



Characteristics

Characteristic	Standard	Option
Toothing	Spiral toothed bevel gear set	See chapter 7.2.2
Gear ratios	1:1 to 3:1	
Housing / Flanges	1.4581 / 1.4305	See chapter 7.2.1
Threaded mounting holes	Customer-specific	See chapter 7.2.4
Shaft	1.4305, shaft ends greased Fit with ISO 6 tolerance with parallel keyway: according to DIN 6885 Sheet 1	See chapter 4.6.2
Hollow shaft	1.4305, shafts greased Fit with ISO 7 tolerance with parallel keyway: according to DIN 6885 Sheet 1	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	< 30 arcmin	See chapter 7.2.11
Protection class	IP 56	See chapter 4.5
Corrosion protection	-	See chapter 7.2.12
Bearing life L10h:	more than 15,000h	See chapter 4.9.1
Oil change intervals	Not required	See chapter 7.2.9
Lubricants	Synthetic lubricant, NSF-approved (NOTOX)	See chapter 7.2.9
Type plate	Etched	

Performance data

n ₁ [rpm]	1:1			1.5:1			2:1			3:1			4:1			5:1			6:1			
	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	n ₂ [rpm]	P _{1N} [kW]	T _{2N} [Nm]	
3000	3000	3.31	10	2000	2.20	10	1500	1.65	10	1000	1.10	10										
2400	2400	2.65	10	1600	1.76	10	1200	1.32	10	800	0.88	10										
1500	1500	1.82	11	1000	1.21	11	750	0.91	11	500	0.61	11										
1000	1000	1.32	12	667	0.88	12	500	0.66	12	333	0.44	12										
750	750	1.07	13	500	0.72	13	375	0.54	13	250	0.33	12										
500	500	0.83	15	333	0.55	15	250	0.41	15	167	0.24	13										
250	250	0.47	17	167	0.31	17	125	0.23	17	83	0.12	13										
50	50	0.10	18	33	0.07	18	25	0.05	18	17	0.03	14										
P _{1Nt} [kW]	1.4			1.4			1.4			1.4												
T _{2max} [Nm]	25			25			25			23												

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

Permissible radial force F_{r1} and axial force F_{a1} on shaft N₁

The permissible radial forces depend on torque, rotational speed and direction. They must be calculated for the respective case of application. Please enquire these.

n ₁ [rpm]	3000		1000		500		250		100		50	
T ₂ [Nm]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]
< 12	180	90	250	125	300	150	350	175	450	225	550	275
> 12	150	75	210	105	250	125	290	145	380	190	460	230

Permissible radial force F_{r2} and axial force F_{a2} on shaft N₂

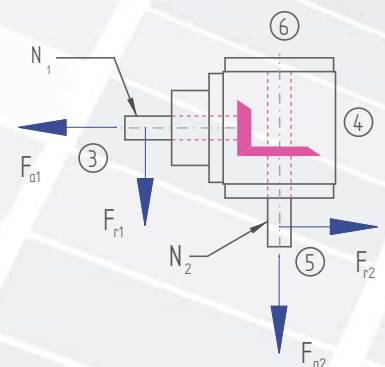
n ₂ [rpm]	3000		1000		500		250		100		50	
T ₂ [Nm]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]	F _r [N]	F _a [N]
< 12	300	150	400	200	500	250	650	325	750	375	900	450
> 12	250	125	330	165	420	210	540	270	630	315	750	375

