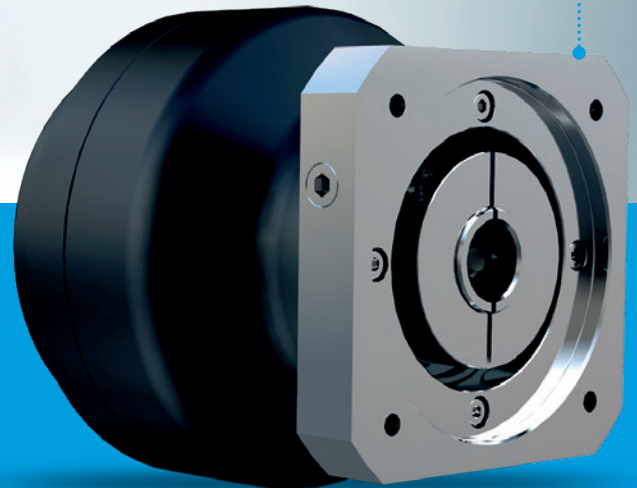


Neco[®] - Precision gears

Compact, robust, precise

NEW
Neco[®]HT
for heavy duty
applications



Nabtesco

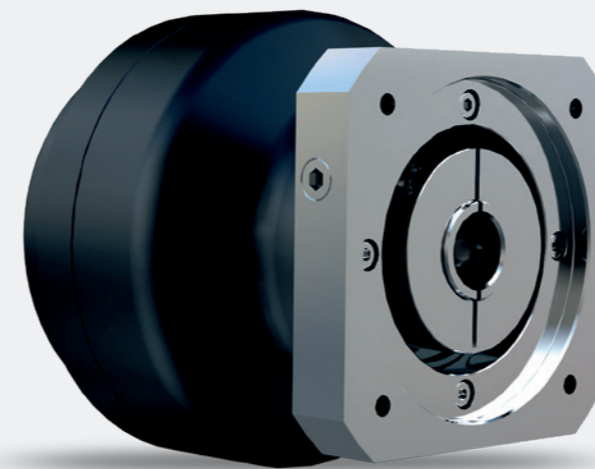
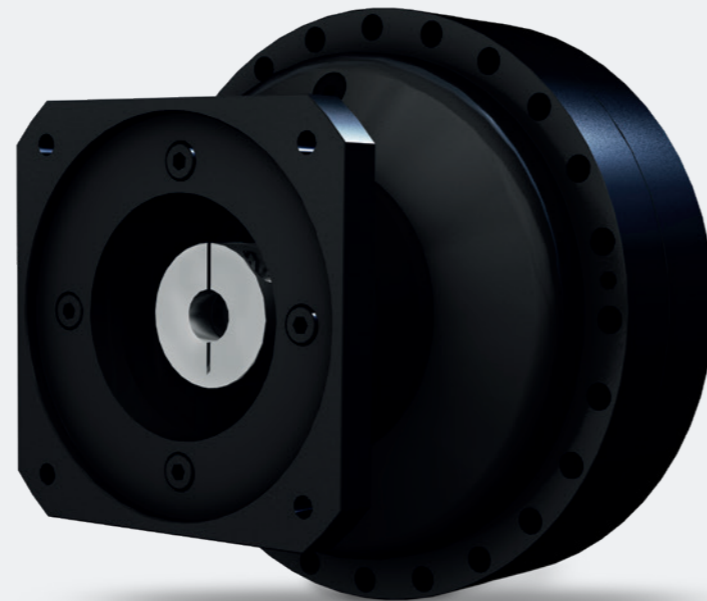
Welcome to the new **Neco**® world

The servo gearboxes of the new **Neco**® series are based on the gear units of the RH-N series. They feature high power density, extremely effective corrosion protection, and maximum flexibility in the motor connection – all in an elegant and compact design. Furthermore, we have developed a modular system that allows the customer to configure a custom gearbox quickly and easily.

The **Neco**® servo gearboxes achieve high precision with a hysteresis loss of <0.5 arc.min and are extremely robust, due to dual-bearing eccentric shafts and a bearing-mounted input shaft. The motor shaft is adapted by a radial clamping ring with a low-inertia design. The ring reduces inertia on the motor shaft by up to 39 % to enable extremely dynamic cycles.

The advantages

- Extreme precision (hysteresis loss <0.5 arc.min)
- High shock load (500 % the rated torque)
- Economical plug-and-play solution
- Modular system
- Comprehensive corrosion protection
- Clean, enclosed design
- Maximum flexibility in the motor connection
- Low-inertia clamping ring for more dynamic cycles
- Minimum engineering and installation required
- Designed for a long life and low maintenance



Experience gears in a new way – it's so easy

Easy to find:

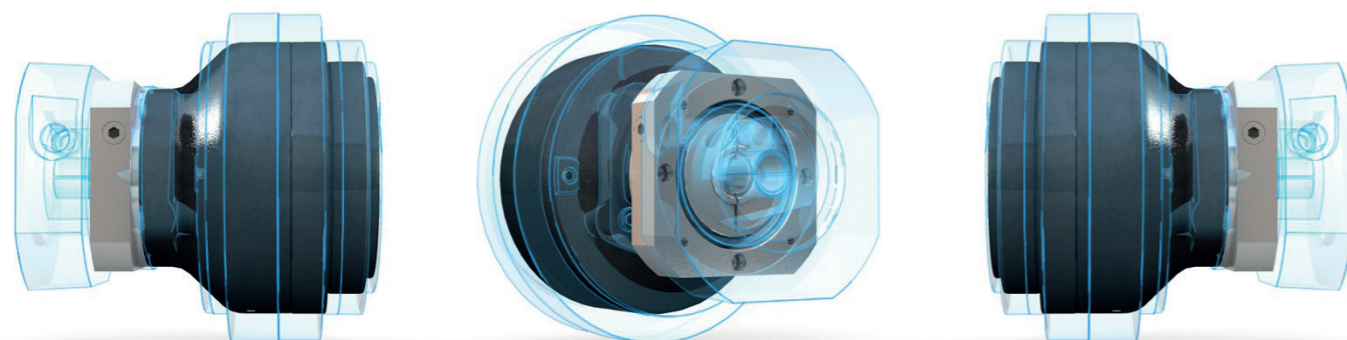
New quickfinder helps you find the right cycloidal gearbox faster

Easy to size:

Configure your custom gearbox fast and easy right on the website in only 3 steps (see following pages)

Easy to handle:

The QR code on the gears gives you direct access to manual videos, operating manuals and live support



Innovative, efficient
gear concept



Ready to install
and user-friendly



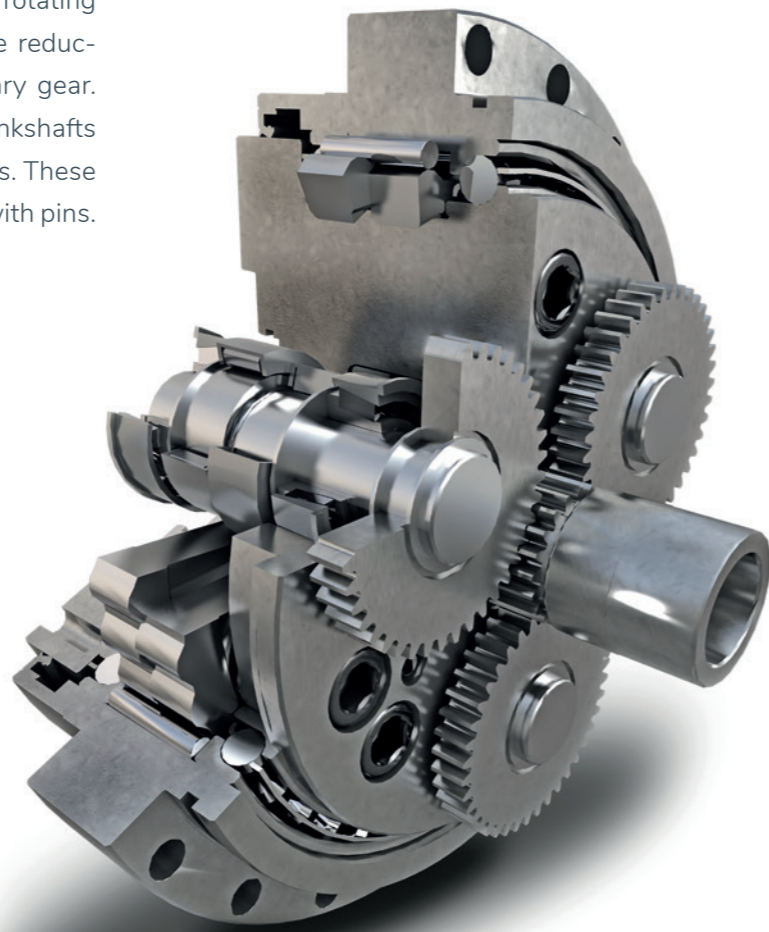
Blackbox concept
minimises risks

Cycloidal gears – Mode of operation

Cycloidal gears offer unbeatable advantages

The two-stage reduction of cycloidal gears makes solutions from Nabtesco so successful. The reason is that the speed is reduced by the double cams. In addition, vibration is reduced by the two-stage reduction principle and low inertia. The force is also distributed very evenly, thanks to the roller cam design, and this contributes to the minimum hysteresis loss and enormous resistance to shock loading. Consequently, cycloidal gears are as versatile as they are resilient.

The drive or servomotor is connected to the spur gear stage of the gearbox via a pinion. The rotating speed reduces at this point relative to the reduction ratio between the pinion and planetary gear. The planetary gears are connected to crankshafts which drive the cams using needle bearings. These cams rotate inside the case which is lined with pins.



The advantages

- High rated torque of up to 28,000 Nm
- Minimum space required
- High shock load (5 times the rated torque)
- Extreme precision (hysteresis loss <0.5 arcmin)
- High rigidity
- Low inertia
- Insensitive to vibrations
- Extremely low wear
- Long service life



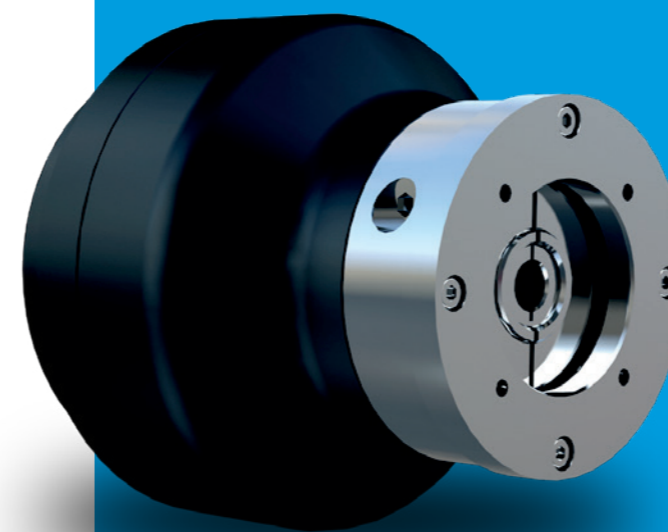
**extremely precise and high
positioning accuracy**



**extremely robust, durable
and low-wear**



**extremely compact and
lightweight design**



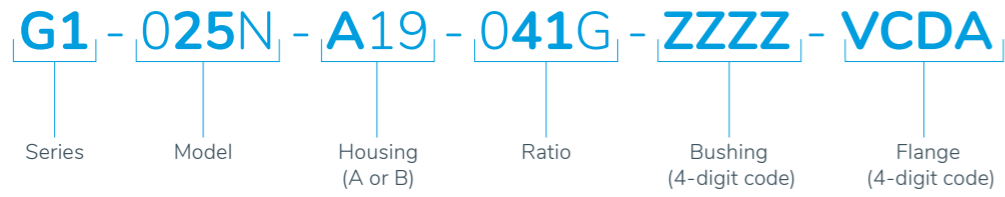
The RV principle: Reliable and precise cycloidal gearboxes

Visit also our channel on Youtube. Simply scan the QR code and discover the explanatory video on Nabtesco's two-stage reduction principle.



