

ROYAL
Royal Precision Tools Corporation

High Precision Spindles Solutions

Total Solution • State of the Art



PRECISION

STABILITY

RIGIDITY

EFFICIENCY

Motorized Spindle

High Precision

- ▶ High dynamic rotary accuracy
- ▶ Balancing adjustment within G1, low vibration
- ▶ Modularized easily
- ▶ Low thermal displacement, high stability
- ▶ Short overall length, low inertia

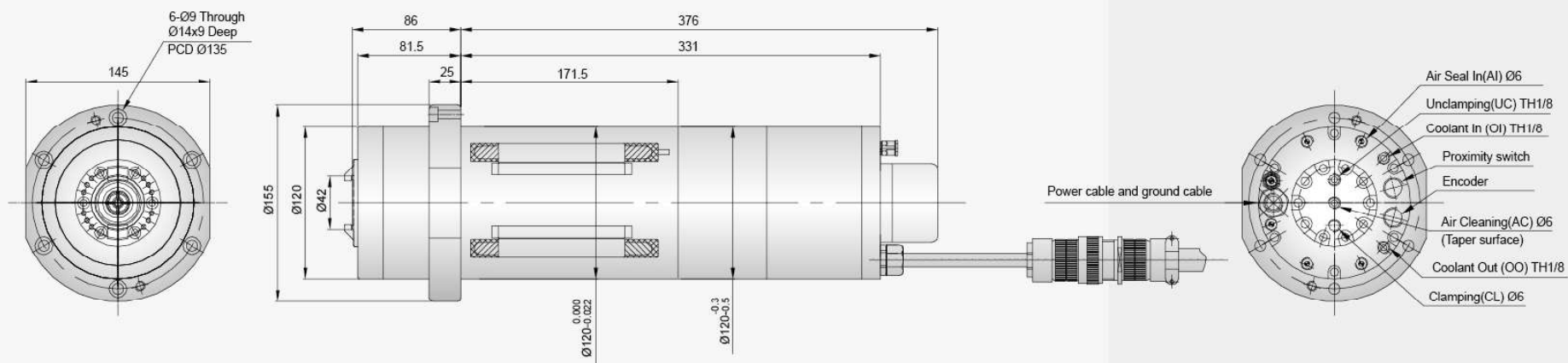
High Efficiency

- ▶ High motor power, high moments of inertia

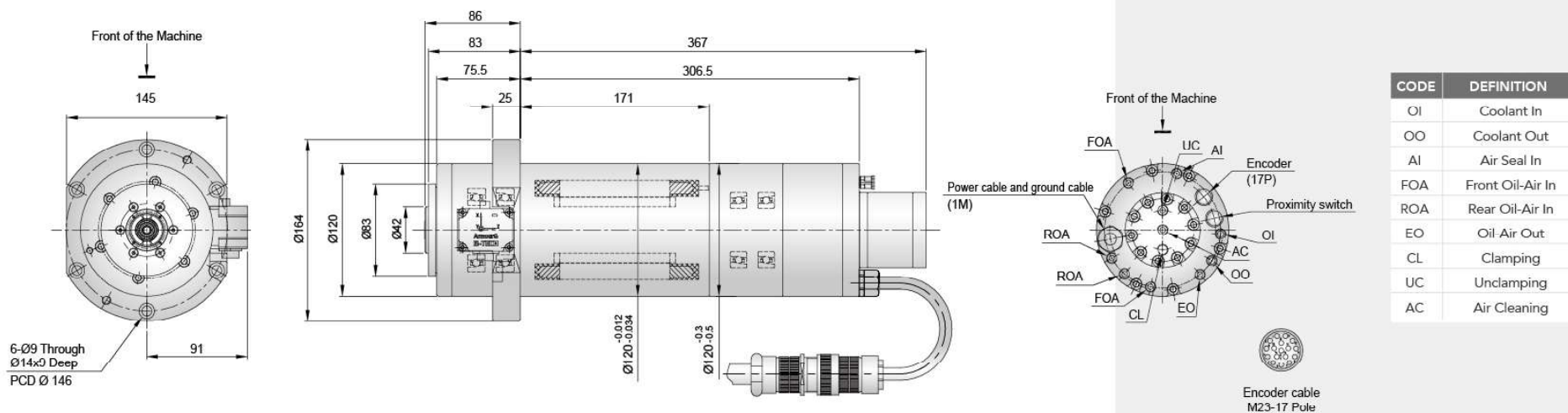


Model	Housing OD (mm)	Max. Speed (rpm)	Taper	Clamping force (kgf)	Bearing ID (mm)	Lubrication	Motor Specification	Power S1 (kW)	Torque S1 (Nm)	Cooling	Weight (kg)	CTS
RE3012	Ø120	30000	BT30/BBT30	250±50	Ø45+Ø35	Grease	ATE AC90/100/4	7.5	6	Pure water	Approx. 30	Optional
REH135		36000	HSK E40	680~880	Ø45+Ø40	Oil-air						
RE4121	Ø150	20000	BBT40	1000±100	Ø70+Ø60	Grease	ATE AC120/120/4	15	12.1	Pure water	Approx. 82	
REH063		24000	HSK A63	1800~2300	Ø70+Ø55	Oil-air						
RE4122	Ø170	20000	BBT40	1260±60	Ø70+Ø60	Grease / Oil-air	FANUC Bi1 90L/25000	18.5	29.4	Oil	Approx. 105	
