

BT4-8166 E9/C600

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                               | 409.575 mm Bore diameter                        |
|                        | D                               | 546.1 mm Outside diameter                       |
|                        | B                               | 334.962 mm Total bearing width over inner rings |
|                        | T                               | 334.962 mm Total bearing width over outer rings |
|                        | d <sub>1</sub>                  | ≈ 428 mm Abutment diameter shaft                |
|                        | D <sub>1</sub>                  | ≈ 491 mm Abutment diameter housing              |
|                        | r <sub>1,2</sub>                | min. 2.5 mm Chamfer dimension inner ring        |
|                        | r <sub>3,4</sub>                | min. 6.4 mm Outer ring radius (chamfer)         |
|                        |                                 |                                                 |

| Calculation data          |              |          |
|---------------------------|--------------|----------|
| AGA performance class     | AGA Explorer |          |
| Basic dynamic load rating | C            | 5 850 kN |

|                                |          |           |
|--------------------------------|----------|-----------|
| Basic static load rating       | $C_0$    | 12 500 kN |
| Fatigue load limit             | $P_u$    | 965 kN    |
| Comparative radial load rating | $C_F$    | 1 430 kN  |
| Comparative axial load rating  | $C_{Fa}$ | 276 kN    |
| Thrust factor                  | $K$      | 1.47      |
| Limiting value                 | $e$      | 0.4       |
| Calculation factor             | $Y_1$    | 1.7       |
| Calculation factor             | $Y_2$    | 2.5       |
| Calculation factor             | $Y_0$    | 1.6       |

## 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