

## Ball Screw Support Units

Complete bearing housing and bearing assembly for general and special applications.



\*For illustration only.

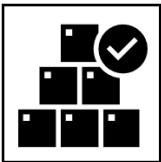
### KEY FEATURES



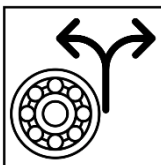
**Standardized product**  
Designed based on popular dimensions, allowing compatibility with most ball screws available and enabling direct replacement of from other brands.



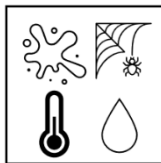
**Consistent quality and service life**  
Audited factory and production line ensures stable product quality, while the mature design guarantees long-term supply of product and parts.



**Short product lead time**  
Most standardized bearing products are available in stock. In stock items can be shipped within 2 working days with reception of purchase order.



**Flexible bearing choice**  
For each model, users can choose bearings between various accuracy grades and origins based on precision class requirements and budget.



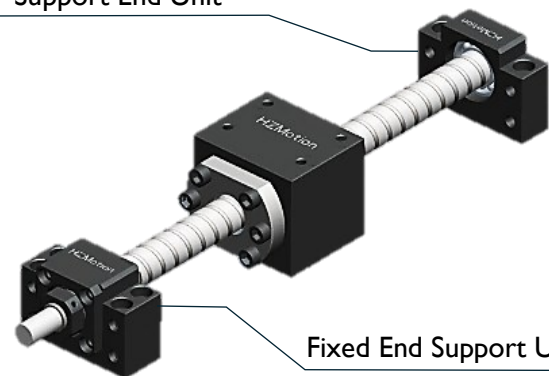
**Made for harsh environments**  
Each support unit is supplied with grease already applied and is equipped with seals, which significantly extends the bearing lubrication interval.

### DESCRIPTION

The ball screw support unit, also known as the ball screw bearing housing or bearing housing, is typically installed at both ends of the ball screw to provide axial and radial support for its rotational motion. In addition to ball screws, it can also be used for other types of lead screws, such as trapezoidal screws, or for applications that require support for rotational motion, such as splines, shafts, and other similar components.

Depending on the application, support units can be classified into two main types: fixed end units and support end units. Fixed end units provides both axial and radial support for the ball screw, while the support end units only provide radial support to compensate for axial expansion and contraction of the lead screw during operation due to factors like temperature rise.

Support End Unit



Fixed End Support Unit

### RESOURCES & TECHNICAL INFORMATION:

Instant pricing and order online:



<https://www.hzmotion.com/#/pages/catalogs/index>

Download 3D & 2D drawing:



<https://www.hzmotion.com/#/pages/catalogs/index>

Bearing life calculation tool:

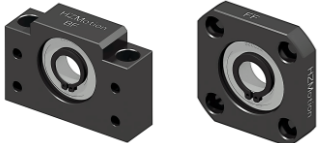


<https://www.hzmotion.com/#/pages/tools/index>

## PRODUCT LINEUP AND CLASSIFICATION:

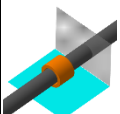
### Classification by application:

- Fixed end units provides both axial and radial support for the ball screw.
- Support end units only provide radial support to compensate for axial expansion and contraction of the ball screw during operation due to factors like temperature rise.
- For general application, use fixed end units and support end units in pair for each ball screw.
- For application with high loads (e.g., heavy milling machines), use heavy duty series fixed end units on both end of ball screw. Please consult with HZMotion technical support for this type of application.

| Classification:       | Fixed End Support Unit                                                            | Support End Support Unit                                                            |
|-----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Load Type:            | Radial & Axial                                                                    | Radial                                                                              |
| Typical bearing type: | Angular contact bearing pair                                                      | Deep groove ball bearing                                                            |
| Illustration:         |  |  |

### Classification by model lineup:

- HZMotion ball screw support unit product line covers applications ranging from small-load, medium precision class to heavy-load, high precision class scenarios. The table below provides a brief comparison of key characteristics between different models.

| Model:       | Illustration:                                                                       | Support End                                                                          | Mating Surface:                                                                     |                                                                                     | Equipped bearing:                                                                     | Lead Screw Interface Diameter:           | Axial Load Capacity:                                                                  |                                                                                       |
|--------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| EK           |  | EF                                                                                   |  | Parallel with lead screw axial direction.                                           |   | Shaft Dia: 6-20mm<br>Screw Dia: 6-32mm   |  |                                                                                       |
| EK-E         |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| EK-TAC       |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| BK           |  | BF                                                                                   |  | Parallel or perpendicular with axial direction.                                     |   | Shaft Dia: 10-40mm<br>Screw Dia: 10-50mm |  |                                                                                       |
| BK-E         |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| BK-TAC       |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| FK / FKA     |  | FF                                                                                   |  | Perpendicular with lead screw axial direction.                                      |   | Shaft Dia: 6-30mm<br>Screw Dia: 6-40mm   |  |                                                                                       |
| FK-E         |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| FK-TAC       |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| AK           |  | AF                                                                                   |  | Parallel with lead screw axial direction.                                           |   | Shaft Dia: 10-25mm<br>Screw Dia: 10-32mm |  |                                                                                       |
| AK-E         |                                                                                     |  |                                                                                     |                                                                                     |  |                                          |                                                                                       |                                                                                       |
| LK           |                                                                                     | LF / LFA                                                                             |                                                                                     |                                                                                     |   | Shaft Dia: 8-15mm<br>Screw Dia: 8-20mm   |  |                                                                                       |
| LK-E         |                                                                                     |                                                                                      |                                                                                     |                                                                                     |   |                                          |  |                                                                                       |
| SBK<br>SBK-U |  | Fixed End                                                                            |  |                                                                                     |   | Shaft Dia: 17-60mm<br>Screw Dia: 20-80mm |  |                                                                                       |
|              |                                                                                     |                                                                                      |                                                                                     |                                                                                     |                                                                                       |                                          |                                                                                       |                                                                                       |
| WBK          |  |                                                                                      |                                                                                     |  | Perpendicular with lead screw axial direction.                                        |                                          |   |  |
| FBSA         |                                                                                     |                                                                                      |                                                                                     |                                                                                     |                                                                                       |                                          |                                                                                       |  |
| MBK          |                                                                                     |                                                                                      |                                                                                     |                                                                                     |                                                                                       |                                          |                                                                                       |  |

\*  $\angle 30^\circ$  Angular contact ball bearing (typically 30°).

\*\*  $\angle 60^\circ$  Angular contact thrust ball bearing (typically 60°).

\*\*\*  Deep groove ball bearing

## Classification by installed bearing capability:

➤ Use the table below as quick reference to select support units based on axial load and lead screw diameter.

| Applicable<br>Ballscrew Diameter<br>[ mm ] | Bearing Inner<br>Diameter<br>[ mm ] | Bearing<br>Model | Bearing<br>Configuration | Max Axial<br>Load*/**<br>(Bearing)<br>[ kgf ] | Max Speed<br>(Bearing)<br>[ RPM ] | Available Product Series |    |    |     |    |    |        |        |        |     |      |     |         |  |
|--------------------------------------------|-------------------------------------|------------------|--------------------------|-----------------------------------------------|-----------------------------------|--------------------------|----|----|-----|----|----|--------|--------|--------|-----|------|-----|---------|--|
|                                            |                                     |                  |                          |                                               |                                   | EK                       | BK | FK | FKA | AK | LK | EK-TAC | BK-TAC | FK-TAC | WBK | FBSA | MBK | SBK / U |  |
| 10 / 12 / 14                               | 8                                   | 708A             | DF                       | 52                                            | 43000                             | Y                        |    | Y  | Y   |    | Y  |        |        |        |     |      |     |         |  |
| 14 / 15 / 16                               | 10                                  | 7000A            | DF                       | 212                                           | 20000                             | Y                        | Y  | Y  | Y   | Y  | Y  |        |        |        |     |      |     |         |  |
|                                            | 12                                  | 7001A            | DF                       | 243                                           | 18000                             | Y                        | Y  | Y  | Y   | Y  | Y  |        |        |        |     |      |     |         |  |
|                                            | 12                                  | 7602012          | DF                       | 1055                                          | 8000                              |                          |    |    |     |    |    | Y      | Y      | Y      |     |      |     |         |  |
| 10 / 20                                    | 15                                  | 7002A            | DF                       | 279                                           | 15000                             | Y                        | Y  | Y  | Y   | Y  | Y  |        |        |        |     |      |     |         |  |
|                                            | 15                                  | 7302A            | DF                       | 579                                           | 10000                             |                          |    |    | Y   |    |    |        |        |        |     |      |     |         |  |
|                                            | 15                                  | 7602015          | DF                       | 1259                                          | 6700                              |                          |    |    |     |    |    | Y      | Y      | Y      |     |      |     |         |  |
|                                            | 15                                  | 15TAC47          | DF                       | 1808                                          | 6000                              |                          |    |    |     |    |    |        |        |        |     |      | Y   |         |  |
| 25 / 28                                    | 17                                  | 17TAC47          | DF                       | 1808                                          | 6000                              |                          |    |    |     |    |    |        |        |        | Y   |      | Y   |         |  |
|                                            | 17                                  | 17TAC47          | DFF                      | 3602                                          | 6000                              |                          |    |    |     |    |    |        |        |        |     |      | Y   |         |  |
|                                            | 17                                  | 7203A            | DF                       | 489                                           | 13000                             |                          | Y  | Y  |     |    |    |        |        |        |     |      |     |         |  |
|                                            | 17                                  | 7602017          | DF                       | 1656                                          | 6000                              |                          |    |    |     |    |    | Y      | Y      |        |     |      |     |         |  |
| 25 / 28 / 32                               | 20                                  | 7004A            | DF                       | 538                                           | 12000                             |                          | Y  |    | Y   |    |    |        |        |        |     |      |     |         |  |
|                                            | 20                                  | 7204A            | DF                       | 677                                           | 11000                             | Y                        |    | Y  | Y   | Y  |    |        |        |        |     |      |     |         |  |
|                                            | 20                                  | 20TAC47          | DF                       | 1808                                          | 6000                              |                          |    |    |     |    |    |        |        | Y      |     | Y    |     |         |  |
|                                            | 20                                  | 20TAC47          | DFF                      | 3602                                          | 6000                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
|                                            | 20                                  | 7602020          | DF                       | 1937                                          | 5000                              |                          |    |    |     |    |    | Y      | Y      | Y      |     | Y    |     |         |  |
|                                            | 20                                  | 7602020          | DB                       | 1937                                          | 5000                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
|                                            | 20                                  | 7602020          | QBC / QFC                | 3874                                          | 5000                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
| 32 / 36                                    | 25                                  | 7205A            | DF                       | 836                                           | 9500                              | Y                        | Y  | Y  |     | Y  |    |        |        |        |     |      |     |         |  |
|                                            | 25                                  | 25TAC62          | DF                       | 2752                                          | 4500                              |                          |    |    |     |    |    |        |        |        | Y   |      | Y   |         |  |
|                                            | 25                                  | 25TAC62          | DFD                      | 5539                                          |                                   |                          |    |    |     |    |    |        | Y      |        |     | Y    |     |         |  |
|                                            | 25                                  | 25TAC62          | DFF                      | 5539                                          |                                   |                          |    |    |     |    |    |        |        | Y      |     |      |     |         |  |
|                                            | 25                                  | 7602025          | DF                       | 2548                                          | 4500                              |                          |    |    |     |    |    | Y      | Y      | Y      |     | Y    |     |         |  |
|                                            | 25                                  | 7602025          | DB                       | 2548                                          | 4500                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
|                                            | 25                                  | 7602025          | QBC / QFC                | 5097                                          | 4500                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
| 36 / 38 / 40                               | 30                                  | 7206A            | DF                       | 1203                                          | 8000                              |                          | Y  | Y  |     |    |    |        |        |        |     |      |     |         |  |
|                                            | 30                                  | 30TAC62          | DF                       | 2922                                          | 4300                              |                          |    |    |     |    |    |        |        |        | Y   |      | Y   |         |  |
|                                            | 30                                  | 30TAC62          | DFD                      | 5844                                          |                                   |                          |    |    |     |    |    |        |        | Y      |     |      | Y   |         |  |
|                                            | 30                                  | 30TAC62          | DFF                      | 5844                                          |                                   |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
|                                            | 30                                  | 7602030          | DF                       | 3364                                          | 3800                              |                          |    |    |     |    |    |        | Y      | Y      |     | Y    |     |         |  |
|                                            | 30                                  | 7602030          | DB                       | 3364                                          | 3800                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
|                                            | 30                                  | 7602030          | QBC / QFC                | 6728                                          | 3800                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
| 40 / 45 / 50                               | 35                                  | 7207B            | DF                       | 1488                                          | 4800                              |                          | Y  |    |     |    |    |        |        |        |     |      |     |         |  |
|                                            | 35                                  | 35TAC72          | DF                       | 3398                                          | 3600                              |                          |    |    |     |    |    |        |        |        | Y   |      | Y   |         |  |
|                                            | 35                                  | 35TAC72          | DFD                      | 6769                                          |                                   |                          |    |    |     |    |    |        |        | Y      |     |      | Y   |         |  |
|                                            | 35                                  | 35TAC72          | DFF                      | 6769                                          |                                   |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
|                                            | 35                                  | 7602035          | DF                       | 4128                                          | 3200                              |                          |    |    |     |    |    | Y      |        |        | Y   |      |     |         |  |
|                                            | 35                                  | 7602035          | DB                       | 4128                                          | 3200                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
|                                            | 35                                  | 7602035          | QBC / QFC                | 8257                                          | 3200                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
| 50 / 55                                    | 40                                  | 7208B            | DF                       | 1876                                          | 4300                              |                          | Y  |    |     |    |    |        |        |        |     |      |     |         |  |
|                                            | 40                                  | 40TAC72          | DF                       | 3534                                          | 3600                              |                          |    |    |     |    |    |        |        |        | Y   |      | Y   |         |  |
|                                            | 40                                  | 40TAC72          | DFD                      | 7068                                          |                                   |                          |    |    |     |    |    |        |        | Y      |     |      | Y   |         |  |
|                                            | 40                                  | 40TAC72          | DFF                      | 7068                                          |                                   |                          |    |    |     |    |    |        |        | Y      |     |      |     |         |  |
|                                            | 40                                  | 7602040          | DF                       | 5403                                          | 2800                              |                          |    |    |     |    |    | Y      |        |        | Y   |      |     |         |  |
|                                            | 40                                  | 7602040          | DB                       | 5403                                          | 2800                              |                          |    |    |     |    |    |        |        |        | Y   |      |     |         |  |
| 55 / 63                                    | 45                                  | 7602045          | DF / DB                  | 5657                                          | 2600                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
|                                            | 45                                  | 7602045          | QBC / QFC                | 11315                                         | 2600                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
| 63 / 70                                    | 50                                  | 7210B            | DF                       | 2324                                          | 3600                              |                          | Y  |    |     |    |    |        |        |        |     |      |     |         |  |
|                                            | 50                                  | 7602050          | DF                       | 6218                                          | 2400                              |                          |    |    |     |    |    |        | Y      |        |     | Y    |     |         |  |
|                                            | 50                                  | 7602050          | DB                       | 6218                                          | 2400                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
|                                            | 50                                  | 7602050          | QBC / QFC                | 12436                                         | 2400                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |
| 70 / 80                                    | 60                                  | 7602060          | QBC / QFC                | 18654                                         | 2000                              |                          |    |    |     |    |    |        |        |        |     | Y    |     |         |  |

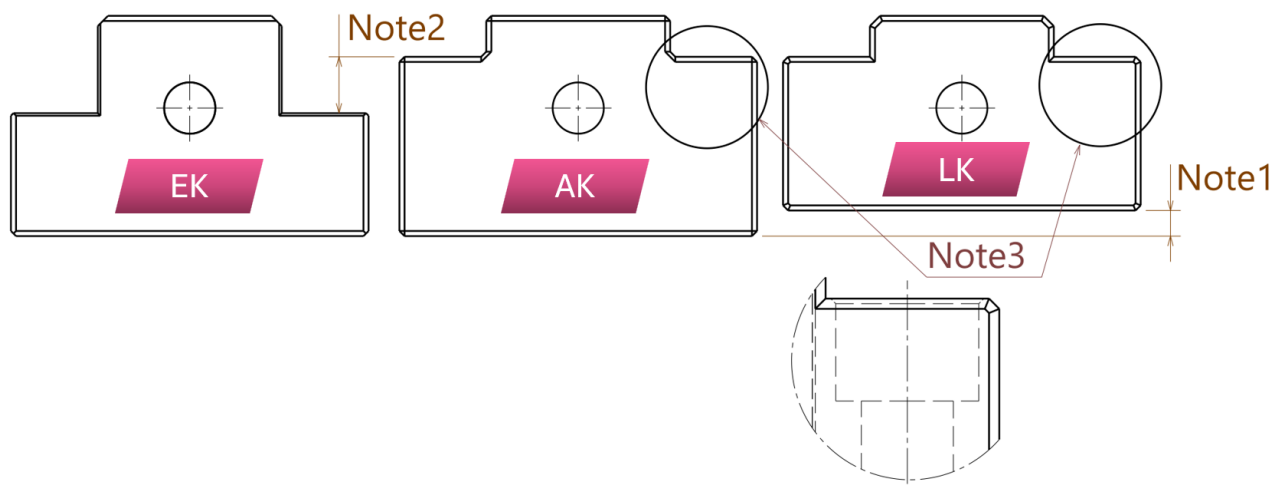
\* The maximum axial load refers to the greatest axial load that the bearing housing can withstand. At this load, the structural safety of the bearing housing is fully ensured. Engineering practice shows that when the average axial load on the bearing housing is approximately 20% of its maximum axial load, its service life can be fully guaranteed.