REH112		24000	HSK A63	1800~2300		Oil-air				Oil / Pure water		
REH133		Ø190	24000	HSK A63		1800~2300				Oil-air		
RE4064	Ø210	20000	BBT40	1260±60	Ø70+Ø55	Grease	SIEMENS 1FE 1083-4WN11	24.8	63	Pure water	Approx. 160	
REH134			HSK A63	1800~2300		Grease / Oil-air						
RE4168	Ø220	15000	BBT40	1000~1100	Ø70+Ø60	Grease	FANUC 112M/15000(220V)	High winding 11 Low winding 11	High winding 15.4 Low winding 61.8	Oil	Approx. 140	
RE4114	Ø230	20000	BBT40	1260±60	Ø70+Ø60	Oil-air	FANUC aB112L/20000i(220V)	High winding 18.5 Low winding 11.3	High winding 27.2 Low winding 86.8	Oil	Approx. 230	
REH099			HSK A63	1800~2300			ATE AC180/260/4(380V)	26	123.5		Approx. 230	
RE5007	Ø250	10000	BBT50	1900±100	Ø100+Ø70	Grease Oil-air	FANUC Bi1132L/14000	High winding 22 Low winding 15	High winding 41.6 Low winding 159	Oil	Approx. 270	
RE5025	Ø310	12000	BBT50	2400±100	Ø100+Ø70	Oil-air	FANUC aD160LL/13000i	High winding 26 Low winding 18.5	High winding 99.3 Low winding 305	Oil	Approx. 410	
REH104		10000	HSK A100	4500~5800								

