.23</i>
112.00 mm (4.409 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
112.00	55.00 <i>+2.00/-0.00</i>	3.00	6.90	Carbon Steel	W0570-D-112-030-C <i>Loaded Height (L1): 3.97 -- Load at L1: 1048.0 -- Actual ID (Ref): 57.0 -- Inside Height (D): 3.90</i>
112.00	55.00 <i>+2.00/-0.00</i>	3.00	6.90	Stainless Steel (17-7 PH)	W0570-D-112-030-S17 <i>Loaded Height (L1): 3.97 -- Load at L1: 1048.0 -- Actual ID (Ref): 57.0 -- Inside Height (D): 3.90</i>
112.00	55.00 <i>+2.00/-0.00</i>	4.00	7.20	Carbon Steel	W0570-D-112-040-C <i>Loaded Height (L1): 4.87 -- Load at L1: 1774.0 -- Actual ID (Ref): 57.0 -- Inside Height (D): 3.20</i>
112.00	55.00 <i>+2.00/-0.00</i>	6.00	8.50	Carbon Steel	W0570-D-112-060-C <i>Loaded Height (L1): 6.63 -- Load at L1: 4368.0 -- Actual ID (Ref): 57.0 -- Inside Height (D): 2.50</i>
125.00 mm (4.921 inch.) <i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
125.00	40.00 <i>+1.00/-0.00</i>	4.00	8.20	Carbon Steel	W0410-D-125-040-C <i>Loaded Height (L1): 5.05 -- Load at L1: 1734.0 -- Actual ID (Ref): 41.0 -- Inside Height (D): 4.20</i>
125.00	50.00 <i>+1.00/-0.00</i>	4.00	8.50	Carbon Steel	W0510-D-125-040-C <i>Loaded Height (L1): 5.13 -- Load at L1: 1981.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 4.50</i>
125.00	50.00 <i>+1.00/-0.00</i>	5.00	8.90	Carbon Steel	W0510-D-125-050-C <i>Loaded Height (L1): 5.97 -- Load at L1: 3065.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 3.90</i>
125.00	50.00 <i>+1.00/-0.00</i>	6.00	9.40	Carbon Steel	W0510-D-125-060-C <i>Loaded Height (L1): 6.85 -- Load at L1: 4428.0 -- Actual ID (Ref): 51.0 -- Inside Height (D): 3.40</i>
125.00	60.00 <i>+1.00/-0.00</i>	5.00	9.00	Carbon Steel	W0610-D-125-050-C <i>Loaded Height (L1): 6.00 -- Load at L1: 3395.0 -- Actual ID (Ref): 61.0 -- Inside Height (D): 4.00</i>
125.00	60.00 <i>+1.00/-0.00</i>	6.00	9.60	Carbon Steel	W0610-D-125-060-C <i>Loaded Height (L1): 6.90 -- Load at L1: 5069.0 -- Actual ID (Ref): 61.0 -- Inside Height (D): 3.60</i>
125.00	60.00 <i>+1.00/-0.00</i>	8.00	10.90	Carbon Steel	W0610-D-125-080-C <i>Loaded Height (L1): 8.72 -- Load at L1: 9353.0 -- Actual ID (Ref): 61.0 -- Inside Height (D): 2.90</i>
125.00	63.00 <i>+1.00/-0.00</i>	3.50	8.00	Carbon Steel	W0640-D-125-035-C <i>Loaded Height (L1): 4.63 -- Load at L1: 1541.0 -- Actual ID (Ref): 64.0 -- Inside Height (D): 4.50</i>
125.00	63.00 <i>+1.00/-0.00</i>	5.00	8.50	Carbon Steel	W0640-D-125-050-C <i>Loaded Height (L1): 5.88 -- Load at L1: 2989.0 -- Actual ID (Ref): 64.0 -- Inside Height (D): 3.50</i>
125.00	63.00 <i>+1.00/-0.00</i>	8.00	10.60	Carbon Steel	W0640-D-125-080-C <i>Loaded Height (L1): 8.65 -- Load at L1: 8588.0 -- Actual ID (Ref): 64.0 -- Inside Height (D): 2.60</i>
125.00	70.00 <i>+1.00/-0.00</i>	6.00	9.30	Carbon Steel	W0710-D-125-060-C <i>Loaded Height (L1): 6.88 -- Load at L1: 5119.0 -- Actual ID (Ref): 71.0 -- Inside Height (D): 3.30</i>