\*\* The axial load capacity increases when using fixed end supports on both end of lead screw.

## DIMENSIONAL CHARACTERISTICS:

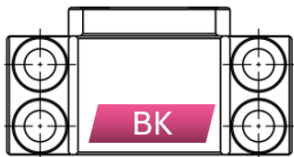
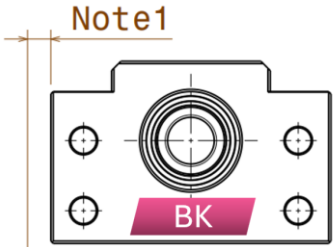
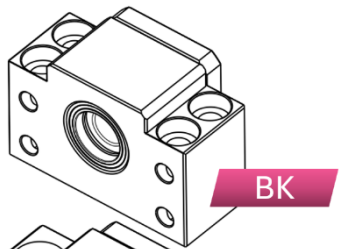
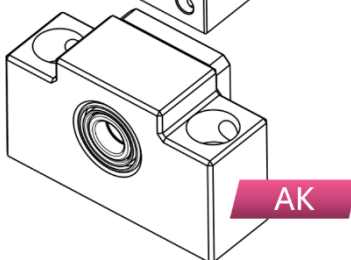
### Comparison between low to medium load capacity series:

- The EK/AK/LK series bearing housings have similar installation characteristics, with the main dimensional differences between them being in the axial projection plane, as shown in the figure below:



- Note1: Using the lead screw rotation center as the reference point for dimensions, the LK series occupies less bottom space compared to the AK series.
- Note2: Compared to the AK and LK series, the EK series has a lower shoulder height on the mounting tab.
- Note3: The AK and LK series feature countersunk holes for internal hexagon bolt heads at the bolt mounting positions, while only partial of EK series (EK06/EK08) have this feature.

- The main difference between the three series (EK/AK/LK) and the BK series is that the BK series uses four bolts for installation, achieving a narrower mounting shoulder size in the axial projection plane.

| Top view                                                                                      | Front view                                                                                                 | Isometric view:                                                                                 |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|  <p>BK</p> |  <p>Note1</p> <p>BK</p> |  <p>BK</p> |
|  <p>AK</p> |  <p>AK</p>              |  <p>AK</p> |

- Note1: The BK series has a narrower mounting shoulder width compared to other block style bearing supports.

### Comparison between high load capacity series:

- The axial mounting bearing housing (WBK/FBSA/MBK) are primarily used in heavy-load scenarios. Each bearing housing is designed with its corresponding bearing and application-specific features. Please refer to specific drawings in this technical manual to obtain accurate dimension parameters.

## HOW TO ORDER / PART NUMBER LOOKUP:

### For low to middle load capacity series:

| Unit Series  | Fix End / Support End | Shaft Diameter*   | Support Unit Designation                        |
|--------------|-----------------------|-------------------|-------------------------------------------------|
| E = E Series | K = Fixed End         | 05 / 06 / 08 / 10 | [empty, fixed end] = P0 bearing, JP Origin      |
| B = B Series | F = Support End       | 12 / 15 / 17 / 20 | [empty, support end] = Deep groove ball bearing |
| F = F Series |                       | 25 / 30 / 35 / 40 | C5 = P5 angular contact bearing, CN Origin      |
| A = A Series |                       | 50                | C4 = P4 angular contact bearing, CN Origin      |
| L = L Series |                       |                   | TAC5 = P5 60° thrust bearing, CN Origin         |
|              |                       |                   | TAC4 = P4 60° thrust bearing, CN Origin         |
|              |                       |                   | E = Deep groove ball bearing                    |

\* Represents actual shaft diameter except following models: EF08, LF08, LF10, AF10, AF12, EF10, EF12, BF10, BF12, FF10 & FF12. Please refer to specific drawings in this technical manual to obtain accurate dimension parameters.

### For high-load capacity series:

| Unit Series | Shaft Diameter*   | Bearing Configuration | Support Unit Designation                       |
|-------------|-------------------|-----------------------|------------------------------------------------|
| WBK         | 17 / 20 / 25 / 30 | DF                    | [empty] = P4(C2) 60° thrust bearing, JP Origin |
| SBK         | 35 / 40 / 50 / 60 | DB                    | C5 = P5 60° thrust bearing, CN Origin          |
| MBK         | 204=20(FBSA Only) | DFD                   | C4 = P4 60° thrust bearing, CN Origin          |
| FBSA        | 205=25(FBSA Only) | DFF                   |                                                |
|             | 206=30(FBSA Only) | QBC                   |                                                |
|             | 207=35(FBSA Only) | QFC                   |                                                |
|             | 208=40(FBSA Only) |                       |                                                |
|             | 209=45(FBSA Only) |                       |                                                |
|             | 210=50(FBSA Only) |                       |                                                |
|             | 212=60(FBSA Only) |                       |                                                |

\* Represents actual shaft diameter in mm. FBSA series uses 3-digit code to represent shaft diameter. The corresponding shaft diameter for each code is listed and marked with "FBSA Only".

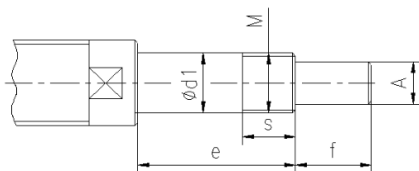
## EK / EK-TAC Square Type Fixed End Support Unit

### List of contents:



| Part No. | Description                 | Unit | QTY |
|----------|-----------------------------|------|-----|
| 1-(1)    | Bearing Housing             | pcs  | 1   |
| 1-(2)    | Bearing                     | pair | 1   |
| 1-(3)    | Holding Lid                 | pcs  | 1   |
| 1-(4)    | Seal (1 for 05/06/08)       | pcs  | 2/1 |
| 1-(5)    | Hexagon Screw (0 for 05-08) | pcs  | 0/4 |
| 2        | Lock Nut (with set screw)   | pcs  | 1   |
| 3        | Collar                      | pcs  | 2   |

### Ball Screw Interface dimensions (regular and TAC):



|        | EK05   | EK06    | EK08 | EK10  | EK12  | EK15  | EK20  | EK25    |
|--------|--------|---------|------|-------|-------|-------|-------|---------|
| d1(g6) | 5      | 6       | 8    | 10    | 12    | 15    | 20    | 25      |
| A      | 4      | 4       | 6    | 8     | 10    | 12    | 17    | 20      |
| e      | 23     | 28      | 32   | 36    | 36    | 47    | 62    | 78      |
| f      | 6      | 8       | 9    | 15    | 15    | 20    | 25    | 30      |
| M      | M5x0.5 | M6x0.75 | M8x1 | M10x1 | M12x1 | M15x1 | M20x1 | M25x1.5 |
| S      | 7      | 8       | 10   | 11    | 11    | 13    | 17    | 20      |

Dimensions in [mm]

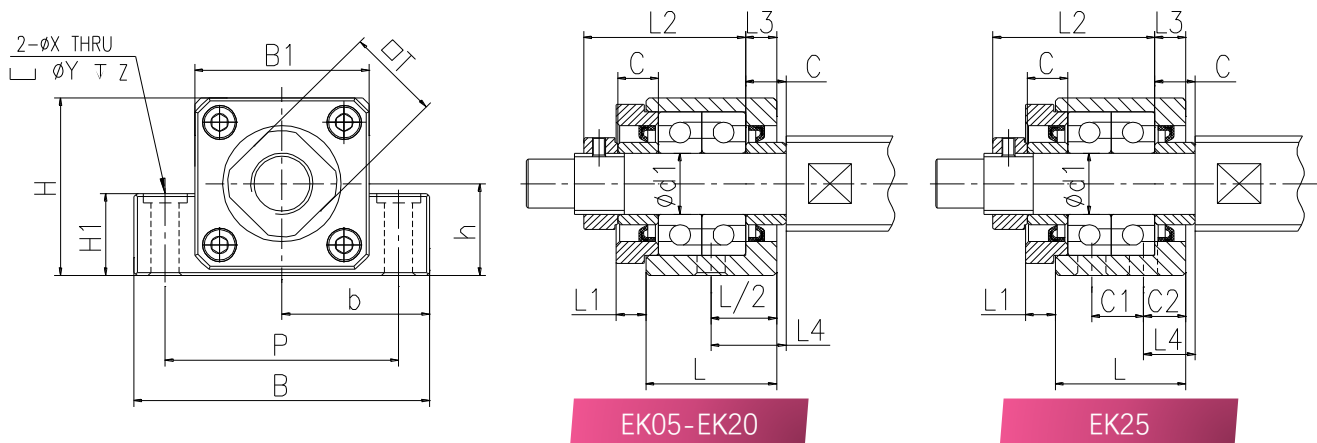
### Product Availability:

➤ Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact ball bearing<br>(25°-40° contact angle) |         |         |                      | Angular contact thrust bearing<br>(60° contact angle) |            |                      | Deep groove ball bearing |                      |
|-----------------------------|---------------------------------------------------------|---------|---------|----------------------|-------------------------------------------------------|------------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                      | P5      | P4      | Max Axial Load (kgf) | P5                                                    | P4         | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                   | Light   | Medium  |                      | Light/Mid                                             | High       |                      | Light                    |                      |
| Bearing Configuration       | DF                                                      | DF      | DF      |                      | DF                                                    | DF         |                      | --                       |                      |
| Applicable Ball screw Grade | C3-C7                                                   | C3-C7   | C1-C3   |                      | C3-C7                                                 | C1-C3      |                      | C7-C10                   |                      |
| EK Series                   | --                                                      | --      | ---     | ---                  | --                                                    | --         | ---                  | EK05-E                   | --                   |
|                             | --                                                      | --      | ---     | ---                  | --                                                    | --         | ---                  | EK06-E                   | --                   |
|                             | ---                                                     | EK08-C5 | EK8-C4  | 52                   | --                                                    | --         | ---                  | EK08-E                   | --                   |
|                             | EK10                                                    | EK10-C5 | EK10-C4 | 212                  | --                                                    | --         | ---                  | EK10-E                   | --                   |
|                             | EK12                                                    | EK12-C5 | EK12-C4 | 243                  | EK12-TAC5*                                            | BK12-TAC4* | 1055                 | EK12-E                   | --                   |
|                             | EK15                                                    | EK15-C5 | EK15-C4 | 279                  | EK15-TAC5*                                            | BK15-TAC4* | 1259                 | EK15-E                   | --                   |
|                             | EK20                                                    | EK20-C5 | EK20-C4 | 677                  | EK20-TAC5                                             | BK20-TAC4  | 1937                 | EK20-E                   | --                   |
|                             | EK25                                                    | EK25-C5 | EK25-C4 | 836                  | EK25-TAC5                                             | BK25-TAC4  | 2548                 | EK25-E                   | --                   |

\*: Non regular stock item. Please contact us for delivery time.

## Support unit dimensions:



## Regular & Economy series (EK / EK-C4 / EK-C5 / EK-E):

| Model | d1 | L    | L1  | L2   | L3  | L4   | B   | H  | b     | h     | B1 | H1 | C1 | C2 | P  | X   | Y   | Z  | T  | C   | Bearing Model<br>(Except E Line) |
|-------|----|------|-----|------|-----|------|-----|----|-------|-------|----|----|----|----|----|-----|-----|----|----|-----|----------------------------------|
|       |    |      |     |      |     |      |     |    | ±0.02 | ±0.02 |    |    |    |    |    |     |     |    |    |     |                                  |
| EK05  | 5  | 16.5 | 5.5 | 18.5 | 3.5 | 8.3  | 36  | 21 | 18    | 11    | 20 | 8  | -  | -  | 28 | 4.5 | -   | -  | 11 | 3.5 | 605ZZ                            |
| EK06  | 6  | 20   | 5.5 | 22   | 3.5 | 11.5 | 42  | 25 | 21    | 13    | 18 | 20 | -  | -  | 30 | 5.5 | 9.5 | 11 | 12 | 5   | 606ZZ                            |
| EK08  | 8  | 23   | 7   | 26   | 4   | 13   | 52  | 32 | 26    | 17    | 25 | 26 | -  | -  | 38 | 6.6 | 11  | 12 | 14 | 5.5 | 708A                             |
| EK10  | 10 | 24   | 6   | 29.5 | 6   | 12   | 70  | 43 | 35    | 25    | 36 | 24 | -  | -  | 52 | 9   | -   | -  | 16 | 5.5 | 7000A                            |
| EK12  | 12 | 24   | 6   | 29.5 | 6   | 12   | 70  | 43 | 35    | 25    | 36 | 24 | -  | -  | 52 | 9   | -   | -  | 19 | 5.5 | 7001A                            |
| EK15  | 15 | 25   | 6   | 36   | 5   | 18   | 80  | 49 | 40    | 30    | 41 | 25 | -  | -  | 60 | 11  | -   | -  | 22 | 10  | 7002A                            |
| EK20  | 20 | 42   | 10  | 50   | 10  | 22   | 95  | 58 | 47.5  | 30    | 56 | 25 | -  | -  | 75 | 11  | -   | -  | 30 | 11  | 7204A                            |
| EK25  | 25 | 48   | 12  | 60   | 15  | 9    | 105 | 68 | 52.5  | 35    | 66 | 25 | 30 | 9  | 85 | 11  | -   | -  | 35 | 15  | 7205A                            |

Dimensions in [mm]

## Heavy Load series (EK-TAC4 / EK-TAC5):

| Model    | d1 | L  | L1  | L2   | L3 | L4   | B   | H  | b     | h     | B1 | H1 | C1 | C2 | P  | X  | Y | Z | T  | C   | Bearing Model |
|----------|----|----|-----|------|----|------|-----|----|-------|-------|----|----|----|----|----|----|---|---|----|-----|---------------|
|          |    |    |     |      |    |      |     |    | ±0.02 | ±0.02 |    |    |    |    |    |    |   |   |    |     |               |
| EK12-TAC | 12 | 25 | 6.5 | 31.5 | 3  | 13   | 70  | 45 | 35    | 25    | 37 | 30 | -  | -  | 52 | 9  | - | - | 19 | 3.5 | 7602012       |
| EK15-TAC | 15 | 27 | 6.5 | 40   | 3  | 18.5 | 80  | 53 | 40    | 30    | 41 | 35 | -  | -  | 60 | 11 | - | - | 22 | 8   | 7602015       |
| EK20-TAC | 20 | 42 | 10  | 50   | 10 | 22   | 95  | 58 | 47.5  | 30    | 56 | 25 | -  | -  | 75 | 11 | - | - | 30 | 11  | 7602020       |
| EK25-TAC | 25 | 48 | 12  | 60   | 15 | 9    | 105 | 68 | 52.5  | 35    | 66 | 25 | 30 | 9  | 85 | 11 | - | - | 35 | 15  | 7602025       |

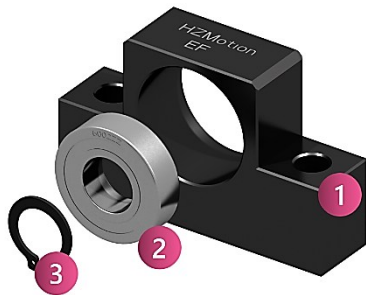
Dimensions in [mm]

Note1: EK-TAC series are designed to be interchangeable with regular EK series, all the ball screw installation interface and support unit installation interface dimensions are same as regular EK series. Some minor dimensions are different due to internal structure design and are highlighted with light blue in the table above.