RE3012

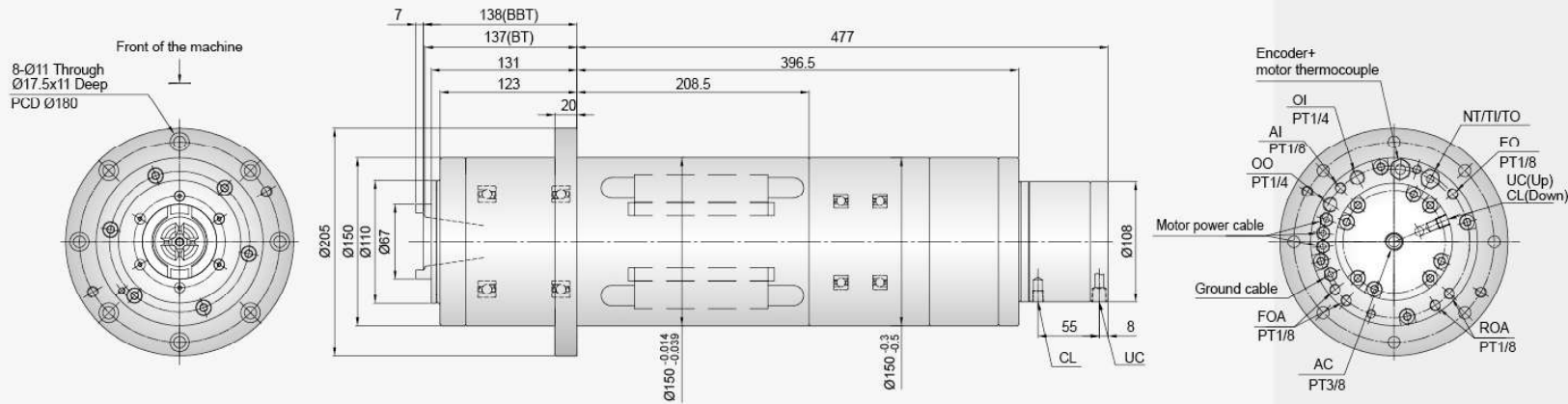


REH135



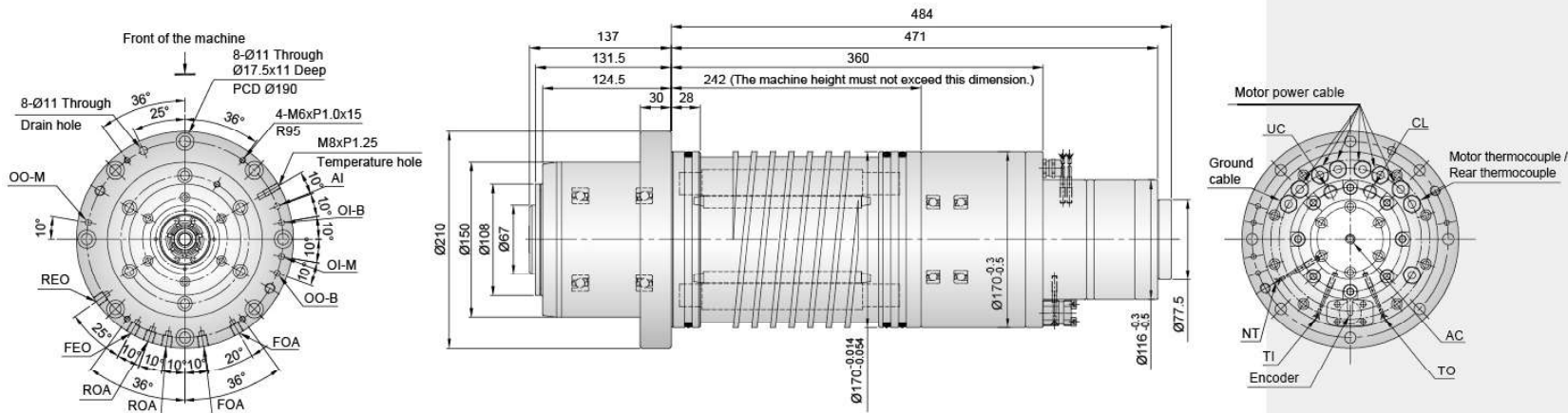
CODE	DEFINITION
OI	Coolant In
OO	Coolant Out
AI	Air Seal In
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
EO	Oil Air Out
CL	Clamping
UC	Unclamping
AC	Air Cleaning