Inertia moments/mass

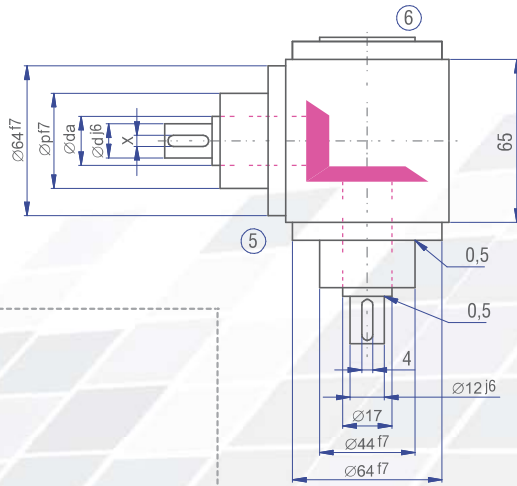
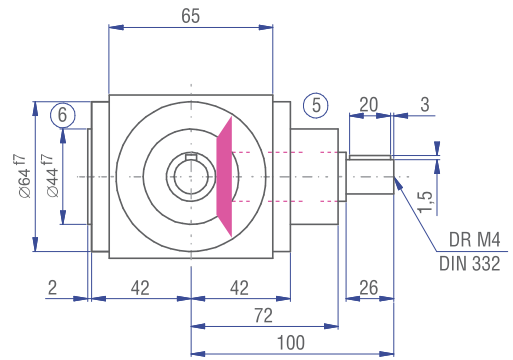
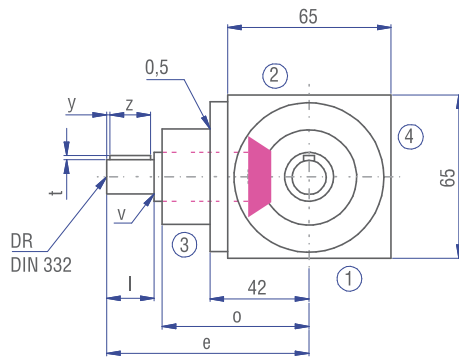
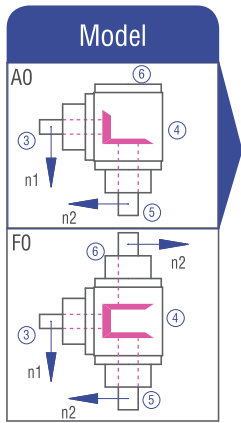
The mass of the gearbox may deviate depending on the gear ratio.

Model	Inertia moment [kgcm ²]						
	1:1	1.5:1	2:1	3:1	4:1	5:1	6:1
AO	0.3888	0.2406	0.1839	0.1036			
BO	0.4231	0.3111	0.2330	0.1001			
CO	0.4231	0.3111	0.2330	0.1001			
DO	0.4330	0.3155	0.2355	0.1012			
EON	0.4754	0.3634	0.2853	0.1524			
EOS	0.6012	0.4892	0.4111	0.2782			
FO	0.5832	0.3270	0.2325	0.1252			
GO	0.6175	0.4653	0.3683	0.1821			
HO	0.6175	0.4653	0.3683	0.1821			
JO	0.6274	0.4697	0.3708	0.1832			
KON	0.6698	0.5176	0.4206	0.2344			
KOS	0.7956	0.6434	0.5464	0.3602			