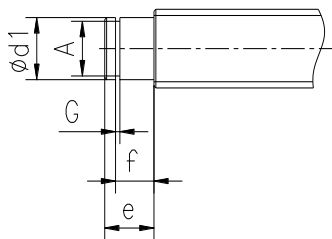
## EF Square Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 1   |

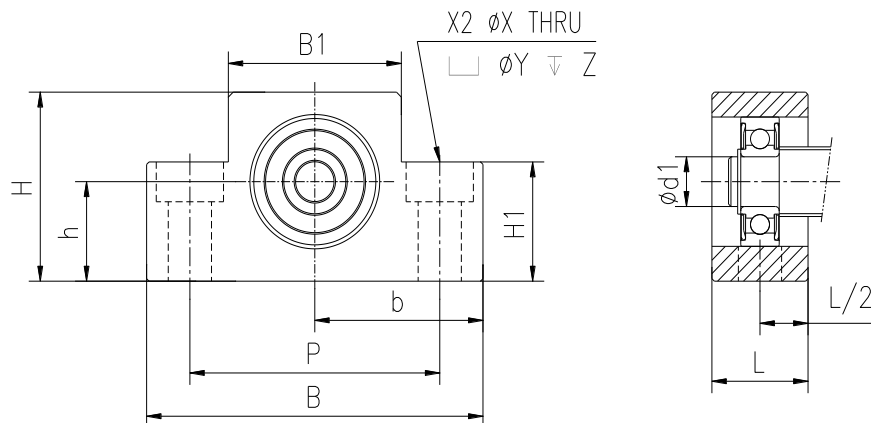
### Ball Screw Interface dimensions:



|        | EF06 | EF08 | EF10 | EF12 | EF15  | EF15H | EF20  | EF25  |
|--------|------|------|------|------|-------|-------|-------|-------|
| d1(g6) | 6    | 6    | 8    | 10   | 15    | 15    | 20    | 25    |
| e      | 9    | 9    | 10   | 11   | 13    | 13    | 19    | 20    |
| A      | 5.7  | 5.7  | 7.6  | 9.6  | 14.3  | 14.3  | 19    | 23.5  |
| f      | 6.8  | 6.8  | 7.9  | 9.15 | 10.15 | 10.15 | 15.35 | 16.35 |
| G      | 0.8  | 0.8  | 0.9  | 1.15 | 1.15  | 1.15  | 1.35  | 1.35  |

Dimensions in [mm]

### Support unit dimensions:



### EF Square Type Support End Support Unit:

| Model | d1 | L  | B   | H  | b<br>$\pm 0.02$ | h<br>$\pm 0.02$ | B1 | H1 | P  | X   | Y   | Z  | Circlip | Bearing Model |
|-------|----|----|-----|----|-----------------|-----------------|----|----|----|-----|-----|----|---------|---------------|
| EF06  | 6  | 12 | 42  | 25 | 21              | 13              | 18 | 20 | 30 | 5.5 | 9.5 | 11 | S06     | 606ZZ         |
| EF08  | 6  | 14 | 52  | 32 | 26              | 17              | 25 | 26 | 38 | 6.6 | 11  | 12 | S06     | 606ZZ         |
| EF10  | 8  | 20 | 70  | 43 | 35              | 25              | 36 | 24 | 52 | 9   | -   | -  | S08     | 608ZZ         |
| EF12  | 10 | 20 | 70  | 43 | 35              | 25              | 36 | 24 | 52 | 9   | -   | -  | S10     | 6000ZZ        |
| EF15  | 15 | 20 | 80  | 49 | 40              | 30              | 41 | 25 | 60 | 9   | -   | -  | S15     | 6002ZZ        |
| EF15H | 15 | 26 | 95  | 72 | 47.5            | 45              | 52 | 61 | 70 | 9   | 14  | 14 | S15     | 6002ZZ        |
| EF20  | 20 | 26 | 95  | 58 | 47.5            | 30              | 56 | 25 | 75 | 11  | -   | -  | S20     | 6204ZZ        |
| EF25  | 25 | 30 | 105 | 68 | 52.5            | 35              | 66 | 25 | 85 | 11  | -   | -  | S25     | 6205ZZ        |

Dimensions in [mm]



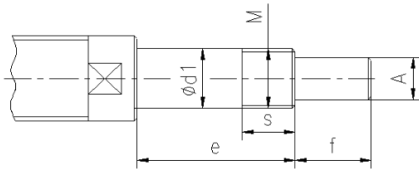
## BK / BK-TAC Square Type Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | pair | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 4   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions (regular and TAC):



| Ball Screw Interface Dimension | BK10  | BK12  | BK15  | BK17  | BK20  | BK25    | BK30    | BK35    | BK40    | BK50    |
|--------------------------------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|
| d1(g6)                         | 10    | 12    | 15    | 17    | 20    | 25      | 30      | 35      | 40      | 50      |
| A                              | 8     | 10    | 12    | 15    | 17    | 20      | 25      | 30      | 35      | 45      |
| e                              | 36    | 36    | 40    | 53    | 53    | 65      | 72      | 81      | 93      | 130     |
| e (TAC)                        | -     | 36    | 40    | 53    | 53    | 65      | 72      | 81      | 93      | 130     |
| f                              | 15    | 15    | 20    | 23    | 25    | 30      | 38      | 45      | 50      | 50      |
| M                              | M10x1 | M12x1 | M15x1 | M17x1 | M20x1 | M25x1.5 | M30x1.5 | M35x1.5 | M40x1.5 | M50x1.5 |
| S                              | 14    | 14    | 12    | 17    | 15    | 20      | 25      | 28      | 35      | 35      |

Dimensions in [mm]

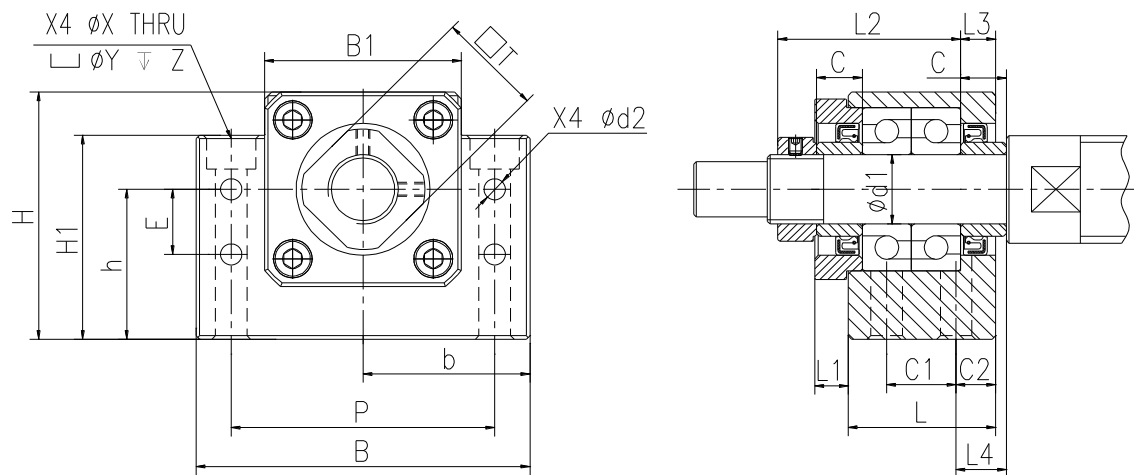
### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact ball bearing<br>(25°-40° contact angle) |         |         |                      | Angular contact thrust bearing<br>(60° contact angle) |            |                      | Deep groove ball bearing |                      |
|-----------------------------|---------------------------------------------------------|---------|---------|----------------------|-------------------------------------------------------|------------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                      | P5      | P4      | Max Axial Load (kgf) | P5                                                    | P4         | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                   | Light   | Medium  |                      | Light/Mid                                             | High       |                      | Light                    |                      |
| Bearing Configuration       | DF                                                      | DF      | DF      |                      | DF                                                    | DF         |                      | DF                       |                      |
| Applicable Ball screw Grade | C3-C7                                                   | C3-C7   | C1-C3   |                      | C3-C7                                                 | C1-C3      |                      | C7-C10                   |                      |
| BK Series                   | BK10                                                    | BK10-C5 | BK10-C4 | 212                  | --                                                    | --         | ---                  | BK10-E                   | --                   |
|                             | BK12                                                    | BK12-C5 | BK12-C4 | 243                  | BK12-TAC5*                                            | BK12-TAC4* | 1055                 | BK12-E                   | --                   |
|                             | BK15                                                    | BK15-C5 | BK15-C4 | 279                  | BK15-TAC5*                                            | BK15-TAC4* | 1259                 | BK15-E                   | --                   |
|                             | BK17                                                    | BK17-C5 | BK17-C4 | 489                  | BK17-TAC5                                             | BK17-TAC4  | 1656                 | BK17-E                   | --                   |
|                             | BK20                                                    | BK20-C5 | BK20-C4 | 538                  | BK20-TAC5*                                            | BK20-TAC4* | 1937                 | BK20-E                   | --                   |
|                             | BK25                                                    | BK25-C5 | BK25-C4 | 836                  | BK25-TAC5                                             | BK25-TAC4  | 2548                 | BK25-E                   | --                   |
|                             | BK30                                                    | BK30-C5 | BK30-C4 | 1203                 | BK30-TAC5                                             | BK30-TAC4  | 3364                 | BK30-E                   | --                   |
|                             | BK35                                                    | BK35-C5 | BK35-C4 | 1488                 | BK35-TAC5                                             | BK35-TAC4  | 4128                 | BK35-E                   | --                   |
|                             | BK40                                                    | BK40-C5 | BK40-C4 | 1876                 | BK40-TAC5                                             | BK40-TAC4  | 5403                 | BK40-E                   | --                   |
|                             | BK50                                                    | BK50-C5 | BK50-C4 | 2324                 | BK50-TAC5                                             | BK50-TAC4  | 6218                 | BK50-E                   | --                   |

\*: Non regular stock item. Please contact us for delivery time.

## Support unit dimensions:



## Regular & Economy series (BK / BK-C4 / BK-C5 / BK-E):

| Model | d1 | L  | L1 | L2   | L3 | L4  | B   | H   | b  | h  | B1  | H1   | E  | P   | C1 | C2 | d2  | X   | Y    | Z   | T  | C   | Bearing Model<br>(Except E Line) |
|-------|----|----|----|------|----|-----|-----|-----|----|----|-----|------|----|-----|----|----|-----|-----|------|-----|----|-----|----------------------------------|
| BK10  | 10 | 25 | 5  | 29.5 | 5  | 6.5 | 60  | 39  | 30 | 22 | 34  | 32.5 | 15 | 46  | 13 | 6  | 5.5 | 6.6 | 10.8 | 5   | 17 | 5.5 | 7000A                            |
| BK12  | 12 | 25 | 5  | 29.5 | 5  | 6.5 | 60  | 43  | 30 | 25 | 34  | 32.5 | 18 | 46  | 13 | 6  | 5.5 | 6.6 | 10.8 | 1.5 | 19 | 5.5 | 7001A                            |
| BK15  | 15 | 27 | 6  | 32   | 6  | 6   | 70  | 48  | 35 | 28 | 40  | 38   | 18 | 54  | 15 | 6  | 5.5 | 6.6 | 11   | 6.5 | 22 | 6   | 7002A                            |
| BK17  | 17 | 35 | 9  | 44   | 7  | 8   | 86  | 64  | 43 | 39 | 50  | 55   | 28 | 68  | 19 | 8  | 6.6 | 9   | 14   | 8.5 | 24 | 7   | 7203A                            |
| BK20  | 20 | 35 | 8  | 43   | 8  | 8   | 88  | 60  | 44 | 34 | 52  | 50   | 22 | 70  | 19 | 8  | 6.6 | 9   | 14   | 8.5 | 30 | 8   | 7004A                            |
| BK25  | 25 | 42 | 12 | 54   | 9  | 10  | 106 | 80  | 53 | 48 | 64  | 70   | 33 | 85  | 22 | 10 | 9   | 11  | 17   | 11  | 35 | 9   | 7205A                            |
| BK30  | 30 | 45 | 14 | 61   | 9  | 11  | 128 | 89  | 64 | 51 | 76  | 78   | 33 | 102 | 23 | 11 | 11  | 14  | 20   | 13  | 40 | 9   | 7206A                            |
| BK35  | 35 | 50 | 14 | 67   | 12 | 12  | 140 | 96  | 70 | 52 | 88  | 79   | 35 | 114 | 26 | 12 | 11  | 14  | 20   | 13  | 50 | 12  | 7207B                            |
| BK40  | 40 | 61 | 18 | 76   | 15 | 14  | 160 | 110 | 80 | 60 | 100 | 90   | 37 | 130 | 33 | 14 | 14  | 18  | 26   | 18  | 50 | 15  | 7208B                            |
| BK50  | 50 | 70 | 23 | 91   | 25 | 20  | 170 | 130 | 85 | 70 | 106 | 95   | -  | 138 | 42 | 14 | -   | 18  | 26   | 18  | 70 | 31  | 7210B                            |

Dimensions in [mm]

## Heavy Load series (BK-TAC4 / BK-TAC5):

| Model    | d1 | L  | L1 | L2   | L3 | L4  | B   | H   | b  | h  | B1  | H1 | E  | P   | C1 | C2 | d2  | X   | Y    | Z    | T  | C   | Bearing Model |
|----------|----|----|----|------|----|-----|-----|-----|----|----|-----|----|----|-----|----|----|-----|-----|------|------|----|-----|---------------|
| BK12-TAC | 12 | 25 | 6  | 31.5 | 3  | 6.5 | 60  | 45  | 30 | 25 | 34  | 35 | 18 | 46  | 13 | 6  | 5.5 | 6.6 | 10.8 | 5    | 19 | 3.5 | 7602012       |
| BK15-TAC | 15 | 27 | 6  | 34   | 3  | 7   | 70  | 50  | 35 | 28 | 40  | 38 | 18 | 54  | 15 | 6  | 5.5 | 6.6 | 11   | 6.5  | 22 | 4   | 7602015       |
| BK17-TAC | 17 | 35 | 9  | 44   | 7  | 8   | 86  | 64  | 43 | 39 | 50  | 55 | 28 | 68  | 19 | 8  | 6.6 | 9   | 14   | 8.5  | 24 | 7   | 7602017       |
| BK20-TAC | 20 | 35 | 9  | 45   | 5  | 9   | 88  | 62  | 44 | 34 | 54  | 50 | 22 | 70  | 19 | 8  | 6.6 | 9   | 14   | 8.5  | 30 | 6   | 7602020       |
| BK25-TAC | 25 | 42 | 12 | 54   | 9  | 10  | 106 | 80  | 53 | 48 | 64  | 70 | 33 | 85  | 22 | 10 | 9   | 11  | 17   | 11   | 35 | 9   | 7602025       |
| BK30-TAC | 30 | 45 | 14 | 61   | 9  | 11  | 128 | 89  | 64 | 51 | 76  | 78 | 33 | 102 | 23 | 11 | 11  | 14  | 20   | 13   | 40 | 9   | 7602030       |
| BK35-TAC | 35 | 50 | 14 | 67   | 12 | 12  | 140 | 96  | 70 | 52 | 88  | 79 | 35 | 114 | 26 | 12 | 11  | 14  | 20   | 13   | 50 | 12  | 7602035       |
| BK40-TAC | 40 | 61 | 18 | 76   | 15 | 14  | 160 | 110 | 80 | 60 | 100 | 90 | 37 | 130 | 33 | 14 | 14  | 18  | 26   | 17.5 | 50 | 15  | 7602040       |
| BK50-TAC | 50 | 70 | 23 | 91   | 25 | 20  | 170 | 130 | 85 | 70 | 106 | 95 | -  | 138 | 42 | 14 | -   | 18  | 26   | 17.5 | 70 | 31  | 7602050       |

Dimensions in [mm]

Note1: BK-TAC series are designed to be interchangeable with regular BK series, all the ball screw installation interface and support unit installation interface dimensions are same as regular BK series. Some minor dimensions are different due to internal structure design and are highlighted with light blue in the table above.

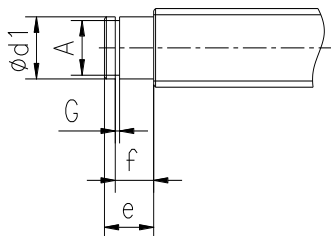
## BF Square Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 1   |

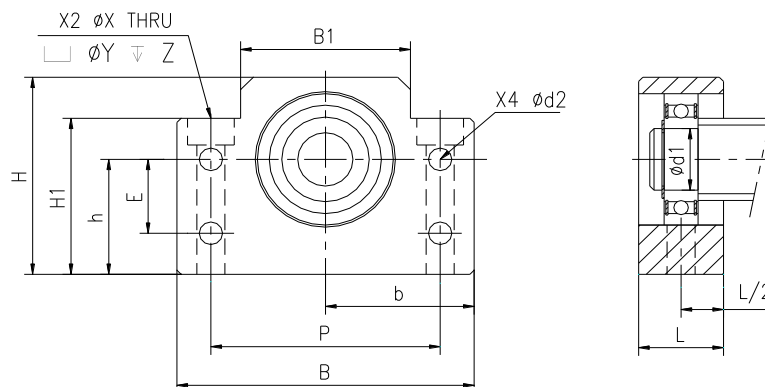
### Ball Screw Interface dimensions:



|        | BF10 | BF12 | BF15  | BF17  | BF20  | BF20H | BF25  | BF25H | BF30  | BF35  | BF40  | BF50  |
|--------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| d1(g6) | 8    | 10   | 15    | 17    | 20    | 20    | 25    | 25    | 30    | 35    | 40    | 50    |
| e      | 10   | 11   | 13    | 16    | 16    | 16    | 20    | 20    | 21    | 22    | 23    | 25    |
| A      | 7.6  | 9.6  | 14.3  | 16.2  | 19    | 19    | 23.5  | 23.5  | 28.6  | 33    | 38    | 48    |
| f      | 7.9  | 9.15 | 10.15 | 13.15 | 13.35 | 13.35 | 16.35 | 16.35 | 17.75 | 18.75 | 19.95 | 21.95 |
| G      | 0.9  | 1.15 | 1.15  | 1.15  | 1.35  | 1.35  | 1.35  | 1.35  | 1.75  | 1.75  | 1.95  | 2.15  |

Dimensions in [mm]

### Support unit dimensions:



## BF Square Type Support End Support Unit

| Model | d1 | L  | B   | H   | b<br>$\pm 0.02$ | h<br>$\pm 0.02$ | B1  | H1   | E  | P   | d2  | X   | Y    | Z    | Circlip | Bearing Model |
|-------|----|----|-----|-----|-----------------|-----------------|-----|------|----|-----|-----|-----|------|------|---------|---------------|
| BF10  | 8  | 20 | 60  | 39  | 30              | 22              | 34  | 32.5 | 15 | 46  | 5.5 | 6.6 | 10.8 | 5    | S08     | 608ZZ         |
| BF12  | 10 | 20 | 60  | 43  | 30              | 25              | 34  | 32.5 | 18 | 46  | 5.5 | 6.6 | 10.8 | 1.5  | S10     | 6000ZZ        |
| BF15  | 15 | 20 | 70  | 48  | 35              | 28              | 40  | 38   | 18 | 54  | 5.5 | 6.6 | 11   | 6.5  | S15     | 6002ZZ        |
| BF17  | 17 | 23 | 86  | 64  | 43              | 39              | 50  | 55   | 28 | 68  | 6.6 | 9   | 14   | 8.5  | S17     | 6203ZZ        |
| BF20  | 20 | 26 | 88  | 60  | 44              | 34              | 52  | 50   | 22 | 70  | 6.6 | 9   | 14   | 8.5  | S20     | 6004ZZ        |
| BF20H | 20 | 26 | 88  | 74  | 44              | 48              | 52  | 64   | 22 | 70  | 6.6 | 9   | 14   | 8.5  | S20     | 6004ZZ        |
| BF25  | 25 | 30 | 106 | 80  | 53              | 48              | 64  | 70   | 33 | 85  | 9   | 11  | 17   | 11   | S25     | 6205ZZ        |
| BF25H | 25 | 32 | 128 | 89  | 64              | 51              | 76  | 78   | 33 | 102 | 11  | 14  | 20   | 13   | S25     | 6205ZZ        |
| BF30  | 30 | 32 | 128 | 89  | 64              | 51              | 76  | 78   | 33 | 102 | 11  | 14  | 20   | 13   | S30     | 6206ZZ        |
| BF35  | 35 | 32 | 140 | 96  | 70              | 52              | 88  | 79   | 35 | 114 | 11  | 14  | 20   | 13   | S35     | 6207ZZ        |
| BF40  | 40 | 37 | 160 | 110 | 80              | 60              | 100 | 90   | 37 | 130 | 14  | 18  | 26   | 17.5 | S40     | 6208ZZ        |
| BF50  | 50 | 40 | 170 | 130 | 85              | 70              | 106 | 95   | —  | 138 | —   | 18  | 26   | 17.5 | S50     | 6210ZZ        |