RE4121



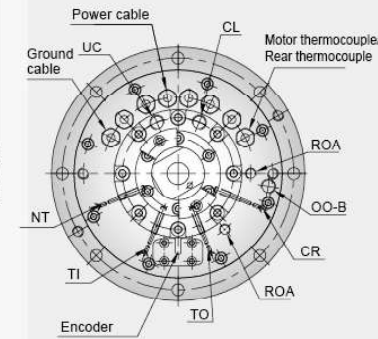
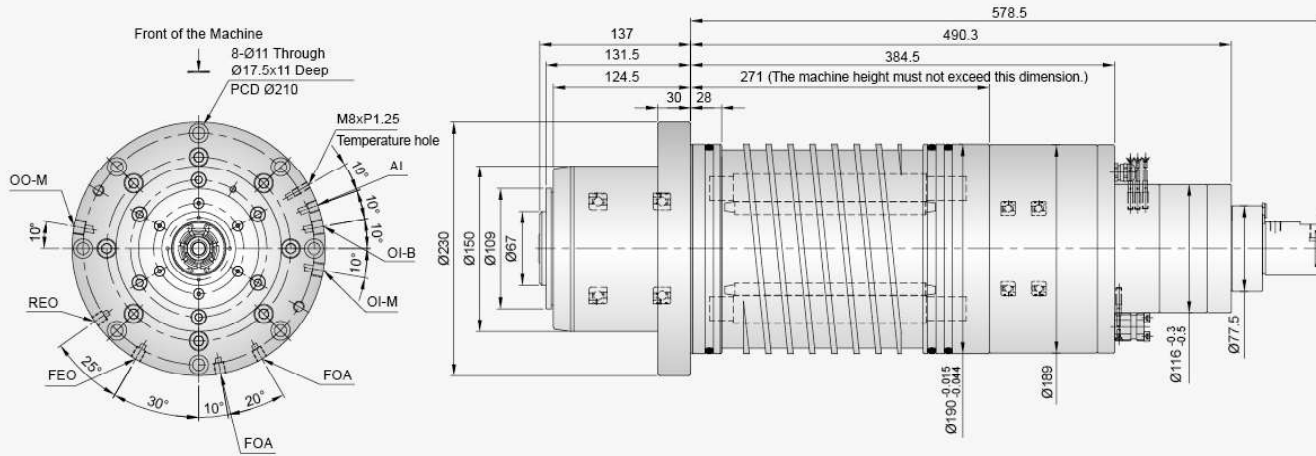
CODE	DEFINITION
OI	Coolant In
OO	Coolant Out
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
EO	Oil-Air Out
AI	Air Seal in
UC	Unclamping
CL	Clamping
AC	Air Cleaning
NT	Without Tool Sensor
TI	Clamping Sensor
TO	Unclamping Sensor

REH112



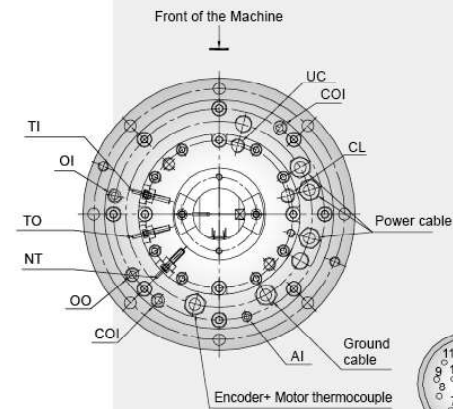
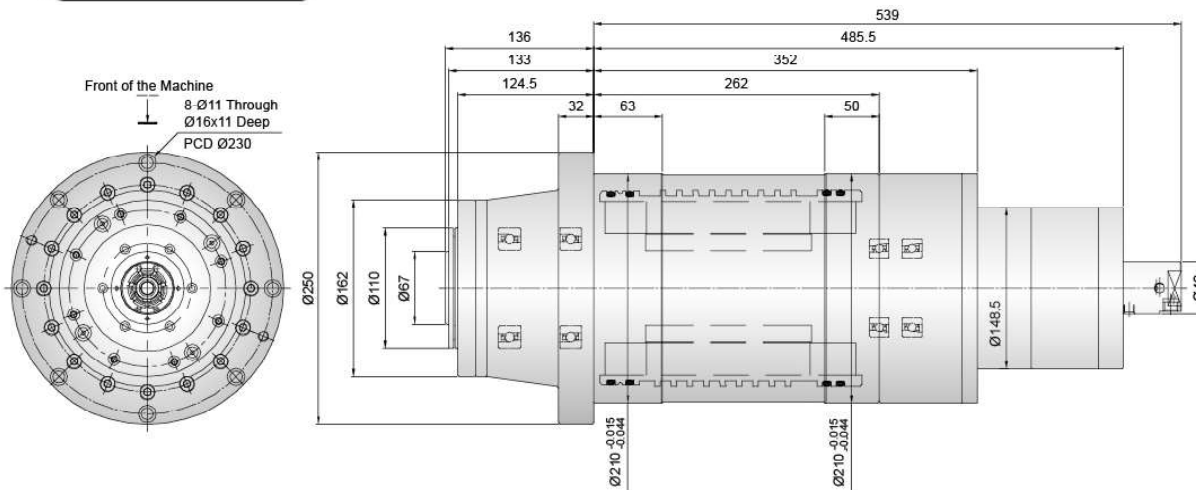
CODE	DEFINITION
OI-B	Bearing Coolant In
OO-B	Bearing Coolant Out
OI-M	Motor Coolant In
OO-M	Motor Coolant Out
AI	Air Seal In
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
FEO	Front Oil-Air Out
REO	Rear Oil-Air Out
CL	Clamping
UC	Unclamping
TI	Clamping Sensor
TO	Unclamping Sensor
NT	Without Tool Sensor