125.00	70.00 <i>+1.00/-0.00</i>	8.00	10.40	Carbon Steel	W0710-D-125-080-C <i>Loaded Height (L1): 8.60 -- Load at L1: 8545.0 -- Actual ID (Ref): 71.0 -- Inside Height (D): 2.40</i>
125.00	70.00 <i>+1.00/-0.00</i>	10.00	11.80	Carbon Steel	W0710-D-125-100-C <i>Loaded Height (L1): 10.45 -- Load at L1: 12406.0 -- Actual ID (Ref): 71.0 -- Inside Height (D): 1.80</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
140.00 mm (5.512 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
140.00	70.00 <i>+1.00/-0.00</i>	3.80	8.70	Carbon Steel	W0720-D-140-038-C <i>Loaded Height (L1): 5.02 -- Load at L1: 1719.0 -- Actual ID (Ref): 72.0 -- Inside Height (D): 4.90</i>
140.00	70.00 <i>+1.00/-0.00</i>	5.00	9.00	Carbon Steel	W0720-D-140-050-C <i>Loaded Height (L1): 6.00 -- Load at L1: 2791.0 -- Actual ID (Ref): 72.0 -- Inside Height (D): 4.00</i>
140.00	70.00 <i>+1.00/-0.00</i>	8.00	11.20	Carbon Steel	W0720-D-140-080-C <i>Loaded Height (L1): 8.80 -- Load at L1: 8520.0 -- Actual ID (Ref): 72.0 -- Inside Height (D): 3.20</i>
150.00 mm (5.906 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
150.00	60.00 <i>+1.00/-0.00</i>	5.00	10.30	Carbon Steel	W0610-D-150-050-C <i>Loaded Height (L1): 6.88 -- Load at L1: 3102.0 -- Actual ID (Ref): 61.0 -- Inside Height (D): 5.30</i>
150.00	60.00 <i>+1.00/-0.00</i>	6.00	10.80	Carbon Steel	W0610-D-150-060-C <i>Loaded Height (L1): 7.20 -- Load at L1: 4548.0 -- Actual ID (Ref): 61.0 -- Inside Height (D): 4.80</i>
150.00	70.00 <i>+1.00/-0.00</i>	6.00	10.80	Carbon Steel	W0710-D-150-060-C <i>Loaded Height (L1): 7.20 -- Load at L1: 4813.0 -- Actual ID (Ref): 71.0 -- Inside Height (D): 4.80</i>
150.00	70.00 <i>+1.00/-0.00</i>	8.00	12.00	Carbon Steel	W0710-D-150-080-C <i>Loaded Height (L1): 9.00 -- Load at L1: 8980.0 -- Actual ID (Ref): 71.0 -- Inside Height (D): 4.00</i>
150.00	80.00 <i>+1.00/-0.00</i>	8.00	11.70	Carbon Steel	W0810-D-150-080-C <i>Loaded Height (L1): 8.92 -- Load at L1: 8948.0 -- Actual ID (Ref): 81.0 -- Inside Height (D): 3.70</i>
150.00	80.00 <i>+1.00/-0.00</i>	10.00	13.00	Carbon Steel	W0810-D-150-100-C <i>Loaded Height (L1): 10.75 -- Load at L1: 13905.0 -- Actual ID (Ref): 81.0 -- Inside Height (D): 3.00</i>
160.00 mm (6.299 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
160.00	80.00 <i>+2.00/-0.00</i>	4.30	9.90	Carbon Steel	W0820-D-160-043-C <i>Loaded Height (L1): 5.70 -- Load at L1: 2183.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 5.60</i>
160.00	80.00 <i>+2.00/-0.00</i>	6.00	10.50	Carbon Steel	W0820-D-160-060-C <i>Loaded Height (L1): 7.13 -- Load at L1: 4099.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 4.50</i>
160.00	80.00 <i>+2.00/-0.00</i>	10.00	13.50	Carbon Steel	W0820-D-160-100-C <i>Loaded Height (L1): 10.88 -- Load at L1: 13826.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 3.50</i>
180.00 mm (7.087 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
180.00	90.00 <i>+2.00/-0.00</i>	4.80	11.00	Carbon Steel	W0920-D-180-048-C <i>Loaded Height (L1): 6.35 -- Load at L1: 2647.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 6.20</i>
