

8.3.6 Type H 090 – Standard hypoid gearboxes



Characteristics

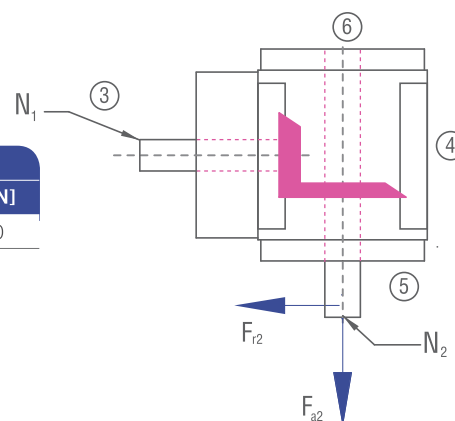
Characteristic	Standard	Option
Toothings	Spiral-toothed, hardened hypoid bevel gears	See chapter 8.2.1
Gear ratio	8:1 to 15:1	
Housing / Flanges	Aluminium / steel or casting	
Threaded mounting holes	On the sides 1, 2 and 3	See chapter 8.2.3
Shaft	Material 1 C45, shaft ends greased Fit with ISO 6 tolerance	See chapter 4.6.2
Hollow shaft	Material 1 C45, shafts greased Fit with ISO 6 tolerance	See chapter 4.6.3
Radial shaft seal ring	NBR, form A	See chapter 4.8
Ambient temperature	-10°C to +90°C. The values of the performance tables are valid for +20°C	See chapter 4.9.3
Circumferential backlash	< 5 arcmin	See chapter 8.2.10
Protection class	IP 54	See chapter 4.5
Corrosion protection	Prime coat; layer thickness >40 µm	See chapter 4.4
Bearing life L10h	more than 15,000h	See chapter 4.9.1
Oil change intervals	Not required if the oil temperature is kept < 90°C. The lifetime of the bearings can be increased by the factor 1.5 if the oil is changed after the first 500 service hours and then every 5000 service hours.	See chapter 8.2.8
Lubricants	Synthetic lubricants	See chapter 8.2.8

Performance data

		8:1			10:1			12:1			15:1		
N_1 [rpm]	N_{1MAX} [rpm]	T_{2N} [Nm]	T_{2B} [Nm]	T_{2NOT} [Nm]	T_{2N} [Nm]	T_{2B} [Nm]	T_{2NOT} [Nm]	T_{2N} [Nm]	T_{2B} [Nm]	T_{2NOT} [Nm]	T_{2N} [Nm]	T_{2B} [Nm]	T_{2NOT} [Nm]
3200	8000	36	54	72	36	54	72	0	0	0	0	0	0
3900	8000	0	0	0	0	0	0	26	40	52	25	38	50

Permissible radial force F_{r2} and axial force F_{a2} on shaft N_2

10:1		12:1		15:1		8:1	
F_{r2} [N]	F_{a2} [N]	F_{r2} [N]	F_{a2} [N]	F_{r2} [N]	F_{a2} [N]	F_{r2} [N]	F_{a2} [N]
3300	1650	3300	1650	3300	1650	3300	1650



Hybrid
gearboxes

Gearbox inertia moments/mass

Inertia moment J_1 related to the fast-rotating shaft (N_1)

Inertia moment [kgcm ²]				Mass ca. [kg]
8:1	10:1	12:1	15:1	
0.1700	0.1500	0.1400	0.1300	3.5

The mass of the gearbox may deviate depending on the type and the gear ratio.

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