

BSR Compact Ball Screw



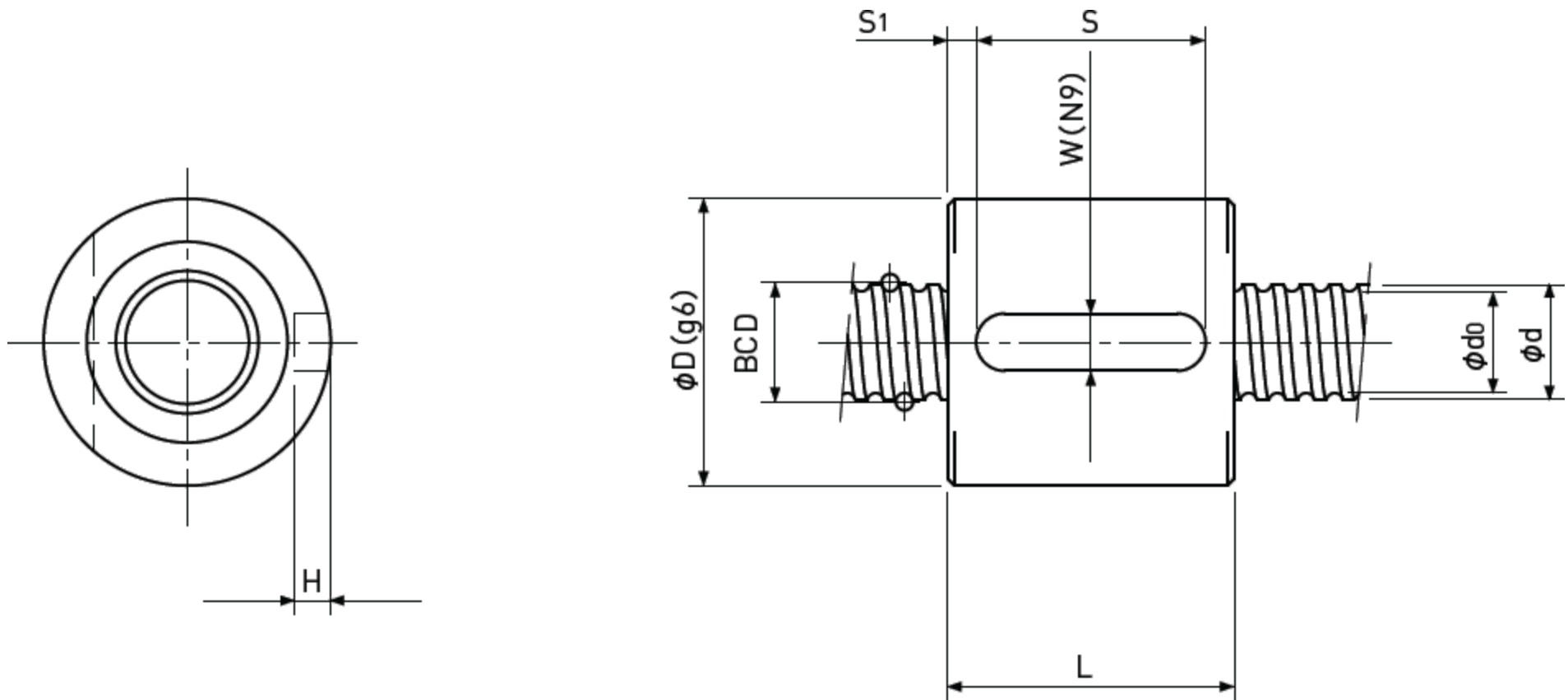
ABSSAC

PRECISION MOTION SINCE 1982

Rolled Ball Screws

Sleeve type Single Nut

Backlash type



Unit : mm

| Ball Nut Model number | Shaft nominal dia. d | Lead | Ball size | BCD | Lead angle | Root dia. d ₀ | Number of Circuit | Basic Load Rating N | | Nut Rigidity N/μm |
|-----------------------|----------------------|------|-----------|------|------------|--------------------------|-------------------|---------------------|------------|-------------------|
| | | | | | | | | Dynamic Ca | Static Coa | |
| BSR 0401 | 4 | 1 | 0.8 | 4.15 | 4°23' | 3.3 | 3.7x1 | 560 | 790 | 54 |
| BSR 0402 | 4 | 2 | 0.8 | 4.15 | 8°43' | 3.3 | 2.7x1 | 420 | 570 | 39 |
| BSR 0504 | 5 | 4 | 0.8 | 5.15 | 13°53' | 4.3 | 2.7x1 | 470 | 720 | 47 |
| BSR 0601 ** | 6 | 1 | 0.8 | 6.15 | 2°58' | 5.3 | 3.7x1 | 680 | 1200 | 75 |
| BSR 0602 | 6 | 2 | 1 | 6.2 | 5°52' | 5.1 | 2.7x1 | 750 | 1200 | 58 |