180.00	90.00 <i>+2.00/-0.00</i>	6.00	11.10	Carbon Steel	W0920-D-180-060-C <i>Loaded Height (L1): 7.27 -- Load at L1: 3748.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 5.10</i>
180.00	90.00 <i>+2.00/-0.00</i>	10.00	14.50	Carbon Steel	W0920-D-180-100-C <i>Loaded Height (L1): 11.00 -- Load at L1: 12535.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 4.50</i>
200.00 mm (7.874 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
200.00	80.00 <i>+2.00/-0.00</i>	8.00	14.20	Carbon Steel	W0820-D-200-080-C <i>Loaded Height (L1): 9.55 -- Load at L1: 7799.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 6.20</i>
200.00	80.00 <i>+2.00/-0.00</i>	10.00	15.50	Carbon Steel	W0820-D-200-100-C <i>Loaded Height (L1): 11.38 -- Load at L1: 12937.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 5.50</i>
200.00	80.00 <i>+2.00/-0.00</i>	12.00	16.60	Carbon Steel	W0820-D-200-120-C <i>Loaded Height (L1): 13.15 -- Load at L1: 18264.0 -- Actual ID (Ref): 82.0 -- Inside Height (D): 4.60</i>
200.00	90.00 <i>+2.00/-0.00</i>	10.00	15.60	Carbon Steel	W0920-D-200-100-C <i>Loaded Height (L1): 11.40 -- Load at L1: 13761.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 5.60</i>
200.00	90.00 <i>+2.00/-0.00</i>	12.00	16.80	Carbon Steel	W0920-D-200-120-C <i>Loaded Height (L1): 13.20 -- Load at L1: 19916.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 4.80</i>
200.00	90.00 <i>+2.00/-0.00</i>	14.00	18.10	Carbon Steel	W0920-D-200-140-C <i>Loaded Height (L1): 15.02 -- Load at L1: 26708.0 -- Actual ID (Ref): 92.0 -- Inside Height (D): 4.10</i>
200.00	100.00 <i>+2.00/-0.00</i>	5.50	12.50	Carbon Steel	W1020-D-200-055-C <i>Loaded Height (L1): 7.25 -- Load at L1: 3609.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 7.00</i>
200.00	100.00 <i>+2.00/-0.00</i>	8.00	13.60	Carbon Steel	W1020-D-200-080-C <i>Loaded Height (L1): 9.40 -- Load at L1: 7634.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 5.60</i>
200.00	100.00 <i>+2.00/-0.00</i>	10.00	15.60	Carbon Steel	W1020-D-200-100-C <i>Loaded Height (L1): 11.40 -- Load at L1: 14523.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 5.60</i>
200.00	100.00 <i>+2.00/-0.00</i>	12.00	16.20	Carbon Steel	W1020-D-200-120-C <i>Loaded Height (L1): 13.05 -- Load at L1: 18292.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 4.20</i>
200.00	100.00 <i>+2.00/-0.00</i>	14.00	18.20	Carbon Steel	W1020-D-200-140-C <i>Loaded Height (L1): 15.05 -- Load at L1: 28902.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 4.20</i>
200.00	110.00 <i>+2.00/-0.00</i>	12.00	16.20	Carbon Steel	W1120-D-200-120-C <i>Loaded Height (L1): 13.05 -- Load at L1: 19572.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 4.20</i>
200.00	110.00 <i>+2.00/-0.00</i>	14.00	17.50	Carbon Steel	W1120-D-200-140-C <i>Loaded Height (L1): 14.88 -- Load at L1: 25662.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 3.50</i>
