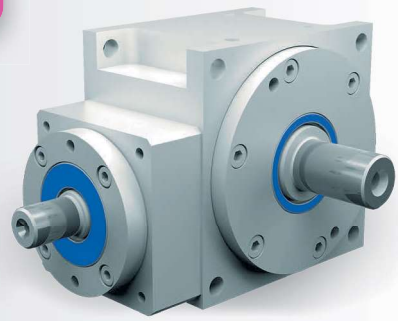


8.3.8 Type H 140 – Standard hypoid gearboxes



Characteristics

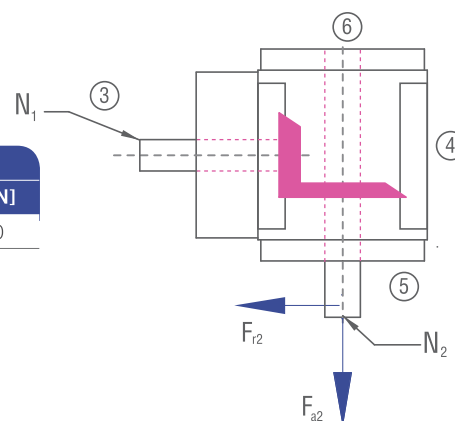
Characteristic	Standard	Option
Toothing	Spiral-toothed, hardened hypoid bevel gears	See chapter 8.2.1
Gear ratio	8:1 to 15:1	
Housing / Flanges	Aluminium / steel or casting	
Threaded mounting holes	On the sides 1, 2 and 3	See chapter 8.2.3
Shaft	Material 1 C45, shaft ends greased Fit with ISO 6 tolerance	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	< 4 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]
2200	7000	142	215	289	143	215	290	0	0	0	0	0	0
2800	7000	0	0	0	0	0	0	98	146	195	97	145	194

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]
7200	3600	7200	3600	7200	3600	7200	3600



Hybrid
gearboxes

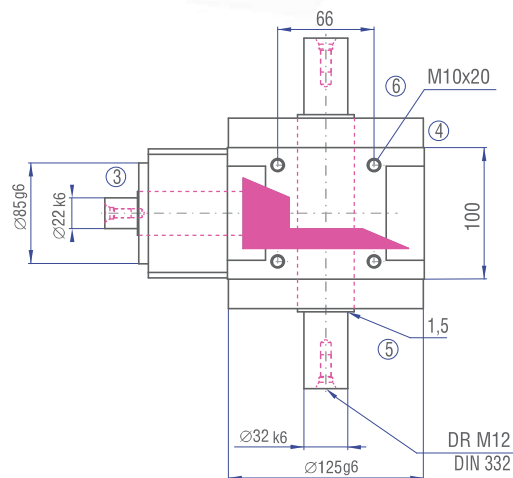
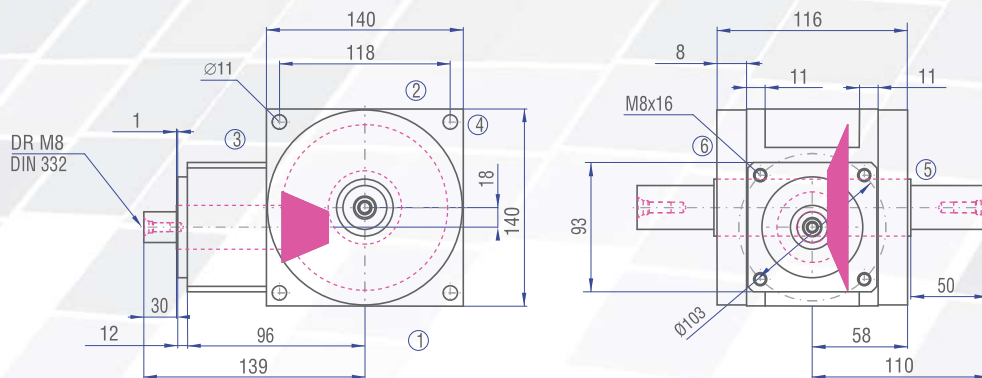
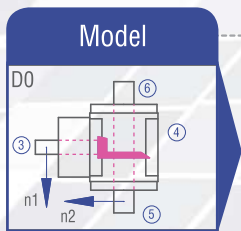
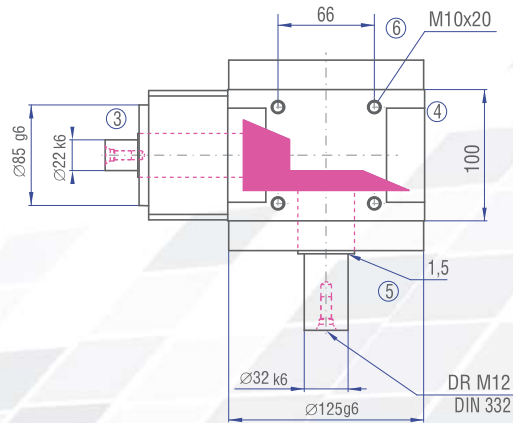
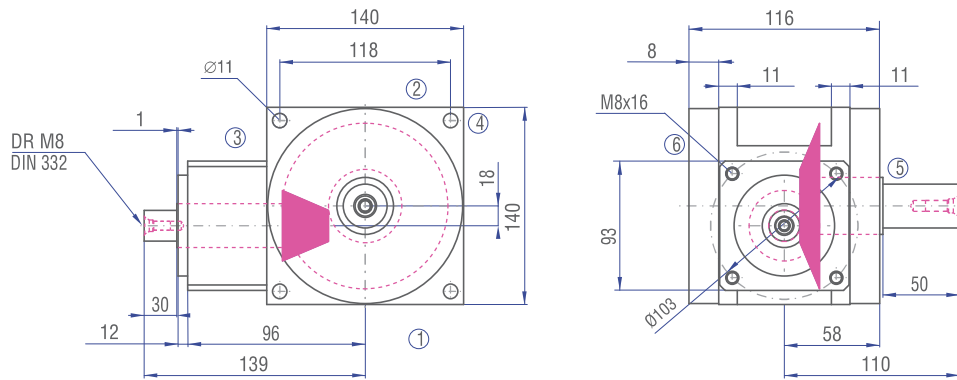
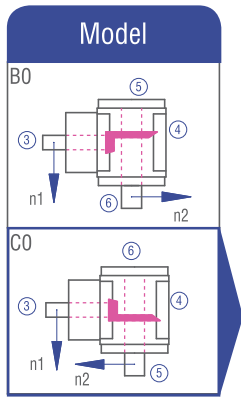
Gearbox inertia moments/mass