Neco® line up at a glance

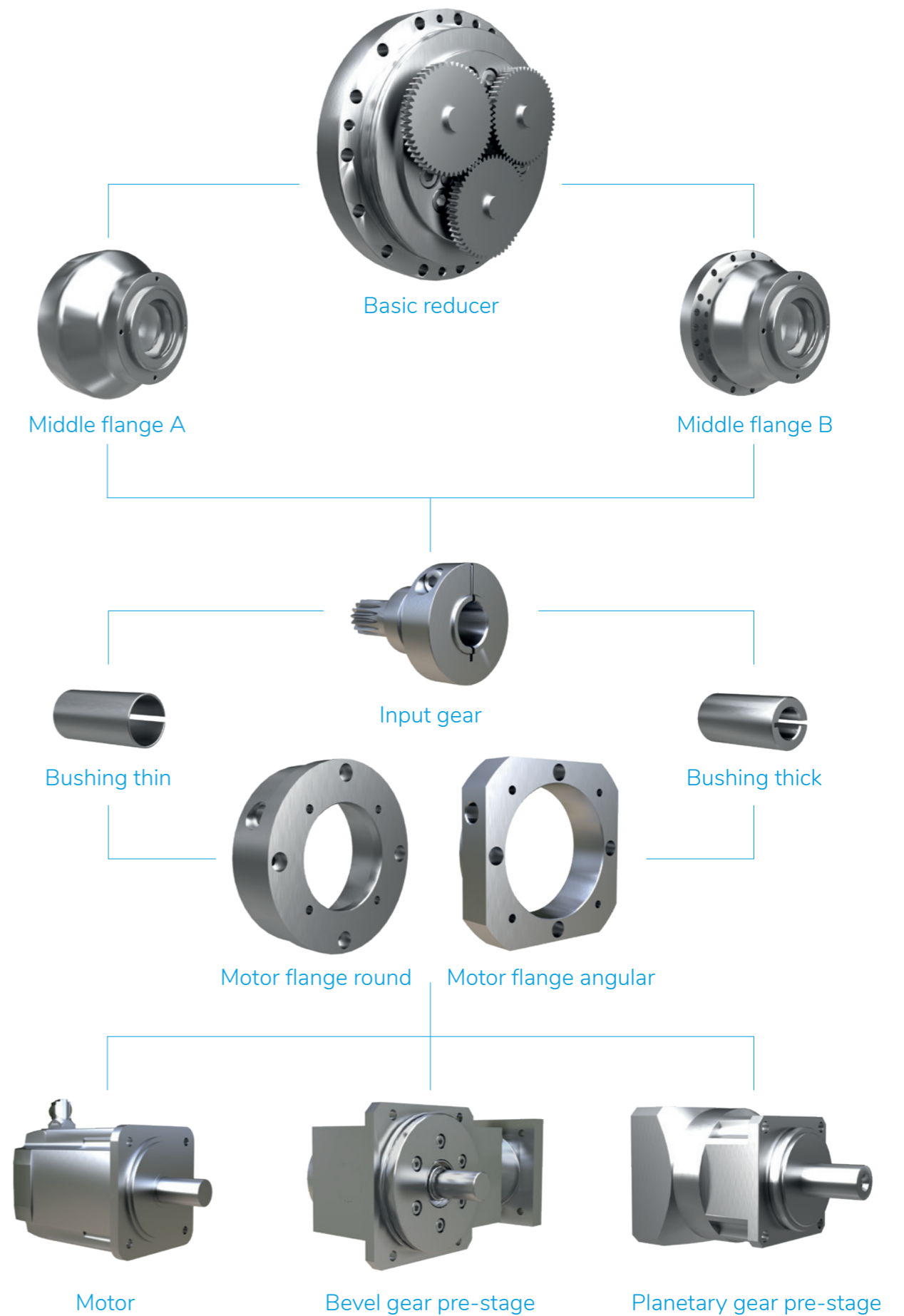
Example material short text:



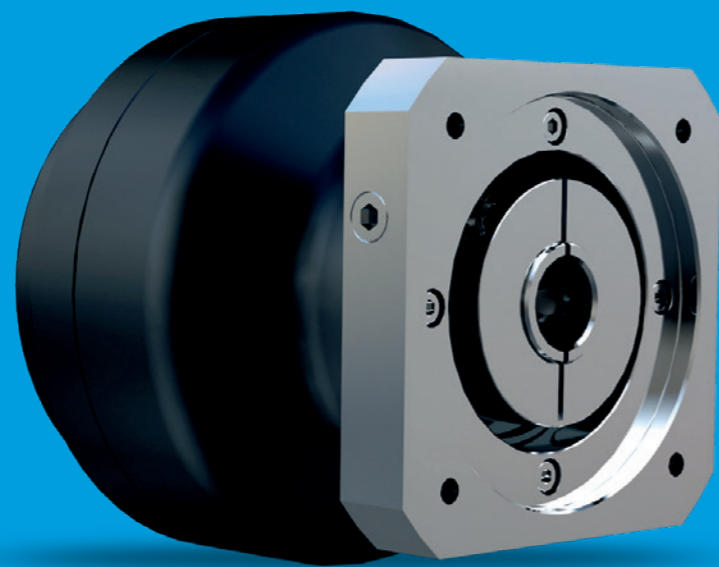
Series	Model	Housing (A or B)*	Ratio	Bushing (4-digit code)	Flange (4-digit code)	
Example:	G1	-025N	-A19	-041G**	-ZZZZ	-VCDA
Neco	25	A19	41 63 81 107.66 126 137 164.07	See page 11	See page 11	
		B19				
	42	A24	41 61 81 93 105 126 141 164.07	See page 15	See page 15	
		B24				
	80	A32	41 81 101 129 141 171	See page 19	See page 19	
		B32				
	125	A35	41 81 102.17 121 145.61 161	See page 23	See page 23	
		B35				
	160	A35	41 81 102.81 125.21 156 201	See page 27	See page 27	
		B35				

* A type: screwed from the output side / B type: screwed from the drive side
 ** G: ground tothing

Configure your gearbox



Series Neco[®]-25



Series Neco[®]-25

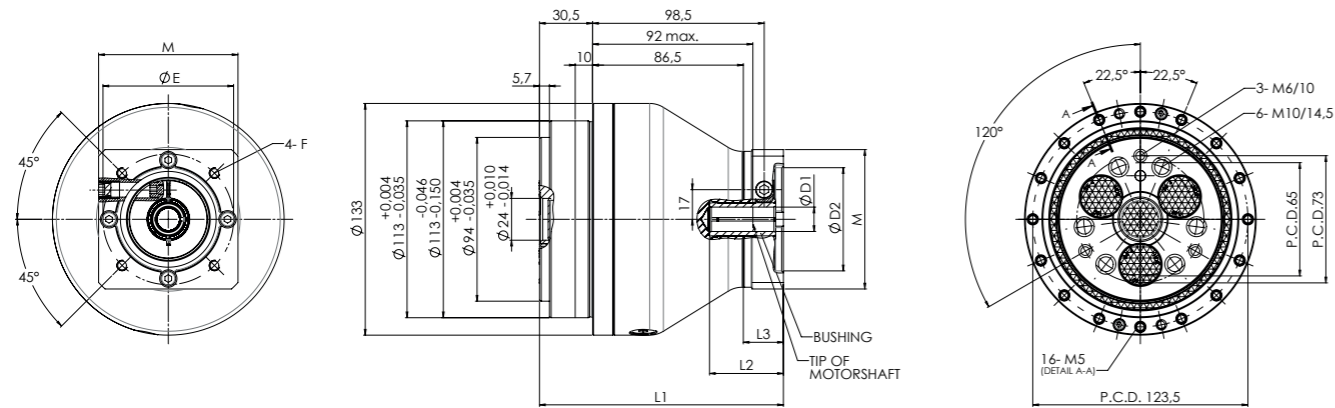
Technical Data Sheet

Reference Product			*1	G1025Nx19						
Rated Output Torque	T_0	Nm	*2	245						
Rated Output Speed	N_0	min ⁻¹	*2	15						
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000						
Ratio	R		*3	41	63	81	107.66	126	137	164.07
Inertia	J_{ges}	kgm ²		6.99E-05	5.60E-05	5.18E-05	4.74E-05	4.61E-05	4.55E-05	4.49E-05
Acc./Dec. Torque	T_{s1}	Nm		612						
Emergency-Stop-Torque	T_{s2}	Nm		1,225						
Allowable Output Speed [100 %]	N_{s0}	min ⁻¹	*4	57						
Allowable Output Speed [40 %]	N_{s1}	min ⁻¹	*4	110						
Hysteresis Loss		arc.min		<0.5						
Angular Transm. Error		arc.sec		<70						
Allowable Tilting Moment	M_{01}	Nm	*5	784						
Allowable Static Tilting Moment	M_{02}	Nm		1,568						
Moment rigidity		Nm/ arc.min		530						
Torsional Rigidity		Nm/ arc.min		61						
Allowable Radial Load	W_r	N	*6	6,975						
Allowable Axial Load	W_a	N	*7	2,610						
Weight (Ref.-Value)	m_1	kg	*8	6.7						
Startup Efficiency (Ref.-Value)		%		80						
Ambient Temperature		°C		-10 ... +40						
Allowable Reducer Temp. (Case)		°C	*9	-10 ... +60						
Surface Protection			*10	Standard Nabtesco SS-A and black oxidized. Motor adaptation in aluminum (undefined corrosion protection class).						
IP Protection Class				IP65						
Lubricant			*11	Nabtesco RV-Grease						
Motor Interface				Motor Interface acc. Customer request						
Motor Adaption	d_m	mm	*12	Ø 14 ... 19 k6/j6/h6			straight shaft (w/o Key Way)			
Connection Type				Radial Clamping Ring						
Allowable Input Torque			*13	Depending on the selected reduction and/or motor shaft, a limitation may be necessary						