Dimensions in [mm]

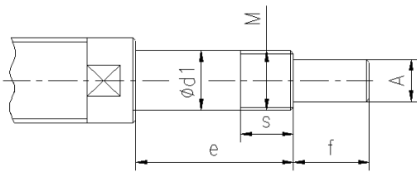
## LK Square Type Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | pair | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 4   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



Ball Screw Interface  
Dimension

|        | LK08 | LK10  | LK12  | LK15  |
|--------|------|-------|-------|-------|
| d1(g6) | 8    | 10    | 12    | 15    |
| A      | 6    | 8     | 10    | 12    |
| e      | 32   | 36    | 36    | 47    |
| f      | 9    | 15    | 15    | 20    |
| M      | M8x1 | M10x1 | M12x1 | M15x1 |
| S      | 10   | 11    | 11    | 13    |

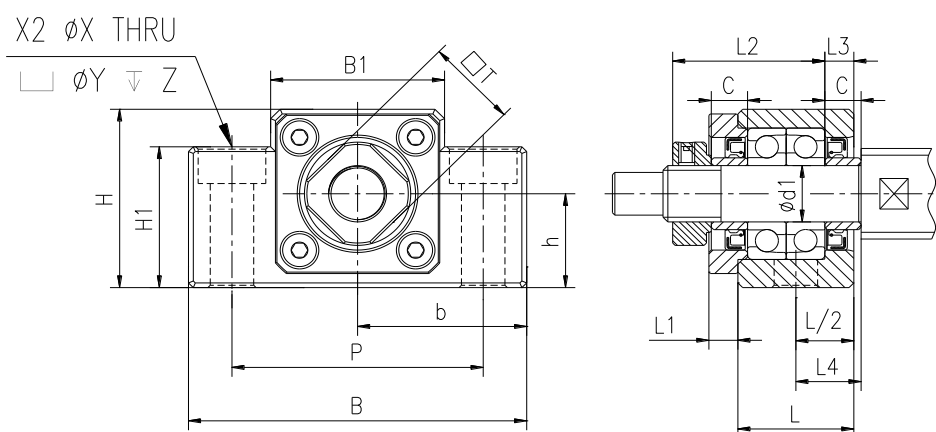
Dimensions in [mm]

### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact ball bearing<br>(25°-40° contact angle) |         |         |                      | Angular contact thrust bearing<br>(60° contact angle) |       |                      | Deep groove ball bearing |                      |
|-----------------------------|---------------------------------------------------------|---------|---------|----------------------|-------------------------------------------------------|-------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                      | P5      | P4      | Max Axial Load (kgf) | P5                                                    | P4    | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                   | Light   | Medium  |                      | Light/Mid                                             | High  |                      | Light                    |                      |
| Bearing Configuration       | DF                                                      | DF      | DF      |                      | DF                                                    | DF    |                      | DF                       |                      |
| Applicable Ball screw Grade | C3-C7                                                   | C3-C7   | C1-C3   |                      | C3-C7                                                 | C1-C3 |                      | C7-C10                   |                      |
| LK Series                   | --                                                      | LK08-C5 | LK08-C4 | 52                   | --                                                    | --    | ---                  | LK08-E                   | --                   |
|                             | LK10                                                    | LK10-C5 | LK10-C4 | 212                  | --                                                    | --    | ---                  | LK10-E                   | --                   |
|                             | LK12                                                    | LK12-C5 | LK12-C4 | 243                  | --                                                    | --    | ---                  | LK12-E                   | --                   |
|                             | LK15                                                    | LK15-C5 | LK15-C4 | 279                  | --                                                    | --    | ---                  | LK15-E                   | --                   |

## Support unit dimensions:



### LK Square Type Fixed End Support Unit

| Model | d1 | L    | L1 | L2   | L3  | L4    | B  | H  | b     | h     | B1 | H1   | P  | X  | Y  | Z    | T  | C   | Bearing Model<br>(Except E Line) |
|-------|----|------|----|------|-----|-------|----|----|-------|-------|----|------|----|----|----|------|----|-----|----------------------------------|
|       |    |      |    |      |     |       |    |    | ±0.02 | ±0.02 |    |      |    |    |    |      |    |     |                                  |
| LK08  | 8  | 22.5 | -  | 26   | 3.5 | 13.25 | 62 | 31 | 31    | 15.5  | 30 | 25.5 | 46 | 9  | 14 | 12.5 | 14 | 5.5 | 708A                             |
| LK10  | 10 | 24   | 6  | 29.5 | 6   | 11.5  | 70 | 38 | 35    | 20    | 36 | 30   | 52 | 9  | 14 | 10   | 17 | 5.5 | 7000A                            |
| LK12  | 12 | 24   | 6  | 29.5 | 6   | 11.5  | 70 | 38 | 35    | 20    | 36 | 30   | 52 | 9  | 14 | 10   | 19 | 5.5 | 7001A                            |
| LK15  | 15 | 25   | 6  | 36   | 6   | 17.5  | 80 | 42 | 40    | 22    | 41 | 32   | 60 | 11 | 17 | 13   | 22 | 10  | 7002A                            |

Dimensions in [mm]

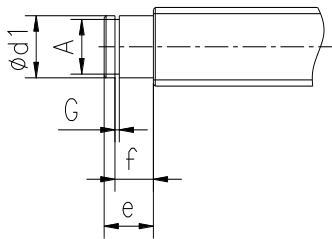
## LF Square Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 1   |

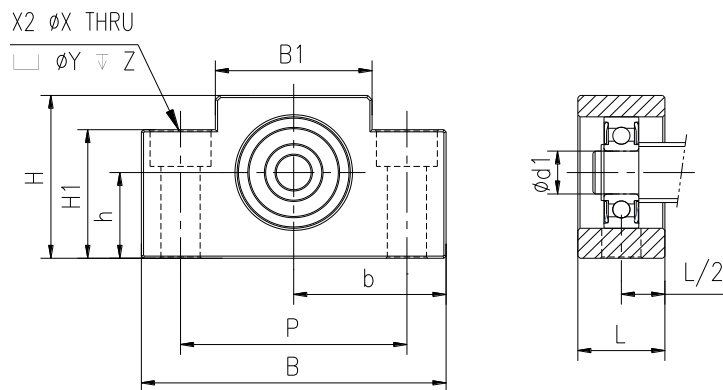
### Ball Screw Interface dimensions:



|        | LF08 | LF12 | LF15  |
|--------|------|------|-------|
| d1(g6) | 6    | 10   | 15    |
| e      | 9    | 11   | 13    |
| A      | 5.7  | 9.6  | 14.3  |
| f      | 6.8  | 9.15 | 10.15 |
| G      | 0.8  | 1.15 | 1.15  |

Dimensions in [mm]

### Support unit dimensions:



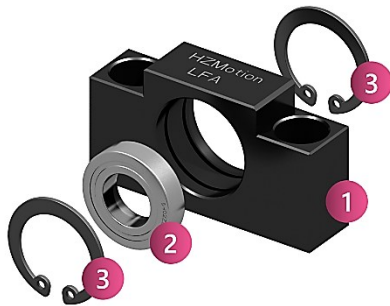
## LF Square Type Support End Support Unit

| Model | d1 | L  | B  | H  | b     | h     | B1 | H1   | P  | X | Y  | Z    | Circlip | Bearing Model |
|-------|----|----|----|----|-------|-------|----|------|----|---|----|------|---------|---------------|
| LF08  | 6  | 16 | 62 | 31 | ±0.02 | ±0.02 | 30 | 25.5 | 46 | 9 | 14 | 12.5 | S06     | 606ZZ         |
| LF12  | 10 | 20 | 70 | 38 | ±0.02 | ±0.02 | 36 | 30   | 52 | 9 | 14 | 10   | S10     | 6000ZZ        |
| LF15  | 15 | 20 | 80 | 42 | ±0.02 | ±0.02 | 41 | 32   | 60 | 9 | 14 | 11   | S15     | 6002ZZ        |

Dimensions in [mm]

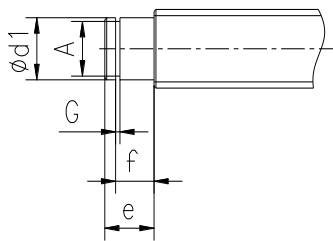
## LFA Square Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 2   |

### Ball Screw Interface dimensions:

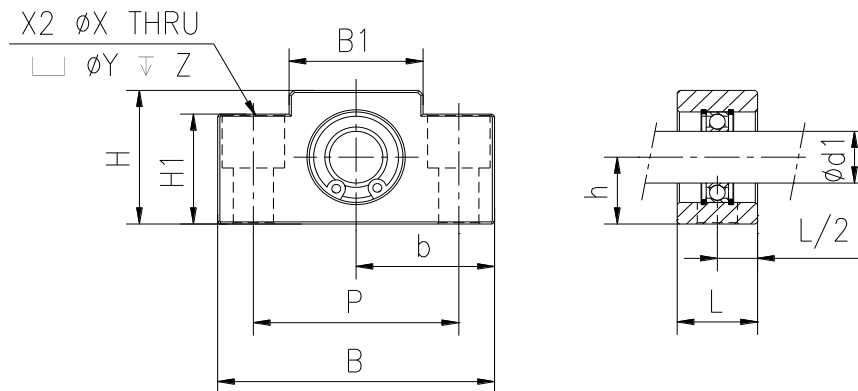


Ball Screw Interface Dimension

|        | LFA12 | LFA15 | LFA20 | LFA25 |
|--------|-------|-------|-------|-------|
| d1(g6) | 12    | 15    | 20    | 25    |
| e      | --    | --    | --    | --    |
| A      | --    | --    | --    | --    |
| f      | --    | --    | --    | --    |
| G      | --    | --    | --    | --    |

Dimensions in [mm]

### Support unit dimensions:



## LFA Square Type Support End Support Unit

| Model | d1 | L  | B  | H  | b          | h          | B1 | H1   | P  | X  | Y  | Z    | Circlip | Bearing Model |
|-------|----|----|----|----|------------|------------|----|------|----|----|----|------|---------|---------------|
|       |    |    |    |    | $\pm 0.02$ | $\pm 0.02$ |    |      |    |    |    |      |         |               |
| LFA12 | 12 | 18 | 62 | 31 | 31         | 15.5       | 30 | 25.5 | 46 | 9  | 14 | 12.5 | R21     | 6801ZZ        |
| LFA15 | 15 | 18 | 70 | 38 | 35         | 20         | 36 | 30   | 52 | 9  | 14 | 10   | R28     | 6902ZZ        |
| LFA20 | 20 | 22 | 80 | 42 | 40         | 22         | 41 | 32   | 60 | 11 | 17 | 13   | R32     | 6804ZZ        |
| LFA25 | 25 | 22 | 95 | 58 | 47.5       | 30         | 56 | 45   | 75 | 11 | 17 | 15   | R47     | 6005ZZ        |

Dimensions in [mm]



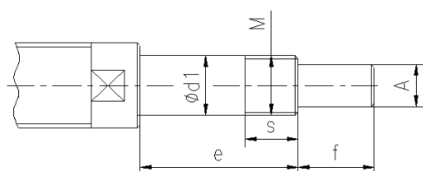
## AK Square Type Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | pair | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 4   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



Ball Screw Interface  
Dimension

|        | AK10  | AK12  | AK15  | AK20  | AK25    |
|--------|-------|-------|-------|-------|---------|
| d1(g6) | 10    | 12    | 15    | 20    | 25      |
| A      | 8     | 10    | 12    | 17    | 25      |
| e      | 36    | 36    | 48    | 64    | 76      |
| f      | 15    | 15    | 20    | 25    | 30      |
| M      | M10x1 | M12x1 | M15x1 | M20x1 | M25x1.5 |
| S      | 12    | 12    | 13    | 16    | 20      |

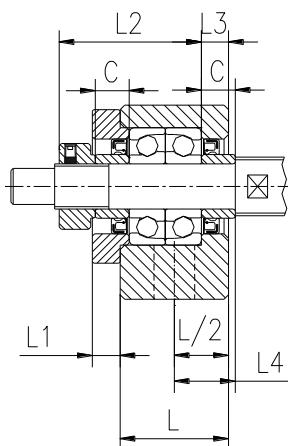
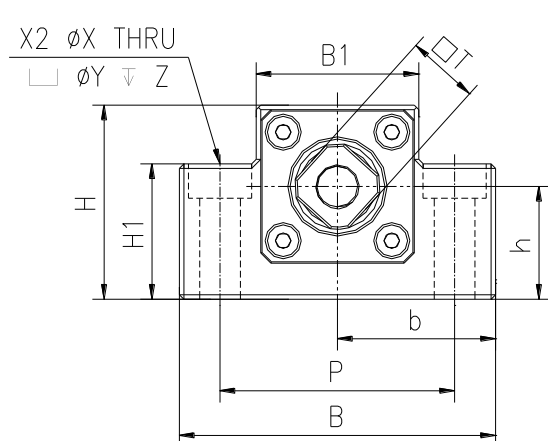
Dimensions in [mm]

### Product Availability:

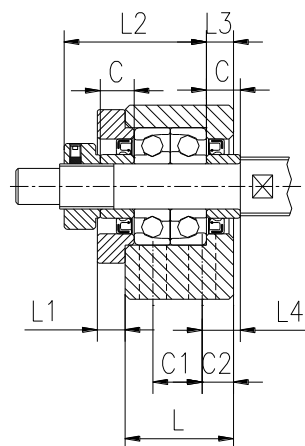
- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact ball bearing<br>(25°-40° contact angle) |         |         |                      | Angular contact thrust bearing<br>(60° contact angle) |       |                      | Deep groove ball bearing |                      |
|-----------------------------|---------------------------------------------------------|---------|---------|----------------------|-------------------------------------------------------|-------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                      | P5      | P4      | Max Axial Load (kgf) | P5                                                    | P4    | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                   | Light   | Medium  |                      | Light/Mid                                             | High  |                      | Light                    |                      |
| Bearing Configuration       | DF                                                      | DF      | DF      |                      | DF                                                    | DF    |                      | DF                       |                      |
| Applicable Ball screw Grade | C3-C7                                                   | C3-C7   | C1-C3   |                      | C3-C7                                                 | C1-C3 |                      | C7-C10                   |                      |
| AK Series                   | AK10                                                    | AK10-C5 | AK10-C4 | 212                  | --                                                    | --    | ---                  | AK10-E                   | --                   |
|                             | AK12                                                    | AK12-C5 | AK12-C4 | 243                  | --                                                    | --    | ---                  | AK12-E                   | --                   |
|                             | AK15                                                    | AK15-C5 | AK15-C4 | 279                  | --                                                    | --    | ---                  | AK15-E                   | --                   |
|                             | AK20                                                    | AK20-C5 | AK20-C4 | 677                  | --                                                    | --    | ---                  | AK20-E                   | --                   |
|                             | AK25                                                    | AK25-C5 | AK25-C4 | 836                  | --                                                    | --    | ---                  | AK25-E                   | --                   |

## Support unit dimensions:



AK10-AK15



AK20-AK25

## AK Square Type Fixed End Support Unit

| Model | d1 | L  | L1 | L2   | L3 | L4   | B   | H  | b    | h  | B1 | H1 | P  | C1 | C2 | X  | Y  | Z  | m  | T  | C   | Bearing Model<br>(Except E Line) |
|-------|----|----|----|------|----|------|-----|----|------|----|----|----|----|----|----|----|----|----|----|----|-----|----------------------------------|
| AK10  | 10 | 24 | 6  | 29.5 | 6  | 11.5 | 70  | 43 | 35   | 25 | 36 | 35 | 52 | -  | -  | 9  | 14 | 11 | M3 | 17 | 5.5 | 7000A                            |
| AK12  | 12 | 24 | 6  | 29.5 | 6  | 11.5 | 70  | 43 | 35   | 25 | 36 | 35 | 52 | -  | -  | 9  | 14 | 11 | M4 | 19 | 5.5 | 7001A                            |
| AK15  | 15 | 25 | 6  | 36   | 5  | 17.5 | 80  | 49 | 40   | 30 | 41 | 40 | 60 | -  | -  | 11 | 17 | 15 | M4 | 22 | 10  | 7002A                            |
| AK20  | 20 | 42 | 10 | 50   | 10 | 11   | 95  | 58 | 47.5 | 30 | 56 | 45 | 75 | 22 | 10 | 11 | 17 | 15 | M4 | 30 | 11  | 7004A                            |
| AK25  | 25 | 48 | 12 | 59   | 14 | 9    | 105 | 68 | 52.5 | 35 | 66 | 25 | 85 | 30 | 9  | 11 | -  | -  | M5 | 35 | 14  | 7205A                            |