| BSR 0801 ** | 8 | 1 | 0.8 | 8.15 | 2°15' | 7.3 | 3.7x1 | 780 | 1650 | 95 |
| BSR 0802 ** | 8 | 2 | 1.5875 | 8.3 | 4°23' | 6.6 | 3.7x1 | 2400 | 4100 | 111 |
| BSR 0802.5 | 8 | 2.5 | 1.5875 | 8 | 5°41' | 6.3 | 2.7x1 | 1850 | 3000 | 80 |
| BSR 0805 | 8 | 5 | 1.5875 | 8.3 | 10°51' | 6.6 | 2.7x1 | 1850 | 3000 | 82 |

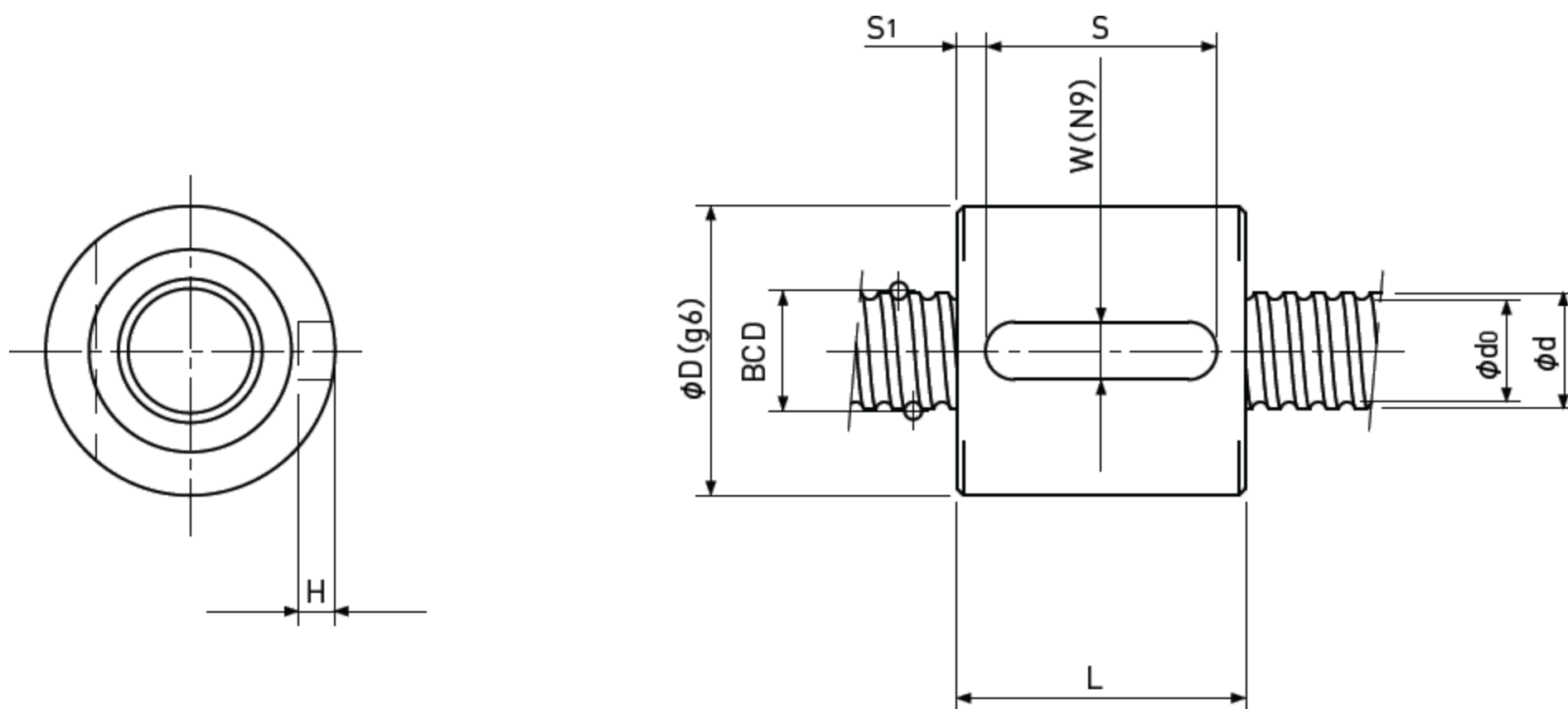
| Ball Nut Model number | Nut dimension | | | | | |
|-----------------------|---------------|----|---|-----|----|----------------|
| | D | L | W | H | S | S ₁ |
| BSR 0401 | 11 | 14 | 3 | 1.8 | 8 | 3 |
| BSR 0402 | 11 | 16 | 3 | 1.8 | 8 | 4 |
| BSR 0504 | 12 | 22 | 3 | 1.8 | 12 | 5 |
| BSR 0601 ** | 13 | 14 | 3 | 1.8 | 10 | 2 |
| BSR 0602 | 15 | 15 | 3 | 1.8 | 10 | 2.5 |
| BSR 0801 ** | 16 | 14 | 3 | 1.8 | 10 | 2 |
| BSR 0802 ** | 20 | 20 | 4 | 2.5 | 16 | 2 |
| BSR 0802.5 | 16 | 16 | 3 | 1.8 | 8 | 4 |
| BSR 0805 | 18 | 28 | 4 | 2.5 | 20 | 4 |