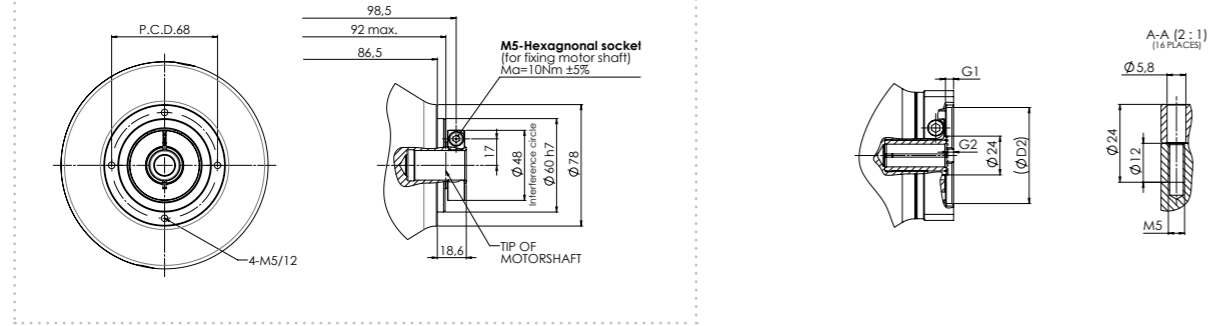
Series Neco®-25

Technical drawing 25-A

With motor adapter

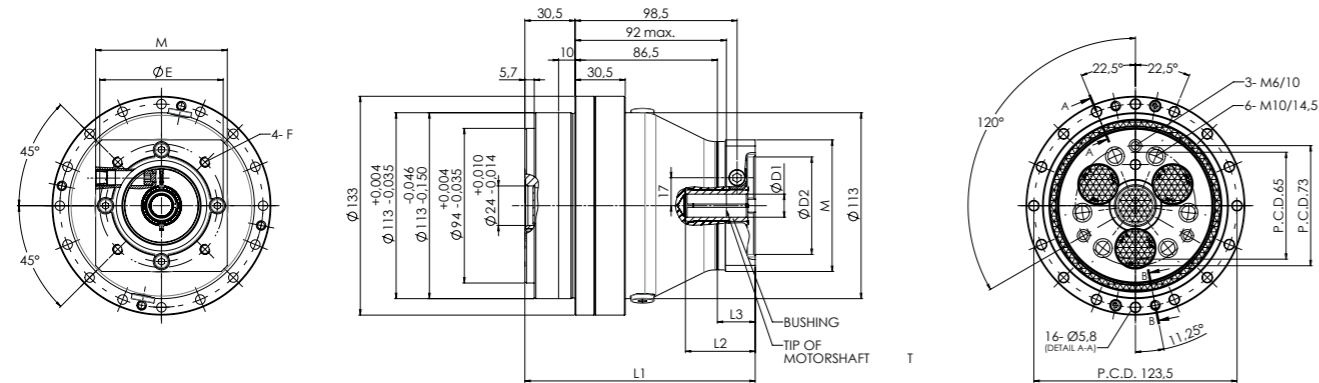


Without motor adapter

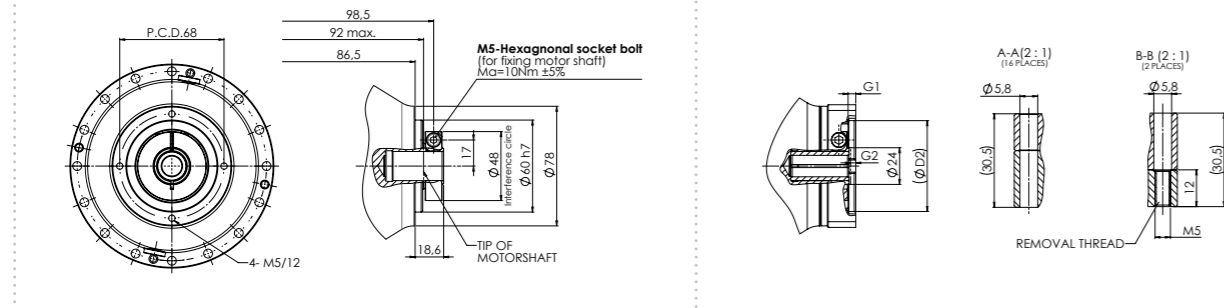


Technical drawing 25-B

With motor adapter



Without motor adapter



Series Neco®-25

Easy to size

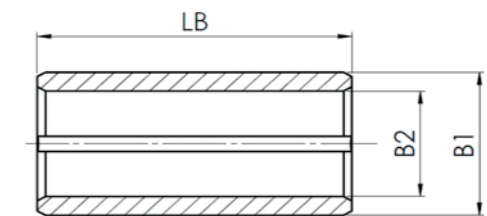
Configure your desired gearbox quickly and easily in just 3 steps:

1. Ratio

Ratio						
41	63	81	107.66	126	137	164.07

2. Bushing

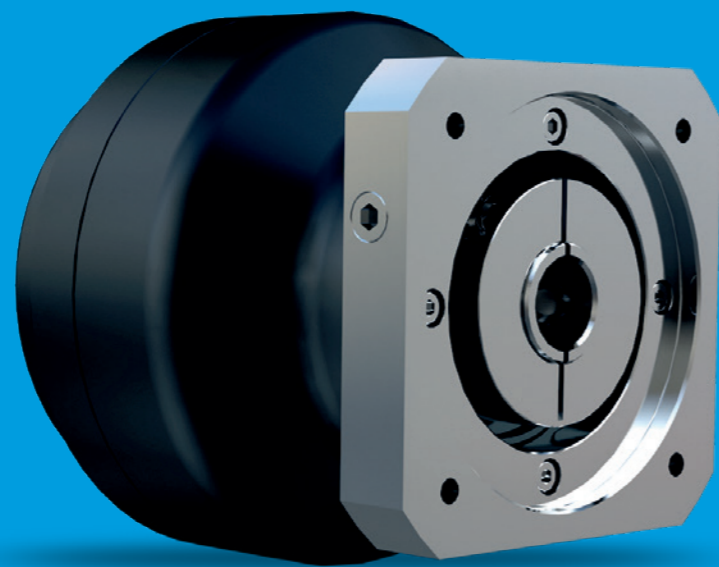
Code	B1 [mm]	B2 [mm]	LB [mm]
ZZZZ		without bushing	
C16A	19	16	38
C14A		14	38



3. Motor adapter

Code	D1 [mm]	D2 [mm]	G1 [mm]	G2 [mm]	E [mm]	F [mm]	L1 [mm]	L2 [mm]	L3 [mm]	M [mm]	Flange weight [kg]
ZZZZ							without motor adapter				
VCDA	14 ... 19	60F7	5	3.4	75	M6/12	141	17 ... 41	23	□80	0.2
VCDB		60F7	5	3.4	75	M5/10	141	17 ... 41	23	□80	0.2
VCEA		70F7	5	4.4	90	M5/10	142	18 ... 42	24	□84	0.23
VCFA		80F7	5	3.4	100	M6	140	17 ... 41	22	□98	0.35
VCFB		80F7	10	7.4	100	M6/12	145	21 ... 45	27	□92	0.33
VCWA		73.025F7	3	2.5	□69.6	M6	139.5	17 ... 40	21.5	□86	0.22

Series Neco[®]-42

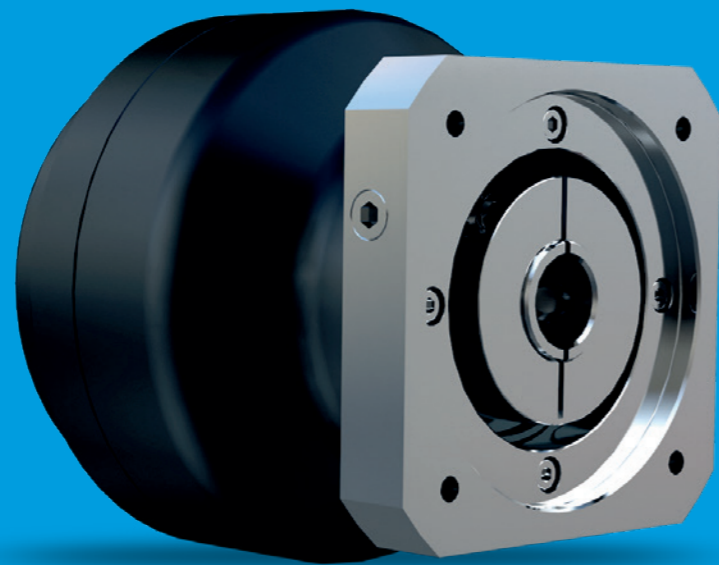


Series Neco[®]-42

Technical Data

Reference Product			*1	G1042Nx24 ...							
Rated Output Torque	T_o	Nm	*2	412							
Rated Output Speed	N_o	min ⁻¹	*2	15							
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000							
Ratio	R		*3	41	61	81	93	105	126	141	164.07
Inertia	J_{ges}	kgm ²		2.64E-04	2.21E-04	2.03E-04	1.95E-04	1.93E-04	1.87E-04	1.86E-04	1.83E-04
Acc./Dec. Torque	T_{s1}	Nm		1,029							
Emergency-Stop-Torque	T_{s2}	Nm		2,058							
Allowable Output Speed [100 %]	N_{s0}	min ⁻¹	*4	52							
Allowable Output Speed [40 %]	N_{s1}	min ⁻¹	*4	100							
Hysteresis Loss		arc.min		<0.5							
Angular Transm. Error		arc.sec		<60							
Allowable Tilting Moment	M_{o1}	Nm	*5	1,660							
Allowable Static Tilting Moment	M_{o2}	Nm		3,320							
Moment rigidity		Nm/ arc.min		840							
Torsional Rigidity		Nm/ arc.min		113							
Allowable Radial Load	W_r	N	*6	12,662							
Allowable Axial Load	W_a	N	*7	5,220							
Weight (Ref.-Value)	m_a	kg	*8	11.0							
Startup Efficiency (Ref.-Value)		%		80							
Ambient Temperature		°C		-10 ... +40							
Allowable Reducer Temp. (Case)		°C	*9	-10 ... +60							
Surface Protection			*10	Standard Nabtesco SS-A and black oxidized. Motor adaptation in aluminum (undefined corrosion protection class).							
IP Protection Class				IP65							
Lubricant			*11	Nabtesco RV-Grease							
Motor Interface				Motor Interface acc. Customer request							
Motor Adaption	d_m	mm	*12	Ø 14 ... 24 k6/j6/h6				straight shaft (w/o Key Way)			
Connection Type				Radial Clamping Ring							
Allowable Input Torque			*13	Depending on the selected reduction and/or motor shaft, a limitation may be necessary							

Series Neco®-80

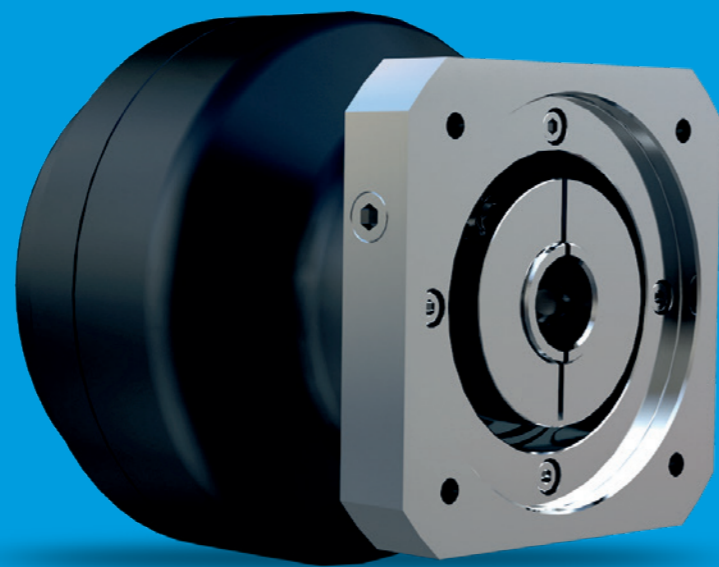


Series Neco®-80

Technical Data

Reference Product			*1	G1080N×32...					
Rated Output Torque	T_o	Nm	*2	784					
Rated Output Speed	N_o	min ⁻¹	*2	15					
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000					
Ratio	R		*3	41	81	101	129	141	171
Inertia	J_{ges}	kgm ²		7.08E-04	5.71E-04	5.47E-04	5.37E-04	5.33E-04	5.26E-04
Acc./Dec. Torque	T_{s1}	Nm		1,960					
Emergency-Stop-Torque	T_{s2}	Nm		3,920					
Allowable Output Speed [100 %]	N_{s0}	min ⁻¹	*4	40					
Allowable Output Speed [40 %]	N_{s1}	min ⁻¹	*4	88					
Hysteresis Loss		arc.min		<0.5					
Angular Transm. Error		arc.sec		<50					
Allowable Tilting Moment	M_{o1}	Nm	*5	2,150					
Allowable Static Tilting Moment	M_{o2}	Nm		4,300					
Moment Rigidity		Nm/ arc.min		1,190					
Torsional Rigidity		Nm/ arc.min		212					
Allowable Radial Load	W_r	N	*6	14,163					
Allowable Axial Load	W_a	N	*7	6,530					
Weight (Ref.-Value)	m_1	kg	*8	16.2					
Startup Efficiency (Ref.-Value)		%		80					
Ambient Temperature		°C		-10 ... +40					
Allowable Reducer Temp. (Case)		°C	*9	-10 ... +60					
Surface Protection			*10	Standard Nabtesco SS-A and black oxidized. Motor adaptation in aluminum (undefined corrosion protection class).					
IP Protection Class				IP65					
Lubricant			*11	Nabtesco RV-Grease					
Motor Interface				Motor Interface acc. Customer request					
Motor Adaption	d_m	mm	*12	Ø 19 ... 32 k6/j6/h6	straight shaft (w/o Key Way)				
Connection Type				Radial Clamping Ring					
Allowable Input Torque			*13	Depending on the selected reduction and/or motor shaft, a limitation may be necessary					

Series Neco®-125



Series Neco®-125

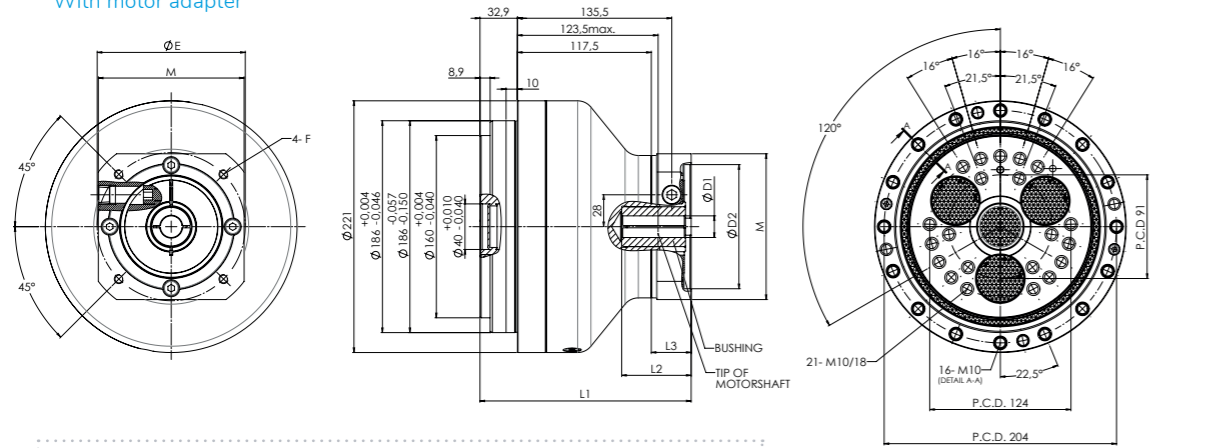
Technical Data

Reference Product			*1	G1125Nx35 ...					
Rated Output Torque	T_0	Nm	*2	1,225					
Rated Output Speed	N_0	min ⁻¹	*2	15					
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000					
Ratio	R		*3	41	81	102.17	121	145.61	161
Inertia	J_{ges}	kgm ²		8.91E-04	6.16E-04	5.78E-04	5.58E-04	5.41E-04	5.33E-04
Acc./Dec. Torque	T_{s1}	Nm		3,062					
Emergency-Stop-Torque	T_{s2}	Nm		6,125					
Allowable Output Speed [100 %]	N_{s0}	min ⁻¹	*4	35					
Allowable Output Speed [40 %]	N_{s1}	min ⁻¹	*4	79					
Hysteresis Loss		arc.min		<0.5					
Angular Transm. Error		arc.sec		<50					
Allowable Tilting Moment	M_{01}	Nm	*5	3,430					
Allowable Static Tilting Moment	M_{02}	Nm		6,860					
Moment Rigidity		Nm/ arc.min		1,600					
Torsional Rigidity		Nm/ arc.min		334					
Allowable Radial Load	W_r	N	*6	19,804					
Allowable Axial Load	W_a	N	*7	13,000					
Weight (Ref.-Value)	m_1	kg	*8	23.9					
Startup Efficiency (Ref.-Value)		%		80					
Ambient Temperature		°C		-10 ... +40					
Allowable Reducer Temp. (Case)		°C	*9	-10 ... +60					
Surface Protection			*10	Standard Nabtesco SS-A and black oxidized. Motor adaptation in aluminum (undefined corrosion protection class).					
IP Protection Class				IP65					
Lubricant			*11	Nabtesco RV-Grease					
Motor Interface				Motor Interface acc. Customer request					
Motor Adaption	d_m	mm	*12	Ø 19 ... 35 k6/j6/h6		straight shaft (w/o Key Way)			
Connection Type				Radial Clamping Ring					
Allowable Input Torque			*13	Depending on the selected reduction and/or motor shaft, a limitation may be necessary					

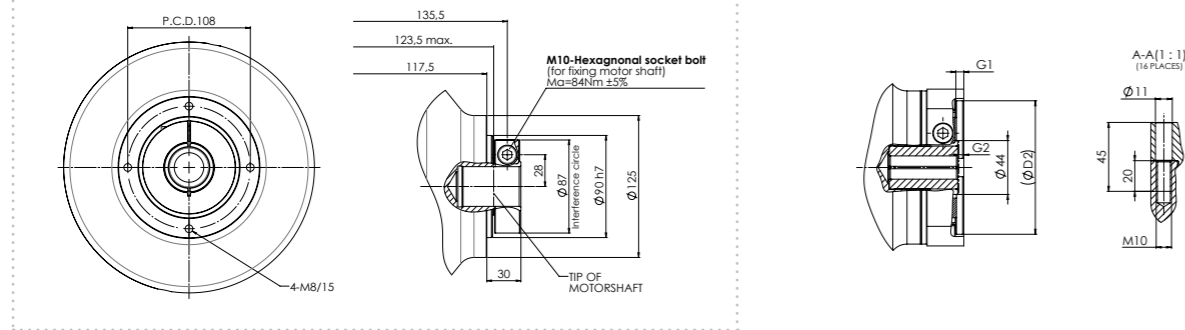
Series Neco®-125

Technical drawing 125-A

With motor adapter

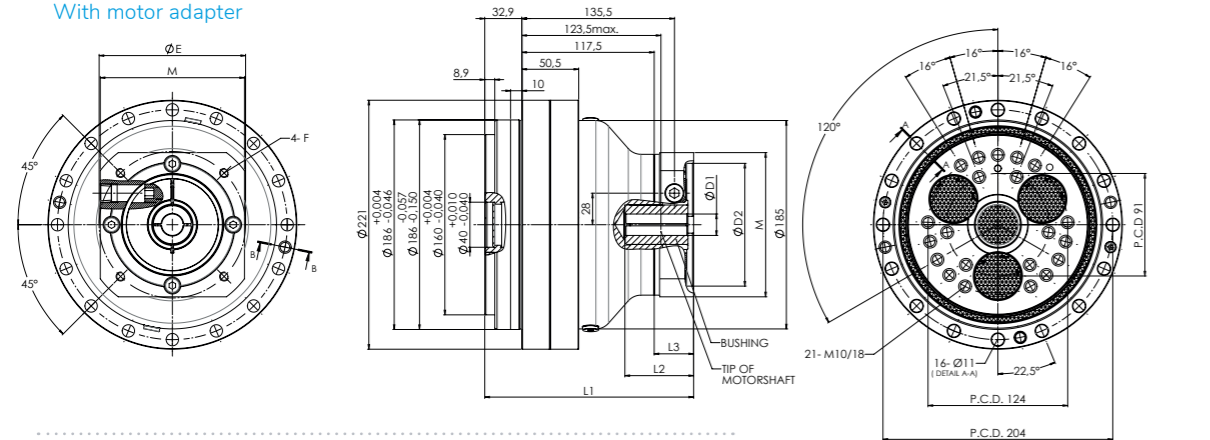


Without motor adapter

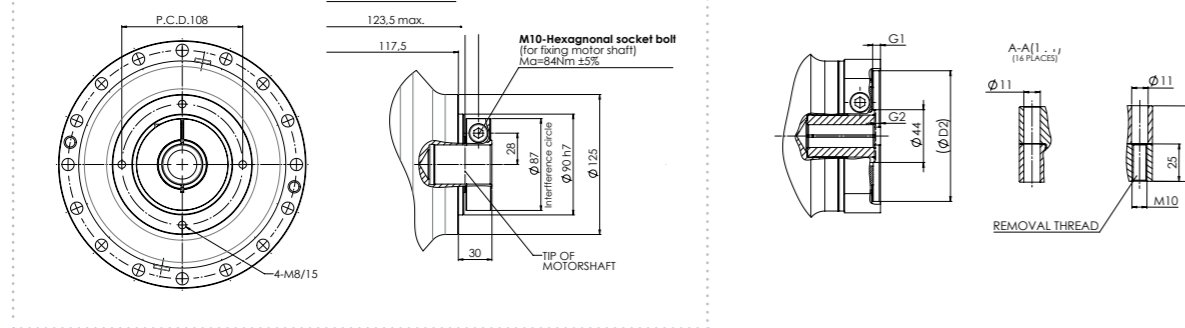


Technical drawing 125-B

With motor adapter



Without motor adapter



Series Neco®-125

Easy to size

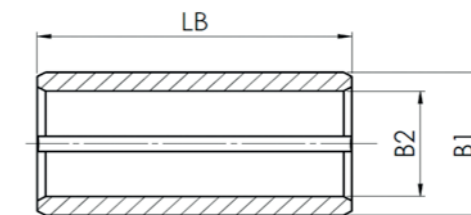
Configure your desired gearbox quickly and easily in just 3 steps:

1. Ratio

Ratio					
41	81	102.17	121	145.61	161

2. Bushing

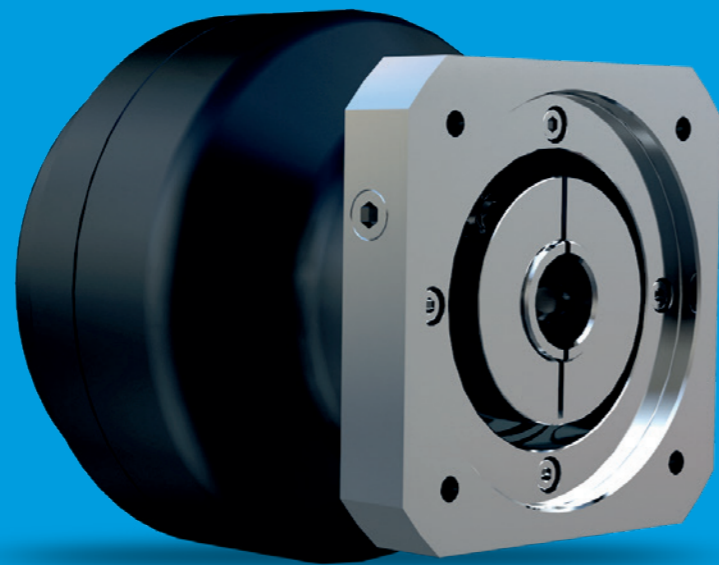
Code	B1 [mm]	B2 [mm]	LB [mm]
ZZZZ	35	without bushing	
F32A		32	56
F28A		28	
F25A		25	
F24A		24	
F22A		22	
F20A		20	
F19A		19	



3. Motor adapter

Code	D1 [mm]	D2 [mm]	G1 [mm]	G2 [mm]	E [mm]	F [mm]	L1 [mm]	L2 [mm]	L3 [mm]	M [mm]	Flange weight [kg]
ZZZZ	without motor adapter										
VGFA	19 ... 35	80F7	5	5	100	M6/12	187.4	30 ... 60	36	Ø 128	0.62
VGGA		95F7	11	25.5	145	M8/20	207.9	50 ... 80	56.5	□ 132	1.08
VGGB		95F7	9	5	115	M8/16	187.4	30 ... 60	36	Ø 137	0.72
VGHA		110F7	6.5	4	130	M8/16	186.4	30 ... 60	35	□ 128	0.77
VGHB		110F7	8	15.5	145	M8/16	197.9	197.9	46.5	□ 132	0.87
VGHC		110F7	6.5	9	130	M8/16	191.4	34 ... 65	40	□ 128	0.90
VGJA		114.3F7	21	25	200	M12/24	207.4	50 ... 80	56	□ 174	3.06
VGJB		114.3F7	6.5	9	160	M10/20	191.4	34 ... 65	40	□ 135	1.09
VGKA		130F7	5	4	165	M10/18	186.4	30 ... 60	35	□ 157	1.41

Series Neco[®]-160



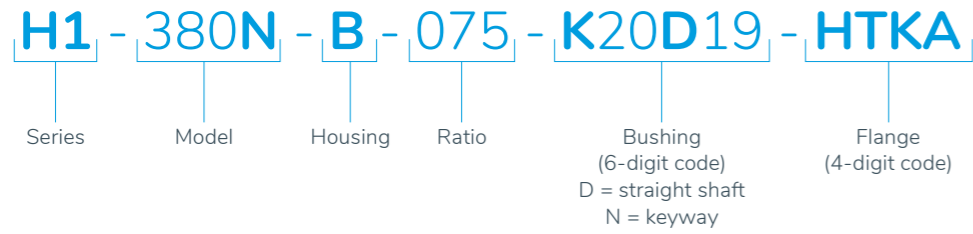
Series Neco[®]-160

Technical Data

Reference Product			*1	G1160N×35...					
Rated Output Torque	T_o	Nm	*2	1,600					
Rated Output Speed	N_o	min ⁻¹	*2	15					
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000					
Ratio	R		*3	41	81	102.81	125.21	156	201
Inertia	J_{ges}	kgm ²		1.07E-03	6.89E-04	6.25E-04	5.91E-04	5.63E-04	5.39E-04
Acc./Dec. Torque	T_{s1}	Nm		4,000					
Emergency-Stop-Torque	T_{s2}	Nm		8,000					
Allowable Output Speed [100 %]	N_{s0}	min ⁻¹	*4	19					
Allowable Output Speed [40 %]	N_{s1}	min ⁻¹	*4	48					
Hysteresis Loss		arc.min		<0.5					
Angular Transm. Error		arc.sec		<50					
Allowable Tilting Moment	M_{o1}	Nm	*5	4,000					
Allowable Static Tilting Moment	M_{o2}	Nm		8,000					
Moment Rigidity		Nm/ arc.min		2,050					
Torsional Rigidity		Nm/ arc.min		490					
Allowable Radial Load	W_r	N	*6	20,619					
Allowable Axial Load	W_a	N	*7	14,700					
Weight (Ref.-Value)	m_1	kg	*8	32.4					
Startup Efficiency (Ref.-Value)		%		80					
Ambient Temperature		°C		-10 ... +40					
Allowable Reducer Temp. (Case)		°C	*9	-10 ... +60					
Surface Protection			*10	Standard Nabtesco SS-A and black oxidized. Motor adaptation in aluminum (undefined corrosion protection class).					
IP Protection Class				IP65					
Lubricant			*11	Nabtesco RV-Grease					
Motor Interface				Motor Interface acc. Customer request					
Motor Adaption	d_m	mm	*12	Ø 19 ... 35 k6/j6/h6			straight shaft (w/o Key Way)		
Connection Type				Radial Clamping Ring					
Allowable Input Torque			*13	Depending on the selected reduction and/or motor shaft, a limitation may be necessary					

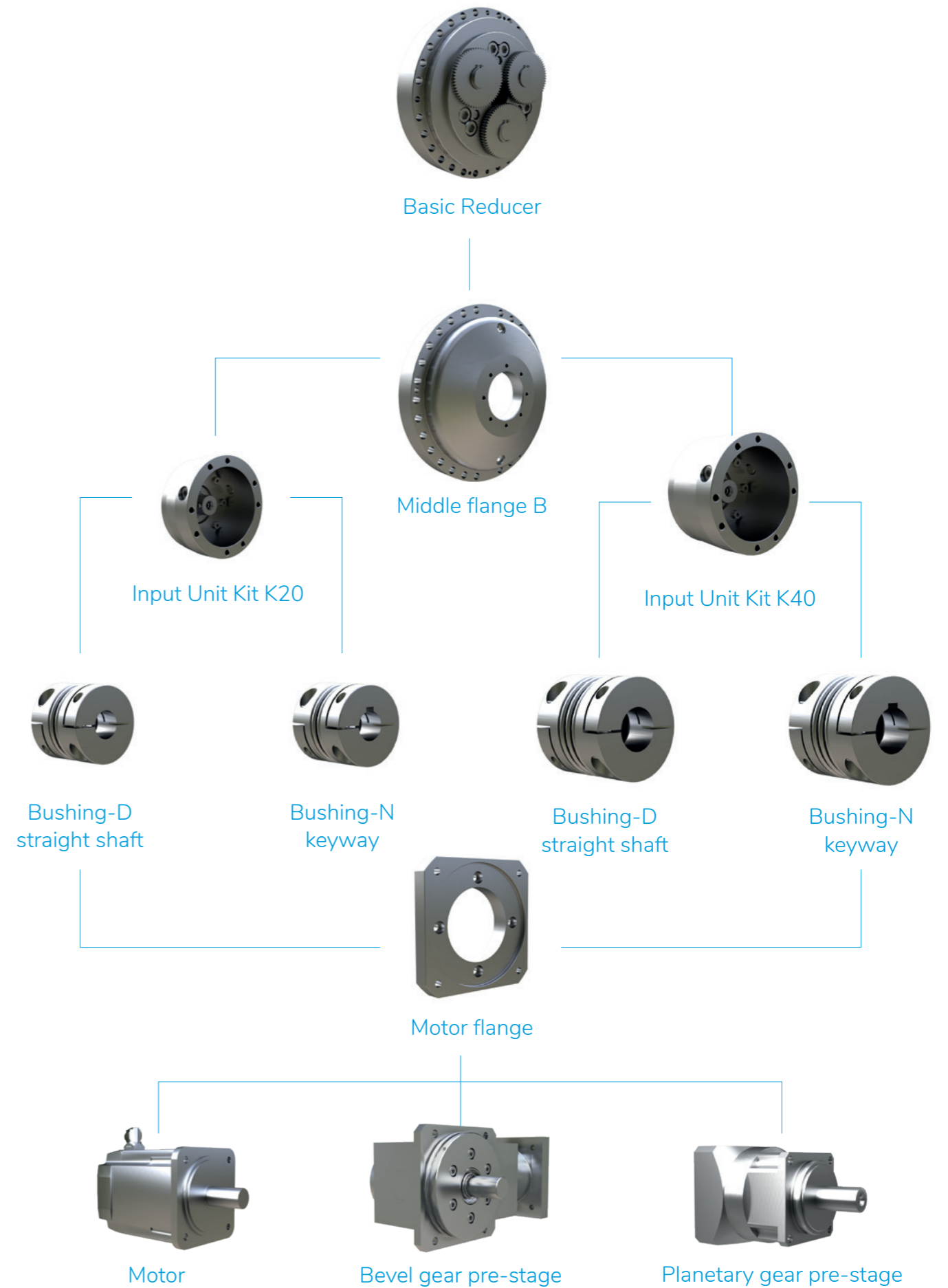
Neco®-HT line up at a glance

Example material short text:

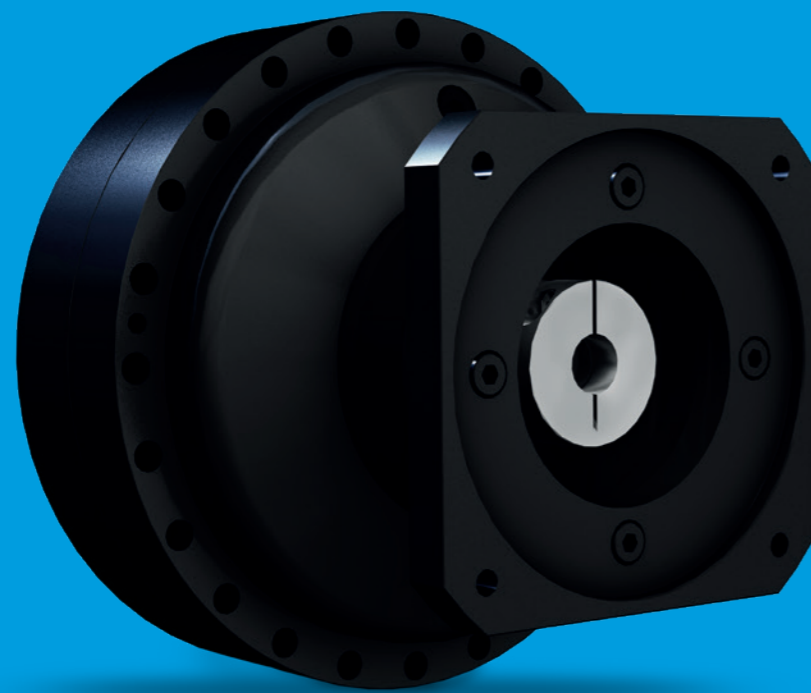


Series	Model	Housing	Ratio	Bushing (6-digit code)	Flange (4-digit Code)
Example: H1	-380N	-B	-075	-K20D19	-HTKA
NecoHT	380	B	75	See page 33	See page 33
			93		
	117				
	139				
500	B	162	See page 37	See page 37	
		185			
		217.85			
		261.66			
		81			
		105			
123					
159					
700	B	192.75	See page 41	See page 41	
		231.75			
		252.33			
		270.17			
		313			
		105			
118					
159					
183					
900	B	203.52	See page 45	See page 45	
		268.42			
			302		

Configure your gearbox



Series Neco[®]HT-380



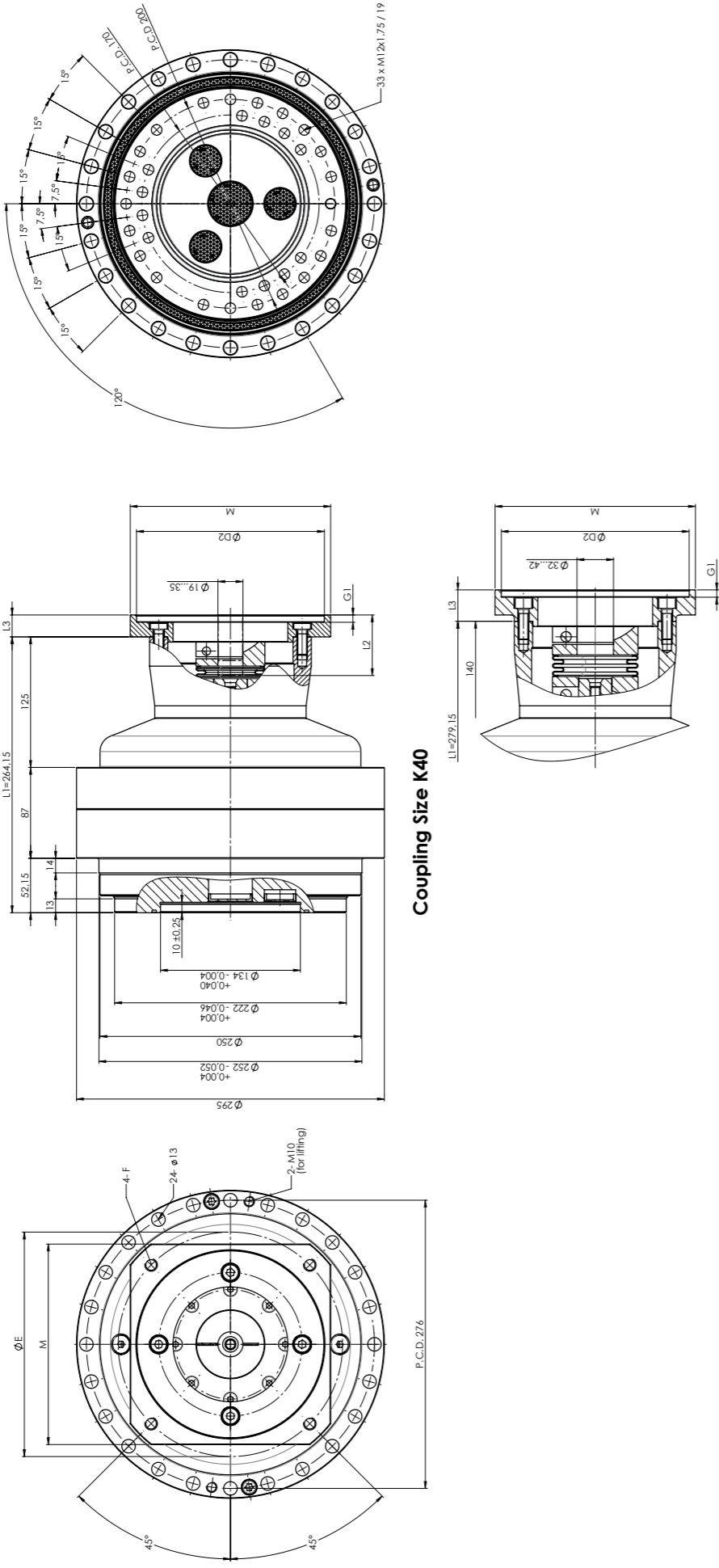
Series Neco[®]HT-380

Technical Data

Reference Product			*1	H1380NB							
Rated Output Torque	T_o	Nm	*2	3,724							
Rated Output Speed	N_o	min ⁻¹	*2	15							
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000							
Ratio	R		*3	75	93	117	139	162	185	217.85	261.66
Inertia	J_1	kgm ²	*4	9.28E-04	7.22E-04	6.38E-04	5.15E-04	4.53E-04	3.84E-04	3.34E-04	2.82E04
Acc./Dec. Torque	T_{s1}	Nm		9,310							
Emergency-Stop-Torque	T_{s2}	Nm		18,620							
Allowable Output Speed [100%]	N_{s0}	min ⁻¹	*5	11.5							
Allowable Output Speed [40%]	N_{s1}	min ⁻¹	*5	27							
Hysteresis Loss		arcmin		<0.5							
Angular Transmission Error		arcsec		<50							
Allowable Tilting Moment	M_o	Nm	*6	7,050							
Allowable Static Tilting Moment	M_{o1}	Nm		14,100							
Moment Rigidity		Nm/ arcmin		5,200							
Torsional Rigidity		Nm/ arcmin		948							
Allowable Radial Load	W_r	N	*7	28,325							
Allowable Axial Load	W_a	N	*8	25,000							
Weight (Ref.-Value)	m_1	kg	*9	84							
Startup Efficiency (Ref.-Value)		%		80							
Ambient Temperature		°C		-10 ... +40							
Allowable Reducer Temp. (Case)		°C	*10	-10 ... +60							
Surface Protection			*11	Standard-Nabtesco SS-A, black oxidized							
IP Protection Class				IP65							
Lubricant			*12	Nabtesco RV-Oil							
Motor Interface				Motor interface acc. customer request							
Motor Shaft Adaption	d_m	mm	*13	Coupl. K20 Ø19 ... 35 (k6/J6/h6)				Straight shaft (with/without keyway)			
Connection Type				Bellow coupling with radial clamping ring							
Allowable Input Torque			*14	Depending on the selected reduction and/or motor shaft a limitation of the motor torque may be necessary.							

Series Neco®HT-380

Technical drawing



Series Neco®HT-380

Easy to size

Configure your desired gearbox quickly and easily in just 3 steps:

1. Ratio

Ratio							
75	93	117	139	162	185	217.85	261.66

2. Coupling

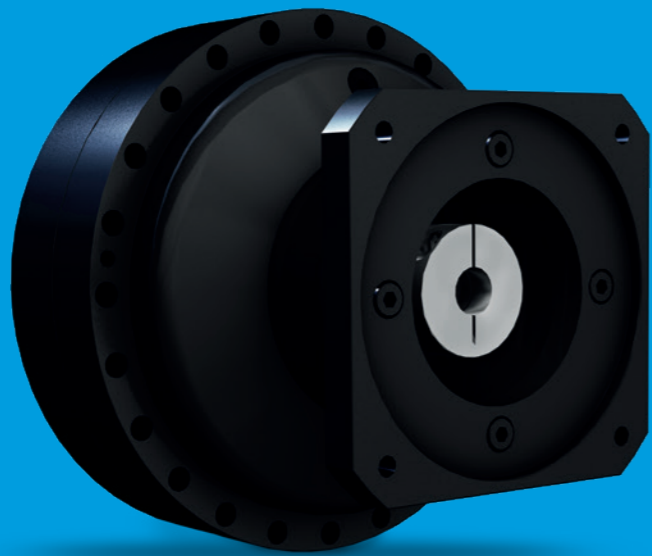
Code	$T_{ein,max}$ [Nm]	B_1 [mm]	Key	J_2 [kgm ²]	L_1 [mm]
K20D19	170	19	no	2.80E-04	264.15
K20N19			yes		
K20D22		22	no		
K20N22			yes		
K20D24		24	no		
K20N24			yes		
K20D25		25	no		
K20N25			yes		
K20D28		28	no		
K20N28			yes		
K20D32	32	no			
K20N32		yes			
K20D35	35	no			
K20N35		yes			
K40D32	340	32	no	8.20E-04	279.15
K40N32			yes		
K40D35		35	no		
K40N35			yes		
K40D38		38	no		
K40N38			yes		
K40D42		42	no		
K40N42			yes		

3. Motor adapter

Code	Kp.	d_m [mm]	D_2 [mm]	G_1 [mm]	E [mm]	F [mm]	L_3 [mm]	M [mm]	L_2 [mm]	m_2 [kg]
HTZZ	Without motor adapter									
HTGA	K20	19...35	95H7	10	200	M10	46	□ 180	69...83	5.4
	K40	32...42							71...96	
HTHA	K20	19...35	110H7	6	130	M8	17	∅ 160	40...54	1.4
	K40	32...42							42...67	
HTJA	K20	19...35	114.3H7	6	200	M12	30	□ 77	53...67	3.9
	K40	32...42							55...80	
HTKA	K20	19...35	130H7	6	165	M10	21	□ 160	44...58	2.1
	K40	32...42							46...71	
HTKB	K20	19...35	130H7	6	165	M10	62	□ 160	85...99	5.5
	K40	32...42							87...112	
HTLA	K20	19...35	155H7	6	190	M10	23	□ 163	46...60	2.5
	K40	32...42							48...73	
HTMA	K20	19...35	180H7	6	215	M12	21	□ 192	44...58	3.4
	K40	32...42							46...71	
HTMB	K20	19...35	180H7	6	215	M12	30	□ 192	53...67	4.5
	K40	32...42							55...80	

Gearbox total length: $L = L_1 + L_3$
 Gearbox total weight: $m = m_1 + m_2$
 Total inertia: $J_{tot} = J_1 \text{ gearbox} + J_2 \text{ coupling}$

Series Neco[®]HT-500



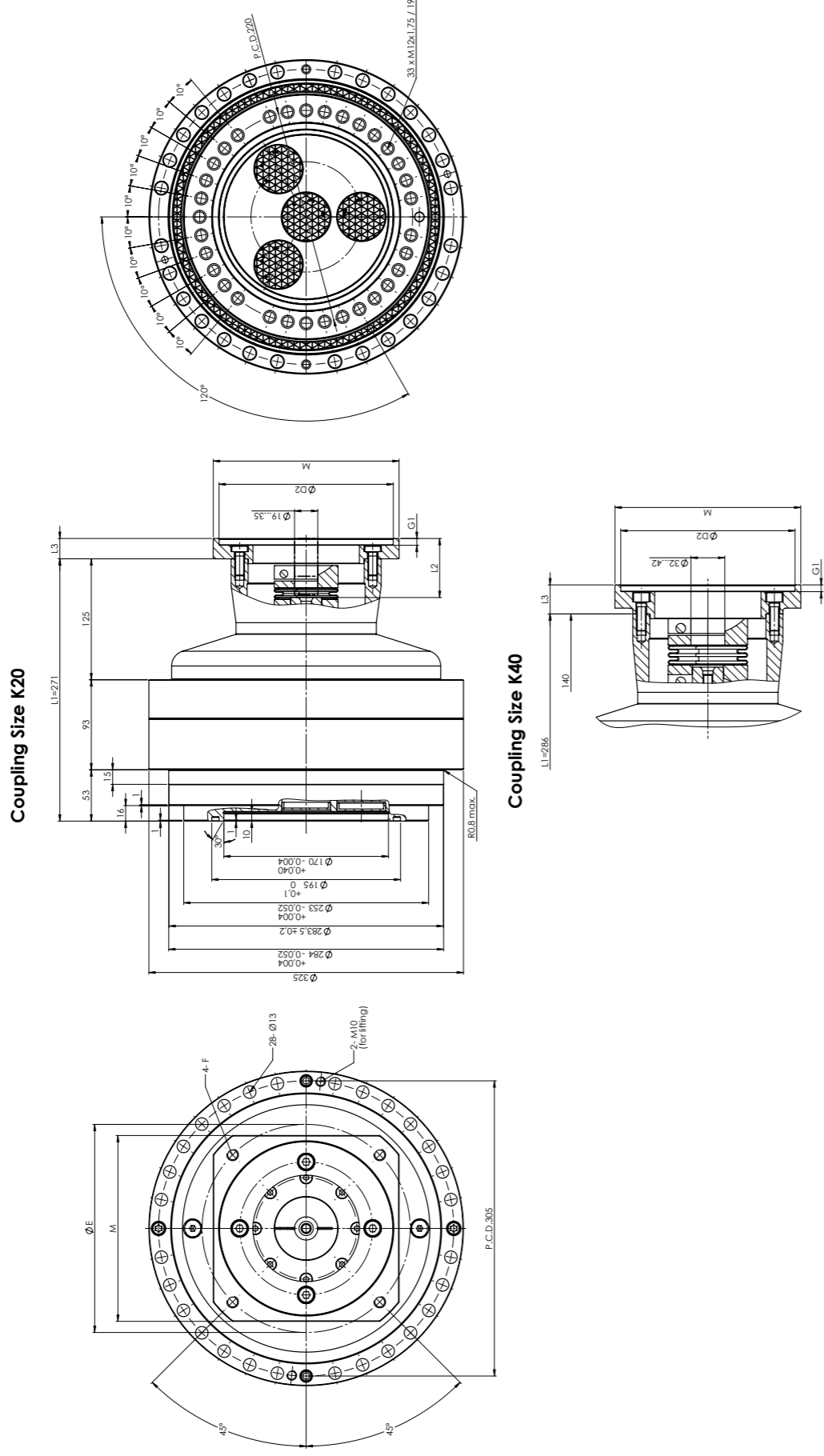
Series Neco[®]HT-500

Technical Data

Reference Product			*1	H1500NB								
Rated Output Torque	T_o	Nm	*2	4,900								
Rated Output Speed	N_o	min ⁻¹	*2	15								
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000								
Ratio	R		*3	81	105	123	159	192.75	231.75	252.33	270.17	313
Inertia	J_1	kgm ²	*4	1.61E-03	1.15E-03	9.17E-04	7.06E-04	5.46E-04	4.51E-04	4.15E-04	3.86E-04	3.31E-04
Acc./Dec. Torque	T_{s1}	Nm		12,250								
Emergency-Stop-Torque	T_{s2}	Nm		24,500								
Allowable Output Speed [100%]	N_{s0}	min ⁻¹	*5	11								
Allowable Output Speed [40%]	N_{s1}	min ⁻¹	*5	25								
Hysteresis Loss		arcmin		<0.5								
Angular Transmission Error		arcsec		<50								
Allowable Tilting Moment	M_o	Nm	*6	11,000								
Allowable Static Tilting Moment	M_{o1}	Nm		22,000								
Moment Rigidity		Nm/ arcmin		6,850								
Torsional Rigidity		Nm/ arcmin		1,620								
Allowable Radial Load	W_r	N	*7	40,486								
Allowable Axial Load	W_a	N	*8	32,000								
Weight (Ref.-Value)	m_1	kg	*9	106								
Startup Efficiency (Ref.-Value)		%		80								
Ambient Temperature		°C		-10 ... +40								
Allowable Reducer Temp. (Case)		°C	*10	-10 ... +60								
Surface Protection			*11	Standard-Nabtesco SS-A, black oxidized								
IP Protection Class				IP65								
Lubricant			*12	Nabtesco RV-Oil								
Motor Interface				Motor interface acc. customer request								
Motor Shaft Adaption	d_m	mm	*13	Coupl. K20 Ø19 ... 35 (k6/6/h6)			Straight shaft (with/without keyway)					
Connection Type				Bellow Coupling with radial clamping ring								
Allowable Input Torque			*14	Depending on the selected reduction and/or motor shaft a limitation of the motor torque may be necessary.								

Series Neco®HT-500

Technical drawing



Series Neco®HT-500

Easy to size

Configure your desired gearbox quickly and easily in just 3 steps:

1. Ratio

Ratio						
81	105	123	159	192.75	231.75	252.33
				270.17	313	

2. Coupling

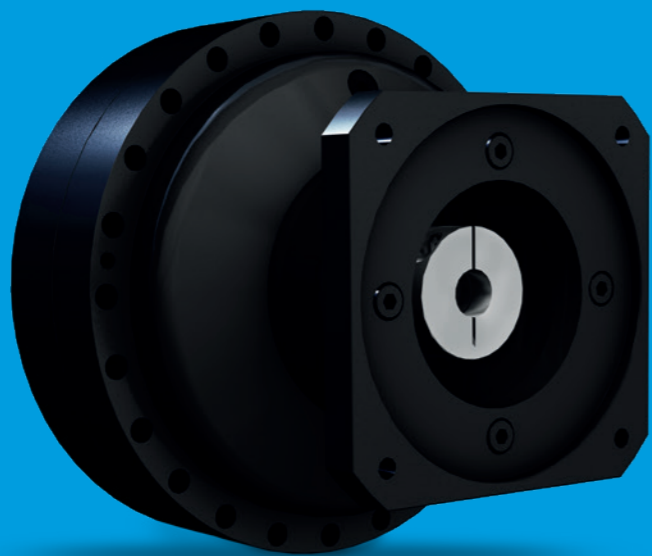
Code	$T_{ein,max}$ [Nm]	B_1 [mm]	Key	J_2 [kgm ²]	L_1 [mm]
K20D19	170	19	no	2.80E-04	271
K20N19			yes		
K20D22		22	no		
K20N22			yes		
K20D24		24	no		
K20N24			yes		
K20D25		25	no		
K20N25			yes		
K20D28		28	no		
K20N28			yes		
K20D32	32	no			
K20N32		yes			
K20D35	35	no			
K20N35		yes			
K40D32	340	32	no	8.20E-04	286
K40N32			yes		
K40D35		35	no		
K40N35			yes		
K40D38		38	no		
K40N38			yes		
K40D42		42	no		
K40N42			yes		

3. Motor adapter

Code	Kp.	d_m [mm]	D_2 [mm]	G_1 [mm]	E [mm]	F [mm]	L_3 [mm]	M [mm]	L_2 [mm]	m_2 [kg]
HTZZ										
Without motor adapter										
HTGA	K20	19...35	95H7	10	200	M10	46	□ 180	69...83	5.4
	K40	32...42							71...96	
HTHA	K20	19...35	110H7	6	130	M8	17	∅ 160	40...54	1.4
	K40	32...42							42...67	
HTJA	K20	19...35	114.3H7	6	200	M12	30	□ 77	53...67	3.9
	K40	32...42							55...80	
HTKA	K20	19...35	130H7	6	165	M10	21	□ 160	44...58	2.1
	K40	32...42							46...71	
HTKB	K20	19...35	130H7	6	165	M10	62	□ 160	85...99	5.5
	K40	32...42							87...112	
HTLA	K20	19...35	155H7	6	190	M10	23	□ 163	46...60	2.5
	K40	32...42							48...73	
HTMA	K20	19...35	180H7	6	215	M12	21	□ 192	44...58	3.4
	K40	32...42							46...71	
HTMB	K20	19...35	180H7	6	215	M12	30	□ 192	53...67	4.5
	K40	32...42							55...80	

Gearbox total length : $L = L_1 + L_3$
 Gearbox total weight: $m = m_1 + m_2$
 Total inertia: $J_{tot} = J_1 \text{ gearbox} + J_2 \text{ coupling}$

