NPR
New Product Release

DEC 2025 | Metric

JET SPINDLE PRO

Modular High-Speed Jet Spindle with Option for OnSite Maintenance

NEW replaceable cartridge

NEW 90 Degrees Holder

COLIBRI
SPINDLES

JET SPINDLE PRO

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Highlights

FULLY	Supports OnSite Mainetance
OPTION	One holder for SPEED & POWER Jet
NEW	SPEED & POWER Jet 90 Degree ST20

COLIBRI SPINDLES

Features

The NEW High-Speed Jet Spindle PRO, with Replaceable Jet Spindle Cartridge, Comes with the Following Key Features & Benefits

FEATURE	BENEFIT
NEW cartridge design	On-sight maintenance
Modular Design	Less parts, more options
High precision ER11 ER11 GHS & AAA UP Collet	Supports cutting tools with 6mm shank, with precision
Low run out	Accuracy up to 3 microns
Optimal performance	Output power of large jet spindle in mini size design
High speed precision ball bearings	High speed machining up to 55,000 RPM
All the options	Power, Speed and Power & Speed
Full Support for MTBs	Cartridge design is ideal for MTB Holder manufacturers
NEW high-pressure turbine	Spindle powered by 15 to 70 bar high pressure coolant

Customers

High Pressure Coolant Driven Jet Spindle for All Milling & Turning Centers - PlugnPlay!

Prerequisites to Qualify Customer:

1. Coolant flows through the main CNC machine spindle
2. Min. coolant pressure, of main spindle outlet: 15 bar (POWER Jet)
3. Max. coolant pressure, of main spindle outlet: 70 bar (POWER Jet)
4. Minimum flow rate: 10 l/min
5. Filter element: Min. 100 µm
6. Active mist collector
7. When using emulsion coolant, use an anti-foaming agent additive suitable for emulsion
8. When using oil-based coolant, high-pressure increases oil fumes:
9. a. Use appropriate means of fire protection
   b. Use anti-dissolution additive suitable for oil
10. During replacement of coolant or coolant filter:
    a. Remove Jet Spindle from the ATC.
    b. Run high pressure coolant pump for 10 sec before reinstalling Jet spindle in ATC.
11. Max. viscosity 15 mm^2/s.

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POWER Jet

POWER & SPEED

JET SPINDLE OPERATING PARAMETERS					POWER JET	
HIGH PRESSURE COOLANT (BAR)	15 BAR	20 BAR	40 BAR	70 BAR	Terms of Use	
Min Coolant Supply Diameter [mm]	4.0				**Collet**	ER11 AA/UP
Min flow rate (L/min)	10	12	16	22	**Runout**	3 Microns
Rotational spindle speed [RPM]*	20,000	25,000	35,000	45,000	**Warranty**	1 Year
Max power (W) / torque (Nmm)	53 / 20	71 / 27	188 / 57	409 / 93		

*** Notes:**

- Rotational spindle speed is based on coolant pressure and flow rate.
- Coolant pressure is measured at the spindle inlet.

Max. Tool Diameter [mm]	Application	P	M	N [Al]	N [Cu]	S [Ti]
	Drilling	3.0		4.0	3.0	
	Slot Milling	6.0	4.0	6.0	4.0	
	Profile Milling	6.0				
	Shoulder Milling					
	Chamfering					
	Deburring					
	Engraving					

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SPEED Jet

SPEED FOR SMALL TOOLS

JET SPINDLE OPERATING PARAMETERS				SPEED JET	
HIGH PRESSURE COOLANT (BAR)	20 BAR	30 BAR	40 BAR	Terms of Use	
Min Coolant Supply Diameter [mm]	4.0			**Collet**	ER11 AA/UP
Min flow rate (L/min)	10	15	20	**Runout**	3 Microns
Rotational spindle speed [RPM]*	33,000	44,000	55,000	**Warranty**	1 Year
Max power (W) / torque (Nmm)	37 / 12	76 / 18	115 / 25		

*** Notes:**
- Rotational spindle speed is based on coolant pressure and flow rate.
- Coolant pressure is measured at the spindle inlet.

