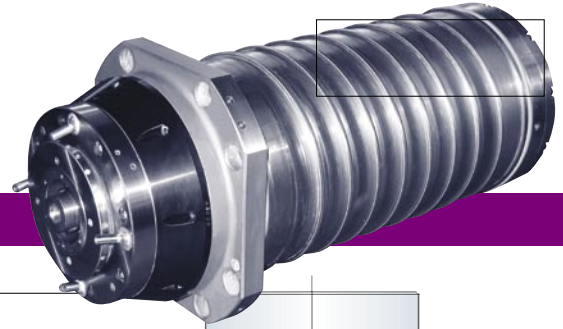
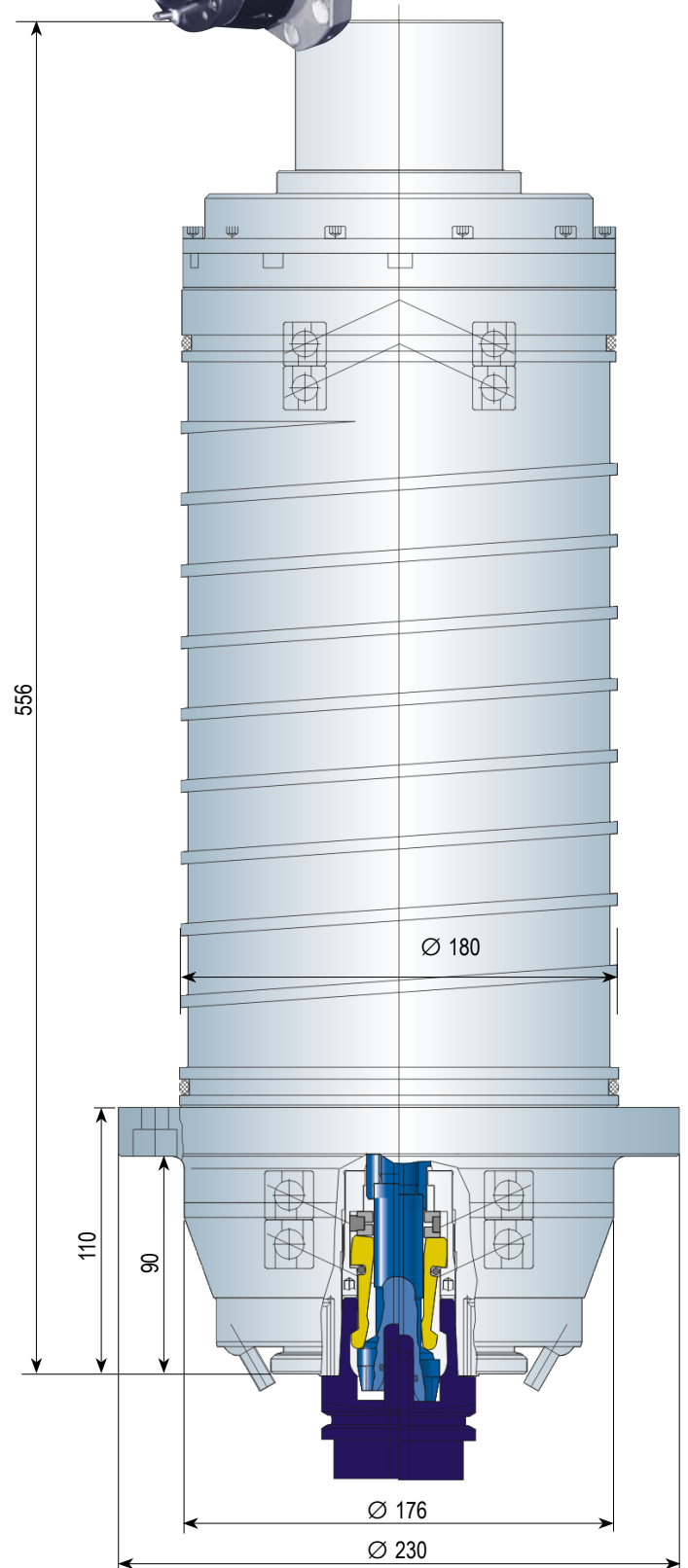
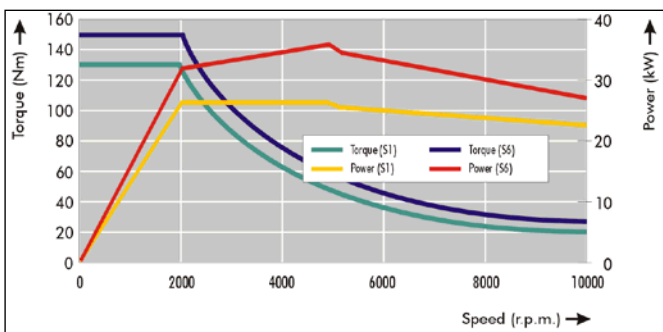


