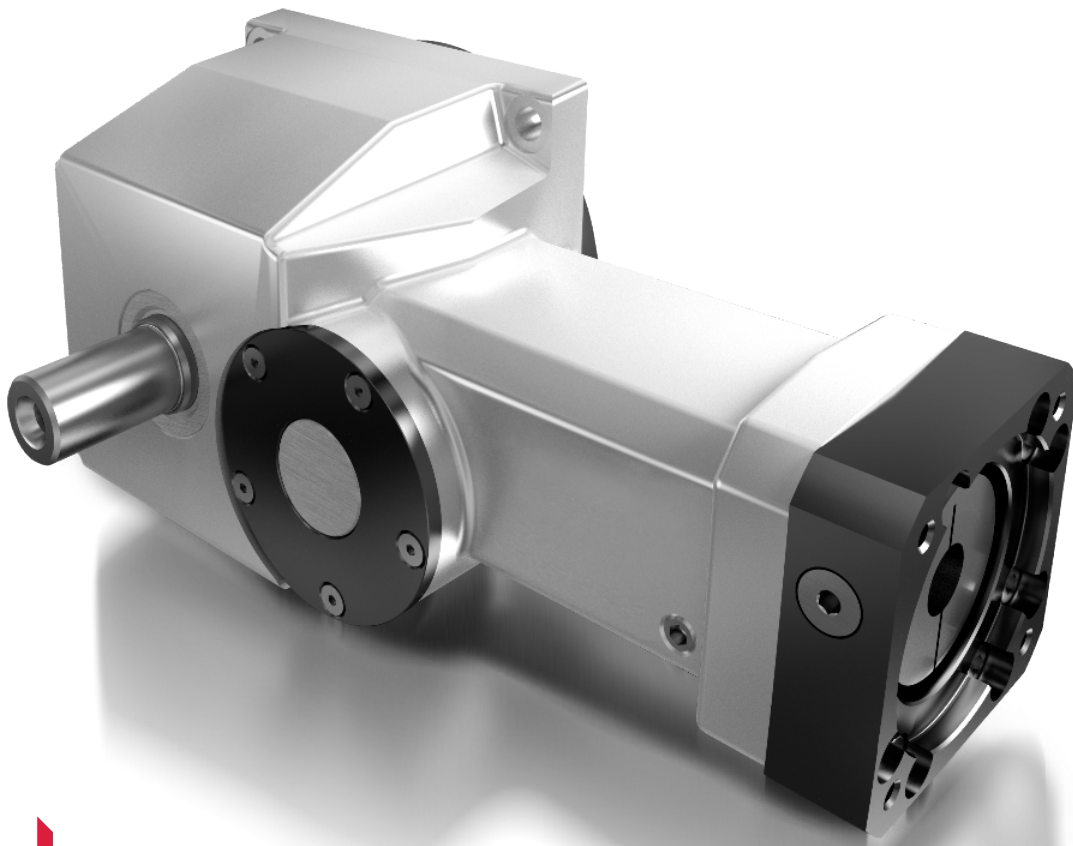


Servo Hypoid Spur Gearbox SHT - Series

Ratios from $i=20$ up to $i=90$
with high efficiency



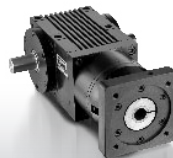
Cycloid gearboxes



Planetary gearboxes



Bevel gearboxes



Planetary bevel gearboxes



Hypoid gearboxes

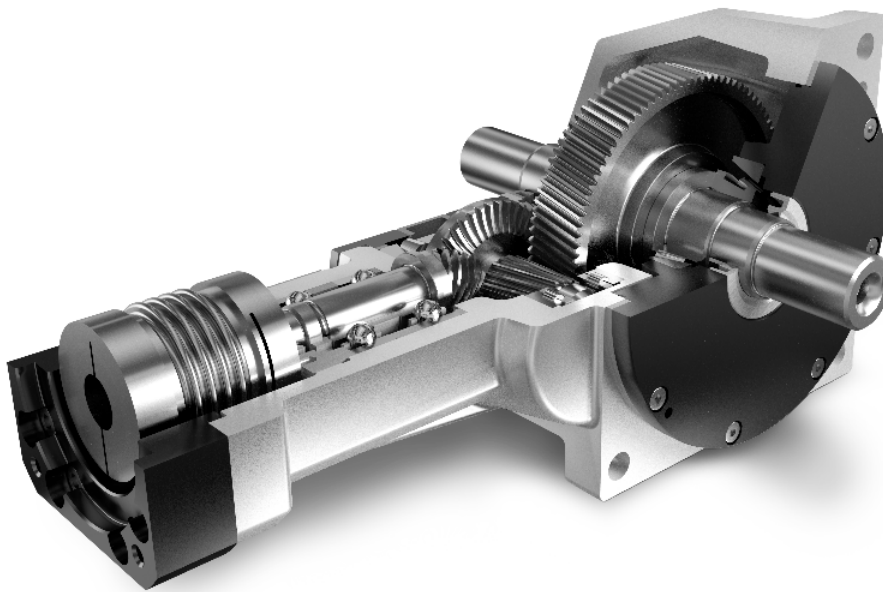


Gear technology

EPPINGER Hypoid – Spur Gearbox

The two-stage SHT-hypoid spur gearbox is characterized by its compact design as well as its high power density. The hypoid bevel gears are designed for high load capacity and very smooth operation. In combination with a variable spur gear stage high overall gear ratios are achievable with - compared to worm gearboxes - outstanding efficiency ratios. Very low torsional backlash at the output shaft is realized by fine classification of the spur

gear stage. Due to the use of case hardened steel in both gear stages the torsional backlash values will remain constant during the lifetime. All common servo motors can be easily installed with a flexible motor flange and a coupling system. Centering flange on the output side and mounting holes in the housing edges ensure a simple and stable installation of the gearbox.



FEATURES AND BENEFITS OF THE SHT HYPOID – SPUR GEARBOX SERIES

- High efficiency of up to 96%
- Two-stage gearbox with high ratios up to 90:1
- Designed for dynamic servo drive solutions
- Constant backlash over the lifetime
- Mirror inverted installation possible
- Low weight
- Compact and robust design through one-piece casted aluminium housing
- Motor connection with flexible motor flange and coupling system
- Solid and hollow shaft version
- Lifetime lubrication
- Low torsional backlash ≤ 1 arcmin (optional)

Our product range includes **bevel-, hypoid-, planetary-, cycloid-, special customized gearboxes and high precision gear technology**. The **compact mono-bloc design** makes our solutions **unique**.

Performance data

	Abbreviation	Unit	SHT100				SHT120				SHT150
Ratio	i		20 : 1	30 : 1 45 : 1	60 : 1	90 : 1	20 : 1	30 : 1 45 : 1	60 : 1	90 : 1	in process
Nominal output torque	T2N	Nm	90	80	70	69	155	137	129	108	
Max. acceleration torque ¹	T2B	Nm	135	120	105	104	233	206	194	162	
Emergency off torque ²	T2Not	Nm	180	160	140	138	310	274	258	216	
Nominal speed	n1N	rpm	3400	3600	4000	4000	3400	3600	4000	4000	
Max. speed	n1max	rpm	8000				8000				
Backlash - Standard ³		arcmin	< 6				< 6				
Backlash - Minimized ³		arcmin	≤ 1				≤ 1				
Radial force ⁴	FR2max	N	3.500				5.000				
Axial force	FA2max	N	1.700				2.500				
Efficiency at nominal load	η	%	90 - 96								
Operating noise	Lpa	db(A)	< 66				< 68				
Service life	Lh	h	> 20.000								
Lubrication			Synthetic oil, ISO VG 150								
Weight ⁵	m	kg	3,7				6				

