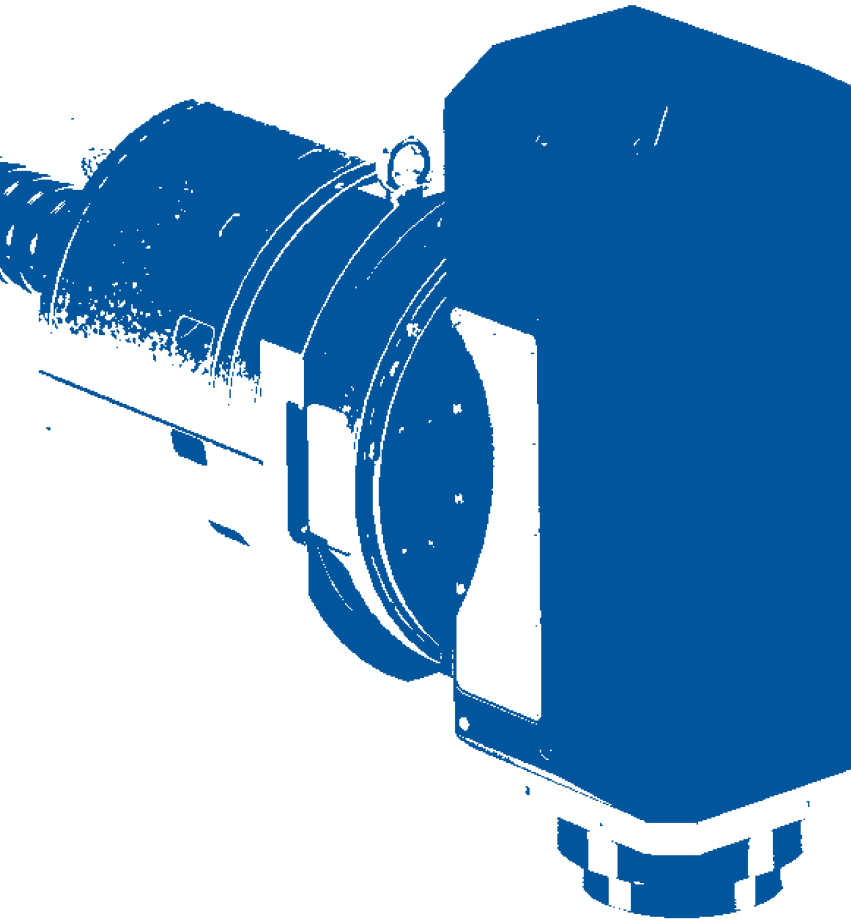




FA LINE

HSD **FA Line** is designed to integrate a fourth axis on CNC machines with Direct Drive technology to ensure maximum accuracy and dynamics.

Products in this family are available in both Moving Column and 45° versions for 5-axis universal machining centers.