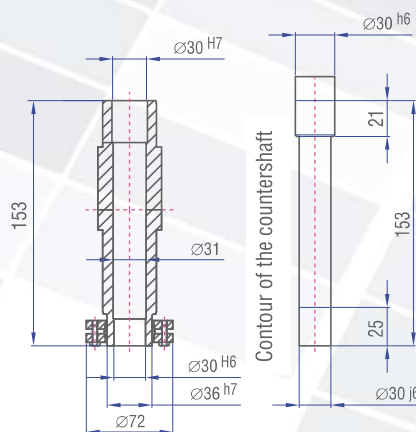
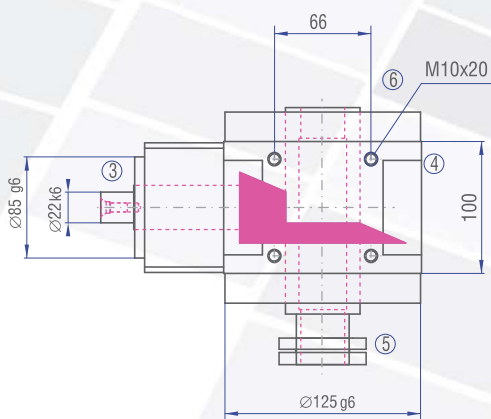
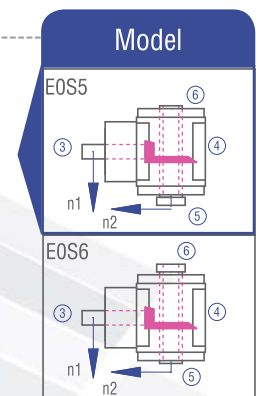
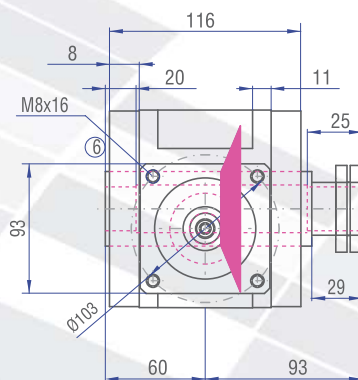
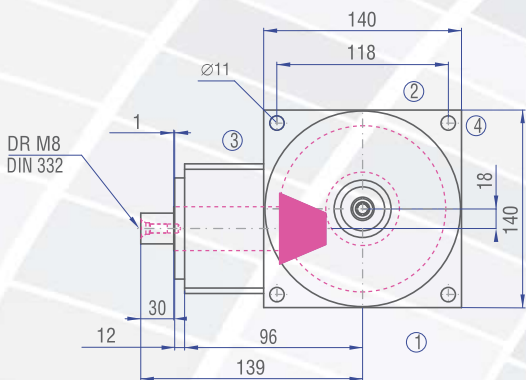
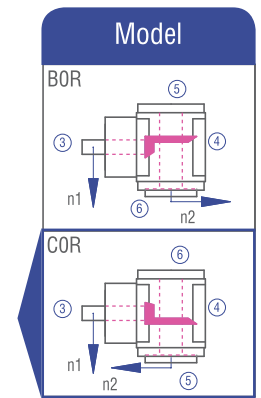
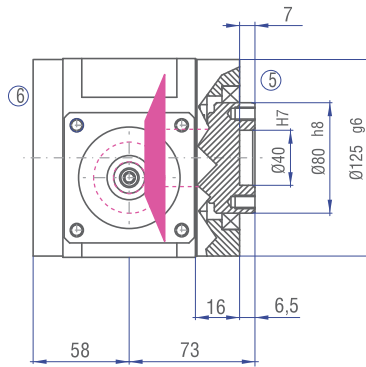
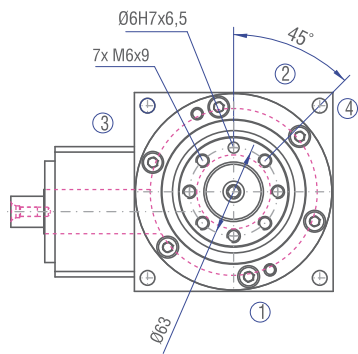
Inertia moment J_1 related to the fast-rotating shaft (N_1)

Inertia moment [kgcm ²]				Mass ca. [kg]
8:1	10:1	12:1	15:1	
1.1200	1.0000	0.8800	0.8100	9.5

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

8.3.8 Type H 140 – Standard hypoid gearboxes





Contour of the countershaft