Dimensions in [mm]

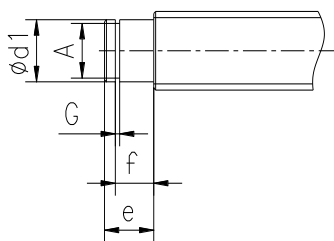
## AF Square Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 1   |

### Ball Screw Interface dimensions:

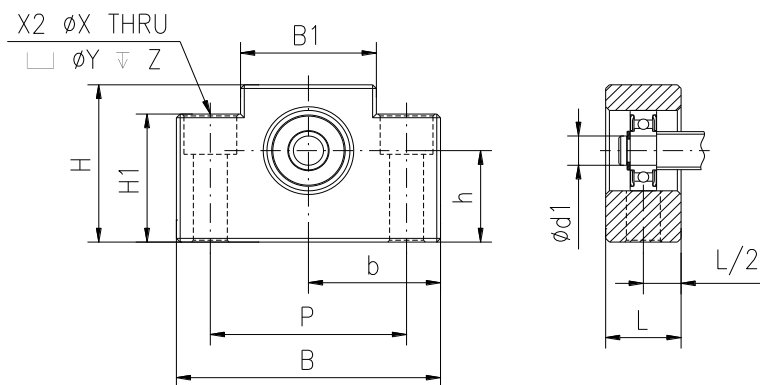


Ball Screw  
Interface  
Dimension

|        | AF10 | AF12 | AF15  | AF20  | AF25  |
|--------|------|------|-------|-------|-------|
| d1(g6) | 8    | 10   | 15    | 20    | 25    |
| e      | 10   | 11   | 13    | 19    | 20    |
| A      | 7.6  | 9.6  | 14.3  | 19    | 23.5  |
| f      | 7.9  | 9.15 | 10.15 | 15.35 | 16.35 |
| G      | 0.9  | 1.15 | 1.15  | 1.35  | 1.35  |

Dimensions in [mm]

### Support unit dimensions:



## AF Square Type Support End Support Unit

| Model | d1 | L  | B   | H  | b<br>±0.02 | h<br>±0.02 | B1 | H1 | P  | X  | Y  | Z  | Circlip | Bearing<br>Model |
|-------|----|----|-----|----|------------|------------|----|----|----|----|----|----|---------|------------------|
| AF10  | 8  | 20 | 70  | 43 | 35         | 25         | 36 | 35 | 52 | 9  | 14 | 11 | S08     | 608ZZ            |
| AF12  | 10 | 20 | 70  | 43 | 35         | 25         | 36 | 35 | 52 | 9  | 14 | 11 | S10     | 6000ZZ           |
| AF15  | 15 | 20 | 80  | 49 | 40         | 30         | 41 | 40 | 60 | 9  | 14 | 11 | S15     | 6002ZZ           |
| AF20  | 20 | 26 | 95  | 58 | 47.5       | 30         | 56 | 45 | 75 | 11 | 17 | 15 | S20     | 6204ZZ           |
| AF25  | 25 | 30 | 105 | 68 | 52.5       | 35         | 66 | 25 | 85 | 11 | -  | -  | S25     | 6205ZZ           |

Dimensions in [mm]

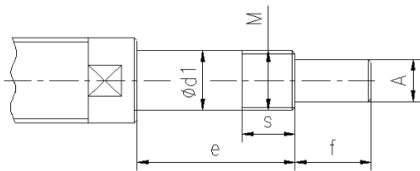
## FK / FK-TAC Round Type Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | pair | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 4   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions (regular and TAC):



|        | FK05   | FK06    | FK08   | FK10    | FK12    | FK15    | FK17    | FK20    | FK25    | FK30    |
|--------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| d1(g6) | 5      | 6       | 8      | 10      | 12      | 15      | 17      | 20      | 25      | 30      |
| A      | 4      | 4       | 6      | 8       | 10      | 12      | 15      | 17      | 20      | 25      |
| e      | 23     | 28      | 32     | 36      | 36      | 47      | 58      | 62      | 76      | 72      |
| f      | 6      | 8       | 9      | 15      | 15      | 20      | 23      | 25      | 30      | 38      |
| M      | M5x0.5 | M6x0.75 | M8x1.0 | M10x1.0 | M12x1.0 | M15x1.0 | M17x1.0 | M20x1.0 | M25x1.5 | M30x1.5 |
| S      | 7      | 8       | 10     | 11      | 11      | 13      | 17      | 17      | 20      | 25      |

Dimensions in [mm]

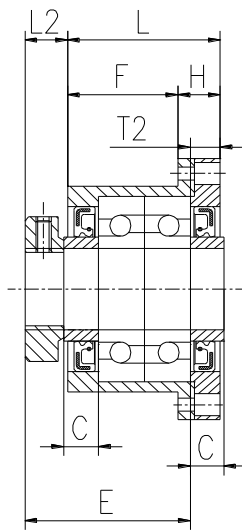
### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

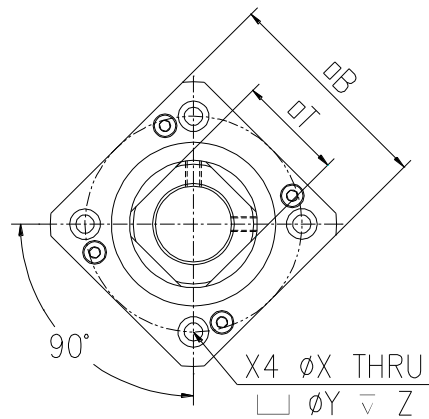
| Bearing Type                | Angular contact ball bearing (25°-40° contact angle) |         |         |                      | Angular contact thrust bearing (60° contact angle) |            |                      | Deep groove ball bearing |                      |
|-----------------------------|------------------------------------------------------|---------|---------|----------------------|----------------------------------------------------|------------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                   | P5      | P4      | Max Axial Load (kgf) | P5                                                 | P4         | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                | Light   | Medium  |                      | Light/Mid                                          | High       |                      | Light                    |                      |
| Bearing Configuration       | DF                                                   | DF      | DF      |                      | DF                                                 | DF         |                      | DF                       |                      |
| Applicable Ball screw Grade | C3-C7                                                | C3-C7   | C1-C3   |                      | C3-C7                                              | C1-C3      |                      | C7-C10                   |                      |
| FK Series                   | --                                                   | --      | --      | --                   | --                                                 | --         | --                   | FK05-E                   | --                   |
|                             | --                                                   | --      | --      | --                   | --                                                 | --         | --                   | FK06-E                   | --                   |
|                             | --                                                   | FK08-C5 | FK08-C4 | 52                   | --                                                 | --         | --                   | FK08-E                   | --                   |
|                             | FK10                                                 | FK10-C5 | FK10-C4 | 212                  | --                                                 | --         | --                   | FK10-E                   | --                   |
|                             | FK12                                                 | FK12-C5 | FK12-C4 | 243                  | FK12-TAC5*                                         | FK12-TAC4* | 1055                 | FK12-E                   | --                   |
|                             | FK15                                                 | FK15-C5 | FK15-C4 | 279                  | FK15-TAC5*                                         | FK15-TAC4* | 1259                 | FK15-E                   | --                   |
|                             | FK17                                                 | FK17-C5 | FK17-C4 | 489                  | FK17-TAC5                                          | FK17-TAC4  | 1656                 | FK17-E                   | --                   |
|                             | FK20                                                 | FK20-C5 | FK20-C4 | 677                  | FK20-TAC5                                          | FK20-TAC4  | 1937                 | FK20-E                   | --                   |
|                             | FK25                                                 | FK25-C5 | FK25-C4 | 836                  | FK25-TAC5                                          | FK25-TAC4  | 2548                 | FK25-E                   | --                   |
|                             | FK30                                                 | FK30-C5 | FK30-C4 | 1203                 | FK30-TAC5                                          | FK30-TAC4  | 3364                 | FK30-E                   | --                   |

\*: Non regular stock item. Please contact us for delivery time.

## Support unit dimensions:



Installation Option A



Installation Option B

## Regular & Economy series (FK / FK-C4 / FK-C5 / FK-E):

| Model | d1 | L    | H  | F    | E    | D (g6) | a   | PCD | B  | L1  | T1  | L2  | T2  | X   | Y   | Z   | T  | C   | Bearing Model<br>(Except E Line) |
|-------|----|------|----|------|------|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|----------------------------------|
| FK05  | 5  | 16.5 | 6  | 10.5 | 18.5 | 20     | 34  | 26  | 26 | 5.5 | 3.5 | 7   | 5   | 3.4 | 6   | 3.5 | 11 | 3.5 | 605ZZ                            |
| FK06  | 6  | 20   | 7  | 13   | 22   | 22     | 36  | 28  | 28 | 5.5 | 3.5 | 8.5 | 6.5 | 3.4 | 6   | 4   | 12 | 5   | 606ZZ                            |
| FK08  | 8  | 23   | 9  | 14   | 26   | 28     | 43  | 35  | 35 | 7   | 4   | 10  | 5   | 3.4 | 6   | 4   | 14 | 5.5 | 708A                             |
| FK10  | 10 | 27   | 10 | 17   | 29.5 | 34     | 52  | 42  | 42 | 7.5 | 5   | 8.5 | 6   | 4.5 | 8   | 4   | 17 | 5.5 | 7000A                            |
| FK12  | 12 | 27   | 10 | 17   | 29.5 | 36     | 54  | 44  | 44 | 7.5 | 5   | 8.5 | 6   | 4.5 | 8   | 4   | 19 | 5.5 | 7001A                            |
| FK15  | 15 | 32   | 15 | 17   | 36   | 40     | 63  | 50  | 52 | 10  | 6   | 14  | 8   | 5.5 | 9.5 | 6   | 22 | 10  | 7002A                            |
| FK17  | 17 | 45   | 22 | 23   | 47   | 50     | 77  | 62  | 61 | 11  | 9   | 14  | 12  | 6.6 | 11  | 9   | 24 | 10  | 7203A                            |
| FK20  | 20 | 52   | 22 | 30   | 50   | 57     | 85  | 70  | 68 | 8   | 10  | 14  | 14  | 6.6 | 11  | 10  | 30 | 11  | 7204A                            |
| FK25  | 25 | 57   | 27 | 30   | 60   | 63     | 98  | 80  | 79 | 13  | 10  | 20  | 17  | 9   | 15  | 13  | 35 | 15  | 7205A                            |
| FK30  | 30 | 62   | 30 | 32   | 61   | 75     | 117 | 95  | 93 | 11  | 12  | 17  | 18  | 11  | 18  | 14  | 40 | 9   | 7206A                            |

Dimensions in [mm]

## Heavy Load series (FK-TAC4 / FK-TAC5):

| Model    | d1 | L  | H  | F  | E  | D (g6) | a   | PCD | B  | L1  | T1 | L2  | T2 | X   | Y    | Z  | T  | C   | Bearing Model |
|----------|----|----|----|----|----|--------|-----|-----|----|-----|----|-----|----|-----|------|----|----|-----|---------------|
| FK12-TAC | 12 | 29 | 12 | 17 | 32 | 36     | 54  | 44  | 44 | 5.5 | 3  | 8.5 | 6  | 4.5 | 8    | 4  | 19 | 3.5 | 7602012       |
| FK15-TAC | 15 | 34 | 17 | 17 | 38 | 40     | 63  | 50  | 52 | 8   | 4  | 12  | 8  | 5.5 | 9.5  | 6  | 22 | 8   | 7602015       |
| FK17-TAC | 17 | 45 | 22 | 23 | 47 | 50     | 77  | 62  | 61 | 11  | 9  | 14  | 12 | 6.6 | 11   | 9  | 24 | 10  | 7602017       |
| FK20-TAC | 20 | 52 | 22 | 30 | 50 | 57     | 85  | 70  | 68 | 8   | 10 | 12  | 14 | 6.6 | 11   | 10 | 30 | 11  | 7602020       |
| FK25-TAC | 25 | 57 | 27 | 30 | 60 | 63     | 98  | 80  | 79 | 13  | 10 | 20  | 17 | 9   | 15   | 13 | 35 | 15  | 7602025       |
| FK30-TAC | 30 | 62 | 30 | 32 | 61 | 75     | 117 | 95  | 93 | 11  | 12 | 17  | 18 | 11  | 17.5 | 14 | 40 | 9   | 7602030       |

Dimensions in [mm]

Note1: FK-TAC series are designed to be interchangeable with regular FK series, all the ball screw installation interface and support unit installation interface dimensions are same as regular FK series. Some minor dimensions are different due to internal structure design and are highlighted with light blue in the table above.

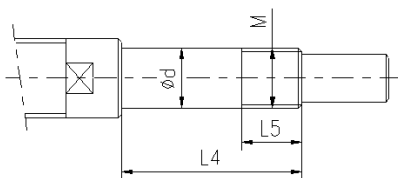
## FKA Round Type Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | pair | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 4   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



|       | FKA06   | FKA08  | FKA10   | FKA12   | FKA15   | FKA15H  | FKA20L  | FKA20   |
|-------|---------|--------|---------|---------|---------|---------|---------|---------|
| d(g6) | 6       | 8      | 10      | 12      | 15      | 15      | 20      | 20      |
| L4    | 28      | 33     | 36      | 36      | 49      | 49      | 55      | 65      |
| L5    | 8       | 10     | 11      | 11      | 13      | 13      | 17      | 17      |
| M     | M6x0.75 | M8x1.0 | M10x1.0 | M12x1.0 | M15x1.0 | M15x1.0 | M20x1.0 | M20x1.0 |

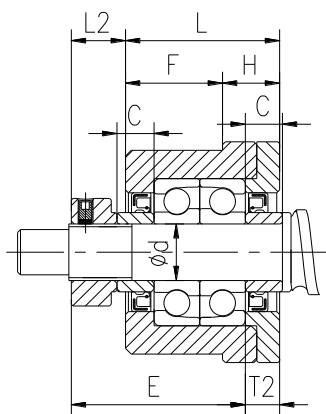
Dimensions in [mm]

### Product Availability:

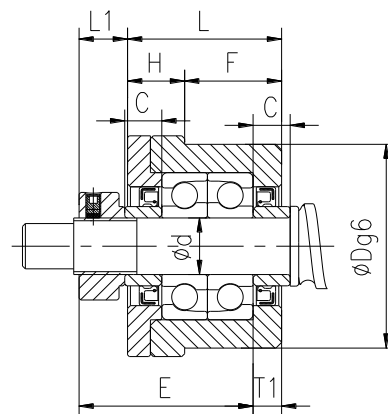
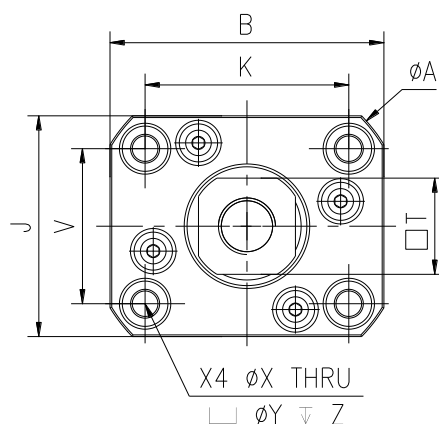
- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact ball bearing (25°-40° contact angle) |           |           |                      | Angular contact thrust bearing (60° contact angle) |       |                      | Deep groove ball bearing |                      |
|-----------------------------|------------------------------------------------------|-----------|-----------|----------------------|----------------------------------------------------|-------|----------------------|--------------------------|----------------------|
| Bearing Grade               | P0                                                   | P5        | P4        | Max Axial Load (kgf) | P5                                                 | P4    | Max Axial Load (kgf) | -                        | Max Axial Load (kgf) |
| Bearing Preload             | Light                                                | Light     | Medium    |                      | Light/Mid                                          | High  |                      | Light                    |                      |
| Bearing Configuration       | DF                                                   | DF        | DF        |                      | DF                                                 | DF    |                      | DF                       |                      |
| Applicable Ball screw Grade | C3-C7                                                | C3-C7     | C1-C3     |                      | C3-C7                                              | C1-C3 |                      | C7-C10                   |                      |
| FKA Series                  | --                                                   | --        | --        | --                   | --                                                 | --    | --                   | FKA06-E                  | --                   |
|                             | --                                                   | FKA08-C5  | FKA08-C4  | 52                   | --                                                 | --    | --                   | FKA08-E                  | --                   |
|                             | FKA10                                                | FKA10-C5  | FKA10-C4  | 212                  | --                                                 | --    | --                   | FKA10-E                  | --                   |
|                             | FKA12                                                | FKA12-C5  | FKA12-C4  | 243                  | --                                                 | --    | --                   | FKA12-E                  | --                   |
|                             | FKA15                                                | FKA15-C5  | FKA15-C4  | 279                  | --                                                 | --    | --                   | FKA15-E                  | --                   |
|                             | FKA15H                                               | FKA15H-C5 | FKA15H-C4 | 579                  | --                                                 | --    | --                   | FKA15H-E                 | --                   |
|                             | FKA20L                                               | FKA20L-C5 | FKA20L-C4 | 538                  | --                                                 | --    | --                   | FKA20L-E                 | --                   |
|                             | FKA20                                                | FKA20-C5  | FKA20-C4  | 677                  | --                                                 | --    | --                   | FKA20-E                  | --                   |

