

29456 E

Spherical roller thrust bearings accommodate very heavy axial and considerable radial loads. They have the highest load rating of all thrust bearings, enabling compact, high power density bearing arrangements. By combining two or more spherical roller thrust bearings, it is possible to create a bearing arrangement that is either self-aligning, allowing misalignment of the shaft, or very stiff.



| Dimensions       |           |                                                                                                                    |
|------------------|-----------|--------------------------------------------------------------------------------------------------------------------|
| d                | 280 mm    | Bore diameter                                                                                                      |
| D                | 520 mm    | Outside diameter                                                                                                   |
| H                | 145 mm    | Height                                                                                                             |
| d <sub>1</sub>   | ≈ 464 mm  | Outside diameter of shaft washer end side face                                                                     |
| D <sub>1</sub>   | ≈ 372 mm  | Shoulder diameter outer ring                                                                                       |
| B                | 95 mm     | Width shaft washer or length of shaft washer bore diameter that fits on shaft (bearings with a stamped steel cage) |
| B <sub>1</sub>   | 129.9 mm  | Height shaft washer + cage                                                                                         |
| C                | 70 mm     | Height housing washer                                                                                              |
| s                | 166 mm    | Distance from shaft washer end side face to pressure point                                                         |
| r <sub>1,2</sub> | min. 6 mm | Chamfer dimension shaft washer                                                                                     |



Abutment dimensions

|          |             |                                  |
|----------|-------------|----------------------------------|
| $d_a$    | min. 395 mm | Diameter of shaft abutment       |
| $d_{b1}$ | max. 300 mm | Abutment diameter of spacer ring |
| $d_{b2}$ | max. 320 mm | Outside diameter of spacer ring  |
| $D_a$    | max. 446 mm | Diameter of housing abutment     |
| $r_a$    | max. 5 mm   | Fillet radius                    |

Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 4 900 kN    |
| Basic static load rating  | $C_0$ | 15 300 kN   |
| Fatigue load limit        | $P_u$ | 1 320 kN    |
| Reference speed           |       | 670 r/min   |
| Limiting speed            |       | 1 200 r/min |
| Minimum axial load factor | A     | 22          |

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: table

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit