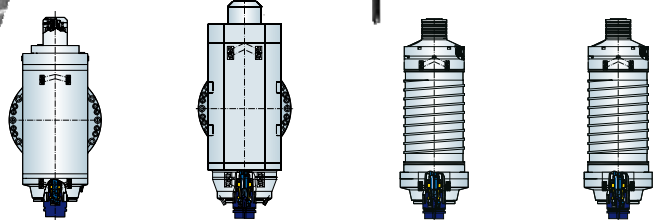


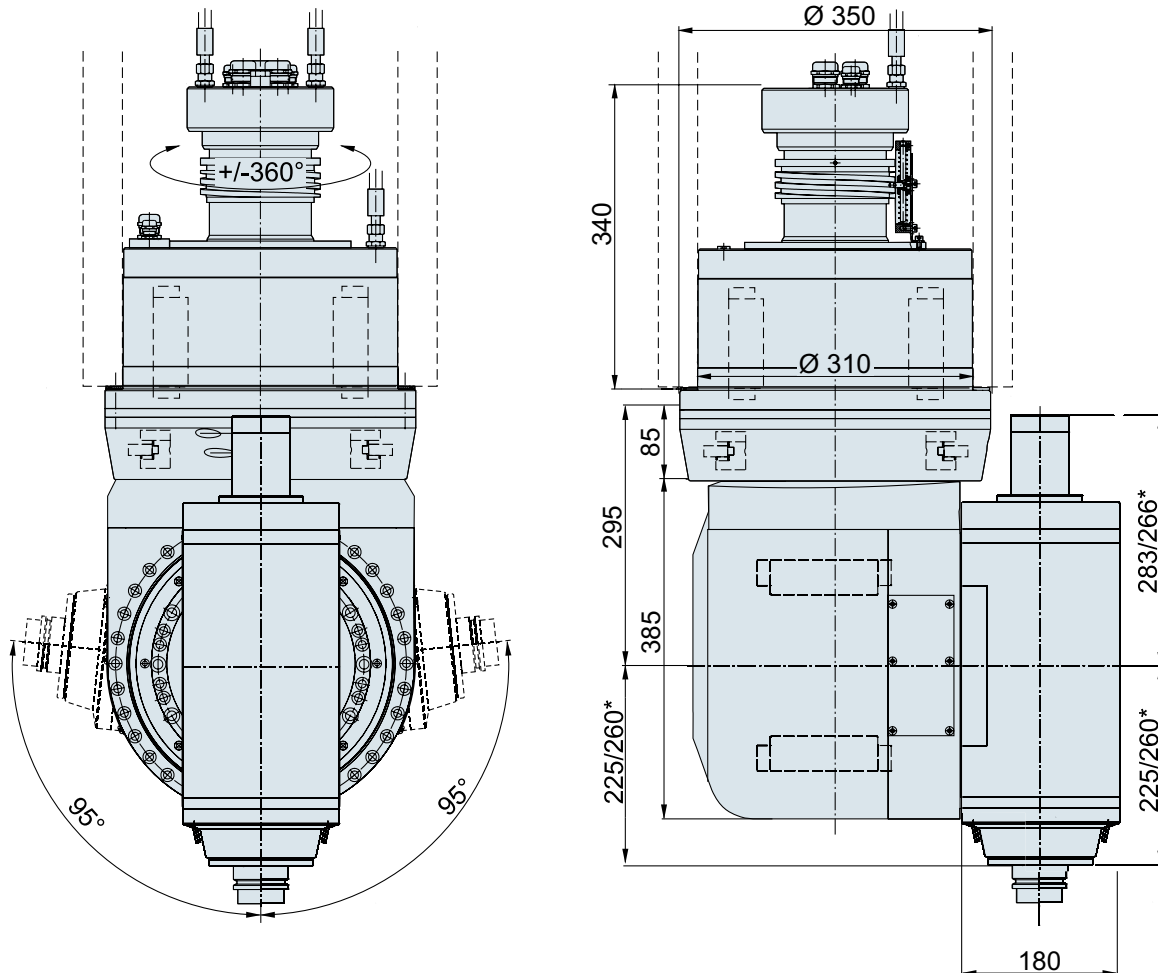
The milling units of the light series P12 are available in the following combinations:

- Orthogonal head (C-Axis vertical with A-Axis)
- Universal head 45° (C-Axis vertical with A-Axis)
- Swivel axes (A-Axis horizontal with flanged motor spindle)

Spindles with power values of 15 up to 34 kW are used.



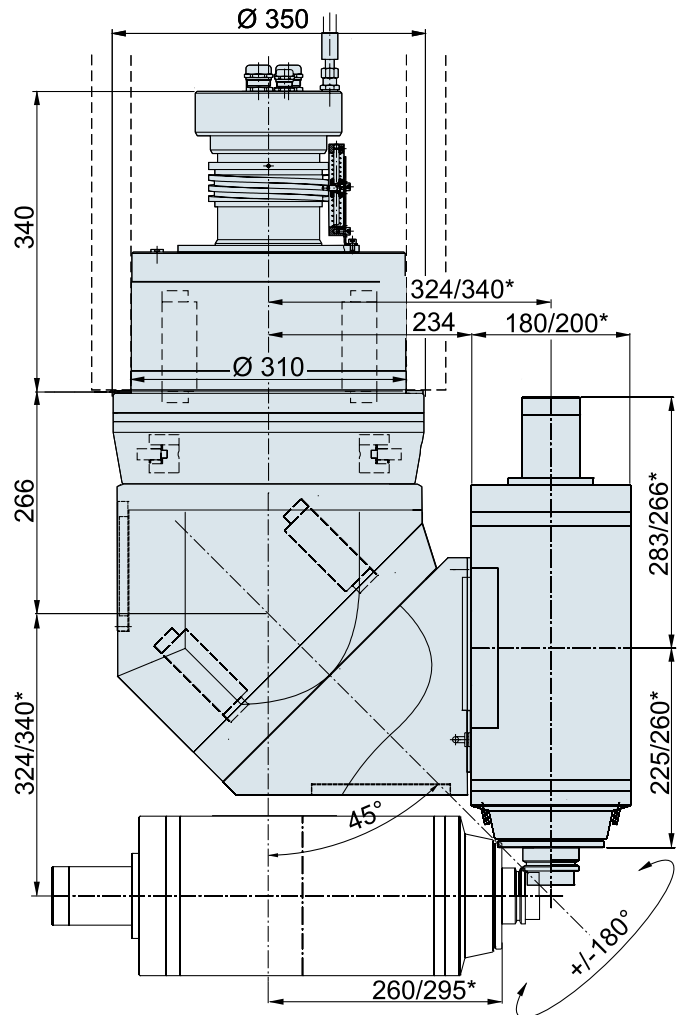
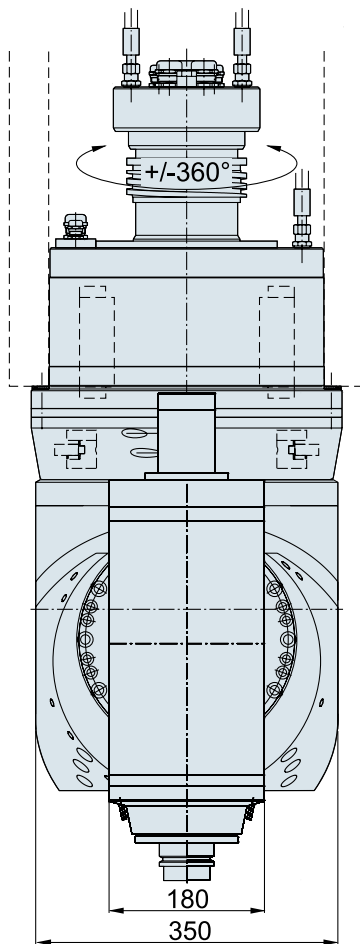
Basic spindles:	CS 15-180-A	CS 21-200	CS 27-170	CS 34-170-S
Nom. power S1 (kW):	15	21	27	34
Diameter (mm):	180	200	170	170
Max. Torque S6 (Nm):	67	130	84	81
Max. Speed (r.p.m.):	24.000	15.000	24.000	15.000
Tool interface:	HSK-A63	HSK-A63	HSK-A63	HSK-A63
Data sheet:	2.2.13	2.2.14	2.2.141	2.2.142
Used in:	Orthogonal- and Universal head • Swivel axis			Fork head



