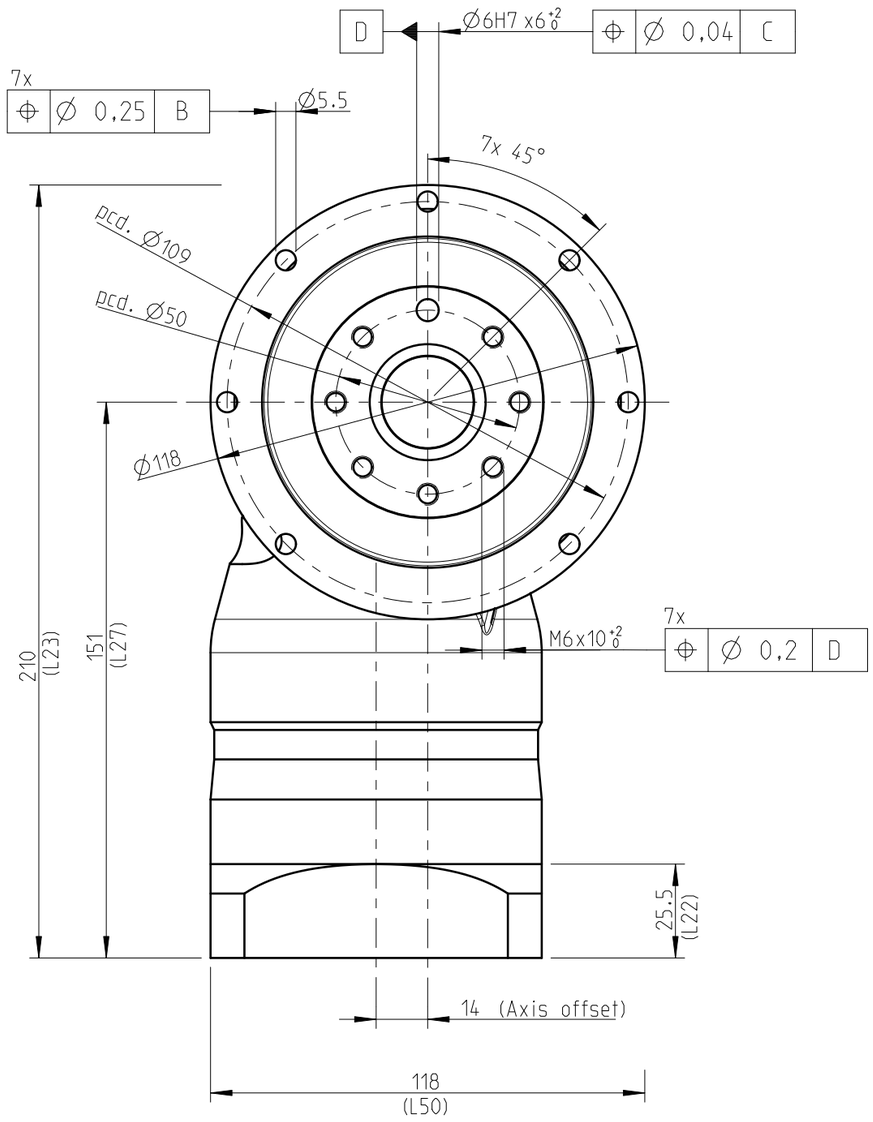

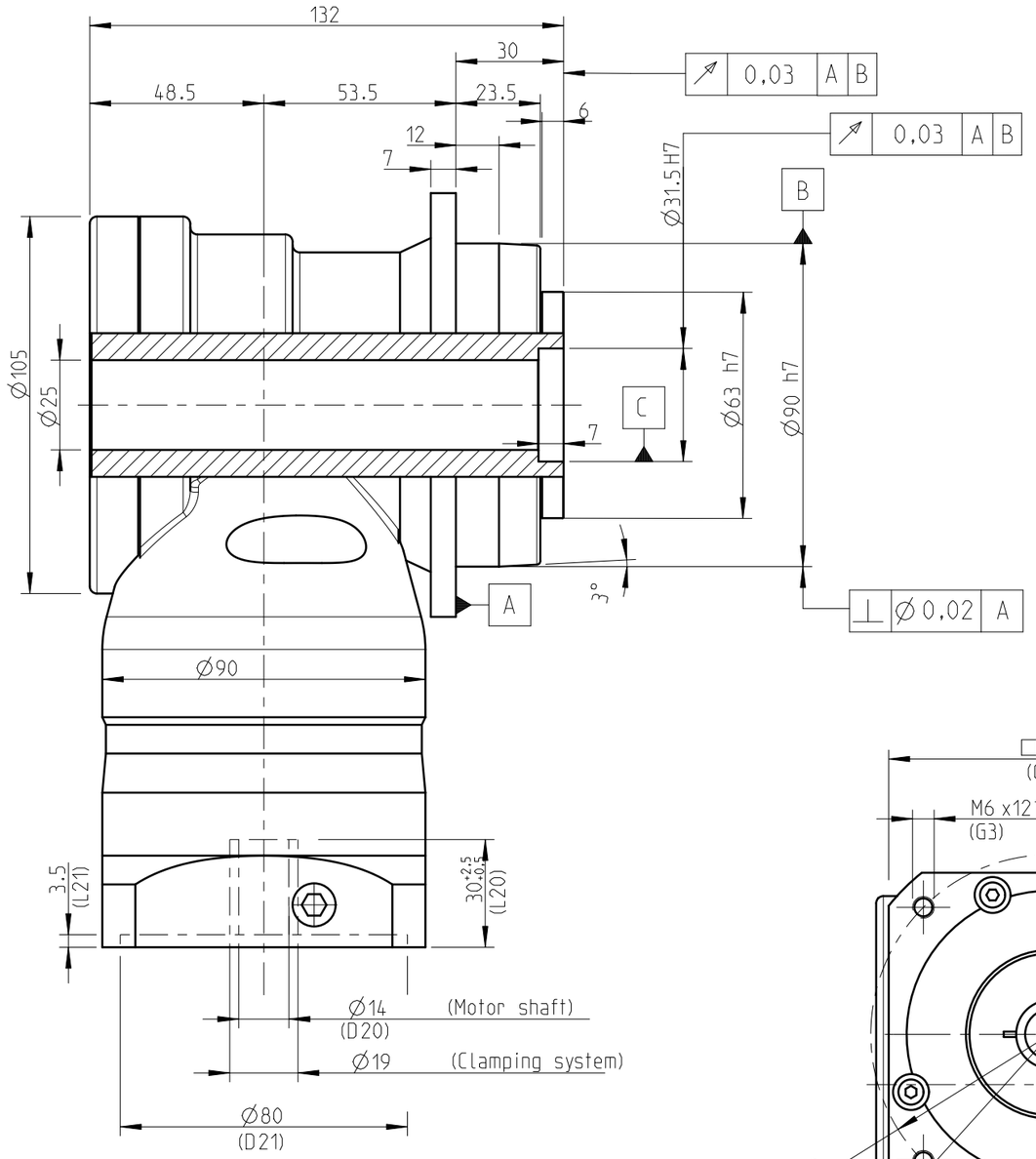

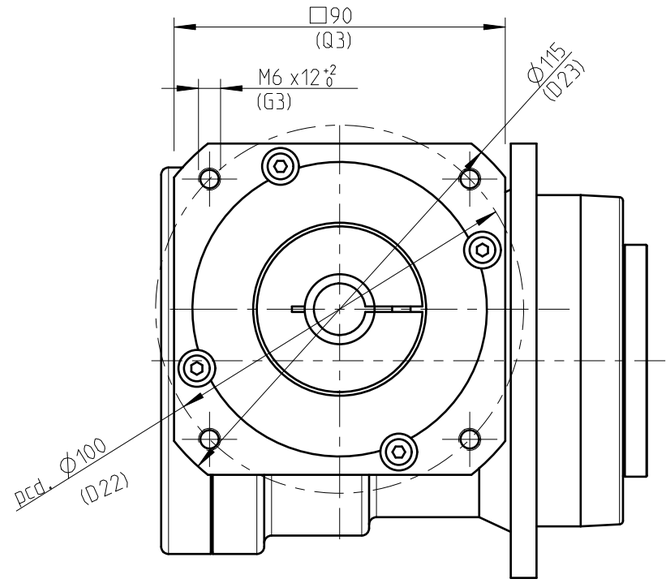

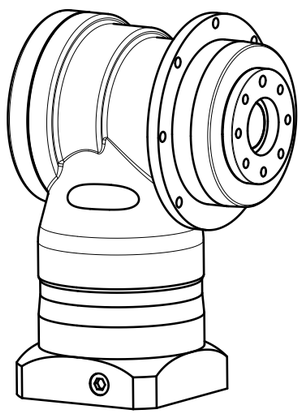

Flange output hollow shaft with dowel hole (ISO 9409-1)

Materials / Surfaces:

Input flange: Aluminum / untreated
Angle housing: Aluminum / anodized (black)
Output flange: Steel / untreated

Hints:

Please pay attention to the operating and mounting instructions.
Subject to modifications.

Variables on the drawing are dependent upon the motor.
The given dimensions are exemplary.

NEUGART	Scale: 3:5	DIN A3	ISO
	Revision status: F from: 09/2022		
	Changed revision status: E from: 07/2021		
General tolerance DIN ISO 2768-cL	WPSFN090-aii-SSSH3AE-Z(D20) /(L20)/(D21)/(D22)/B5/(G3)		
Neugart GmbH Keltenstr. 16 D-77971 Kippenheim			Sheet 1/2

General gearbox data	Character	Unit	
Bevel gearbox - gearing type	-	-	Hypoid teeth
Rotation direction	-	-	Input and output in opposite directions
Number of stages	p	-	1-stage
Output shaft bearing	-	-	Inclined roller bearings
Service life (L10h)	t_L	h	20.000
Max. operating temperature	T_{min} / T_{max}	°C	-25 / +90
Protection class	-	-	IP 65
Lubrication (lifetime lubrication)	-	-	Standard lubrication (Castrol Optigear Synthetic 800)
Installation position	-	-	Any
Max. bending moment based on the gearbox input flange (for motor weight) (1)	M_b	Nm	25,5
Motor shaft concentricity / Coaxiality and axial runout Motor flange	-	-	0,015 / 0,03 (Measuring methods according to DIN EN 50347)
Required motor shaft tolerance	-	-	j6; k6
Min. permissible motor shaft length	L_{20min}	mm	18
Reference operating mode	-	-	S1
Reference operating factor	K_A	-	1
Reference speed	n_2	rpm	100
Reference ambient temperature	T_{Amb}	°C	20
Radial force for output bearing based on shaft end after L10h=20.000h with Fa=0N	$F_{r\ 20.000h}$	N	4400
Axial force for output bearing based on gearbox axis after L10h=20.000h with Fr=0N	$F_{a\ 20.000h}$	N	7200
Radial force for output bearing based on shaft end after L10h=30.000h with Fa=0N	$F_{r\ 30.000h}$	N	3900
Axial force for output bearing based on gearbox axis after L10h=30.000h with Fr=0N	$F_{a\ 30.000h}$	N	6300
Maximum radial force based on shaft end and T2=0Nm	$F_{r\ Max}$	N	4400
Maximum axial force based on gearbox axis and T2=0Nm	$F_{a\ Max}$	N	7200

(1) Max. motor weight* in kg = $\frac{0{,}2 \times M_b}{\text{motor length in m}}$

* with symmetrically distributed motor weight
* with horizontal and stationary mounting

Ratio-dependent gearbox data	Character	Unit					
Ratio	aii	-	4	5	7	8	10
Nominal output torque	T_{2N}	Nm	90	75	51	50	40
Max. output torque for 30,000 output shaft rotations	T_{2max}	Nm	144	120	82	80	64
Emergency stop torque permitted 1000 times	T_{2Stop}	Nm	200	200	150	150	150
Average idle torque for n1=3,000 rpm and 20 °C gearbox temperature	T_0	Nm	2,6	2,35	2,1	2	1,9
Average thermal input speed at 50% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 50\%}$	rpm	1650	1900	2350	2400	2550
Average thermal input speed at 100% T2N, S1, and T_Amb Operating temperature may not be exceeded!	$n_{1N\ 100\%}$	rpm	1350	1650	2100	2150	2400
Max. mechanical input speed Operating temperature may not be exceeded!	$n_{1\ Limit}$	rpm	14000	14000	14000	14000	14000
Torsional backlash based on output shaft	j_t	arcmin	< 5	< 5	< 5	< 5	< 5
Torsional stiffness based on output shaft	c_g	Nm/arcmin	5,5	5,2	4,8	4,5	4
Efficiency at T2N, gearbox temperature 70 °C and n1=1.000rpm	η	%	94	93	89	88	83
Running noise at n1=3.000 rpm without load at a distance of 1m	Q_g	dB(A)	67	67	67	67	67
Gearbox weight	m_G	kg	6,6	6,8	7	7	7
Mass moment of inertia based on clamping system diameter input	J	kgcm²	1,591	1,351	1,153	1,103	1,046

Subject to modifications.

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WPSFN090-aii-SSSH3AE-Z(D20)/(L20)/(D21)/(D22)/B5/(G3)

Revision status: F from: 09/2022