

IBC High precision angular contact ball bearings



DTB (Driven Tool Bearing)

IBC is proud to present its new DTB (Driven Tool Bearings) precision bearing series. As the name indicates, the contact angle, inner geometry and running accuracy of this type of precision angular contact ball bearing have been specially optimised for driven tools. The use of such bearings has a number of advantages for the operator, chiefly among them more accurate machining results and enhanced machine tool productivity.

| Basic dimensions | | | Designation | Stiffness | | Designation | Stiffness | |
|------------------|---------|----|------------------|----------------|----------------|------------------|----------------|----------------|
| d | D mm | B | | S _a | S _r | | S _a | S _r |
| | | | N/μm | | | N/μm | | |
| 17 | 30 | 7 | DTB 03/19.E.2RSZ | 65 | 130 | DTB 03/19.A.2RSZ | 90 | 120 |
| 20 | 37 | 9 | DTB 04/19.E.2RSZ | 80 | 160 | DTB 04/19.A.2RSZ | 110 | 145 |
| 25 | 42 | 9 | DTB 05/19.E.2RSZ | 100 | 200 | DTB 05/19.A.2RSZ | 140 | 180 |
| 30 | 47 | 9 | DTB 06/19.E.2RSZ | 120 | 240 | DTB 06/19.A.2RSZ | 170 | 220 |
| 35 | 55 | 10 | DTB 07/19.E.2RSZ | 140 | 280 | DTB 07/19.A.2RSZ | 200 | 250 |
| 40 | 62 | 12 | DTB 08/19.E.2RSZ | 160 | 320 | DTB 08/19.A.2RSZ | 225 | 290 |
| 45 | 68 | 12 | DTB 09/19.E.2RSZ | 180 | 360 | DTB 09/19.A.2RSZ | 250 | 330 |
| 50 | 72 | 12 | DTB 10/19.E.2RSZ | 200 | 400 | DTB 10/19.A.2RSZ | 280 | 360 |
| 55 | 80 | 13 | DTB 11/19.E.2RSZ | 220 | 440 | DTB 11/19.A.2RSZ | 310 | 400 |
| 75 | 105 | 16 | DTB 15/19.E.2RSZ | 300 | 600 | DTB 15/19.A.2RSZ | 420 | 540 |

Production series /19

| Basic dimensions | | | Designation | Stiffness | | Designation | Stiffness | |
|------------------|---------|----|------------------|----------------|----------------|------------------|----------------|----------------|
| d | D mm | B | | S _a | S _r | | S _a | S _r |
| | | | N/μm | | | N/μm | | |
| 17 | 35 | 10 | DTB 03/10.E.2RSZ | 65 | 130 | DTB 03/10.A.2RSZ | 85 | 110 |
| 20 | 42 | 12 | DTB 04/10.E.2RSZ | 75 | 150 | DTB 04/10.A.2RSZ | 105 | 135 |
| 25 | 47 | 12 | DTB 05/10.E.2RSZ | 95 | 190 | DTB 05/10.A.2RSZ | 130 | 170 |
| 30 | 55 | 13 | DTB 06/10.E.2RSZ | 110 | 220 | DTB 06/10.A.2RSZ | 150 | 200 |
| 35 | 62 | 14 | DTB 07/10.E.2RSZ | 130 | 260 | DTB 07/10.A.2RSZ | 210 | 270 |

Production series /10

Characteristics of the different executions:

- Production series /10 and /19
- Contact angle of 25° (E) or 30° (A)
- High axial load capacity and stiffness
- Tolerance class P4
- Preloads are matched to actual loading
- Bearings may be mounted in any kind of arrangement
- Greased and sealed as standard



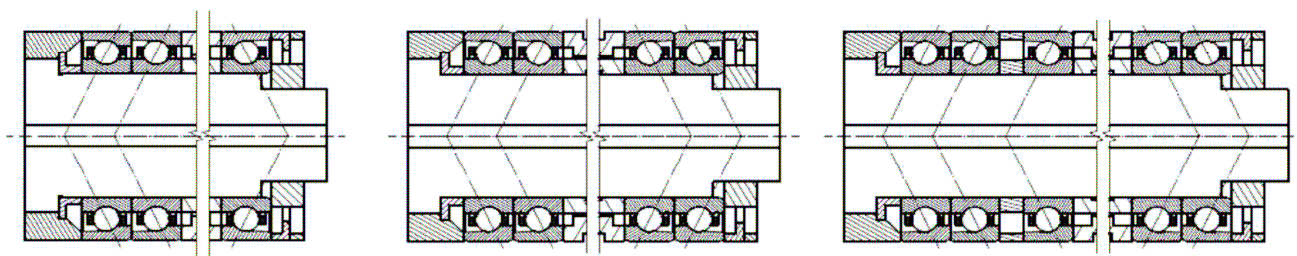
The new DTB (Driven Tool Bearings) precision bearing series has been specially designed for driven tools that carry out turning and milling work in state-of-the-art high precision machine tools. This sort of work is typically performed in a confined installation space under conditions that include short cycle times and large machining forces. It is therefore essential in today's precision machining environment that the bearing provides great stiffness, very high running accuracy and the ability to operate with high rotational speed. Only then can the operator achieve high-precision machining results, increased cutting performance as well as increased system availability with the minimum of maintenance.

Examples of mounting

Form A: (2+1)

Form B: (2+2)

Form C: (3+2)



Short spindle designs

You can save even more time, and increase reliability further, by choosing the sealed execution of the bearing: the lubricant is optimised for the planned usage with regard to lubricant type, quantity and insertion method, and the bearing is instantly ready for assembly. Every time you change tools, your machine will go through numerous pivoting movements. It is therefore of added importance that the lubricant is kept in rolling contact, which is an additional advantage of sealed bearings with a special cage design.

