

DOWNSTREAM

Pumps and compressors are typical applications from the refining stage. Bearings used correspond to specific standards.

BEARINGS FOR REFINING PUMPS



API610

The standard for petroleum refining process pump defined by American Petroleum Institute.

The conditions for use and specification of bearings are defined

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BEARING LIFE	Bearing "system" life (not for individual bearings) should be • over 25000h (Continuous operations) • 16000h (Maximum radial and axial loads and rated speed)		
ROTATION	dm N<500,000 dm [mm](bore diameter + Outer diameter)/2 N [min-1]Rotational speed		
LUBRICATION	Oil lubrication * The housing shall be equipped with an oil leveler.		



DEEP GROOVE BALL BEARINGS DGBB

- Radial clearance : C3 (Larger than normal clearance)
- Metal cage

DGBB DESIGNATION (example)

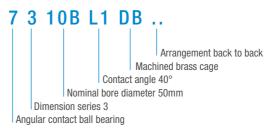




ANGULAR CONTACT BALL BEARING ACBB

- · Contact angle 40°(For axial load)
- · Arrangement: back to back
- Machined brass cage

ACBB DESIGNATION (example)

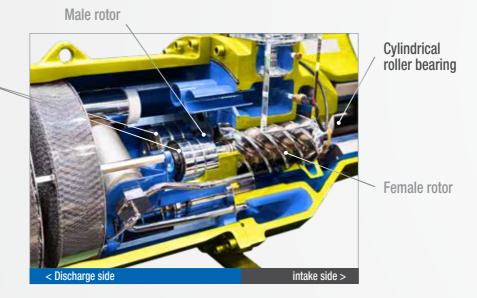


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BEARINGS FOR AIR COMPRESSORS

Angular contact ball bearings arrangement or Angular contact ball bearing and cylindrical roller bearing arrangement



THE BEARING SPECIFICATION FOR SCREW COMPRESSOR

Used place	Discharge side (Fixed)		Intake side (Floating)
Bearing type	Angular contact ball bearing	Cylindrical roller bearing	Cylindrical roller bearing
Example of bearing number	7304BT2PXn (ID 20mm)	NF2304ET2XCSnPXn (ID 20mm)	NU213ET2XCSnPXn (ID 65mm)
Precision class of JIS(*)	0-class	0-class	0-class
Contact degree	40-degree	-	-
Cage	Material: Polyamide Guided by ball	Material: Polyamide Guided by roller	Material: Polyamide Guided by roller
Lubrication	Circulating oiling	Circulating oiling	Circulating oiling
Clearance	-	Special	Special
Another specialty	Control of side face height difference of inner and outer ring	Control of side face height difference of inner and outer ring	-



* Japanese industrial standards



Bearing dimensions are the same as those of standard deep groove ball bearings, but the bearings have special heat treatment that considerably extends life.

These bearings are especially effective in countering short life due to the effects of infiltration by dust and other foreign matter.

P/NS FOR EXAMPLE : **6206 / TMB206 / TAB206**

Features are as follows:

- Load rating and speed limit are the same as standard bearings.
- TMB 62 series bearings used instead of standard 63 series bearings enabling lighter, more compact designs.
- TAB bearings have a 5x longer life in polluted oil compared to standard bearings and 2x longer than TMB bearings.

CONTAMINATED LUBRICATION >> TMB

CONTAMINATED LUBRICATION AND PEELING* >> TAB



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