MATERIALS



CAST IRON
& STEEL

APPLICATIONS



MILLING



TURNING



DRILLING



TAPPING

TARGET MACHINES



MOVING
COLUMN CNC



UNIVERSAL
5 AXIS CNC



FA290

Dynamic / Accurate / Direct Drive Axis

MATERIALS



CAST IRON
& STEEL

APPLICATIONS



MILLING



DRILLING



TAPPING

TARGET MACHINES



MOVING
COLUMN CNC

TECHNICAL DATA

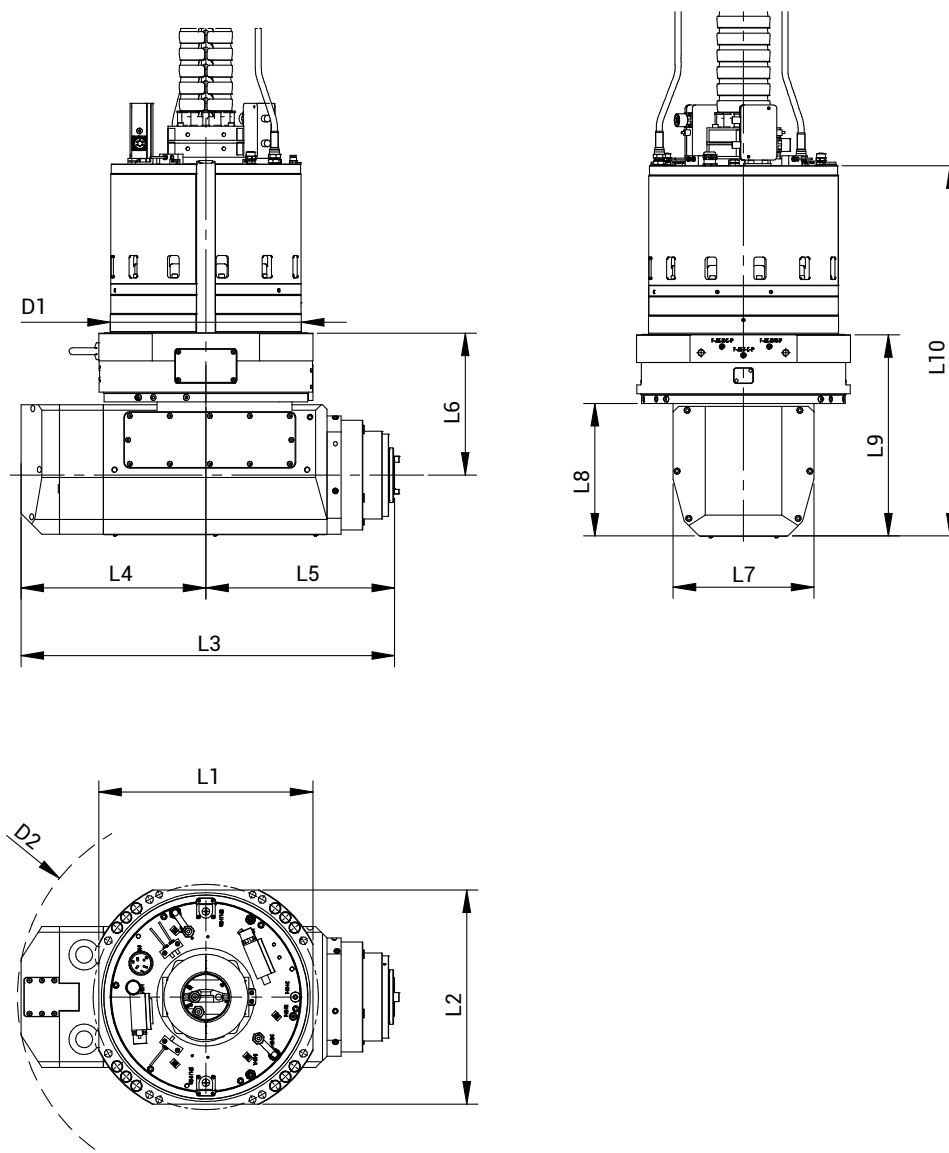
	FA290
Motor brand	HSD Direct Drive
B Axis Max torque [Nm]	750
Clamping torque Axis brakes B [Nm]	4.000
Max. speed Axis B [° / sec]	240
Measuring System Accuracy B [arcsec]	5
B Axis range [°]	±120
Weight [kg]	~260

ES COMPATIBILITY

ELECTROSPINDLES TECHNICAL DATA

	ES511 26kW	ES511 47kW	ES511 63kW
Max speed [rpm] (grease / air-oil)	16.000 / 18.000	12.000 / 13.000	12.000 / 13.000
Motor type	Asynchronous	Synchronous	Synchronous
Torque S1/S6 (40%) [Nm]	124 / 149	150 / 202	200 / 241
Power S1/S6 (40%) [kW]	26 / 31	47 / 63	63 / 76
Tool interface	HSK A63 / ISO 40	HSK A100 / ISO 50	HSK A100 / ISO 50
Cooling	Liquid	Liquid	Liquid
Bearings lubrication	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil

DIMENSIONS



	FA290
D1 (mm)	Ø339
D2 (mm)	Ø335
L1 (mm)	380
L2 (mm)	380
L3 (mm)	603 (*) / 663 (**)
L4 (mm)	359 (*) / 328 (**)
L5 (mm)	244 (*) / 335 (**)
L6 (mm)	252
L7 (mm)	250
L8 (mm)	235
L9 (mm)	357
L10 (mm)	657

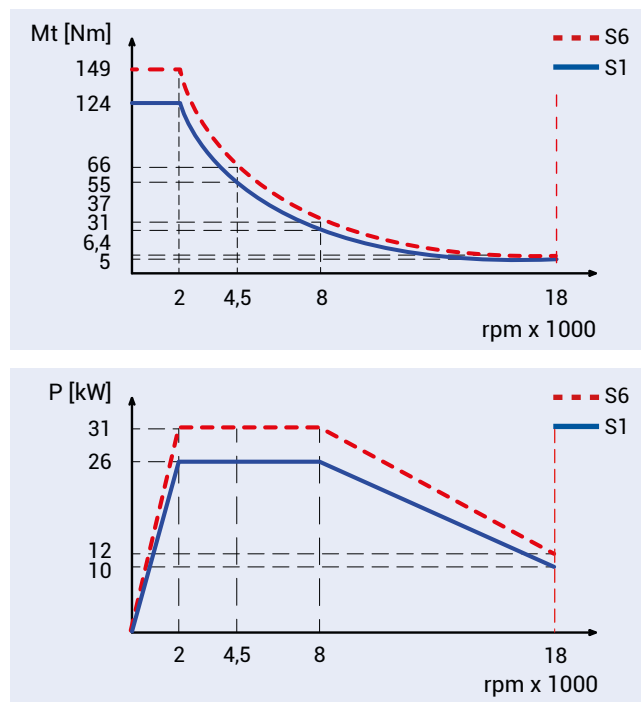
(*) With ES511 47kW

(**) With ES511 26kW or 63kW

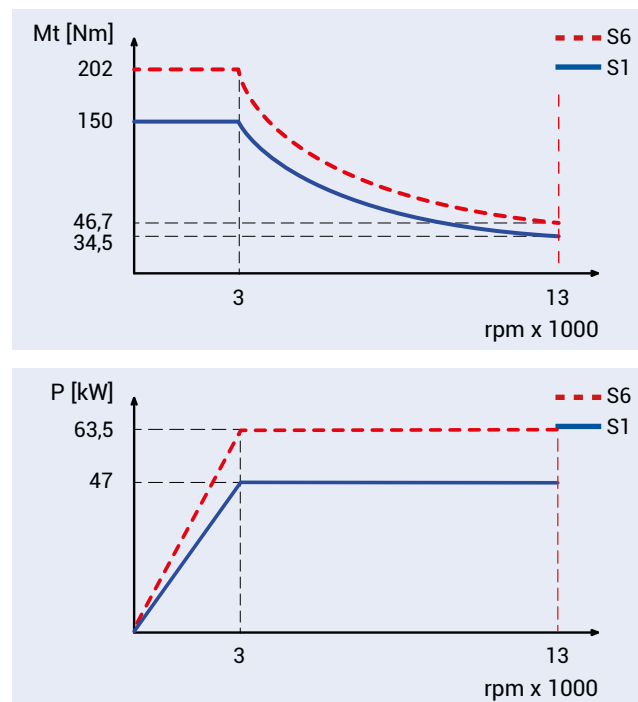
ES COMPATIBILITY

DIAGRAMS - POWER & TORQUE

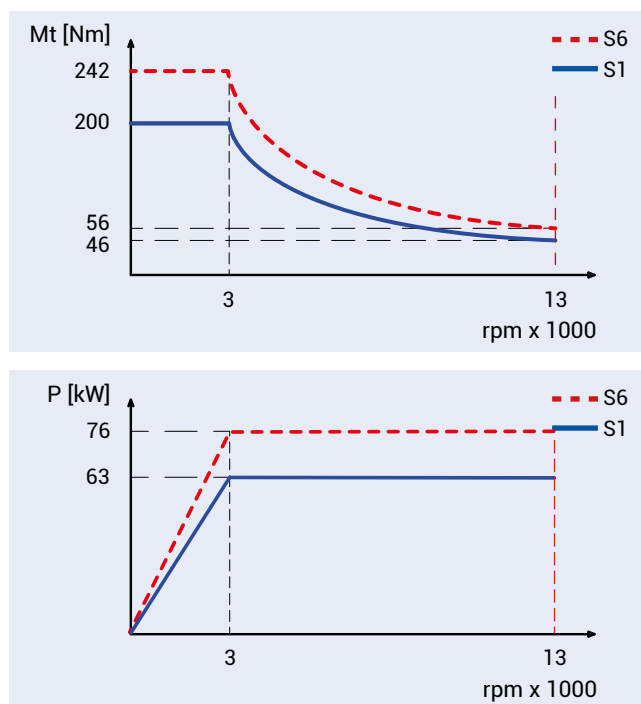
ES511 26kW 380V - 400V



ES511 47kW 380V - 400V



ES511 63kW 380V - 400V



