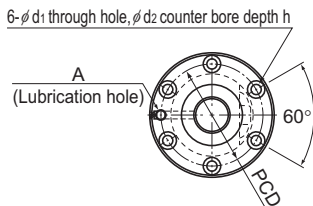


# BNF (Unfinished Shaft Ends) No Preload

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



| Model No.  | Ball screw specifications       |            |                                      |                             |  |                   |                       | Nut                 |                                   |                                  |          |
|------------|---------------------------------|------------|--------------------------------------|-----------------------------|--|-------------------|-----------------------|---------------------|-----------------------------------|----------------------------------|----------|
|            | Screw shaft outer diameter<br>d | Lead<br>Ph | Ball center-to-center diameter<br>dp | Thread minor diameter<br>dc | No. of loaded circuits<br>Rows X turns | Basic load rating |                       | Outer diameter<br>D | Flange diameter<br>D <sub>f</sub> | Overall length<br>L <sub>1</sub> | Nut<br>H |
|            |                                 |            |                                      |                             |  | Ca<br>kN          | C <sub>0a</sub><br>kN |                     |                                   |                                  |          |
| BNF 4010-5 | 40                              | 10         | 41.75                                | 34.4                        | 2×2.5                                  | 52.7              | 141.1                 | 82                  | 124                               | 103                              | 18       |
| BNF 4012-5 | 40                              | 12         | 42                                   | 34.1                        | 2×2.5                                  | 61.6              | 158.8                 | 84                  | 126                               | 119                              | 18       |
| BNF 5010-5 | 50                              | 10         | 51.75                                | 44.4                        | 2×2.5                                  | 58.2              | 176.4                 | 93                  | 135                               | 103                              | 18       |

## Model number coding

**BNF4012-10 RR G1 +1230L C5 A**

Model No.

Symbol for clearance in the axial direction<sup>2</sup>

Accuracy symbol<sup>3</sup>

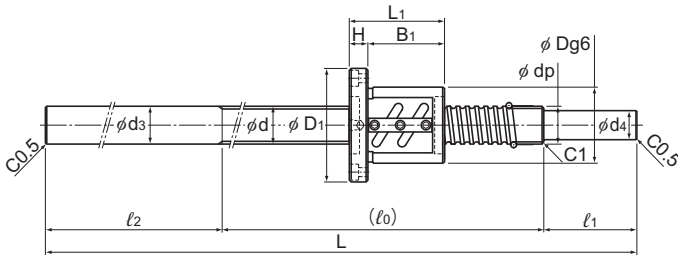
Unfinished shaft ends code (A or B)

Seal symbol<sup>1</sup>

Overall screw shaft length (in mm)

<sup>1</sup> See **A15-356**. <sup>2</sup> See **A15-19**. <sup>3</sup> See **A15-12**.

## Positioning Ball Screw



Unit: mm

| Dimensions     |     |                |                |    |                       | Screw shaft dimensions |                     |                |                |                |                |                |      | Nut mass<br>kg | Shaft mass<br>kg/m | Permissible rotational speed<br>min <sup>-1</sup> |
|----------------|-----|----------------|----------------|----|-----------------------|------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|------|----------------|--------------------|---|
| B <sub>1</sub> | PCD | d <sub>1</sub> | d <sub>2</sub> | h  | Lubrication hole<br>A | Standard stock symbol  | Overall length<br>L | l <sub>0</sub> | l <sub>1</sub> | l <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> |      |                |                    |   |
| 85             | 102 | 11             | 17.5           | 11 | M6                    | A                      | 1,230               | 1,000          | 70             | 160            | 40             | 30.3           | 3.58 | 6.59           | 1,670              |   |
|                |     |                |                |    |                       |                        | 1,730               | 1,500          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,030               | 1,800          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,230               | 2,000          |                |                |                |                |      |                |                    |   |
| 101            | 104 | 11             | 17.5           | 11 | M6                    | A                      | 1,230               | 1,000          | 70             | 160            | 40             | 30.3           | 4.2  | 6.39           | 1,660              |   |
|                |     |                |                |    |                       |                        | 1,730               | 1,500          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,030               | 1,800          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,230               | 2,000          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       | B                      | 1,730               | 1,200          | 100            | 430<br>730     | 40             | 33.8           |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,030               | 1,200          |                |                |                |                |      |                |                    |   |
| 85             | 113 | 11             | 17.5           | 11 | Rc1/8<br>(PT1/8)      | A                      | 1,300               | 1,000          | 100            | 200            | 50             | 40.3           | 4.4  | 11.36          | 1,350              |   |
|                |     |                |                |    |                       |                        | 1,800               | 1,500          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,300               | 2,000          |                |                |                |                |      |                |                    |   |
|                |     |                |                |    |                       |                        | 2,800               | 2,500          |                |                |                |                |      |                |                    |   |

Ball Screw