REH133



CODE	DEFINITION
OI-B	Bearing Coolant In
OO-B	Bearing Coolant Out
OI-M	Motor Coolant In
OO-M	Motor Coolant Out
AI	Air Seal In
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
FEO	Front Oil-Air Out
REO	Rear Oil-Air Out
CL	Clamping
UC	Unclamping
TI	Clamping Sensor
TO	Unclamping Sensor
NT	Without Tool Sensor
CR	Cylinder Return

REH134

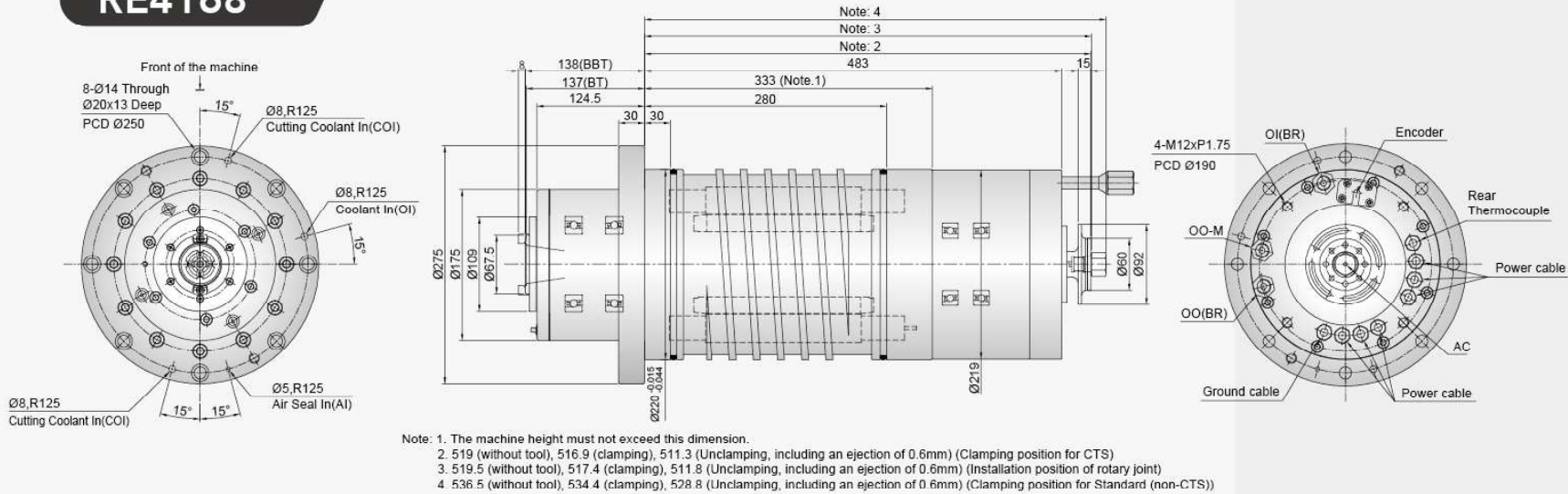


CODE	DEFINITION
OI	Coolant In
OO	Coolant Out
AI	Air Seal In
UC	Unclamping
CL	Clamping
COI	Cutting Coolant In
TI	Clamping Sensor
TO	Unclamping Sensor
NT	Without Tool Sensor