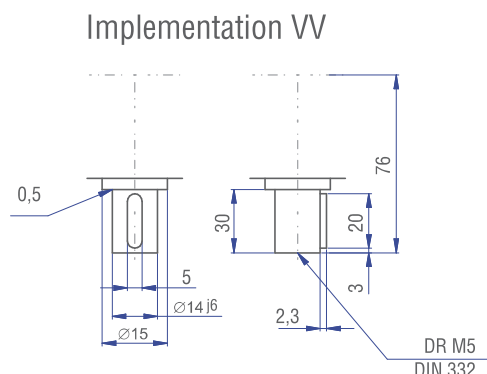
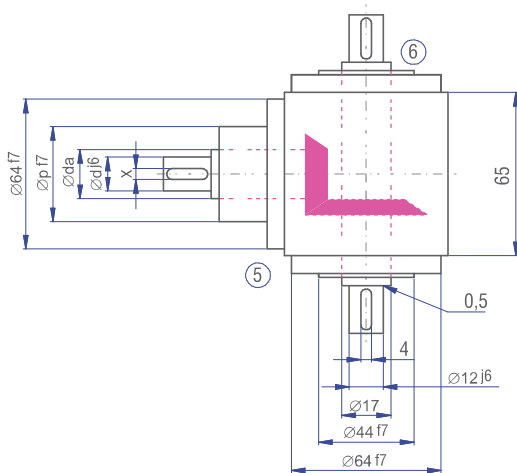
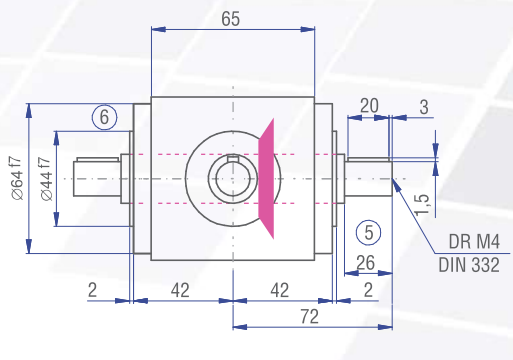
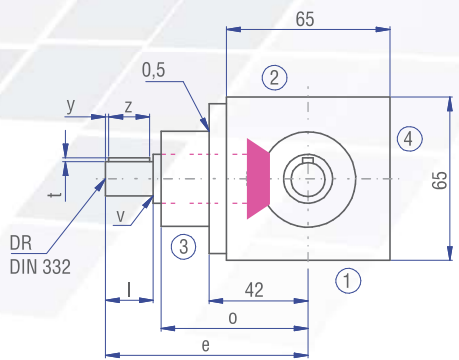
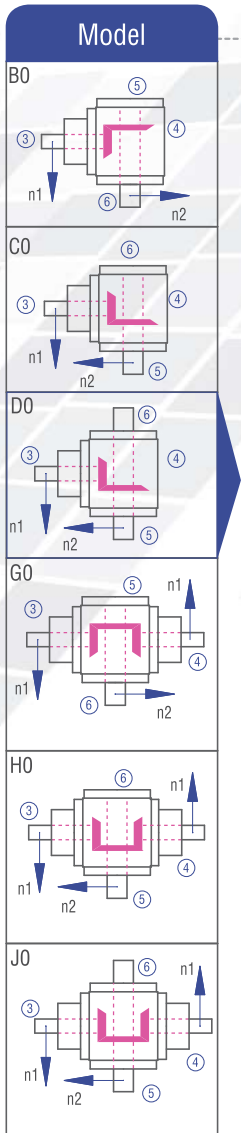
Mass [kg]
2.3
2.2
2.2
2.3
2.1
2.1
2.7
2.6
2.6
2.7
2.5
2.5

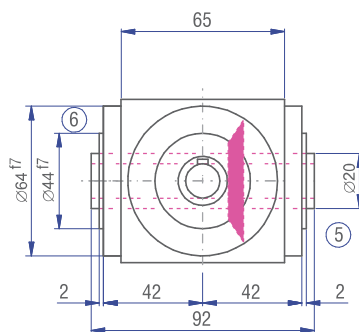
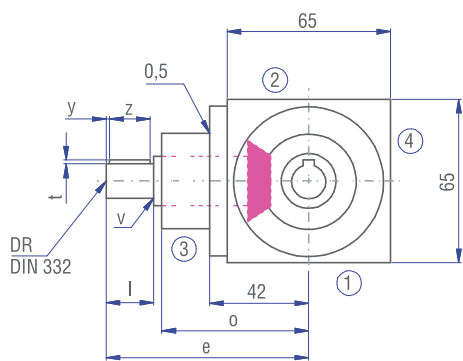


7.2.18 Type HDV 065 – Hygiene-design bevel gearboxes



	Gear ratio						
	1:1	1.5:1	2:1	3:1	4:1	5:1	6:1
d [mm]	17	17	17	17			
da [mm]	12	12	12	12			
l [mm]	100	100	100	100			
v [mm]	26	26	26	26			
x [mm]	72	72	72	72			
y [mm]	44	44	44	44			
z [mm]	1.5	1.5	1.5	1.5			
t [mm]	0.5	0.5	0.5	0.5			
e [mm]	4	4	4	4			
o [mm]	3	3	3	3			
p [mm]	20	20	20	20			
DR M	4	4	4	4			





Implementation

