LOAD CAPACITY AND LIFE TIME

Dimensioning of roller bearing happens as necessity requires of one's self-load capacity and life time.

For rotating bearings must be considered the dynamic load coefficient; for roller bearings with occasional rotation must be considered the static load coefficient.

The load coefficient and the calculation procedures are refered to DIN ISO 281/1 and DIN ISO 76 standard indications.

Load values for roller bearings are adequate to their performances, confirmed in practice.

DYNAMIC LOAD CAPACITY

Dynamic load capacity depends on the effort behaviour of the material due load request, to RPM.

STATIC LOAD CAPACITY

Static load capacity depends on rolling track and revolving body deformation, considering load without rotation.

AXIAL LOAD CAPACITY OF RADIAL CYLINDERICAL ROLLER BEARINGS

TECOM cylindrical roller bearings can absorb high axial thrusts plus very high radial loads.

Radial bearings' axial lifting depends on the border's dimensions in relation to the front surfaces of rolling bodies.

The load capacity of contact surfaces depends on the creeping speed and on the lubrication.

With specific formulas it is possible to obtain axial load values that ***TECOM*** bearings can continuously bear, temporarily and alternately.

WORKING LIFE TIME

This is the life time actually reached by the bearing.

This characteristic can be different from the calculated nominal life time.

This is determined by:

- shaft-lodging off-centering
- bearing contamination
- working temperature
- type of lubrication
- stress and vibration
- ring hardness

Due to many different working conditions, it is not possible to determine the exact working life time of bearings.

Therefore it is possible to arrive at a proper evaluation, comparing some cases of the same application.