¹ max. 1000 cycles per hour

² max. 1000 permissible short overload peaks during service life of gear box

³ measured at the output shaft

⁴ measured at the tapered shaft centre

⁵ with motor flange, coupling and shaft S13

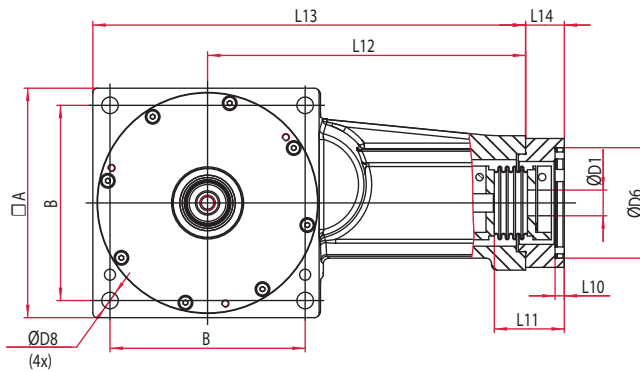
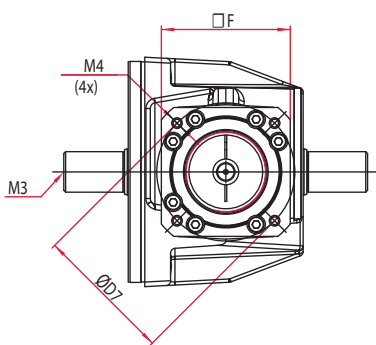
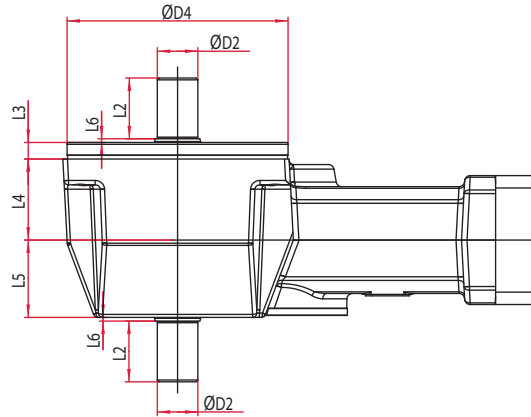
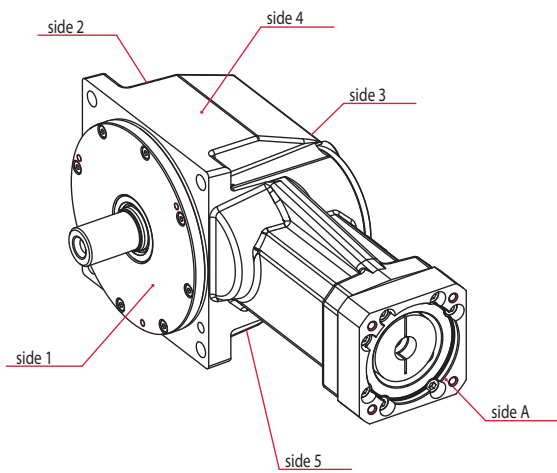
⁶ measured at the input shaft

Motor connection through motor flange system

	SHT100			SHT120			SHT150
□F ¹	65 - 90			70 - 115			in process
Ø D1 ¹	9	11	14	9	11	14	
Ø D6	motor-specific			motor-specific			
Ø D7	motor-specific			motor-specific			
L10	motor-specific			motor-specific			
L11	25	30	35	25	30	35	
L14 ²	motor-specific			motor-specific			
M4	motor-specific			motor-specific			

¹ other dimensions on request

² exact dimensions on gearbox datasheet



Dimensions (in mm)

	SHT100	SHT120	SHT150
□A	103	124	
B	85	106	
Ø D2	18 k6	22 k6	
Ø D4	98 g7	120 g7	
Ø D8	6,6	9	
L2	27	33	
L3	8	9	
L4	34	44	
L5	38	42	
L6	2	2	
L12	148	173	
L13	200	235	
M3*	M6	M8	in process

* Centering bore in the shaft end acc. to form DS, DIN 332



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PRECISION GEAR SOLUTIONS