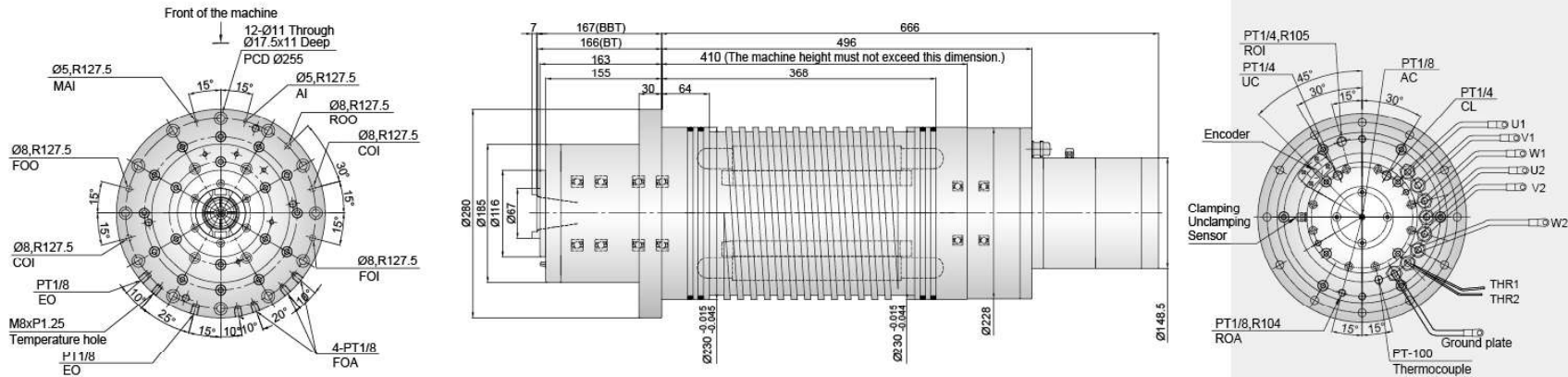
Encoder cable M23-17 Pole

RE4168



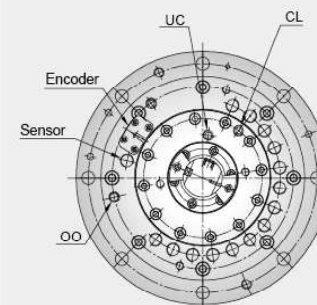
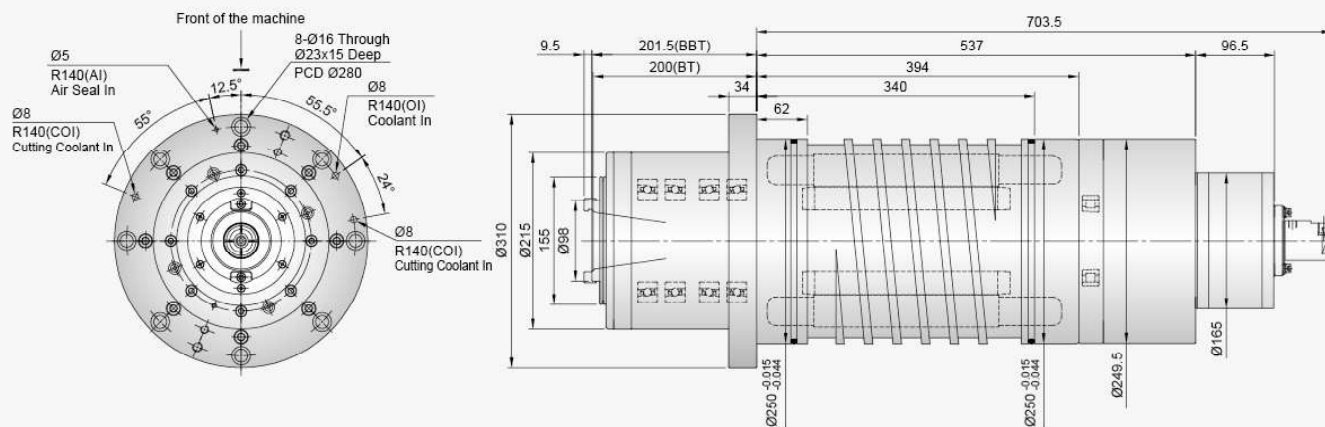
CODE	DEFINITION
OI(BR)	Coolant In(Rear bearing)
OO(BR)	Coolant Out(Rear bearing)
OO-M	Coolant Out(Motor)
AC	Air Cleaning

RE4114



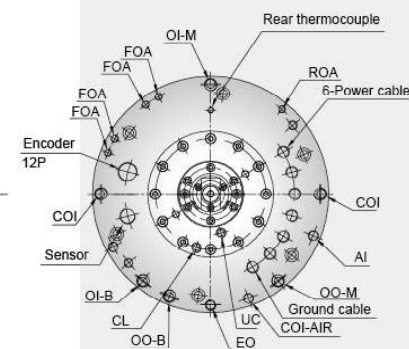