## Support unit dimensions:



Installation Option A



Installation Option A

## FKA Round Type Fixed End Support Unit:

| Model  | d  | L  | H  | F  | E    | D<br>(g6) | A  | B  | J  | K     | V     | Config A |     | Config B |     | X   | Y   | Z  | T  | C   | Bearing<br>Model<br>(Except E Line) |
|--------|----|----|----|----|------|-----------|----|----|----|-------|-------|----------|-----|----------|-----|-----|-----|----|----|-----|-------------------------------------|
|        |    |    |    |    |      |           |    |    |    |       |       | L1       | T1  | L2       | T2  |     |     |    |    |     |                                     |
| FKA06  | 6  | 20 | 7  | 13 | 22   | 28        | 44 | 36 | 30 | 26.79 | 20.93 | 5.5      | 3.5 | 6.5      | 4.5 | 3.4 | 6.5 | 4  | 12 | 5   | 606ZZ                               |
| FKA08  | 8  | 23 | 9  | 14 | 26   | 28        | 44 | 36 | 30 | 26.79 | 20.93 | 7        | 4   | 8        | 5   | 3.4 | 6.5 | 4  | 14 | 5.5 | 708A                                |
| FKA10  | 10 | 27 | 10 | 17 | 29.5 | 36        | 56 | 48 | 39 | 35.7  | 27.39 | 7.5      | 5   | 8.5      | 6   | 4.5 | 8   | 4  | 17 | 5.5 | 7000A                               |
| FKA12  | 12 | 27 | 10 | 17 | 29.5 | 36        | 56 | 48 | 39 | 35.7  | 27.39 | 7.5      | 5   | 8.5      | 6   | 4.5 | 8   | 4  | 19 | 5.5 | 7001A                               |
| FKA15  | 15 | 32 | 15 | 17 | 36   | 40        | 65 | 56 | 43 | 39.4  | 30.78 | 10       | 6   | 12       | 8   | 5.5 | 9.5 | 6  | 22 | 10  | 7002A                               |
| FKA15H | 15 | 43 | 17 | 26 | 40   | 50        | 76 | 63 | 52 | 49.64 | 38.79 | 4        | 7   | 7        | 10  | 5.5 | 9.5 | 8  | 22 | 6   | 7302A                               |
| FKA20L | 20 | 41 | 17 | 24 | 43   | 50        | 76 | 63 | 52 | 49.64 | 38.79 | 9        | 7   | 12       | 10  | 5.5 | 9.5 | 8  | 30 | 8   | 7004A                               |
| FKA20  | 20 | 52 | 22 | 30 | 50   | 57        | 86 | 72 | 59 | 56.74 | 44.33 | 8        | 10  | 12       | 14  | 6.6 | 11  | 10 | 30 | 11  | 7204A                               |

Dimensions in [mm]

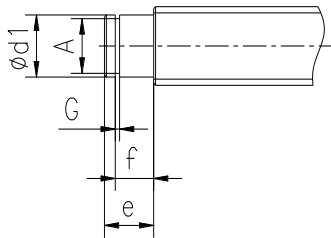
## FF Round Type Support End Support Unit

### List of contents:



| Part No. | Description     | Unit | QTY |
|----------|-----------------|------|-----|
| 1        | Bearing Housing | pcs  | 1   |
| 2        | Bearing         | pcs  | 1   |
| 3        | Circlip         | pcs  | 1   |

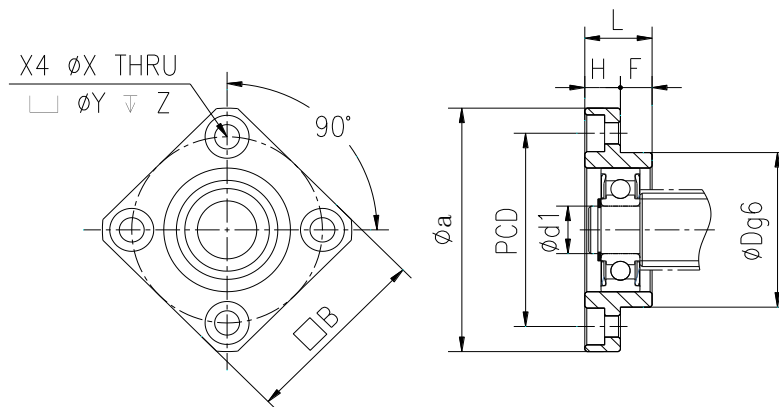
### Ball Screw Interface dimensions:



|        | FF06 | FF10 | FF12 | FF15  | FF17  | FF20  | FF25  | FF30  |
|--------|------|------|------|-------|-------|-------|-------|-------|
| d1(g6) | 6    | 8    | 10   | 15    | 17    | 20    | 25    | 30    |
| e      | 9    | 10   | 11   | 13    | 16    | 19    | 20    | 21    |
| A      | 5.7  | 7.6  | 9.6  | 14.3  | 16.2  | 19    | 23.5  | 28.6  |
| f      | 6.8  | 7.9  | 9.15 | 10.15 | 13.15 | 15.35 | 16.35 | 17.75 |
| G      | 0.8  | 0.9  | 1.15 | 1.15  | 1.15  | 1.35  | 1.35  | 1.35  |

Dimensions in [mm]

### Support unit dimensions:



## FF Round Type Support End Support Unit

| Model | d1 | L  | H  | F  | D (g6) | a   | PCD | B  | X   | Y   | Z   | Circlip | Bearing Model |
|-------|----|----|----|----|--------|-----|-----|----|-----|-----|-----|---------|---------------|
| FF06  | 6  | 10 | 6  | 4  | 22     | 36  | 28  | 28 | 3.4 | 6   | 4   | S06     | 606ZZ         |
| FF10  | 8  | 12 | 7  | 5  | 28     | 43  | 35  | 35 | 3.4 | 6   | 4   | S08     | 608ZZ         |
| FF12  | 10 | 15 | 7  | 8  | 34     | 52  | 42  | 42 | 4.5 | 8   | 4   | S10     | 6000ZZ        |
| FF15  | 15 | 17 | 9  | 8  | 40     | 63  | 50  | 52 | 5.5 | 9.5 | 5.5 | S15     | 6002ZZ        |
| FF17  | 17 | 20 | 11 | 9  | 50     | 77  | 62  | 61 | 6.6 | 11  | 6.5 | S17     | 6203ZZ        |
| FF20  | 20 | 20 | 11 | 9  | 57     | 85  | 70  | 68 | 6.6 | 11  | 6.5 | S20     | 6204ZZ        |
| FF25  | 25 | 24 | 14 | 10 | 63     | 98  | 80  | 79 | 9   | 14  | 8.5 | S25     | 6205ZZ        |
| FF30  | 30 | 27 | 18 | 9  | 75     | 117 | 95  | 93 | 11  | 17  | 11  | S30     | 6206ZZ        |

Dimensions in [mm]



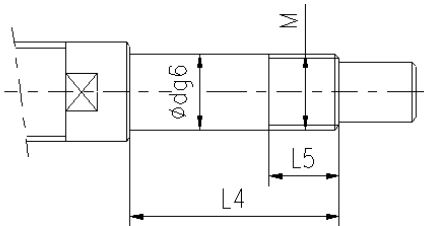
## WBK Heavy Load Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | set  | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 6   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



|       | WBK 17DF | WBK 20DF | WBK 25DF | WBK 25DFD | WBK 25DFF | WBK 30DF | WBK 30DFD | WBK 30DFF | WBK 35DF | WBK 35DFD | WBK 35DFF | WBK 40DF | WBK 40DFD | WBK 40DFF |
|-------|----------|----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|
| d(g6) | 17       | 20       | 25       | 25        | 25        | 30       | 30        | 30        | 35       | 35        | 35        | 40       | 40        | 40        |
| L4    | 80       | 80       | 88       | 103       | 118       | 88       | 103       | 118       | 90       | 105       | 120       | 92       | 107       | 122       |
| L5    | 25       | 25       | 26       | 26        | 26        | 26       | 26        | 26        | 30       | 30        | 30        | 30       | 30        | 30        |
| M     | M17X1    | M20X1    | M25X1.5  | M25X1.5   | M25X1.5   | M30X1.5  | M30X1.5   | M30X1.5   | M35X1.5  | M35X1.5   | M35X1.5   | M40X1.5  | M40X1.5   | M40X1.5   |

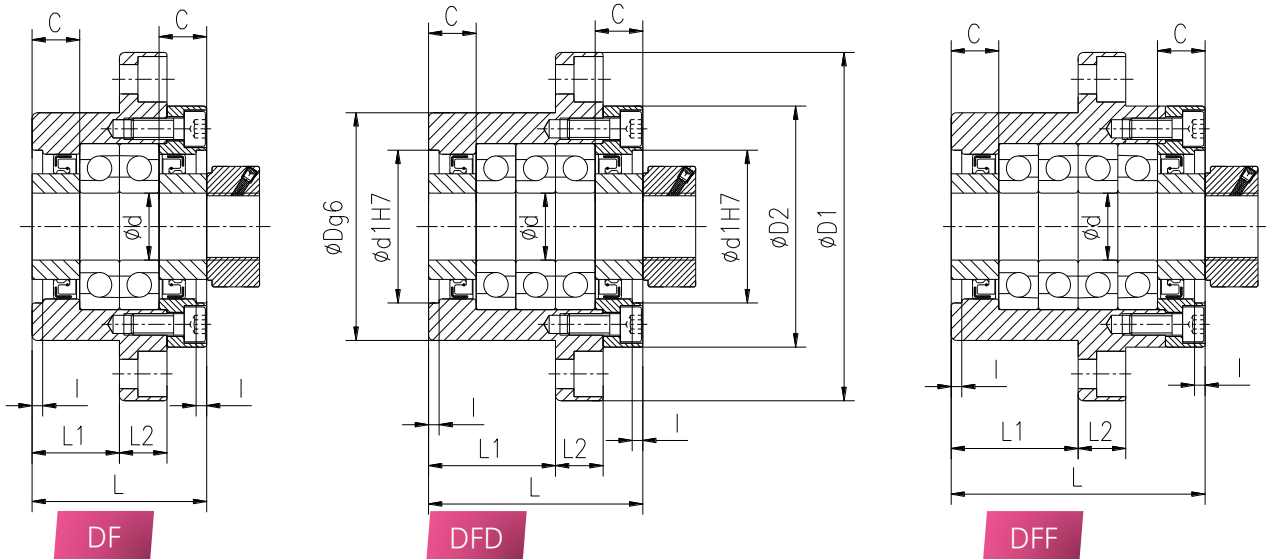
Dimensions in [mm]

### Product Availability:

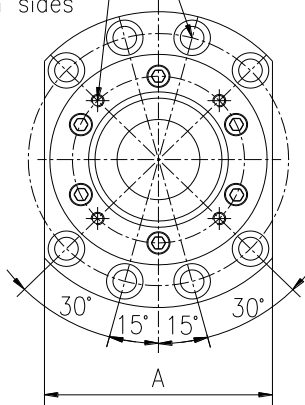
- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact thrust bearing (60° contact angle) |             |             | Max Axial Load (kgf) |
|-----------------------------|----------------------------------------------------|-------------|-------------|----------------------|
| Bearing Grade               | P4 - JP                                            | P5 - CN     | P4 - CN     |                      |
| Bearing Preload             | High                                               | High        | High        |                      |
| Applicable Ball screw Grade | C1-C5                                              | C3-C7       | C1-C5       |                      |
| WBK Series                  | WBK17DF                                            | WBK17DF-C5  | WBK17DF-C4  | 1808                 |
|                             | WBK20DF                                            | WBK20DF-C5  | WBK20DF-C4  | 1808                 |
|                             | WBK25DF                                            | WBK25DF-C5  | WBK25DF-C4  | 2752                 |
|                             | WBK25DFD                                           | WBK25DFD-C5 | WBK25DFD-C4 | 5539                 |
|                             | WBK25DFF                                           | WBK25DFF-C5 | WBK25DFF-C4 | 5539                 |
|                             | WBK30DF                                            | WBK30DF-C5  | WBK30DF-C4  | 2922                 |
|                             | WBK30DFD                                           | WBK30DFD-C5 | WBK30DFD-C4 | 5844                 |
|                             | WBK30DFF                                           | WBK30DFF-C5 | WBK30DFF-C4 | 5844                 |
|                             | WBK35DF                                            | WBK35DF-C5  | WBK35DF-C4  | 3398                 |
|                             | WBK35DFD                                           | WBK35DFD-C5 | WBK35DFD-C4 | 6769                 |
|                             | WBK35DFF                                           | WBK35DFF-C5 | WBK35DFF-C4 | 6769                 |
|                             | WBK40DF                                            | WBK40DF-C5  | WBK40DF-C4  | 3534                 |
|                             | WBK40DFD                                           | WBK40DFD-C5 | WBK40DFD-C4 | 7068                 |
|                             | WBK40DFF                                           | WBK40DFF-C5 | WBK40DFF-C4 | 7068                 |

## Support unit dimensions:

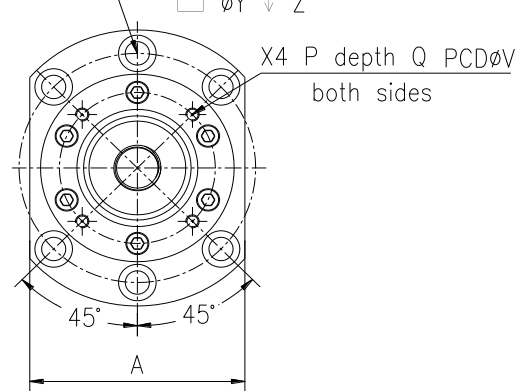


X4 P depth Q PCD $\phi$ V both sides  
X8  $\phi$ X THRU PCD $\phi$ W  
 $\phi$ Y  $\nabla$  Z



WBK35-WBK40

X6  $\phi$ X THRU PCD $\phi$ W  
 $\phi$ Y  $\nabla$  Z



WBK17-WBK30

## WBK Heavy Load Fixed End Support Unit

| Model    | d  | D  | D1  | D2  | L  | L1 | L2 | A   | W   | d1 | I | V  | P  | X  | Y  | Z   | Q  | C  | Bearing Model |
|----------|----|----|-----|-----|----|----|----|-----|-----|----|---|----|----|----|----|-----|----|----|---------------|
| WBK17DF  | 17 | 70 | 106 | 72  | 60 | 63 | 15 | 80  | 88  | 45 | 3 | 58 | M5 | 9  | 14 | 8.5 | 10 | 15 | 17TAC47       |
| WBK20DF  | 20 |    |     |     |    |    |    |     |     |    |   |    |    |    |    |     |    |    | 20TAC47       |
| WBK25DF  | 25 | 85 | 130 | 90  | 66 | 33 | 18 | 100 | 110 | 57 | 4 | 70 | M6 | 11 | 17 | 11  | 12 | 18 | 25TAC62       |
| WBK25DFD |    |    |     |     | 81 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK25DFF |    |    |     |     | 96 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK30DF  | 30 | 85 | 130 | 90  | 66 | 33 | 18 | 100 | 110 | 57 | 4 | 70 | M6 | 11 | 17 | 11  | 12 | 18 | 30TAC62       |
| WBK30DFD |    |    |     |     | 81 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK30DFF |    |    |     |     | 96 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK35DF  | 35 | 95 | 142 | 102 | 66 | 33 | 18 | 106 | 121 | 69 | 4 | 80 | M6 | 11 | 17 | 11  | 12 | 18 | 35TAC72       |
| WBK35DFD |    |    |     |     | 81 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK35DFF |    |    |     |     | 96 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK40DF  | 40 | 95 | 142 | 102 | 66 | 33 | 18 | 106 | 121 | 69 | 4 | 80 | M6 | 11 | 17 | 11  | 12 | 18 | 40TAC72       |
| WBK40DFD |    |    |     |     | 81 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |
| WBK40DFF |    |    |     |     | 96 | 48 |    |     |     |    |   |    |    |    |    |     |    |    |               |

Dimensions in [mm]

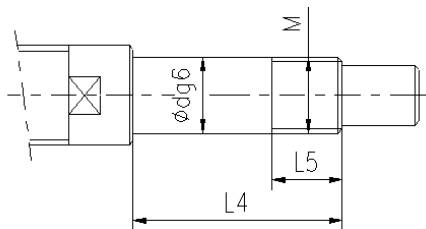
## FBSA Heavy Load Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | set  | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 10  |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



|                                |       | FBSA 204 |    |     |     | FBSA 205 |    |     |     | FBSA 206 |    |     |     | FBSA 206A |     | FBSA 207 |    |     |     |
|--------------------------------|-------|----------|----|-----|-----|----------|----|-----|-----|----------|----|-----|-----|-----------|-----|----------|----|-----|-----|
|                                |       | DB       | DF | QBC | QFC | DB       | DF | QBC | QFC | DB       | DF | QBC | QFC | QBC       | QFC | DB       | DF | QBC | QFC |
| Ball Screw Interface Dimension | d(g6) | 20       |    |     |     | 25       |    |     |     | 30       |    |     |     |           |     | 35       |    |     |     |
|                                | L4    | 66       |    |     |     | 74       |    |     |     | 76       |    |     |     | 106       |     | 76       |    |     |     |
|                                | L5    | 25       |    |     |     | 28       |    |     |     | 30       |    |     |     |           |     | 30       |    |     |     |
|                                | M     | M20x1.0  |    |     |     | M25x1.5  |    |     |     | M30x1.5  |    |     |     |           |     | M35x1.5  |    |     |     |