*Dimensions with motor spindle CS 21-200

Technical data Orthogonal head P12

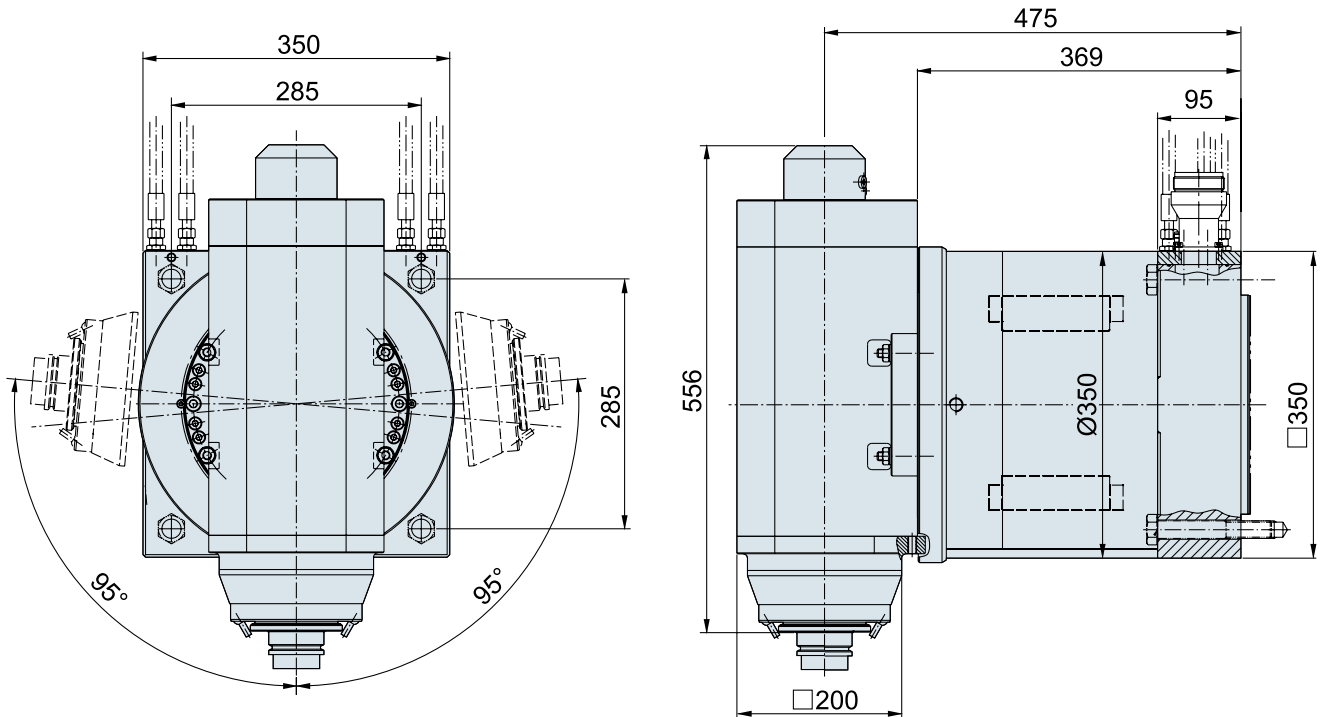
Milling unit	C-Axis	A-Axis orthogonal
Max. Torque:	600 Nm	600 Nm
Clamping torque:	2.000 Nm (60 bar)	2.000 Nm (60 bar)
Swivel speed:	360°/s	360°/s
Swivel angle:	+/-360°	+/-95°
Nom. voltage/current:	400 V/14 A	400 V/14 A
Power dissipation:	1 kW (8 l/min)	1 kW (8 l/min)
Measuring system:	incremental	absolute
Positioning accuracy:	0,002°	0,002°
Total weight approx.:	400 kg	