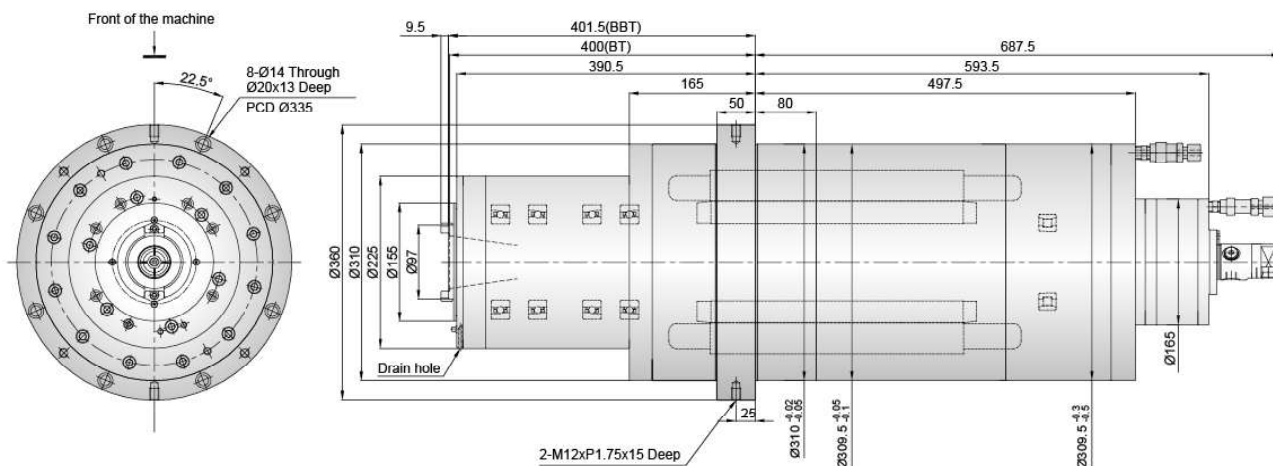
CODE	DEFINITION
FOI	Front Bearing Coolant In
FOO	Front Bearing Coolant Out
ROI	Rear Bearing Coolant In
ROO	Rear Bearing Coolant Out
COI	Cutting Coolant In
AI	Air Seal In
MAI	Motor Coolant In
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
EO	Oil-Air Out
UC	Unclamping
CL	Clamping
AC	Air Cleaning

RE5007



CODE	DEFINITION
CL	Clamping
UC	Unclamping
OO	Coolant Out

RE5025



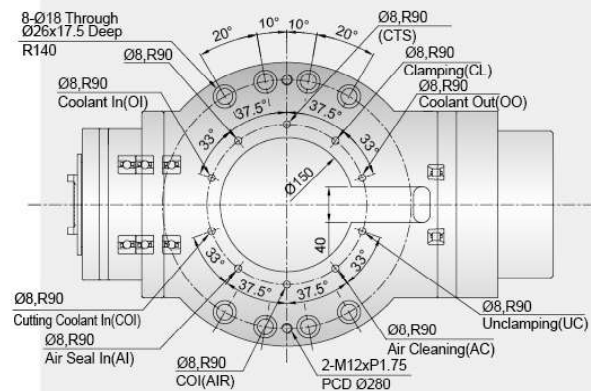
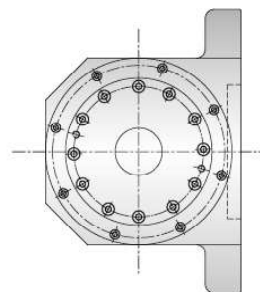
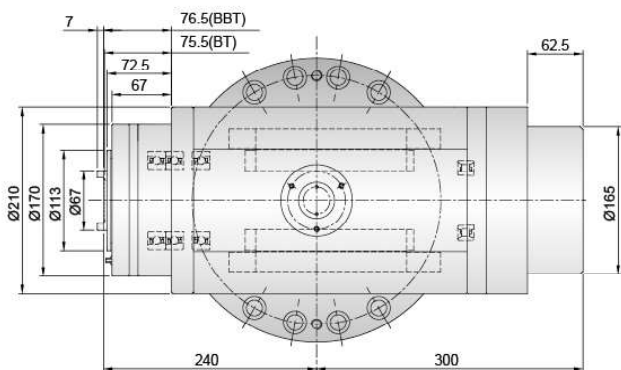
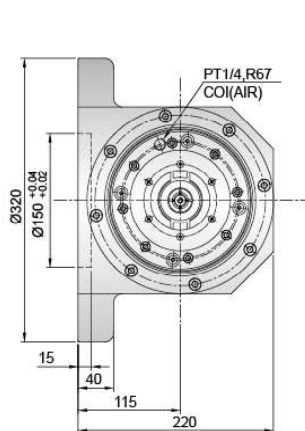
CODE	DEFINITION
COI	Cutting Coolant In
COI-AIR	Cooling Air In
OI-B	Bearing Coolant In
OO-B	Bearing Coolant Out
OI-M	Motor Coolant In
OO-M	Motor Coolant Out
AI	Air Seal In
FOA	Front Oil-Air In
ROA	Rear Oil-Air In
EO	Oil-Air Out
CL	Clamping
UC	Unclamping

Motorized Spindle



Model	Housing OD (mm)	Max. Speed (rpm)	Taper	Clamping force (kgf)	Bearing ID (mm)	Lubrication	Motor Specification	Power S1 (kW)	Torque S1 (Nm)	Cooling	Weight (kg)	CTS
RE4125	Ø210	15000	BBT40	1200±100	Ø70	Grease	ATE AC 160/170/8(380V)	15	71.6	Oil	Approx. 152	Optional
REH128		15000	HSK A63	1800~2300	Ø70		ATF IM160/170/6(380V)	28.3	60.1		Approx. 170	
REH098	Ø235	15000	HSK A63	1800~2300	Ø70		SIEMENS 1FE 1093-4WN11	19.6	75		Approx. 170	

RE4125



Your Spindle Solutions
Speed, Precision, Rigidity

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