

BT4-8160 E9/C475

Four-row tapered roller bearings can accommodate combined heavy radial and axial loads at low to moderate speeds. They are used almost exclusively in work roll applications such as rolling mills. NR manufactures four-row tapered roller bearings in TQO and TQI designs, in many variants and with different features.



- Very high radial load carrying capacity
- Accommodate axial loads in both directions
- Axial space-saving solution for roll necks
- Low friction
- Long service life

| Design variant/feature | TQON/GW                         |                                             |
|------------------------|---------------------------------|---------------------------------------------|
| Bore type              | Cylindrical with helical groove |                                             |
|                        | Dimensions                      |                                             |
|                        | d                               | 343.052 mm Bore diameter                    |
|                        | D                               | 457.098 mm Outside diameter                 |
|                        | B                               | 254 mm Total bearing width over inner rings |
|                        | T                               | 254 mm Total bearing width over outer rings |
|                        | d <sub>1</sub>                  | ≈ 360.5 mm Abutment diameter shaft          |
|                        | D <sub>1</sub>                  | ≈ 408.5 mm Abutment diameter housing        |
|                        | r <sub>1,2</sub>                | min. 2 mm Chamfer dimension inner ring      |
|                        | r <sub>3,4</sub>                | min. 3.3 mm Outer ring radius (chamfer)     |
|                        |                                 |                                             |

| Calculation data          |              |          |
|---------------------------|--------------|----------|
| AGA performance class     | AGA Explorer |          |
| Basic dynamic load rating | C            | 3 600 kN |

|                                |          |          |
|--------------------------------|----------|----------|
| Basic static load rating       | $C_0$    | 7 100 kN |
| Fatigue load limit             | $P_u$    | 585 kN   |
| Comparative radial load rating | $C_F$    | 880 kN   |
| Comparative axial load rating  | $C_{Fa}$ | 203 kN   |
| Thrust factor                  | K        | 1.23     |
| Limiting value                 | e        | 0.48     |
| Calculation factor             | $Y_1$    | 1.4      |
| Calculation factor             | $Y_2$    | 2.1      |
| Calculation factor             | $Y_0$    | 1.4      |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: bearings (Normal and CL7C), inch bearings
- Internal clearance

### BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit