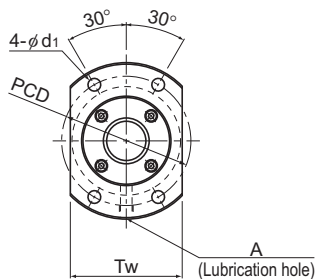


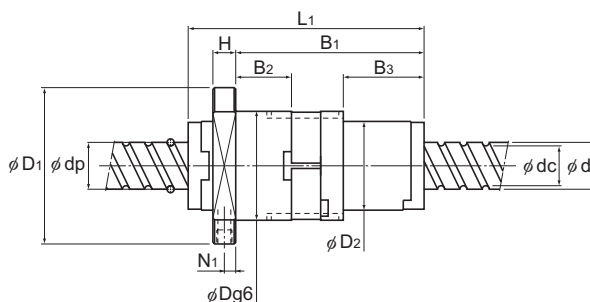
# BLW With Preload

|          |        |
|----------|--------|
| DN value | 70,000 |
|----------|--------|



| Model No.    | Screw shaft outer diameter | Lead | Ball center-to-center diameter | Thread minor diameter | No. of loaded circuits | Basic load rating |                       | Rigidity        |                     |                                   |                |                                  |    |
|--------------|----------------------------|------|--------------------------------|-----------------------|------------------------|-------------------|-----------------------|-----------------|---------------------|-----------------------------------|----------------|----------------------------------|----|
|              | d                          | Ph   | dp                             | dc                    | Rows X turns           | Ca<br>kN          | C <sub>0a</sub><br>kN | K<br>N/ $\mu$ m | Outer diameter<br>D | Flange diameter<br>D <sub>1</sub> | D <sub>2</sub> | Overall length<br>L <sub>1</sub> | H  |
| BLW 1510-5.6 | 15                         | 10   | 15.75                          | 12.5                  | 2×2.8                  | 14.3              | 27.8                  | 680             | 43                  | 64                                | 34             | 89                               | 10 |
| BLW 1616-3.6 | 16                         | 16   | 16.65                          | 13.7                  | 2×1.8                  | 7.1               | 14.3                  | 440             | 41                  | 60                                | 32             | 84.5                             | 10 |
| BLW 2020-3.6 | 20                         | 20   | 20.75                          | 17.5                  | 2×1.8                  | 11.1              | 24.7                  | 570             | 48                  | 69                                | 39             | 105                              | 10 |
| BLW 2525-3.6 | 25                         | 25   | 26                             | 21.9                  | 2×1.8                  | 16.6              | 38.7                  | 700             | 57                  | 82                                | 47             | 124.5                            | 12 |
| BLW 3232-3.6 | 32                         | 32   | 33.25                          | 28.3                  | 2×1.8                  | 23.7              | 59.5                  | 880             | 68                  | 99                                | 58             | 155                              | 15 |
| BLW 3636-3.6 | 36                         | 36   | 37.4                           | 31.7                  | 2×1.8                  | 30.8              | 78                    | 980             | 79                  | 116                               | 66             | 181                              | 17 |
| BLW 4040-3.6 | 40                         | 40   | 41.75                          | 35.2                  | 2×1.8                  | 38.7              | 99.2                  | 1,090           | 84                  | 121                               | 73             | 191                              | 17 |
| BLW 5050-3.6 | 50                         | 50   | 52.2                           | 44.1                  | 2×1.8                  | 57.8              | 155                   | 1,340           | 106                 | 149                               | 90             | 245                              | 20 |

## Positioning Ball Screw



Unit: mm

| Nut dimensions |                |                |                |     |                |     |                     |    | Screw shaft<br>inertial<br>moment/mm | Nut<br>mass | Shaft<br>mass | Permissible<br>rotational<br>speed |
|----------------|----------------|----------------|----------------|-----|----------------|-----|---------------------|----|--------------------------------------|-------------|---------------|------------------------------------|
|                |                |                |                |     |                |     | Lubrication<br>hole |    |                                      |             |               |                                    |
|                | B <sub>1</sub> | B <sub>2</sub> | B <sub>3</sub> | PCD | d <sub>i</sub> | Tw  | N <sub>i</sub>      | A  | kg·m <sup>2</sup> /mm                | kg          | kg/m          | min <sup>-1</sup>                  |
|                | 69             | 18.7           | 28.6           | 52  | 5.5            | 46  | 5                   | M6 | 3.90×10 <sup>-8</sup>                | 0.81        | 1.07          | 4,440                              |
|                | 65.5           | 18.1           | 27.1           | 49  | 4.5            | 44  | 6                   | M6 | 5.05×10 <sup>-8</sup>                | 0.67        | 1.42          | 4,200                              |
|                | 84             | 25             | 36             | 57  | 5.5            | 50  | 5                   | M6 | 1.23×10 <sup>-7</sup>                | 0.54        | 2.25          | 3,370                              |
|                | 101.5          | 33             | 44             | 68  | 6.6            | 60  | 5                   | M6 | 3.01×10 <sup>-7</sup>                | 0.94        | 3.52          | 2,690                              |
|                | 127            | 42.4           | 55.4           | 81  | 9              | 70  | 6                   | M6 | 8.08×10 <sup>-7</sup>                | 3.19        | 5.83          | 2,100                              |
|                | 147.9          | 49.4           | 65.4           | 95  | 11             | 82  | 7                   | M6 | 1.29×10 <sup>-6</sup>                | 5.99        | 7.34          | 1,870                              |
|                | 158            | 54.5           | 70.5           | 100 | 11             | 87  | 7                   | M6 | 1.97×10 <sup>-6</sup>                | 6.16        | 9.01          | 1,670                              |
|                | 203.8          | 70.7           | 91.7           | 126 | 14             | 108 | 8                   | M6 | 4.82×10 <sup>-6</sup>                | 9.06        | 14.08         | 1,340                              |

Notes: The overall length of the nut will increase when equipping the QZ Lubricator. See **A15-366** for further details.

The Model BLW can be equipped with a brush seal depending on the model number. Contact THK if you would like to use one.