*Dimensions with motor spindle CS 21-200

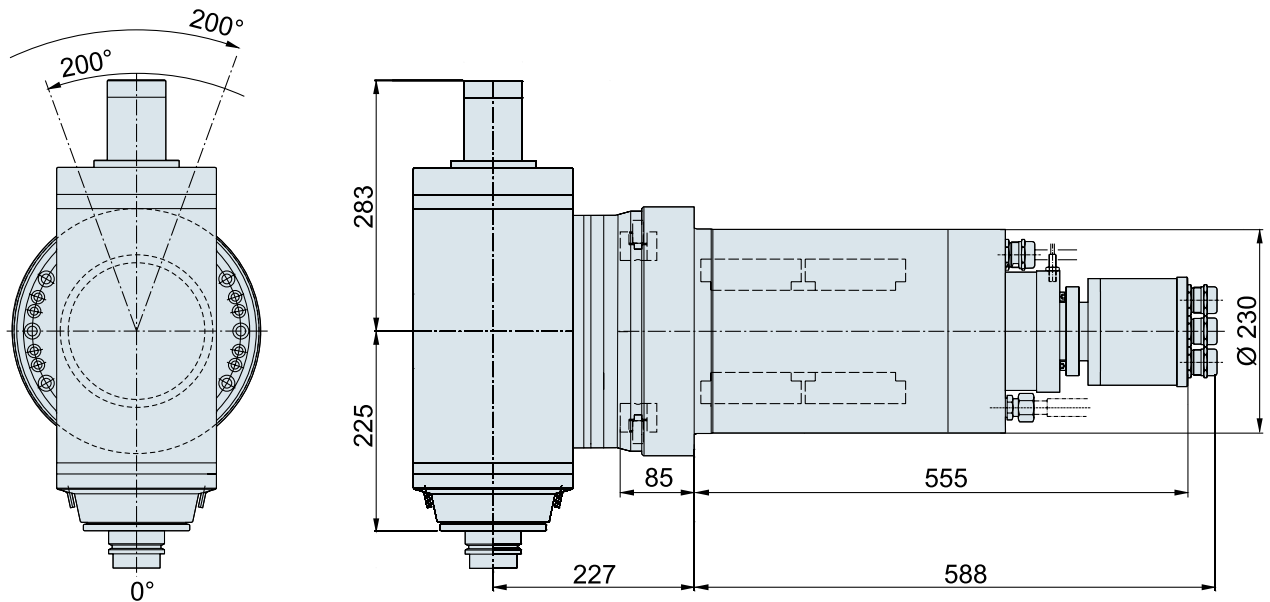
Technical data Universal head P12

Milling unit	C-Axis	A-Axis universal
Max. Torque:	600 Nm	600 Nm
Clamping torque:	2.000 Nm (60 bar)	2.000 Nm (60 bar)
Swivel speed:	360°/s	360°/s
Swivel angle:	+/-360°	+/-180°
Nom. voltage/current:	400 V/14 A	400 V/14 A
Power dissipation:	1 kW (8 l/min)	1 kW (8 l/min)
Measuring system:	incremental	incremental
Positioning accuracy:	0,002°	0,002°
Total weight approx.:	400 kg	



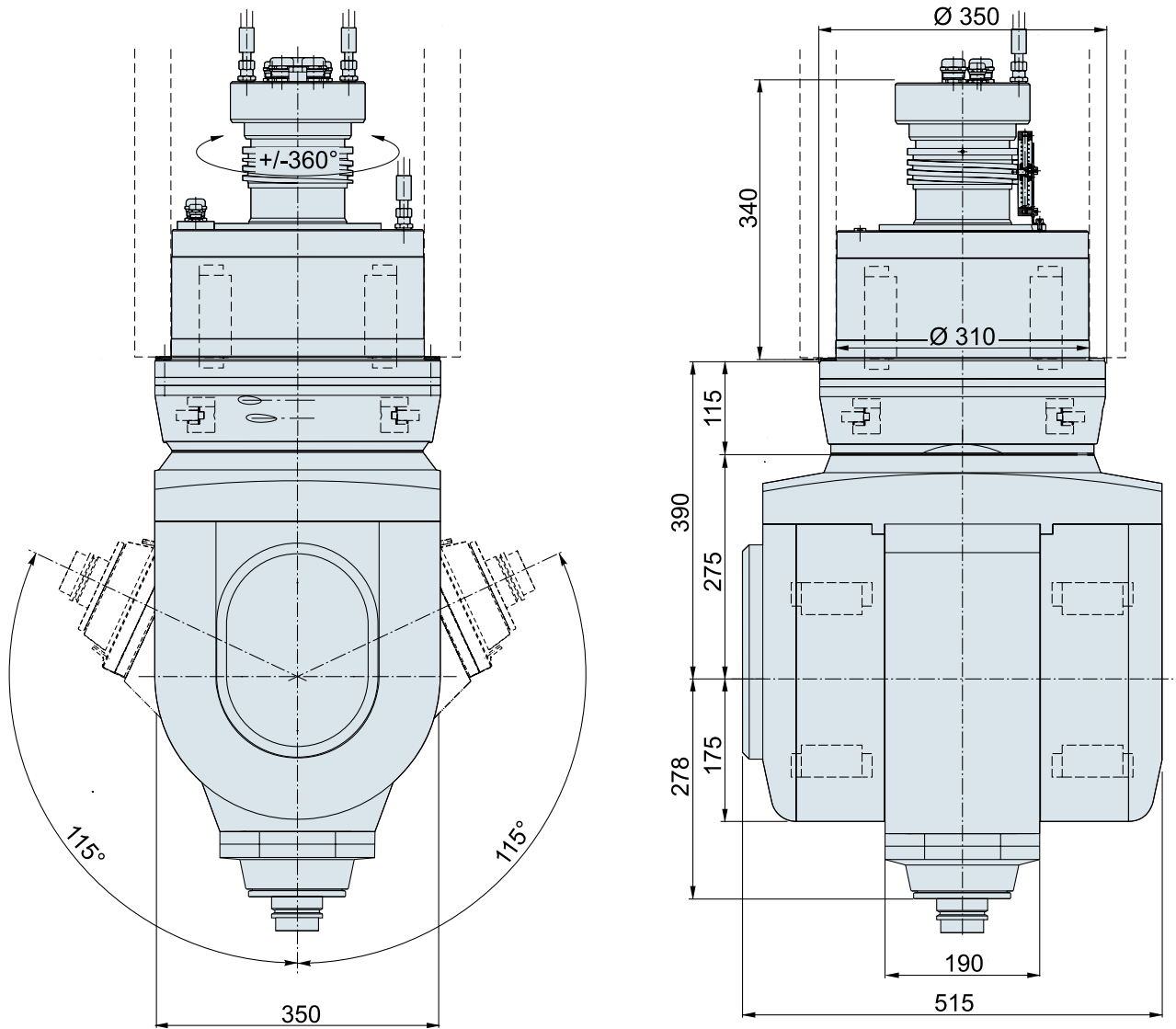
Technical data attachment-Swivel axis P12

Swivel axis	A-Axis	motor spindle
Max. Torque:	600 Nm	Technical data see data sheet Nr. 2.2.14
Clamping torque:	2.000 Nm (60 bar)	
Swivel speed:	360°/s	
Swivel angle:	+/-95°	
Nom. voltage/current:	400 V/28 A	
Power dissipation:	4 kW (10 l/min)	
Measuring system:	incremental	
Positioning accuracy:	0,002°	
Total weight approx.:		320 kg



Technical data installation-Swivel axis P12

Swivel axis	C-Axis	motor spindle
Max. Torque:	480 Nm	Technical data see data sheet Nr. 2.2.13
Clamping torque:	2.000 Nm (50 bar)	
Swivel speed:	360°/s	
Swivel angle:	+/-200°	
Nom. voltage/current:	400 V/28 A	
Power dissipation:	4 kW (10 l/min)	
Measuring system:	incremental	
Positioning accuracy:	0,002°	
Total weight approx.:		200 kg



Technical data Fork Head P12

Head	C-Axis	A-Axis Fork
Max. Torque:	600 Nm	800 Nm
Clamping torque:	2.000 Nm (60 bar)	2.000 Nm (60 bar)
Swivel speed:	360°/s	360°/s
Swivel angle:	$\pm 360^\circ$	$\pm 115^\circ$
Nom. voltage/current:	400 V/14 A	400 V/28 A
Power dissipation:	1 kW (8 l/min)	1 kW (8 l/min)
Measuring system:	incremental	absolute
Positioning accuracy:	0,002°	0,002°
Total weight approx.:	500 kg	

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