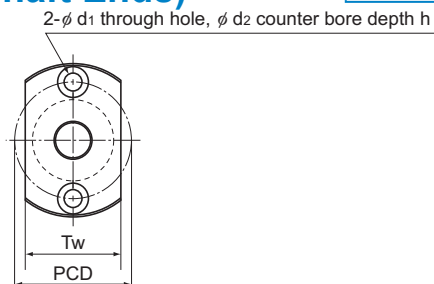


# MBF (Unfinished Shaft Ends) No Preload

DN value

70000



| Model No.    | Ball screw specifications  |      |                                |                       |                        |                   |                       | Nut            |                 |                |   |
|--------------|----------------------------|------|--------------------------------|-----------------------|------------------------|-------------------|-----------------------|----------------|-----------------|----------------|---|
|              | Screw shaft outer diameter | Lead | Ball center-to-center diameter | Thread minor diameter | No. of loaded circuits | Basic load rating |                       | Outer diameter | Flange diameter | Overall length | H |
|              | d                          | Ph   | dp                             | dc                    | Rows X turns           | Ca<br>kN          | C <sub>0a</sub><br>kN | D              | D <sub>1</sub>  | L <sub>1</sub> |   |
| MBF 0401-3.7 | 4                          | 1    | 4.15                           | 3.3                   | 1×3.7                  | 0.59              | 0.93                  | 11             | 24              | 18             | 4 |
| MBF 0601-3.7 | 6                          | 1    | 6.15                           | 5.3                   | 1×3.7                  | 0.74              | 1.5                   | 13             | 30              | 21             | 5 |
| MBF 0802-3.7 | 8                          | 2    | 8.3                            | 6.6                   | 1×3.7                  | 2.5               | 4.2                   | 20             | 40              | 28             | 6 |
| MBF 1002-3.7 | 10                         | 2    | 10.3                           | 8.6                   | 1×3.7                  | 2.8               | 5.3                   | 23             | 43              | 28             | 6 |
| MBF 1202-3.7 | 12                         | 2    | 12.3                           | 10.6                  | 1×3.7                  | 3                 | 6.5                   | 25             | 47              | 30             | 8 |
| MBF 1402-3.7 | 14                         | 2    | 14.3                           | 12.6                  | 1×3.7                  | 3.3               | 7.5                   | 26             | 48              | 30             | 8 |
| MBF 1404-3.7 | 14                         | 4    | 14.3                           | 11.8                  | 1×3.7                  | 5.7               | 11.1                  | 30             | 54              | 38             | 8 |

## Model number coding

**MBF0802-3.7 RR GT +218L C5 A**

Model No.

Seal symbol (\*1)

Overall screw shaft length (in mm)

Unfinished shaft ends code

Symbol for clearance in the axial direction (\*2)

Accuracy symbol (\*3)

(\*1) See **A15-326**. (\*2) See **A15-19**. (\*3) See **A15-12**.

**A15-184 THK**

Download data by searching for the corresponding model number on the Technical Support site.

<https://tech.thk.com>



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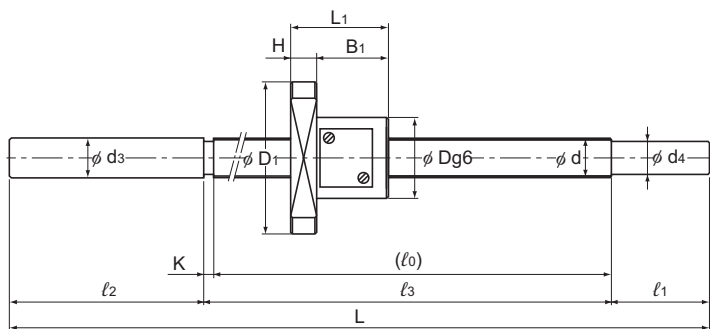
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**Tel.:** 0940 644 565