- Note 1) All models are Right-hand screw.
 Note 2) The diameter of the Screw Shaft both ends must be less than the Screw Shaft Root diameter, because of production and Nut assembly reason. If bigger end-journal than Shaft diameter is required, please consult ABSSAC.
 Note 3) Ball Nut dimension is without seal at the both ends. All type of Ball Nuts cannot equip with seals.
 Note 4) Rigidity
 The Rigidity values shown in the table are theoretical values calculated from the amount of Elastic Displacement under the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
 Note 5) Stainless Rolled Ball Screw
 Stainless Rolled Ball Screw is available for Ball Nut Model Number marked **.

Rolled Ball Screws

Sleeve type Single Nut

Backlash type



Unit : mm

| Ball Nut Model number | Shaft nominal dia. d | Lead | Ball size | BCD | Lead angle | Root dia. d ₀ | Number of Circuit | Basic Load Rating N | | Nut Rigidity N/μm |
|-----------------------|----------------------|------|-----------|------|------------|--------------------------|-------------------|---------------------|------------|-------------------|
| | | | | | | | | Dynamic Ca | Static Coa | |
| BSR 1002 ** | 10 | 2 | 1.5875 | 10.3 | 3°32' | 8.6 | 3.7x1 | 2700 | 5300 | 134 |
| BSR 1004 | 10 | 4 | 2 | 10.3 | 7°03' | 8.2 | 2.7x1 | 3000 | 5200 | 104 |
| BSR 1005 | 10 | 5 | 2 | 10.3 | 8°47' | 8.2 | 2.7x1 | 3000 | 5200 | 103 |
| BSR 1006 | 10 | 6 | 2 | 10.3 | 10°30' | 8.2 | 2.7x1 | 3000 | 5000 | 102 |
| BSR 1202 | 12 | 2 | 1.5875 | 12.3 | 2°58' | 10.6 | 3.7x1 | 3000 | 6400 | 156 |
| BSR 1402 | 14 | 2 | 1.5875 | 14.3 | 2°33' | 12.6 | 3.7x1 | 3200 | 7500 | 176 |
| BSR 1404 | 14 | 4 | 2.381 | 14.3 | 5°05' | 11.8 | 3.7x1 | 5700 | 11600 | 187 |

| Ball Nut Model number | Nut dimension | | | | | |
|-----------------------|---------------|----|---|---|----|----------------|
| | D | L | W | H | S | S ₁ |
| BSR 1002 ** | 23 | 20 | 5 | 3 | 16 | 2.5 |
| BSR 1004 | 24 | 26 | 5 | 3 | 20 | 3 |
| BSR 1005 | 23 | 26 | 5 | 3 | 16 | 5 |
| BSR 1006 | 26 | 31 | 5 | 3 | 20 | 5.5 |
| BSR 1202 | 25 | 20 | 5 | 3 | 16 | 2 |
| BSR 1402 | 26 | 20 | 5 | 3 | 16 | 2 |
| BSR 1404 | 30 | 31 | 5 | 3 | 25 | 3 |

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