Dimensions in [mm]

|                                |       | FBSA 208 |    |     |     | FBSA 208A |     | FBSA 209 |    |     |     | FBSA 210 |    |     |     | FBSA 210A |     | FBSA 212A |     |
|--------------------------------|-------|----------|----|-----|-----|-----------|-----|----------|----|-----|-----|----------|----|-----|-----|-----------|-----|-----------|-----|
|                                |       | DB       | DF | QBC | QFC | QBC       | QFC | DB       | DF | QBC | QFC | DB       | DF | QBC | QFC | QBC       | QFC | QBC       | QFC |
| Ball Screw Interface Dimension | d(g6) | 40       |    |     |     |           |     | 45       |    |     |     | 50       |    |     |     |           |     | 60        |     |
|                                | L4    | 90       |    |     |     | 126       |     | 90       |    |     |     | 93       |    |     |     | 133       |     | 146       |     |
|                                | L5    | 30       |    |     |     |           |     | 28       |    |     |     | 34       |    |     |     |           |     | 34        |     |
|                                | M     | M40x1.5  |    |     |     |           |     | M45x1.5  |    |     |     | M50x1.5  |    |     |     |           |     | M60x2.0   |     |

Dimensions in [mm]

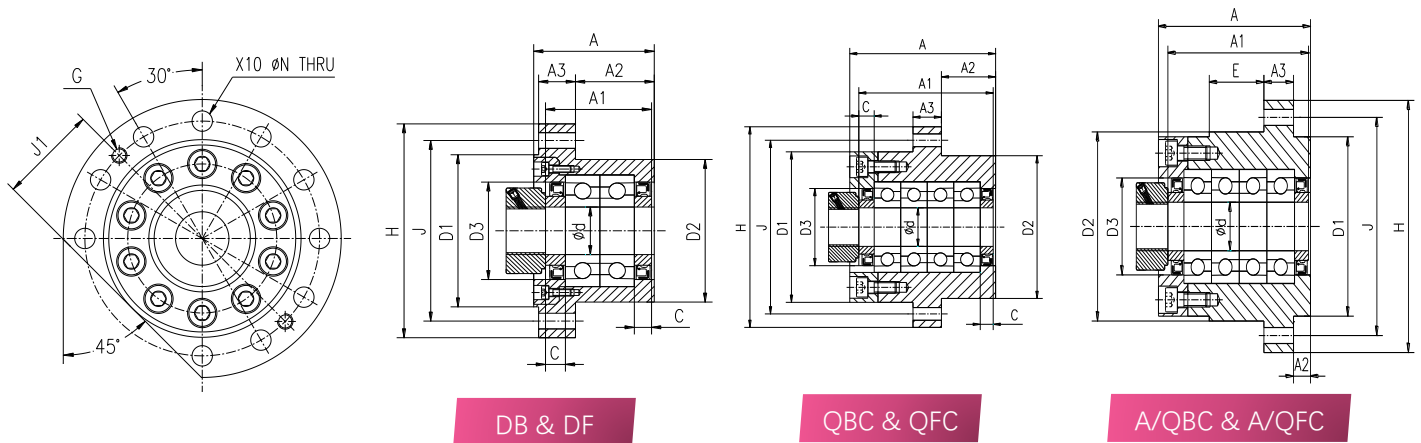
Continued next page->

## Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact thrust bearing (60° contact angle) |                 |                 |                      |
|-----------------------------|----------------------------------------------------|-----------------|-----------------|----------------------|
| Bearing Grade               | P4 - JP                                            | P5 - CN         | P4 - CN         | Max Axial Load (kgf) |
| Bearing Preload             | High                                               | High            | High            |                      |
| Applicable Ball screw Grade | C1-C5                                              | C3-C7           | C1-C5           |                      |
| FBSA Series                 | --                                                 | FBSA204/DB-C5   | FBSA204/DB-C4   | 1937                 |
|                             | --                                                 | FBSA204/DF-C5   | FBSA204/DF-C4   | 1937                 |
|                             | --                                                 | FBSA204/QBC-C5  | FBSA204/QBC-C4  | 3874                 |
|                             | --                                                 | FBSA204/QFC-C5  | FBSA204/QFC-C4  | 3874                 |
|                             | --                                                 | FBSA205/DB-C5   | FBSA205/DB-C4   | 2548                 |
|                             | --                                                 | FBSA205/DF-C5   | FBSA205/DF-C4   | 2548                 |
|                             | --                                                 | FBSA205/QBC-C5  | FBSA205/QBC-C4  | 5097                 |
|                             | --                                                 | FBSA205/QFC-C5  | FBSA205/QFC-C4  | 5097                 |
|                             | --                                                 | FBSA206/DB-C5   | FBSA206/DB-C4   | 3364                 |
|                             | --                                                 | FBSA206/DF-C5   | FBSA206/DF-C4   | 3364                 |
|                             | --                                                 | FBSA206/QBC-C5  | FBSA206/QBC-C4  | 6728                 |
|                             | --                                                 | FBSA206/QFC-C5  | FBSA206/QFC-C4  | 6728                 |
|                             | --                                                 | FBSA206A/QBC-C5 | FBSA206A/QBC-C4 | 6728                 |
|                             | --                                                 | FBSA206A/QFC-C5 | FBSA206A/QFC-C4 | 6728                 |
|                             | --                                                 | FBSA207/DB-C5   | FBSA207/DB-C4   | 4128                 |
|                             | --                                                 | FBSA207/DF-C5   | FBSA207/DF-C4   | 4128                 |
|                             | --                                                 | FBSA207/QBC-C5  | FBSA207/QBC-C4  | 8257                 |
|                             | --                                                 | FBSA207/QFC-C5  | FBSA207/QFC-C4  | 8257                 |
|                             | --                                                 | FBSA208/DB-C5   | FBSA208/DB-C4   | 5403                 |
|                             | --                                                 | FBSA208/DF-C5   | FBSA208/DF-C4   | 5403                 |
|                             | --                                                 | FBSA208/QBC-C5  | FBSA208/QBC-C4  | 10805                |
|                             | --                                                 | FBSA208/QFC-C5  | FBSA208/QFC-C4  | 10805                |
|                             | --                                                 | FBSA208A/QBC-C5 | FBSA208A/QBC-C4 | 10805                |
|                             | --                                                 | FBSA208A/QFC-C5 | FBSA208A/QFC-C4 | 10805                |
|                             | --                                                 | FBSA209/DB-C5   | FBSA209/DB-C4   | 5657                 |
|                             | --                                                 | FBSA209/DF-C5   | FBSA209/DF-C4   | 5657                 |
|                             | --                                                 | FBSA209/QBC-C5  | FBSA209/QBC-C4  | 11315                |
|                             | --                                                 | FBSA209/QFC-C5  | FBSA209/QFC-C4  | 11315                |
|                             | --                                                 | FBSA210/DB-C5   | FBSA210/DB-C4   | 6218                 |
|                             | --                                                 | FBSA210/DF-C5   | FBSA210/DF-C4   | 6218                 |
|                             | --                                                 | FBSA210/QBC-C5  | FBSA210/QBC-C4  | 12436                |
|                             | --                                                 | FBSA210/QFC-C5  | FBSA210/QFC-C4  | 12436                |
|                             | --                                                 | FBSA210A/QBC-C5 | FBSA210A/QBC-C4 | 12436                |
|                             | --                                                 | FBSA210A/QFC-C5 | FBSA210A/QFC-C4 | 12436                |
|                             | --                                                 | FBSA212A/QBC-C5 | FBSA212A/QBC-C4 | 18654                |
|                             | --                                                 | FBSA212A/QFC-C5 | FBSA212A/QFC-C  | 18654                |

## Support unit dimensions:



## FBSA Heavy Load Fixed End Support Unit

| Model           | d  | A   | A1  | A2   | A3 | E  | D1  | D2 (g6) | D3 | H   | J   | J1   | N    | G     | C  | Bearing Model |
|-----------------|----|-----|-----|------|----|----|-----|---------|----|-----|-----|------|------|-------|----|---------------|
| FBSA204/DB-C5   | 20 | 47  | 44  | 32   | 13 | -  | 64  | 60      | 40 | 90  | 76  | 32   | 6.6  | -     | 8  | 7602020       |
| FBSA204/DF-C5   | 20 | 47  | 44  | 32   | 13 | -  | 64  | 60      | 40 | 90  | 76  | 32   | 6.6  | -     | 8  | 7602020       |
| FBSA204/QBC-C5  | 20 | 77  | 72  | 32   | 13 | -  | 64  | 60      | 40 | 90  | 76  | 32   | 6.6  | -     | 8  | 7602020       |
| FBSA204/QFC-C5  | 20 | 77  | 72  | 32   | 13 | -  | 64  | 60      | 40 | 90  | 76  | 32   | 6.6  | -     | 8  | 7602020       |
| FBSA205/DB-C5   | 25 | 52  | 50  | 32   | 15 | -  | 88  | 80      | 45 | 120 | 102 | 44   | 9.2  | -     | 10 | 7602025       |
| FBSA205/DF-C5   | 25 | 52  | 50  | 32   | 15 | -  | 88  | 80      | 45 | 120 | 102 | 44   | 9.2  | -     | 10 | 7602025       |
| FBSA205/QBC-C5  | 25 | 82  | 80  | 32   | 15 | -  | 88  | 80      | 45 | 120 | 102 | 44   | 9.2  | -     | 10 | 7602025       |
| FBSA205/QFC-C5  | 25 | 82  | 80  | 32   | 15 | -  | 88  | 80      | 45 | 120 | 102 | 44   | 9.2  | -     | 10 | 7602025       |
| FBSA206/DB-C5   | 30 | 52  | 50  | 32   | 15 | -  | 88  | 80      | 54 | 120 | 102 | 44   | 9.2  | -     | 9  | 7602030       |
| FBSA206/DF-C5   | 30 | 52  | 50  | 32   | 15 | -  | 88  | 80      | 54 | 120 | 102 | 44   | 9.2  | -     | 9  | 7602030       |
| FBSA206/QBC-C5  | 30 | 84  | 82  | 32   | 15 | -  | 88  | 80      | 54 | 120 | 102 | 44   | 9.2  | -     | 9  | 7602030       |
| FBSA206/QFC-C5  | 30 | 84  | 82  | 32   | 15 | -  | 88  | 80      | 54 | 120 | 102 | 44   | 9.2  | -     | 9  | 7602030       |
| FBSA206A/QBC-C5 | 30 | 86  | 82  | 3.5  | 15 | 35 | 88  | 88      | 54 | 120 | 102 | 45   | 9.2  | M8X1  | 9  | 7602030       |
| FBSA206A/QFC-C5 | 30 | 86  | 82  | 3.5  | 15 | 35 | 88  | 88      | 54 | 120 | 102 | 45   | 9.2  | M8X1  | 9  | 7602030       |
| FBSA207/DB-C5   | 35 | 52  | 50  | 32   | 15 | -  | 98  | 90      | 62 | 130 | 113 | 49   | 9.2  | -     | 8  | 7602035       |
| FBSA207/DF-C5   | 35 | 52  | 50  | 32   | 15 | -  | 98  | 90      | 62 | 130 | 113 | 49   | 9.2  | -     | 8  | 7602035       |
| FBSA207/QBC-C5  | 35 | 86  | 84  | 32   | 15 | -  | 98  | 90      | 62 | 130 | 113 | 49   | 9.2  | -     | 8  | 7602035       |
| FBSA207/QFC-C5  | 35 | 86  | 84  | 32   | 15 | -  | 98  | 90      | 62 | 130 | 113 | 49   | 9.2  | -     | 8  | 7602035       |
| FBSA208/DB-C5   | 40 | 66  | 66  | 43.5 | 17 | -  | 128 | 124     | 65 | 165 | 146 | 64   | 11.4 | -     | 15 | 7602040       |
| FBSA208/DF-C5   | 40 | 66  | 66  | 43.5 | 17 | -  | 128 | 124     | 65 | 165 | 146 | 64   | 11.4 | -     | 15 | 7602040       |
| FBSA208/QBC-C5  | 40 | 106 | 102 | 43.5 | 17 | -  | 128 | 124     | 65 | 165 | 146 | 64   | 11.4 | -     | 15 | 7602040       |
| FBSA208/QFC-C5  | 40 | 106 | 102 | 43.5 | 17 | -  | 128 | 124     | 65 | 165 | 146 | 64   | 11.4 | -     | 15 | 7602040       |
| FBSA208A/QBC-C5 | 40 | 106 | 102 | 4    | 24 | 35 | 128 | 128     | 65 | 165 | 146 | 65.5 | 11.4 | M10X1 | 15 | 7602040       |
| FBSA208A/QFC-C5 | 40 | 106 | 102 | 4    | 24 | 35 | 128 | 128     | 65 | 165 | 146 | 65.5 | 11.4 | M10X1 | 15 | 7602040       |
| FBSA209/DB-C5   | 45 | 66  | 64  | 43.5 | 17 | -  | 128 | 124     | 75 | 165 | 146 | 64   | 11.4 | -     | 13 | 7602045       |
| FBSA209/DF-C5   | 45 | 66  | 64  | 43.5 | 17 | -  | 128 | 124     | 75 | 165 | 146 | 64   | 11.4 | -     | 13 | 7602045       |
| FBSA209/QBC-C5  | 45 | 106 | 104 | 43.5 | 17 | -  | 128 | 124     | 75 | 165 | 146 | 64   | 11.4 | -     | 13 | 7602045       |
| FBSA209/QFC-C5  | 45 | 106 | 104 | 43.5 | 17 | -  | 128 | 124     | 75 | 165 | 146 | 64   | 11.4 | -     | 13 | 7602045       |
| FBSA210/DB-C5   | 50 | 66  | 64  | 43.5 | 17 | -  | 128 | 124     | 78 | 165 | 146 | 64   | 11.4 | -     | 12 | 7602050       |
| FBSA210/DF-C5   | 50 | 66  | 64  | 43.5 | 17 | -  | 128 | 124     | 78 | 165 | 146 | 64   | 11.4 | -     | 12 | 7602050       |
| FBSA210/QBC-C5  | 50 | 106 | 104 | 43.5 | 17 | -  | 128 | 124     | 78 | 165 | 146 | 64   | 11.4 | -     | 12 | 7602050       |
| FBSA210/QFC-C5  | 50 | 106 | 104 | 43.5 | 17 | -  | 128 | 124     | 78 | 165 | 146 | 64   | 11.4 | -     | 12 | 7602050       |
| FBSA210A/QBC-C5 | 50 | 106 | 104 | 4    | 24 | 35 | 128 | 128     | 78 | 165 | 146 | 65.5 | 11.4 | M10X1 | 12 | 7602050       |
| FBSA210A/QFC-C5 | 50 | 106 | 104 | 4    | 24 | 35 | 128 | 128     | 78 | 165 | 146 | 65.5 | 11.4 | M10X1 | 12 | 7602050       |
| FBSA212A/QBC-C5 | 60 | 114 | 114 | 20.5 | 25 | 40 | 145 | 145     | 95 | 185 | 165 | 74.5 | 11.4 | M10X1 | 13 | 7602060       |
| FBSA212A/QFC-C5 | 60 | 114 | 114 | 20.5 | 25 | 40 | 145 | 145     | 95 | 185 | 165 | 74.5 | 11.4 | M10X1 | 13 | 7602060       |

Dimensions in [mm]

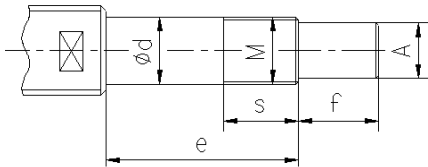
## SBK Heavy Load Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | set  | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 6   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



Ball Screw Interface Dimension

|       | SBK25<br>DF | SBK25<br>DFD | SBK30<br>DF | SBK30<br>DFD | SBK35<br>DF | SBK35<br>DFD | SBK40<br>DF | SBK40<br>DFD |
|-------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
| d(g6) | 25          | 25           | 30          | 30           | 35          | 35           | 40          | 40           |
| A     | 20          | 20           | 25          | 25           | 30          | 30           | 35          | 35           |
| e     | 89          | 104          | 89          | 104          | 92          | 107          | 92          | 107          |
| M     | 26          | 26           | 26          | 26           | 30          | 30           | 30          | 30           |
| S     | M25X1.5     | M25X1.5      | M30X1.5     | M30X1.5      | M35X1.5     | M35X1.5      | M40X1.5     | M40X1.5      |

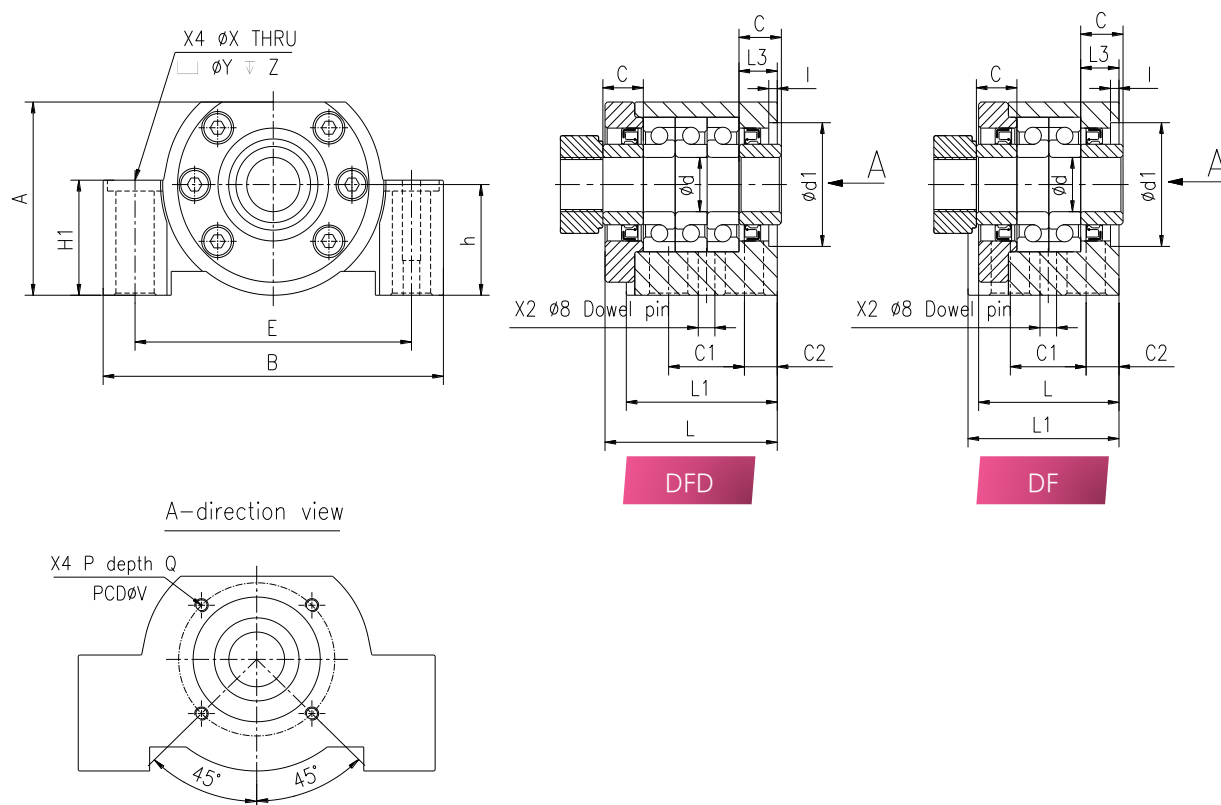
Dimensions in [mm]

### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact thrust bearing (60° contact angle) |             |             |                      |
|-----------------------------|----------------------------------------------------|-------------|-------------|----------------------|
| Bearing Grade               | P4 - JP                                            | P5 - CN     | P4 - CN     | Max Axial Load (kgf) |
| Bearing Preload             | High                                               | High        | High        |                      |
| Applicable Ball screw Grade | C1-C5                                              | C3-C7       | C1-C5       |                      |
| SBK Series                  | SBK25DF                                            | SBK25DF-C5  | SBK25DF-C4  | 2752                 |
|                             | SBK25DFD                                           | SBK25DFD-C5 | SBK25DFD-C4 | 5539                 |
|                             | SBK30DF                                            | SBK30DF-C5  | SBK30DF-C4  | 2922                 |
|                             | SBK30DFD                                           | SBK30DFD-C5 | SBK30DFD-C4 | 5844                 |
|                             | SBK35DF                                            | SBK35DF-C5  | SBK35DF-C4  | 3398                 |
|                             | SBK35DFD                                           | SBK35DFD-C5 | SBK35DFD-C4 | 6796                 |
|                             | SBK40DF                                            | SBK40DF-C5  | SBK40DF-C4  | 3534                 |
|                             | SBK40DFD                                           | SBK40DFD-C5 | SBK40DFD-C4 | 7068                 |

## Support unit dimensions:



## SBK Heavy Load Fixed End Support Unit

| Model    | d  | A  | h<br>±0.02 | H1 | L  | L1 | L3 | B   | d1 | E   | C2   | C1 | X  | Y  | Z | I | V  | P  | Q  | C  | Bearing<br>Model |
|----------|----|----|------------|----|----|----|----|-----|----|-----|------|----|----|----|---|---|----|----|----|----|------------------|
| SBK25DF  | 25 | 89 | 51         | 54 | 66 | 71 | 18 | 160 | 57 | 130 | 15.5 | 40 | 18 | 26 | 2 | 4 | 70 | M6 | 10 | 18 | 25TAC62          |
| SBK25DFD |    |    |            |    | 81 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    |                  |
| SBK30DF  | 30 | 89 | 51         | 54 | 66 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    | 30TAC62          |
| SBK30DFD |    |    |            |    | 81 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    |                  |
| SBK35DF  | 35 | 96 | 52         | 55 | 66 | 71 | 18 | 160 | 69 | 130 | 15.5 | 40 | 18 | 26 | 2 | 4 | 80 | M6 | 10 | 18 | 35TAC72          |
| SBK35DFD |    |    |            |    | 81 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    |                  |
| SBK40DF  | 40 | 96 | 52         | 55 | 66 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    | 40TAC72          |
| SBK40DFD |    |    |            |    | 81 |    |    |     |    |     |      |    |    |    |   |   |    |    |    |    |                  |

Dimensions in [mm]

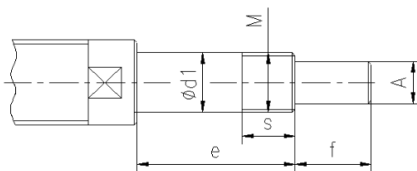
## SBK-U Heavy Load Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | set  | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 6   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



Ball Screw Interface Dimension

|        | SBK25<br>DF-U | SBK25<br>DFD-U | SBK30<br>DF-U | SBK30<br>DFD-U | SBK35<br>DF-U | SBK35<br>DFD-U | SBK40<br>DF-U | SBK40<br>DFD-U |
|--------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|
| d1(g6) | 25            | 25             | 30            | 30             | 35            | 35             | 40            | 40             |
| A      | 20            | 20             | 25            | 25             | 30            | 30             | 35            | 35             |
| e      | 89            | 104            | 89            | 104            | 92            | 107            | 92            | 107            |
| M      | 26            | 26             | 26            | 26             | 30            | 30             | 30            | 30             |
| S      | M25X1.5       | M25X1.5        | M30X1.5       | M30X1.5        | M35X1.5       | M35X1.5        | M40X1.5       | M40X1.5        |

Dimensions in [mm]

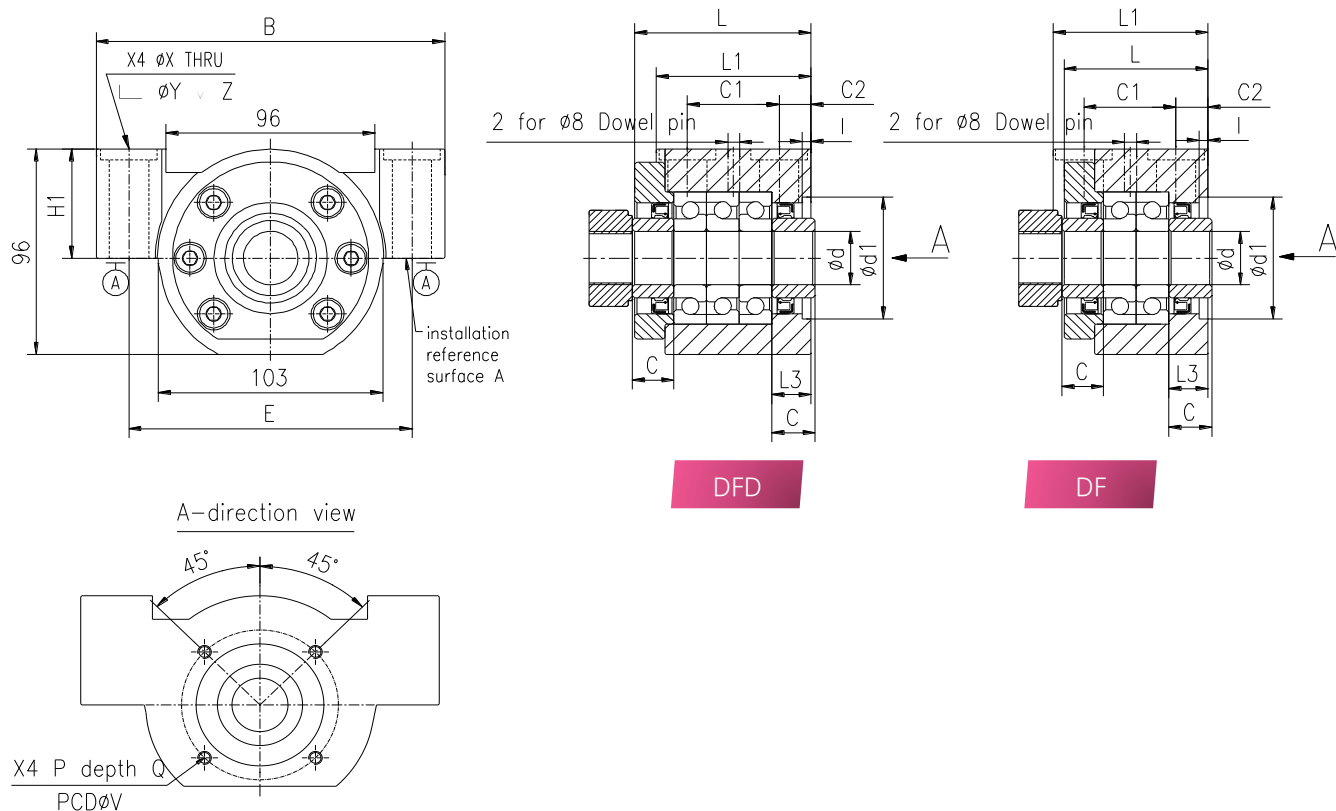
### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact thrust bearing (60° contact angle) |                |                | Max Axial Load (kgf) |
|-----------------------------|----------------------------------------------------|----------------|----------------|----------------------|
| Bearing Grade               | P4 - JP                                            | P5 - CN        | P4 - CN        |                      |
| Bearing Preload             | High                                               | High           | High           |                      |
| Applicable Ball screw Grade | C1-C5                                              | C3-C7          | C1-C5          |                      |
| SBK-U Series                | SBK25DF-U                                          | SBK25DF-U -C5  | SBK25DF-U -C4  | 2752                 |
|                             | SBK25DFD-U                                         | SBK25DFD-U -C5 | SBK25DFD-U -C4 | 5539                 |
|                             | SBK30DF-U                                          | SBK30DF-U -C5  | SBK30DF-U -C4  | 2922                 |
|                             | SBK30DFD-U                                         | SBK30DFD-U -C5 | SBK30DFD-U -C4 | 5844                 |
|                             | SBK35DF-U                                          | SBK35DF-U -C5  | SBK35DF-U -C4  | 3398                 |
|                             | SBK35DFD-U                                         | SBK35DFD-U -C5 | SBK35DFD-U -C4 | 6796                 |
|                             | SBK40DF-U                                          | SBK40DF-U -C5  | SBK40DF-U -C4  | 3534                 |
|                             | SBK40DFD-U                                         | SBK40DFD-U -C5 | SBK40DFD-U -C4 | 7068                 |



## Support unit dimensions:



## SBK-U Heavy Load Fixed End Support Unit

| Model      | d  | H1 | L  | L1 | L3 | B   | d1      | E   | C2   | C1 | X  | Y  | Z | I | V       | P  | Q  | C  | Bearing Model |
|------------|----|----|----|----|----|-----|---------|-----|------|----|----|----|---|---|---------|----|----|----|---------------|
| SBK25DF-U  | 25 | 52 | 66 | 71 | 18 | 160 | 57      | 130 | 15.5 | 40 | 18 | 26 | 2 | 4 | 70      | M6 | 10 | 18 | 25TAC62       |
| SBK25DFD-U |    |    | 81 |    |    |     |         |     |      |    |    |    |   |   |         |    |    |    | 30TAC62       |
| SBK30DF-U  | 30 | 52 | 66 |    |    |     | 69      |     |      |    |    |    |   |   | 35TAC72 |    |    |    |               |
| SBK30DFD-U |    |    | 81 |    |    |     |         |     |      |    |    |    |   |   |         |    |    |    |               |
| SBK35DF-U  | 35 | 52 | 66 |    |    |     | 40TAC72 |     |      |    |    |    |   |   |         |    |    |    |               |
| SBK35DFD-U |    |    | 81 |    |    |     |         |     |      |    |    |    |   |   |         |    |    |    |               |
| SBK40DF-U  | 40 | 52 | 66 |    |    |     |         |     |      |    |    |    |   |   |         |    |    |    |               |
| SBK40DFD-U |    |    | 81 |    |    |     |         |     |      |    |    |    |   |   |         |    |    |    |               |

Dimensions in [mm]

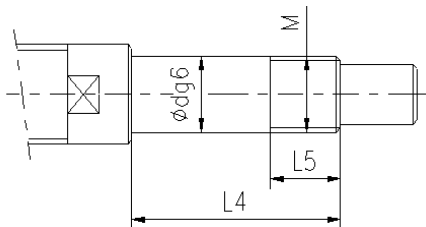
## MBK Heavy Load Fixed End Support Unit

### List of contents:



| Part No. | Description               | Unit | QTY |
|----------|---------------------------|------|-----|
| 1-(1)    | Bearing Housing           | pcs  | 1   |
| 1-(2)    | Bearing                   | set  | 1   |
| 1-(3)    | Holding Lid               | pcs  | 1   |
| 1-(4)    | Seal                      | pcs  | 2   |
| 1-(5)    | Hexagon Screw             | pcs  | 8   |
| 2        | Lock Nut (with set screw) | pcs  | 1   |
| 3        | Collar                    | pcs  | 2   |

### Ball Screw Interface dimensions:



Ball Screw  
Interface  
Dimension

|       | MBK15DF | MBK17DF | MBK17DFF | MBK20DF | MBK20DFF |
|-------|---------|---------|----------|---------|----------|
| d(g6) | 15      | 17      |          | 20      |          |
| L4    | 66      | 68      | 99       | 68      | 99       |
| L5    | 23      | 25      |          | 25      |          |
| M     | M15x1.0 | M17x1.0 |          | M20x1.0 |          |

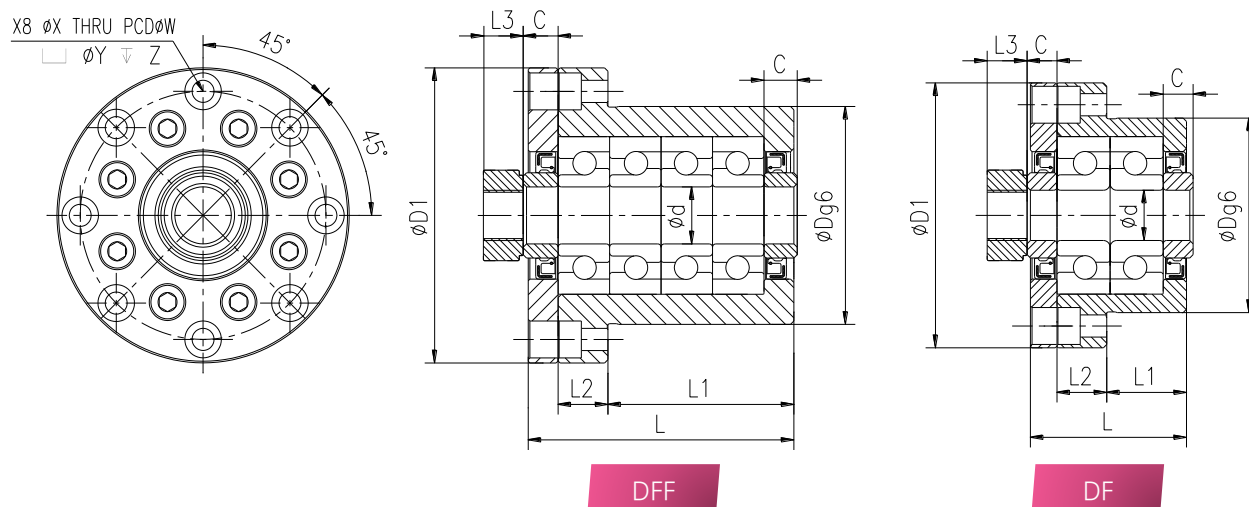
Dimensions in [mm]

### Product Availability:

- Unless otherwise specified, all support units have black oxide surface treatment.

| Bearing Type                | Angular contact thrust bearing (60° contact angle) |             |             |                      |
|-----------------------------|----------------------------------------------------|-------------|-------------|----------------------|
| Bearing Grade               | P4 - JP                                            | P5 - CN     | P4 - CN     | Max Axial Load (kgf) |
| Bearing Preload             | High                                               | High        | High        |                      |
| Applicable Ball screw Grade | C1-C5                                              | C3-C7       | C1-C5       |                      |
| MBK Series                  | MBK15DF                                            | MBK15DF-C5  | MBK15DF-C4  | 1808                 |
|                             | MBK17DF                                            | MBK17DF-C5  | MBK17DF-C4  | 1808                 |
|                             | MBK17DFF                                           | MBK17DFF-C5 | MBK17DFF-C4 | 3602                 |
|                             | MBK20DF                                            | MBK20DF-C5  | MBK20DF-C4  | 1808                 |
|                             | MBK20DFF                                           | MBK20DFF-C5 | MBK20DFF-C4 | 3602                 |

## Support unit dimensions:



## MBK Heavy Load Fixed End Support Unit

| Model    | d  | D  | D1 | L  | L1 | L2 | W  | X   | Y  | Z | C | Bearing Model |
|----------|----|----|----|----|----|----|----|-----|----|---|---|---------------|
| MBK15DF  | 15 | 58 | 79 | 48 | 24 | 15 | 66 | 6.6 | 11 | 7 | 9 | 15TAC47       |
| MBK17DF  | 17 | 58 | 79 | 48 | 24 |    | 66 |     |    |   |   | 17TAC47       |
| MBK17DFF |    | 65 | 88 | 80 | 56 |    | 74 |     |    |   |   | 20TAC47       |
| MBK20DF  | 20 | 58 | 79 | 48 | 24 |    | 66 |     |    |   |   | 20TAC47       |
| MBK20DFF |    | 65 | 88 | 80 | 56 |    | 74 |     |    |   |   |               |

Dimensions in [mm]

- - - End of Ballscrew Support Unit Technical Manual - - -