200.00	110.00 <i>+2.00/-0.00</i>	16.00	18.80	Carbon Steel	W1120-D-200-160-C <i>Loaded Height (L1): 16.70 -- Load at L1: 30493.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 2.80</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Nominal OD (mm)	Nominal ID (mm)	Material Thickness (mm)	Approx Unloaded Height (mm)	Type	Part Number
225.00 mm (8.858 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
225.00	112.00 <i>+2.00/-0.00</i>	6.50	13.60	Carbon Steel	W1120-D-225-065-C <i>Loaded Height (L1): 8.27 -- Load at L1: 4456.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 7.10</i>
225.00	112.00 <i>+2.00/-0.00</i>	8.00	14.50	Carbon Steel	W1120-D-225-080-C <i>Loaded Height (L1): 9.63 -- Load at L1: 7071.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 6.50</i>
225.00	112.00 <i>+2.00/-0.00</i>	12.00	17.00	Carbon Steel	W1120-D-225-120-C <i>Loaded Height (L1): 13.25 -- Load at L1: 17092.0 -- Actual ID (Ref): 112.0 -- Inside Height (D): 5.00</i>
250.00 mm (9.843 inch.)					
<i>Loads shown in comments are in KG. Dimensions in comments are in mm.</i>					
250.00	100.00 <i>+2.00/-0.00</i>	10.00	18.00	Carbon Steel	W1020-D-250-100-C <i>Loaded Height (L1): 12.00 -- Load at L1: 12632.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 8.00</i>
250.00	100.00 <i>+2.00/-0.00</i>	12.00	19.00	Carbon Steel	W1020-D-250-120-C <i>Loaded Height (L1): 13.75 -- Load at L1: 18286.0 -- Actual ID (Ref): 102.0 -- Inside Height (D): 7.00</i>
250.00	125.00 <i>+2.00/-0.00</i>	7.00	14.80	Carbon Steel	W1270-D-250-070-C <i>Loaded Height (L1): 8.95 -- Load at L1: 5044.0 -- Actual ID (Ref): 127.0 -- Inside Height (D): 7.80</i>
250.00	125.00 <i>+2.00/-0.00</i>	10.00	17.00	Carbon Steel	W1270-D-250-100-C <i>Loaded Height (L1): 11.75 -- Load at L1: 11899.0 -- Actual ID (Ref): 127.0 -- Inside Height (D): 7.00</i>
250.00	125.00 <i>+2.00/-0.00</i>	12.00	19.30	Carbon Steel	W1270-D-250-120-C <i>Loaded Height (L1): 13.82 -- Load at L1: 21069.0 -- Actual ID (Ref): 127.0 -- Inside Height (D): 7.30</i>
250.00	125.00 <i>+2.00/-0.00</i>	14.00	19.60	Carbon Steel	W1270-D-250-140-C <i>Loaded Height (L1): 15.40 -- Load at L1: 2486.0 -- Actual ID (Ref): 127.0 -- Inside Height (D): 5.60</i>
250.00	125.00 <i>+2.00/-0.00</i>	16.00	21.80	Carbon Steel	W1270-D-250-160-C <i>Loaded Height (L1): 17.45 -- Load at L1: 38281.0 -- Actual ID (Ref): 127.0 -- Inside Height (D): 5.80</i>

Stocked or Short Delivery (up to 4 weeks)
 Usually 4-6 week delivery
 Long delivery or not in current production

* Large Minimum Quantities

** Available only while stock lasts

Notes



Distributed By

Miniature Bearings Australia
<http://www.minibearings.com.au>
sales@minibearings.com.au

Resellers: Please place your contact sticker over our details

Avoid verbal communication

We sell an extensive range of products with varying amounts of technical data. Please assist us to provide you with accurate information by placing your orders and enquiries online or by e-mail.

Disc Springs