SEE THE DEDICATED
SHEET FOR
ELECTROSPINDLES:



ES5
LINE



FA290 45°

Dynamic / Accurate / Direct Drive Axis

MATERIALS



CAST IRON
& STEEL

APPLICATIONS



MILLING



DRILLING



TAPPING



TURNING

TARGET MACHINES



UNIVERSAL
5 AXIS CNC

TECHNICAL DATA

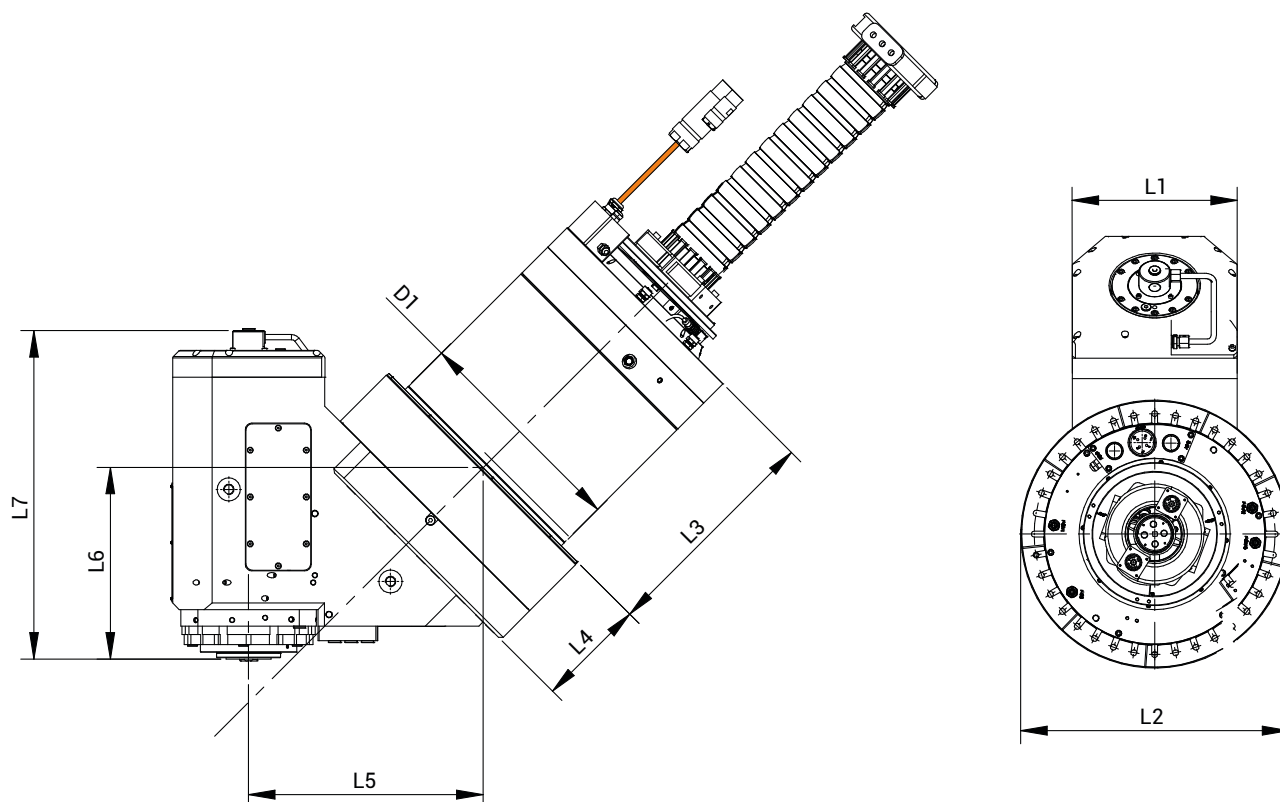
	FA290 45°
Motor brand	HSD Direct Drive
B Axis Max torque [Nm]	1.679
Clamping torque Axis brakes B [Nm]	4.000
Max. speed Axis B [° / sec]	480
Measuring System Accuracy B [arcsec]	2
B Axis range [°]	-30 / +180
Weight [kg]	~300