**E-mail:** [lintech@hennlich.sk](mailto:lintech@hennlich.sk)

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## Positioning Ball Screw



Unit: mm

| Dimensions |                |      |                |                |     |    | Screw shaft dimensions    |                |     |    |    |     |      |      |   |  | Nut mass | Shaft mass |      |
|------------|----------------|------|----------------|----------------|-----|----|---------------------------|----------------|-----|----|----|-----|------|------|---|--|----------|------------|------|
|            | B <sub>1</sub> | PCD  | d <sub>1</sub> | d <sub>2</sub> | h   | Tw | Unfinished Shaft End Code | Overall length |     |    |    |     |      |      |   |  |          |            |      |
|            | 14             | 17   | 3.4            | 6.5            | 2.5 | 13 | A                         | 90             | 48  |    |    |     | 50   |      |   |  |          | 0.02       | 0.07 |
|            |                |      |                |                |     |    |                           | 110            | 68  | 10 | 30 | 70  | 4.3  | 3.2  | 2 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 130            | 88  |    |    | 90  |      |      |   |  |          |            |      |
|            | 16             | 21.5 | 3.4            | 6.5            | 3   | 17 | A                         | 131            | 58  |    |    | 61  |      |      |   |  |          | 0.04       | 0.14 |
|            |                |      |                |                |     |    |                           | 161            | 88  | 20 | 50 | 91  | 6.3  | 5.2  | 3 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 201            | 128 |    |    | 131 |      |      |   |  |          |            |      |
|            | 22             | 30   | 4.5            | 8              | 4   | 24 | A                         | 168            | 85  |    |    | 88  |      |      |   |  |          | 0.1        | 0.19 |
|            |                |      |                |                |     |    |                           | 193            | 110 | 25 | 55 | 113 | 8.3  | 6.2  | 3 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 218            | 135 |    |    | 138 |      |      |   |  |          |            |      |
|            | 22             | 33   | 4.5            | 8              | 4   | 27 | A                         | 183            | 95  |    |    | 98  |      |      |   |  |          | 0.11       | 0.36 |
|            |                |      |                |                |     |    |                           | 223            | 135 | 25 | 60 | 138 | 10.3 | 8.2  | 3 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 273            | 185 |    |    | 188 |      |      |   |  |          |            |      |
|            | 22             | 36   | 5.5            | 9.5            | 5.5 | 29 | A                         | 210            | 117 |    |    | 120 |      |      |   |  |          | 0.15       | 0.58 |
|            |                |      |                |                |     |    |                           | 235            | 142 | 30 | 60 | 145 | 12.3 | 10.2 | 3 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 285            | 192 |    |    | 195 |      |      |   |  |          |            |      |
|            | 22             | 37   | 5.5            | 9.5            | 5.5 | 32 | A                         | 205            | 102 |    |    | 105 |      |      |   |  |          | 0.16       | 0.85 |
|            |                |      |                |                |     |    |                           | 245            | 142 | 40 | 60 | 145 | 14.3 | 12.2 | 3 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 295            | 192 |    |    | 195 |      |      |   |  |          |            |      |
|            |                |      |                |                |     |    |                           | 345            | 242 |    |    | 245 |      |      |   |  |          |            |      |
|            | 30             | 42   | 5.5            | 9.5            | 5.5 | 34 | A                         | 233            | 129 |    |    | 133 |      |      |   |  |          | 0.25       | 1.2  |
|            |                |      |                |                |     |    |                           | 293            | 189 | 40 | 60 | 193 | 14.3 | 11.2 | 4 |  |          |            |      |
|            |                |      |                |                |     |    |                           | 353            | 249 |    |    | 253 |      |      |   |  |          |            |      |
|            |                |      |                |                |     |    |                           | 413            | 309 |    |    | 313 |      |      |   |  |          |            |      |

Note) The standard specification for the Model MBF is with no seal. Please contact THK if you are interested in attaching a seal.

Options⇒ **A15-325****THK A15-185****HENNlich s.r.o.**

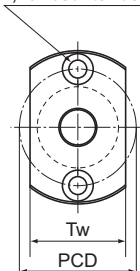
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**Tel.:** 0940 644 565**E-mail:** lintech@hennlich.sk[www.hennlich.sk](http://www.hennlich.sk)

# MBF No Preload

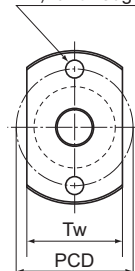
|          |       |
|----------|-------|
| DN value | 70000 |
|----------|-------|

2- $\phi$  d<sub>1</sub> through hole,  
 $\phi$  d<sub>2</sub> counter bore depth h



