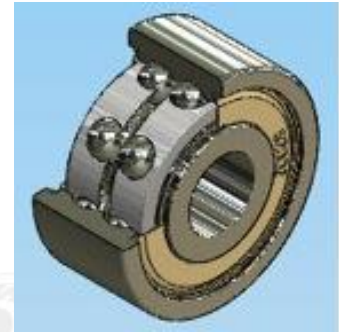


## Double Row, Angular Contact Ball Bearings – General Overview

Double Row Angular Contact ball bearings have two rows of balls that are arranged in a back-to-back configuration. They are equal in design to two single row angular contact bearings in a back-to-back arrangement, but in a smaller overall width package. The contact angle between balls and raceways (load lines) diverge at the bearing axis and form an angle of 30° to the radial plane.



A Double Row Angular Contact ball bearing can take a bi-directional axial load in addition to a radial load in one bearing where it would take a matched pair of single row angular contact bearings to do the same. The bearings are particularly suitable for accommodating simultaneously acting radial load and axial load in both directions while keeping the overall boundary dimensions compact. In addition to both axial and radial load handling capabilities, these bearings can accommodate some slight moment loading as well. Please Contact AST engineering for more information about loading.

Double Row Angular Contact ball bearings may offer some economic benefits as well as handling and mounting benefits versus pairs of Single Row Angular Contact ball bearings. They eliminate the need for preloading of two bearings, and also eliminate any potential orientation errors during mounting, unlike a pair of single row angular contact bearings. However, double row angular contact bearings may offer less design flexibility and performance in some cases. They are readily available in shielded or sealed versions also.

Double Row Angular Contact ball bearings are available in two numerical series:

**5200 Series** – Lighter load, higher speed, more/smaller balls per bore diameter.

**5300 Series** – Heavier load, slower speed, fewer/larger balls per bore diameter.

Please contact AST Engineering for any further technical assistance on Double Row Angular Contact ball bearings.