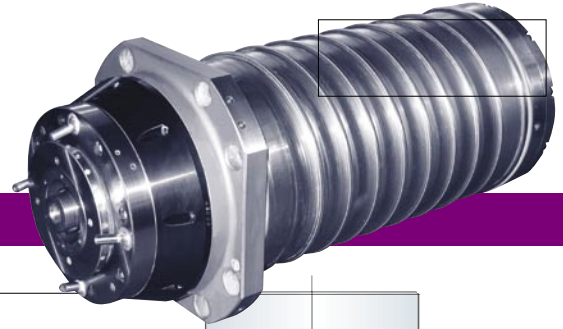
Milling spindle CS-27-180



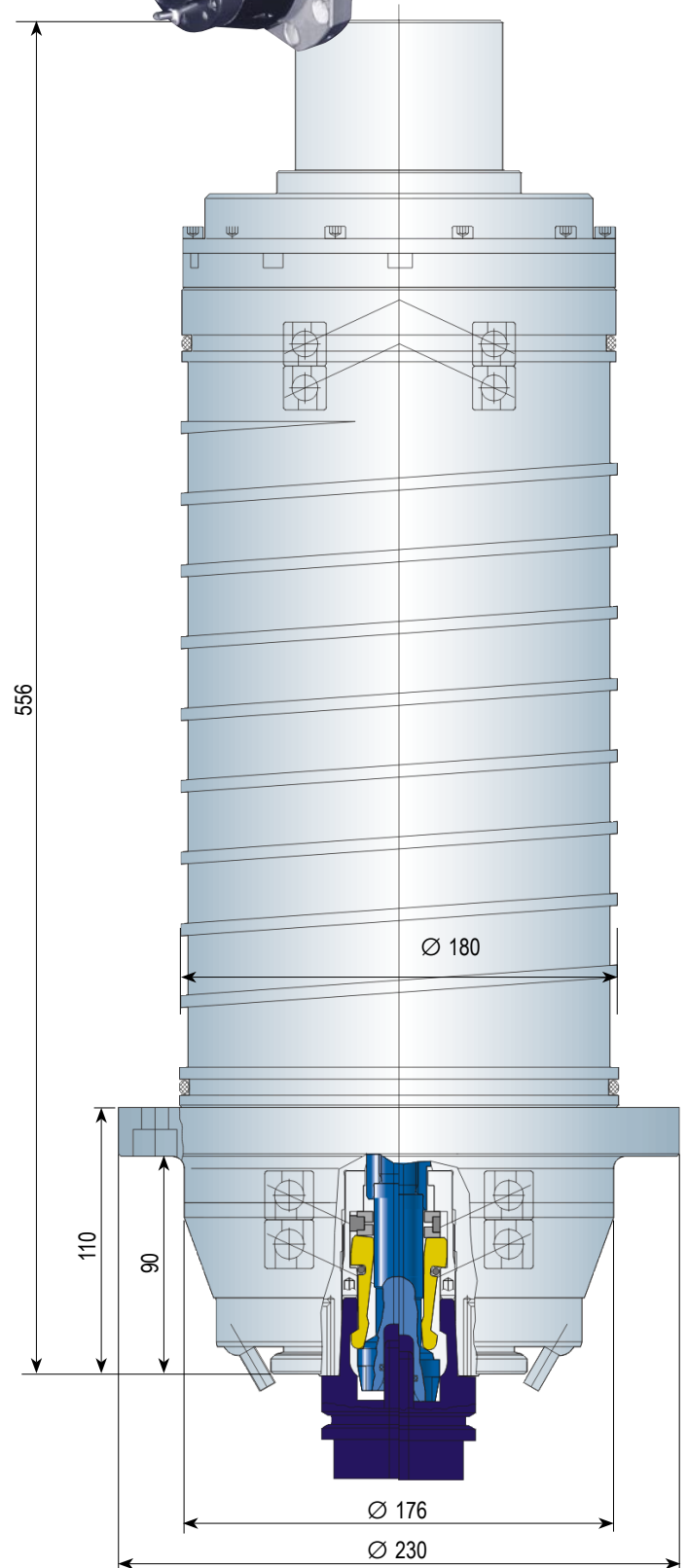
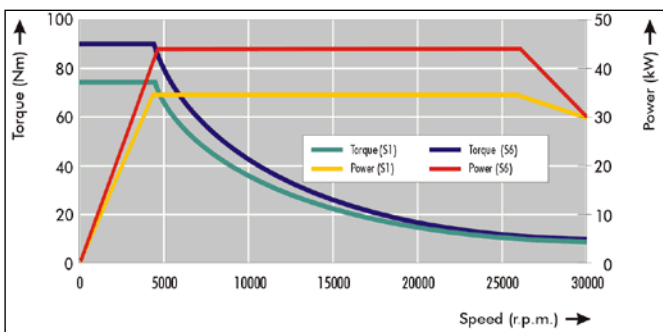
Drive		
Power:	27 kW (S1)	32 kW (S6)
Nominal speed:	2.000 r.p.m.	
Torque max.:	130 Nm (S1)	150 Nm (S6)
Speed max.:	10.000 r.p.m.	
Tool system:	HSK-A63	
Clamping system:	hydromechanical	
Clamping force:	19 kN	
Tool cleaning:	automatic	
Installation position:	vertical, horizontal	
Spindle bearing front:	2 x Ø 70 Hybrid	
Bearing rigidity:	axial/radial 512 N/µm	
Bearing lubrication:	Grease	
Spindle cooling:	Antifrogen N/Tyfocon	
Power dissipation:	4 kW	
Cooling vol. flow appr.:	13 l/min	
Tool cooling		
Ext. coolant supply:	4 Spray nozzles	
Int. coolant supply:	optional	
max. pressure:	70 bar	
Air:	optional	
Min. cooling lubrication:	optional	

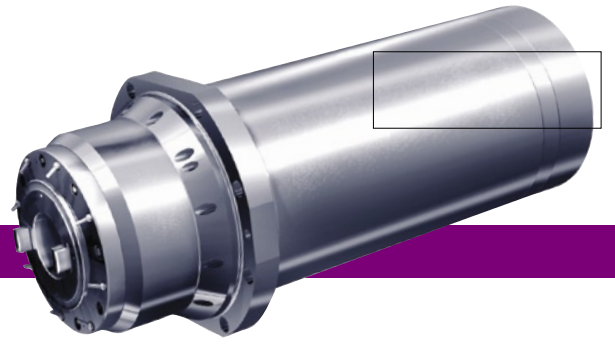


Milling spindle CS-34-180

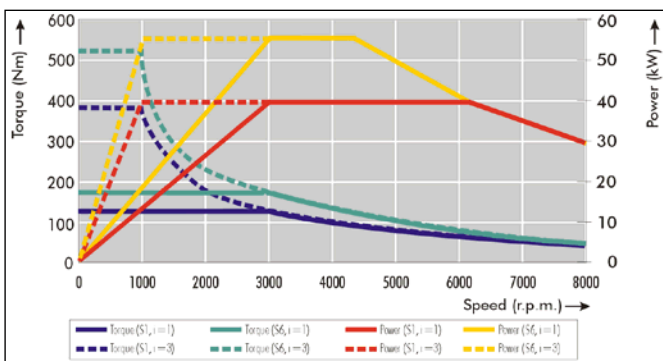
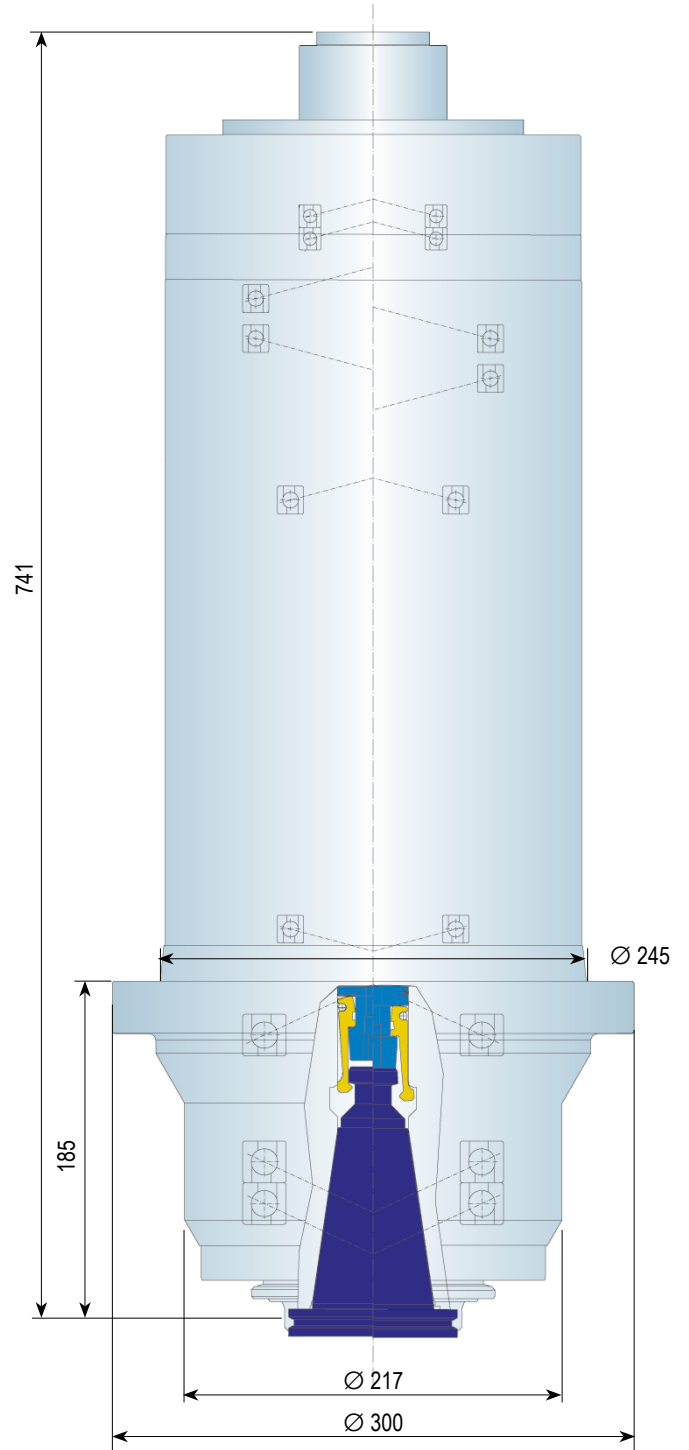
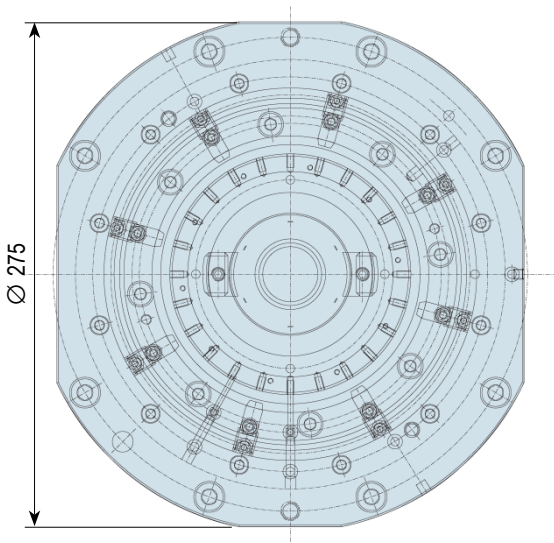


Drive	
Power:	34 kW (S1) 43 kW (S6)
Nominal speed:	4.500 r.p.m.
Torque max.:	72 Nm (S1) 91 Nm (S6)
Speed max.:	24.000 r.p.m. (30.000 r.p.m.)
Tool system:	HSK-A63
Clamping system:	hydromechanical
Clamping force:	19 kN
Tool cleaning:	automatic
Installation position:	vertical, horizontal
Spindle bearing front:	2 x Ø 65 Hybrid
Bearing rigidity:	axial 193 N/µm/radial 580 N/µm
Bearing lubrication:	Grease (Oil-Air)
Spindle cooling:	Antifrogen N/Tyfocon
Power dissipation:	5 kW
Cooling vol. flow appr.:	16 l/min
Tool cooling	
Ext. coolant supply:	4 Spray nozzles
Int. coolant supply:	optional
max. pressure:	45 bar
Air:	optional
Min. cooling lubrication:	optional





Geared spindle CSG-40-245





Technical data

Drive			
Power:	40 kW (S1)		55 kW (S6)
Nominal speed:	3.000 r.p.m. (i=1), 1.000 r.p.m. (i=3)		
Torque max.:	128 Nm [(S1) i=1]	384 Nm [(S1) i=3]	175 Nm [(S6) i=1] 525 Nm [(S6) i=3]
Speed max.:	8.000 r.p.m.		
Tool system:	SK-50		
Clamping system:	hydromechanical		
Clamping force:	30 kN		
Tool cleaning:	automatic		
Installation position:	vertical, horizontal		
Spindle bearing front:	3 x Ø 100 Hybrid		
Bearing rigidity:	axial 541 N/µm, radial 897 N/µm		
Bearing lubrication:	Grease		
Spindle cooling:	Antifrogen N/Tyfocor		
Power dissipation:	6 kW		
Cooling vol. flow appr.:	19 l/min		
Tool cooling			
Ext. coolant supply:	8 Spray nozzles		
Int. coolant supply:	optional		
max. pressure:	70 bar		
Air:	optional		
Min. cooling lubrication:	optional		