ES COMPATIBILITY

ELECTROSPINDLES TECHNICAL DATA

	ES510 42kW	ES510 50kW	ES510 70kW	ES510 50kW	ES514 34kW
Max speed [rpm] (grease / air-oil)	18.000 / 24.000	18.000 / 20.000	18.000 / 28.000	12.000 / 15.000	8.000 / 10.000
Motor type	Synchronous	Synchronous	Synchronous	Synchronous	Asynchronous
Torque S1/S6 (40%) [Nm]	67 / 87,5	90 / 120	55,7 / 75,2	95,5 / 124	191 / 229
Power S1/S6 (40%) [kW]	42 / 55	50 / 67,5	70 / 94,5	50 / 65	34 / 41
Tool interface	HSK A63	HSK A63	HSK A63	HSK A100	HSK T100
Cooling	Liquid	Liquid	Liquid	Liquid	Liquid
Bearings lubrication	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil	Grease / Air Oil	Grease

DIMENSIONS



	FA290 45°
D1 (mm)	Ø335 h7
L1 (mm)	250 (*) / 285 (**)
L2 (mm)	406
L3 (mm)	346,5
L4 (mm)	165,5
L5 (mm)	355
L6 (mm)	290 (*) / 325 (**) / 383 (***)
L7 (mm)	498 (*) / 536 (**) / 669 (***)

(*) With ES510 42kW, 50kW A63 and 70kW

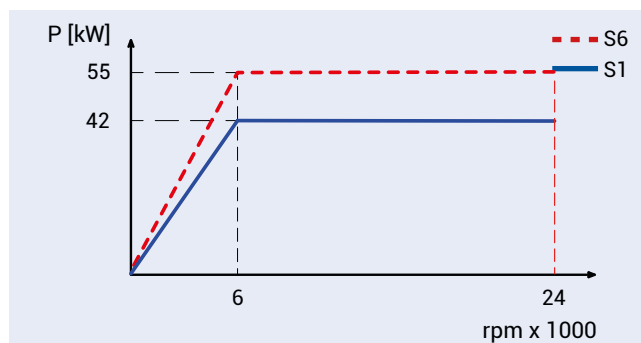
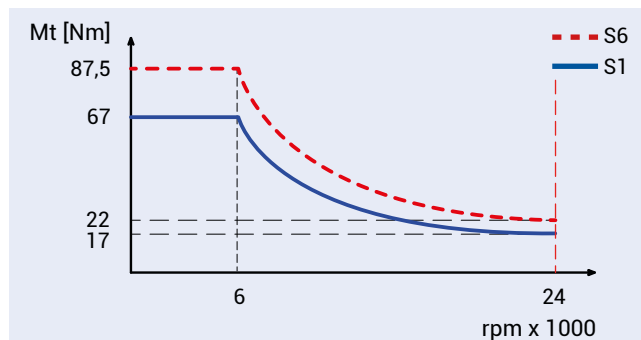
(**) With ES510 50kW A100

(***) With ES514

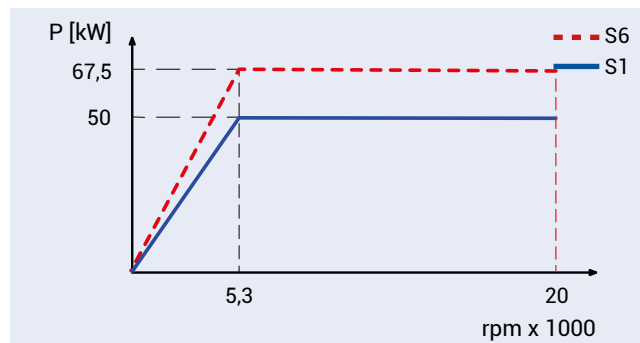
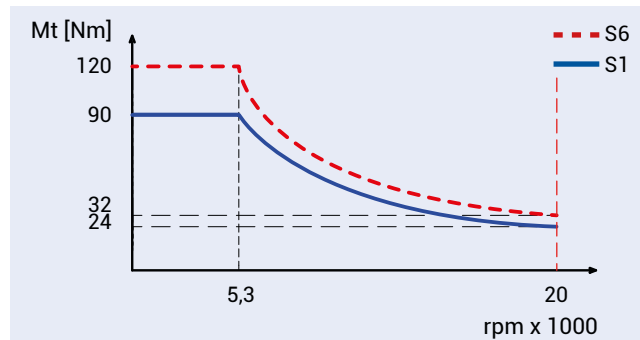
ES COMPATIBILITY

DIAGRAMS - POWER & TORQUE

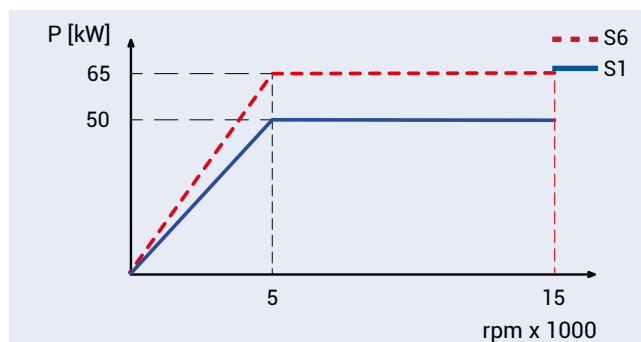
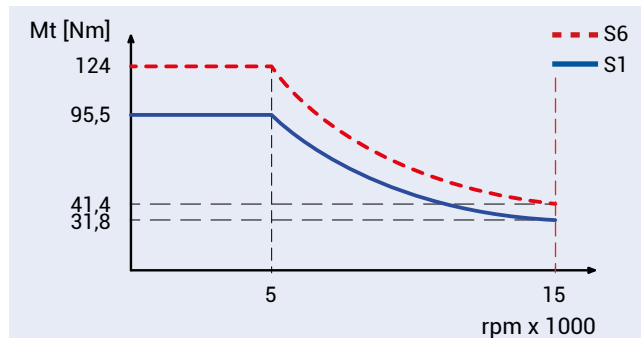
ES510 42kW 380V - 400V



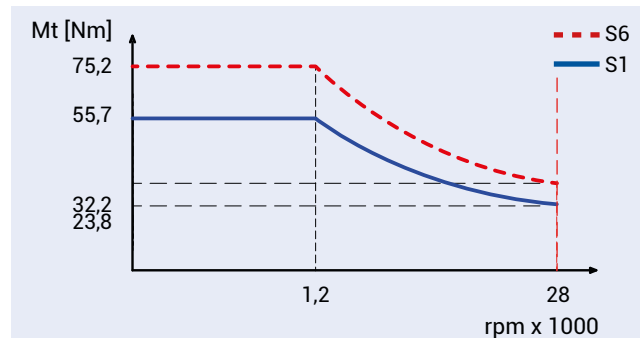
ES510 50kW A63 - 18.000 / 20.000 rpm 380V - 400V



ES510 50kW A100 - 12.000 / 15.000 rpm 380V - 400V



ES510 70kW 380V - 400V



ES514 34kW 380V - 400V