Nut type I

2- $\phi$  d<sub>1</sub> through hole



Nut type II

| Model No.     | Screw<br>shaft outer<br>diameter | Lead | Ball center-<br>to-center<br>diameter | Thread<br>minor<br>diameter | No. of<br>loaded<br>circuits | Basic load rating |                 | Rigidity<br><br>K<br><br>N/ $\mu$ m |
|---------------|----------------------------------|------|---------------------------------------|-----------------------------|------------------------------|-------------------|-----------------|-------------------------------------|
|               |                                  |      |                                       |                             |                              | Ca                | C <sub>0a</sub> |                                     |
|               | d                                | Ph   | dp                                    | dc                          | Rows $\times$ turns          | kN                | kN              |                                     |
| MBF0401-3.7   | 4                                | 1    | 4.15                                  | 3.3                         | 1 $\times$ 3.7               | 0.59              | 0.93            | 54                                  |
| MBF0601-3.7   | 6                                | 1    | 6.15                                  | 5.3                         | 1 $\times$ 3.7               | 0.74              | 1.5             | 75                                  |
| MBF0602-2.7   | 6                                | 2    | 6.2                                   | 5.1                         | 1 $\times$ 2.7               | 0.75              | 1.2             | 58                                  |
| MBF0602.5-2.7 | 6                                | 2.5  | 6.2                                   | 5.1                         | 1 $\times$ 2.7               | 0.75              | 1.2             | 59                                  |
| MBF0801.5-3.7 | 8                                | 1.5  | 8.2                                   | 7.1                         | 1 $\times$ 3.7               | 1.1               | 2.2             | 99                                  |
| MBF0802-3.7   | 8                                | 2    | 8.3                                   | 6.6                         | 1 $\times$ 3.7               | 2.5               | 4.2             | 111                                 |
| MBF0802.5-3.7 | 8                                | 2.5  | 8.3                                   | 6.6                         | 1 $\times$ 3.7               | 2.4               | 4.1             | 111                                 |
| MBF0803-2.7   | 8                                | 3    | 8.3                                   | 6.2                         | 1 $\times$ 2.7               | 2.6               | 4.2             | 85                                  |
| MBF0804-2.7   | 8                                | 4    | 8.3                                   | 6.2                         | 1 $\times$ 2.7               | 2.6               | 4.2             | 84                                  |
| MBF1001-3.7   | 10                               | 1    | 10.15                                 | 9.3                         | 1 $\times$ 3.7               | 0.84              | 2               | 113                                 |
| MBF1001.5-3.7 | 10                               | 1.5  | 10.2                                  | 9.1                         | 1 $\times$ 3.7               | 1.25              | 2.8             | 120                                 |
| MBF1002-3.7   | 10                               | 2    | 10.3                                  | 8.6                         | 1 $\times$ 3.7               | 2.8               | 5.3             | 134                                 |
| MBF1002.5-3.7 | 10                               | 2.5  | 10.3                                  | 8.6                         | 1 $\times$ 3.7               | 2.7               | 5.3             | 133                                 |
| MBF1003-3.7   | 10                               | 3    | 10.3                                  | 8.2                         | 1 $\times$ 3.7               | 3.9               | 7.2             | 140                                 |
| MBF1005-2.7   | 10                               | 5    | 10.3                                  | 8.2                         | 1 $\times$ 2.7               | 3                 | 5.2             | 103                                 |
| MBF1202-3.7   | 12                               | 2    | 12.3                                  | 10.6                        | 1 $\times$ 3.7               | 3                 | 6.5             | 156                                 |
| MBF1202.5-3.7 | 12                               | 2.5  | 12.3                                  | 10.6                        | 1 $\times$ 3.7               | 3                 | 6.4             | 156                                 |
| MBF1203-3.7   | 12                               | 3    | 12.3                                  | 10.2                        | 1 $\times$ 3.7               | 4.3               | 8.7             | 162                                 |
| MBF1204-3.7   | 12                               | 4    | 12.3                                  | 9.8                         | 1 $\times$ 3.7               | 5.4               | 10.2            | 165                                 |
| MBF1402-3.7   | 14                               | 2    | 14.3                                  | 12.6                        | 1 $\times$ 3.7               | 3.3               | 7.5             | 176                                 |
| MBF1404-3.7   | 14                               | 4    | 14.3                                  | 11.8                        | 1 $\times$ 3.7               | 5.7               | 11.1            | 187                                 |

Note) The standard specification for the Model MBF is with no seal. Please contact THK if you are interested in attaching a seal.

The Model MBF can support an axial clearance of 0 or less. Please contact THK if you would like to use it in this manner.

**A15-186 THK**

Download data by searching for the corresponding  
model number on the Technical Support site.

<https://tech.thk.com>



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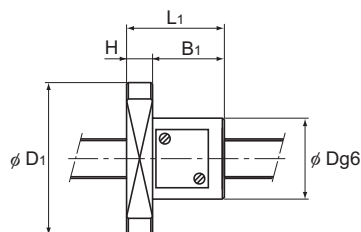
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**E-mail:** [lintech@hennlich.sk](mailto:lintech@hennlich.sk)