Series Neco[®]HT-700

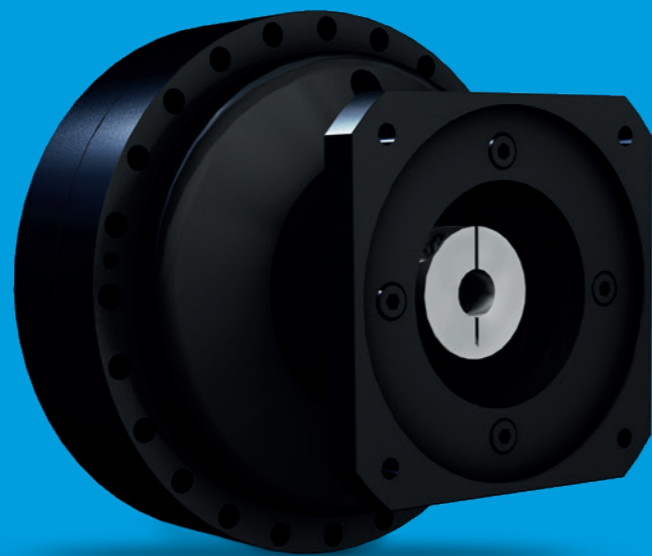


Series Neco[®]HT-700

Technical Data

Reference Product			*1	H1700NB						
Rated Output Torque	T_0	Nm	*2	7,000						
Rated Output Speed	N_0	min ⁻¹	*2	15						
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000						
Ratio	R		*3	105	118	159	183	203.52	268.42	302
Inertia	J_1	kgm ²	*4	1.92E-03	1.54E-03	1.09E-03	9.93E-04	8.88E-04	6.22E-04	5.79E-04
Acc./Dec. Torque	T_{S1}	Nm		17,500						
Emergency-Stop-Torque	T_{S2}	Nm		35,000						
Allowable Output Speed [100%]	N_{S0}	min ⁻¹	*5	7.5						
Allowable Output Speed [40%]	N_{S1}	min ⁻¹	*5	19						
Hysteresis Loss		arcmin		<0.5						
Angular Transmission Error		arcsec		<50						
Allowable Tilting Moment	M_0	Nm	*6	15,000						
Allowable Static Tilting Moment	M_{01}	Nm		30,000						
Moment Rigidity		Nm/ arcmin		9,000						
Torsional Rigidity		Nm/ arcmin		2,600						
Allowable Radial Load	W_r	N	*7	46,368						
Allowable Axial Load	W_a	N	*8	44,000						
Weight (Ref.-Value)	m_1	kg	*9	165						
Startup Efficiency (Ref.-Value)		%		80						
Ambient Temperature		°C		-10 ... +40						
Allowable Reducer Temp. (Case)		°C	*10	-10 ... +60						
Surface Protection			*11	Standard-Nabtesco SS-A, black oxidized						
IP Protection Class				IP65						
Lubricant			*12	Nabtesco RV-Oil						
Motor Interface				Motor interface acc. customer request						
Motor Shaft Adaption	d_m	mm	*13	Coupl. K20 Ø19 ... 35 (k6/6/h6)			Straight shaft (with/without keyway)			
Connection Type				Bellow coupling with radial clamping ring						
Allowable Input Torque			*14	Depending on the selected reduction and/or motor shaft a limitation of the motor torque may be necessary.						

Series Neco®HT-900



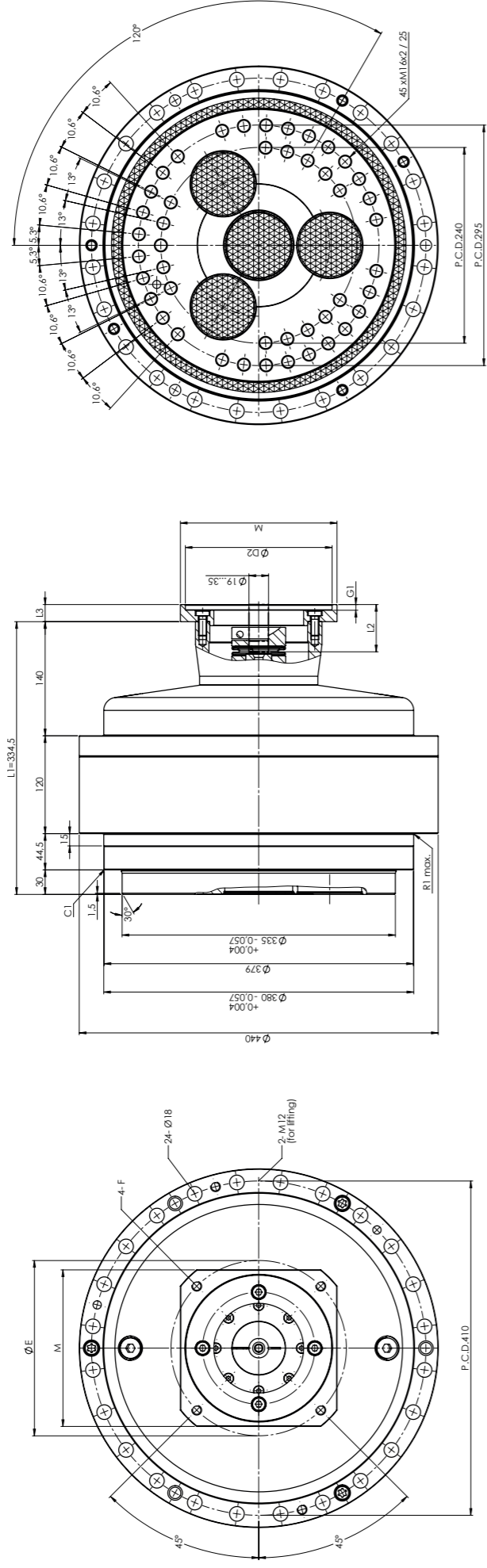
Series Neco®HT-900

Technical Data

Reference Product			*1	H1900NB...	
Rated Output Torque	T_o	Nm	*2	9,000	
Rated Output Speed	N_o	min ⁻¹	*2	15	
Service Lifetime (Ref.-Value)	K	hrs	*2	6,000	
Ratio	R		*3	137.5	248
Inertia	J_1	kgm ²	*4	2.34E-03	1.09E-03
Acc./Dec. Torque	T_{s1}	Nm		22,500	
Emergency-Stop-Torque	T_{s2}	Nm		45,000	
Allowable Output Speed [100%]	N_{s0}	min ⁻¹	*5	11	
Allowable Output Speed [40%]	N_{s1}	min ⁻¹	*5	23	
Hysteresis Loss		arcmin		<0.5	
Angular Transmission Error		arcsec		<50	
Allowable Tilting Moment	M_o	Nm	*6	12,740	
Allowable Static Tilting Moment	M_{o1}	Nm		25,480	
Moment Rigidity		Nm/ arcmin		11,790	
Torsional Rigidity		Nm/ arcmin		3,685	
Allowable Radial Load	W_r	N	*7	35,350	
Allowable Axial Load	W_a	N	*8	39,200	
Weight (Ref.-Value)	m_1	kg	*9	203	
Startup Efficiency (Ref.-Value)		%		80	
Ambient Temperature		°C		-10 ... +40	
Allowable Reducer Temp. (Case)		°C	*10	-10 ... +60	
Surface Protection			*11	Standard-Nabtesco SS-A, black oxidized	
IP Protection Class				IP65	
Lubricant			*12	Nabtesco RV-Oil	
Motor Interface				Motor interface acc. customer request	
Motor Shaft Adaption	d_m	mm	*13	Coupl. K20 Ø19 ... 35 (k6/6/h6) Coupl. K40 Ø32 ... 42 (k6/6/h6)	Straight shaft (with/without keyway)
Connection Type				Bellow coupling with radial clamping ring	
Allowable Input Torque			*14	Depending on the selected reduction and/or motor shaft a limitation of the motor torque may be necessary.	

Series Neco®HT-900

Technical drawing



Series Neco®HT-900

Easy to size

Configure your desired gearbox quickly and easily in just 3 steps:

1. Ratio

Ratio	
137.5	248

2. Coupling

Code	$T_{\text{ein,max}}$ [Nm]	B_1 [mm]	Key	J_2 [kgm ²]	L_1 [mm]
K20D19	170	19	no	2.80E-04	334.5
K20N19			yes		
K20D22		22	no		
K20N22			yes		
K20D24		24	no		
K20N24			yes		
K20D25		25	no		
K20N25			yes		
K20D28		28	no		
K20N28			yes		
K20D32	32	no			
K20N32		yes			
K20D35	35	no			
K20N35		yes			
K40D32	340	32	no	8.20E-04	349.5
K40N32			yes		
K40D35		35	no		
K40N35			yes		
K40D38		38	no		
K40N38			yes		
K40D42		42	no		
K40N42			yes		

3. Motor adapter

Code	Kp.	d_m [mm]	D_2 [mm]	G_1 [mm]	E [mm]	F [mm]	L_3 [mm]	M [mm]	L_2 [mm]	m_2 [kg]
HTZZ	Without motor adapter									
HTGA	K20	19...35	95H7	10	200	M10	46	□ 180	69...83	5.4
	K40	32...42							71...96	
HTHA	K20	19...35	110H7	6	130	M8	17	∅ 160	40...54	1.4
	K40	32...42							42...67	
HTJA	K20	19...35	114.3H7	6	200	M12	30	□ 77	53...67	3.9
	K40	32...42							55...80	
HTKA	K20	19...35	130H7	6	165	M10	21	□ 160	44...58	2.1
	K40	32...42							46...71	
HTKB	K20	19...35	130H7	6	165	M10	62	□ 160	85...99	5.5
	K40	32...42							87...112	
HTLA	K20	19...35	155H7	6	190	M10	23	□ 163	46...60	2.5
	K40	32...42							48...73	
HTMA	K20	19...35	180H7	6	215	M12	21	□ 192	44...58	3.4
	K40	32...42							46...71	
HTMB	K20	19...35	180H7	6	215	M12	30	□ 192	53...67	4.5
	K40	32...42							55...80	

Gearbox total length: $L = L_1 + L_3$
 Gearbox total weight: $m = m_1 + m_2$
 Total inertia: $J_{\text{tot}} = J_1 \text{ gearbox} + J_2 \text{ coupling}$

Notes

Neco	NecoHT	
*1	*1	All technical data given below refer to products with the specified article code. Additional variants and information on demand
*2	*2	The rated torque, rated speed and service lifetime (Ref.-Value) as well as the application average torque and speed values are considered to calculate the application lifetime.
*3	*3	Additional ratios on demand
	*4	J_1 is the inertia of the gearbox without coupling, J_2 is the inertia of the coupling. The total inertia is $J_{tot} = J_1 + J_2$
*4	*5	The allowable output speed will differ depending upon the duty ratio, load, and ambient temperature. Contact us if the usage will be above the allowable output speed N_{s1} with a 40 % duty ratio.
*5	*6	The allowable tilting moment decreases in case of higher axial load.
*6	*7	If the radial load is applied within main bearings span (inclined ball bearing in O-installation) use reduction gear within the allowable radial load.
*7	*8	The allowable axial load decreases in case of higher tilting moment.
*8	*9	The total weight of the gearbox is calculated by the weight of the gearbox m_1 and the weight of the motor adapter flange m_2 . The total weight is $m = m_1 + m_2$
*9	*10	Temperature measured on the surface of reducer case
*10	*11	Undefined corrosion protection class. Please contact your sales partner for more detailed information.
*11	*12	Other lubricants on request. 90 % filling (depending on the installation position and application, the optimal amount of lubricant may differ.
*12		Adjustment of the motor shaft diameter via bushing. Permitted diameter tolerances must be observed A check of the motor interface by your sales partner is strongly recommended.
	*13	The standard bellow coupling will be adjusted on the customer requested motor shaft diameter. A check of the motor interface by your sales partner is strongly recommended.
*13	*14	The max. permissible input torque results from the load limits of the gearbox specification. Due to the design and configuration, there may be an additional limitation of the input torque. Please contact your sales partner for further information.

Do you have any questions or need advice?

Please contact us.

Our team of experts will be glad to help you.

Nabtesco Precision Europe GmbH

Tiefenbroicher Weg 15

40472 Düsseldorf

Fon: +49 211 17379-0

E-Mail: info@nabtesco.de

www.nabtesco.de

Origin of Photo Material:

Nabtesco Precision Europe GmbH, Köhler + Partner GmbH