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## Positioning Ball Screw



Unit: mm

|  | Nut dimensions    |                    |                   |   |                |      |                |                |     |             |    | Screw shaft<br>inertial<br>moment/mm<br>kg·m <sup>2</sup> /mm | Nut<br>mass<br>kg | Shaft<br>mass<br>kg/m |
|--|-------------------|--------------------|-------------------|---|----------------|------|----------------|----------------|-----|-------------|----|---------------------------------------------------------------|-------------------|-----------------------|
|  | Outer<br>diameter | Flange<br>diameter | Overall<br>length |   |                |      |                |                |     | Nut<br>type | Tw |                                                               |                   |                       |
|  | D                 | D <sub>1</sub>     | L <sub>1</sub>    | H | B <sub>1</sub> | PCD  | d <sub>1</sub> | d <sub>2</sub> | h   |             |    |                                                               |                   |                       |
|  | 11                | 24                 | 18                | 4 | 14             | 17   | 3.4            | 6.5            | 2.5 | I           | 13 | $1.97 \times 10^{-10}$                                        | 0.02              | 0.07                  |
|  | 13                | 30                 | 21                | 5 | 16             | 21.5 | 3.4            | 6.5            | 3   | I           | 17 | $9.99 \times 10^{-10}$                                        | 0.04              | 0.14                  |
|  | 15                | 29                 | 17                | 4 | 13             | 23   | 3.4            | —              | —   | II          | 17 | $9.99 \times 10^{-10}$                                        | 0.03              | 0.21                  |
|  | 15                | 29                 | 18                | 4 | 14             | 23   | 3.4            | —              | —   | II          | 17 | $9.99 \times 10^{-10}$                                        | 0.03              | 0.21                  |
|  | 16                | 30                 | 19                | 4 | 15             | 24   | 3.4            | —              | —   | II          | 18 | $3.16 \times 10^{-9}$                                         | 0.03              | 0.36                  |
|  | 20                | 40                 | 28                | 6 | 22             | 30   | 4.5            | 8              | 4   | I           | 24 | $3.16 \times 10^{-9}$                                         | 0.1               | 0.19                  |
|  | 20                | 38                 | 26                | 5 | 21             | 30   | 4.5            | —              | —   | II          | 22 | $3.16 \times 10^{-9}$                                         | 0.07              | 0.34                  |
|  | 20                | 38                 | 25                | 5 | 20             | 30   | 4.5            | —              | —   | II          | 22 | $3.16 \times 10^{-9}$                                         | 0.06              | 0.32                  |
|  | 21                | 39                 | 28                | 5 | 23             | 31   | 4.5            | —              | —   | II          | 23 | $3.16 \times 10^{-9}$                                         | 0.08              | 0.34                  |
|  | 19                | 37                 | 18                | 5 | 13             | 29   | 4.5            | —              | —   | II          | 21 | $7.71 \times 10^{-9}$                                         | 0.04              | 0.57                  |
|  | 19                | 37                 | 20                | 5 | 15             | 29   | 4.5            | —              | —   | II          | 21 | $7.71 \times 10^{-9}$                                         | 0.04              | 0.57                  |
|  | 23                | 43                 | 28                | 6 | 22             | 33   | 4.5            | 8              | 4   | I           | 27 | $7.71 \times 10^{-9}$                                         | 0.11              | 0.36                  |
|  | 24                | 44                 | 27                | 6 | 21             | 35   | 5.5            | —              | —   | II          | 26 | $7.71 \times 10^{-9}$                                         | 0.09              | 0.55                  |
|  | 24                | 44                 | 30                | 6 | 24             | 35   | 5.5            | —              | —   | II          | 26 | $7.71 \times 10^{-9}$                                         | 0.1               | 0.52                  |
|  | 24                | 44                 | 34                | 6 | 28             | 35   | 5.5            | —              | —   | II          | 26 | $7.71 \times 10^{-9}$                                         | 0.12              | 0.56                  |
|  | 25                | 47                 | 30                | 8 | 22             | 36   | 5.5            | 9.5            | 5.5 | I           | 29 | $1.60 \times 10^{-8}$                                         | 0.15              | 0.58                  |
|  | 26                | 46                 | 27                | 6 | 21             | 37   | 5.5            | —              | —   | II          | 28 | $1.60 \times 10^{-8}$                                         | 0.11              | 0.8                   |
|  | 28                | 48                 | 30                | 6 | 24             | 39   | 5.5            | —              | —   | II          | 30 | $1.60 \times 10^{-8}$                                         | 0.14              | 0.77                  |
|  | 28                | 48                 | 33                | 6 | 27             | 39   | 5.5            | —              | —   | II          | 30 | $1.60 \times 10^{-8}$                                         | 0.15              | 0.76                  |
|  | 26                | 48                 | 30                | 8 | 22             | 37   | 5.5            | 9.5            | 5.5 | I           | 32 | $2.96 \times 10^{-8}$                                         | 0.16              | 0.85                  |
|  | 30                | 54                 | 38                | 8 | 30             | 42   | 5.5            | 9.5            | 5.5 | I           | 34 | $2.96 \times 10^{-8}$                                         | 0.25              | 1.2                   |

Ball Screw

Options⇒ A15-325

THK A15-187



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