Max. Tool Diameter [mm]						
	Application	**P**	**M**	**N [Al]**	**N [Cu]**	**S [Ti]**
	Drilling	2.0		3.0	2.0	
	Profile Milling	6.0	4.0	6.0	4.0	
	Slot Milling	4.0	3.0	4.0	3.0	
	Shoulder Milling	4.0	6.0			
	Chamfering	6.0				
	Deburring					
	Engraving					

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
P	SAE 1.2316 (35 HRC)	Drilling (Drill)	0.3	15	20,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.002
			0.3	20	25,000			0.002
			0.3	40	35,000			0.002
			0.3	70	45,000			0.002
			0.5	15	20,000			0.004
			0.5	20	25,000			0.004
			0.5	40	35,000			0.004
			0.5	70	45,000			0.004
			0.8	15	20,000			0.006
			0.8	20	25,000			0.006
			0.8	40	35,000			0.006
			0.8	70	45,000			0.006
			1.0	15	20,000			0.006
			1.0	20	25,000			0.006
			1.0	40	35,000			0.006
			1.5	15	20,000			0.006
			1.5	20	25,000			0.006
			1.5	40	35,000			0.006
			2.0	15	20,000			0.008
			2.0	20	25,000			0.008
			2.0	40	35,000			0.008
			2.5	15	20,000			0.008
			2.5	20	25,000			0.008
			3.0	15	20,000			0.008
		Profile Milling (Ball-Nose)	0.3	15	20,000	0.005	0.005	0.005
			0.3	20	25,000	0.005	0.005	0.005
			0.3	40	35,000	0.005	0.005	0.005
			0.3	70	45,000	0.005	0.005	0.005
			0.5	15	20,000	0.012	0.010	0.007
			0.5	20	25,000	0.012	0.010	0.007
			0.5	40	35,000	0.012	0.010	0.007
			0.5	70	45,000	0.012	0.010	0.007
			1.0	15	20,000	0.030	0.066	0.012
			1.0	20	25,000	0.030	0.066	0.012
			1.0	40	35,000	0.030	0.066	0.012
			1.0	70	45,000	0.030	0.066	0.012
			1.5	15	20,000	0.046	0.110	0.012
			1.5	20	25,000	0.046	0.110	0.012
			1.5	40	35,000	0.046	0.110	0.012
			1.5	70	45,000	0.046	0.110	0.012
			2.0	15	20,000	0.063	0.153	0.012
			2.0	20	25,000	0.063	0.153	0.012
			2.0	40	35,000	0.063	0.153	0.012
			2.0	70	45,000	0.063	0.153	0.012
			2.5	15	20,000	0.080	0.200	0.012
			2.5	20	25,000	0.080	0.200	0.012
			2.5	40	35,000	0.080	0.200	0.012
			2.5	70	45,000	0.080	0.200	0.012
			3.0	15	20,000	0.100	0.240	0.006
			3.0	20	25,000	0.100	0.240	0.006
			4.0	15	20,000	0.131	0.327	0.006
			4.0	20	25,000	0.131	0.327	0.006
			5.0	15	20,000	0.165	0.414	0.006
			5.0	20	25,000	0.165	0.414	0.006
			6.0	15	20,000	0.200	0.500	0.006
			6.0	20	25,000	0.200	0.500	0.006

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
P	SAE 1.2316 (35 HRC)	Slot Milling (End-Mill)	0.3	15	20,000	0.300	0.005	0.003
			0.3	20	25,000	0.300	0.005	0.003
			0.3	40	35,000	0.300	0.005	0.003
			0.3	70	45,000	0.300	0.005	0.003
			0.5	15	20,000	0.500	0.010	0.005
			0.5	20	25,000	0.500	0.010	0.005
			0.5	40	35,000	0.500	0.010	0.005
			0.5	70	45,000	0.500	0.010	0.005
			0.8	15	20,000	0.800	0.017	0.008
			0.8	20	25,000	0.800	0.017	0.008
			0.8	40	35,000	0.800	0.017	0.008
			0.8	70	45,000	0.800	0.017	0.008
			1.0	15	20,000	1.000	0.022	0.010
			1.0	20	25,000	1.000	0.022	0.010
			1.0	40	35,000	1.000	0.022	0.010
			1.0	70	45,000	1.000	0.022	0.010
			1.5	15	20,000	1.500	0.035	0.015
			1.5	20	25,000	1.500	0.035	0.015
			1.5	40	35,000	1.500	0.035	0.015
			2.0	15	20,000	2.000	0.047	0.020
			2.0	20	25,000	2.000	0.047	0.020
			2.5	15	20,000	2.500	0.060	0.024
			2.5	20	25,000	2.500	0.060	0.024
			3.0	15	20,000	3.000	0.072	0.025
			3.0	20	25,000	3.000	0.072	0.025
			4.0	15	20,000	4.000	0.100	0.025
			4.0	20	25,000	4.000	0.100	0.025
			4.5	15	20,000	4.500	0.110	0.026
			4.5	20	25,000	4.500	0.110	0.026
			5.0	15	20,000	5.000	0.122	0.025
			5.0	20	25,000	5.000	0.122	0.025
			6.0	15	20,000	6.000	0.147	0.025
			6.0	20	25,000	6.000	0.147	0.025
		Shoulder Milling (End-Mill)	0.5	15	20,000	0.050	0.500	0.005
			0.5	20	25,000	0.050	0.500	0.005
			0.5	40	35,000	0.050	0.500	0.005
			0.5	70	45,000	0.050	0.500	0.005
			1.0	15	20,000	0.100	1.000	0.008
			1.0	20	25,000	0.100	1.000	0.008
			1.0	40	35,000	0.100	1.000	0.008
			2.0	15	20,000	0.200	2.000	0.100
			2.0	20	25,000	0.200	2.000	0.100
			3.0	15	20,000	0.300	3.000	0.010
			3.0	20	25,000	0.300	3.000	0.010
			4.0	15	20,000	0.400	4.000	0.010
			4.0	20	25,000	0.400	4.000	0.010
			5.0	15	20,000	0.500	5.000	0.012
			5.0	20	25,000	0.500	5.000	0.012
			6.0	15	20,000	0.500	6.000	0.012

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
M	SS 316 (180-250 HB)	Drilling (Drill)	0.5	15	20,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.004
			0.5	20	25,000			0.004
			0.5	40	35,000			0.004
			0.8	15	20,000			0.006
			0.8	20	25,000			0.006
			1.0	15	20,000			0.006
			1.0	20	25,000			0.006
			1.5	15	20,000			0.006
			1.5	20	25,000			0.006
			2.0	15	20,000			0.008
			2.0	20	25,000			0.008
			2.5	15	20,000			0.008
			3.0	15	20,000			0.008
		Profile Milling (Ball-Nose)	0.5	15	20,000	0.012	0.010	0.007
			0.5	20	25,000	0.012	0.010	0.007
			0.5	40	35,000	0.012	0.010	0.007
			0.5	70	45,000	0.012	0.010	0.007
			1.0	15	20,000	0.030	0.066	0.012
			1.0	20	25,000	0.030	0.066	0.012
			1.0	40	35,000	0.030	0.066	0.012
			1.5	15	20,000	0.046	0.110	0.012
			1.5	20	25,000	0.046	0.110	0.012
			1.5	40	35,000	0.046	0.110	0.012
			2.0	15	20,000	0.063	0.153	0.012
			2.0	20	25,000	0.063	0.153	0.012
			2.0	40	35,000	0.063	0.153	0.012
			2.5	15	20,000	0.080	0.200	0.012
			2.5	20	25,000	0.080	0.200	0.012
			2.5	40	35,000	0.080	0.200	0.012
			3.0	15	20,000	0.100	0.240	0.006
			3.0	20	25,000	0.100	0.240	0.006
			4.0	15	20,000	0.131	0.327	0.006
			4.0	20	25,000	0.131	0.327	0.006
			5.0	15	20,000	0.165	0.414	0.006
			5.0	20	25,000	0.165	0.414	0.006
			6.0	15	20,000	0.200	0.500	0.006
			6.0	20	25,000	0.200	0.500	0.006

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
M	SS 316 (180-250 HB)	Slot Milling (End-Mill)	0.5	15	20,000	0.500	0.010	0.005
			0.5	20	25,000	0.500	0.010	0.005
			0.5	40	35,000	0.500	0.010	0.005
			0.5	70	45,000	0.500	0.010	0.005
			0.8	15	20,000	0.800	0.017	0.008
			0.8	20	25,000	0.800	0.017	0.008
			0.8	40	35,000	0.800	0.017	0.008
			0.8	70	45,000	0.800	0.017	0.008
			1.0	15	20,000	1.000	0.022	0.010
			1.0	20	25,000	1.000	0.022	0.010
			1.0	40	35,000	1.000	0.022	0.010
			1.0	70	45,000	1.000	0.022	0.010
			1.5	15	20,000	1.500	0.035	0.015
			1.5	20	25,000	1.500	0.035	0.015
			1.5	40	35,000	1.500	0.035	0.015
			2.0	15	20,000	2.000	0.047	0.020
			2.0	20	25,000	2.000	0.047	0.020
			2.0	40	35,000	2.000	0.047	0.020
			2.5	15	20,000	2.500	0.060	0.024
			2.5	20	25,000	2.500	0.060	0.024
			2.5	40	35,000	2.500	0.060	0.024
			3.0	15	20,000	3.000	0.072	0.025
			3.0	20	25,000	3.000	0.072	0.025
			4.0	15	20,000	4.000	0.100	0.025
			4.0	20	25,000	4.000	0.100	0.025
		Shoulder Milling (End-Mill)	1.0	15	20,000	0.100	1.000	0.008
			1.0	20	25,000	0.100	1.000	0.008
			1.0	40	35,000	0.100	1.000	0.008
			1.0	70	45,000	0.100	1.000	0.008
			2.0	15	20,000	0.200	2.000	0.100
			2.0	20	25,000	0.200	2.000	0.100
			2.0	40	35,000	0.200	2.000	0.100
			2.0	70	45,000	0.200	2.000	0.100
			3.0	15	20,000	0.300	3.000	0.010
			3.0	20	25,000	0.300	3.000	0.010
			4.0	15	20,000	0.400	4.000	0.010
			4.0	20	25,000	0.400	4.000	0.010
			5.0	15	20,000	0.500	5.000	0.012
			5.0	20	25,000	0.500	5.000	0.012
			6.0	15	20,000	0.500	6.000	0.012
			6.0	20	25,000	0.500	6.000	0.012

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POWER Jet - Recommended Cutting Parameters

POWER Jet

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Al-Si 9% (80-160 HB)	Drilling (Drill)	0.3	15	20,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.002
			0.3	20	25,000			0.002
			0.3	40	35,000			0.002
			0.3	70	45,000			0.002
			0.5	15	20,000			0.003
			0.5	20	25,000			0.008
			0.5	40	35,000			0.008
			0.5	70	45,000			0.008
			0.8	15	20,000			0.008
			0.8	20	25,000			0.008
			0.8	40	35,000			0.008
			0.8	70	45,000			0.008
			1.0	15	20,000			0.008
			1.0	20	25,000			0.008
			1.0	40	35,000			0.008
			1.0	70	45,000			0.008
			1.5	15	20,000			0.008
			1.5	20	25,000			0.008
			1.5	40	35,000			0.008
			1.5	70	45,000			0.008
			2.0	15	20,000			0.008
			2.0	20	25,000			0.008
			2.0	40	35,000			0.008
			2.0	70	45,000			0.008
			3.0	15	20,000			0.008
			3.0	20	25,000			0.008
			3.0	40	35,000			0.008
			3.0	70	45,000			0.008
			4.0	15	20,000			0.008
			4.0	20	25,000			0.010
			4.0	40	35,000			0.010
			4.0	70	45,000			0.010

COLIBRI SPINDLES

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Al-Si 9% (80-160 HB)	Profile Milling (Ball-Nose)	0.5	15	20,000	0.150	0.150	0.005
			0.5	20	25,000	0.150	0.150	0.005
			0.5	40	35,000	0.150	0.150	0.005
			0.5	70	45,000	0.150	0.150	0.005
			0.8	15	20,000	0.240	0.240	0.006
			0.8	20	25,000	0.240	0.240	0.006
			0.8	40	35,000	0.240	0.240	0.006
			0.8	70	45,000	0.240	0.240	0.006
			1.0	15	20,000	0.300	0.300	0.008
			1.0	20	25,000	0.300	0.300	0.008
			1.0	40	35,000	0.300	0.300	0.008
			1.0	70	45,000	0.300	0.300	0.010
			1.5	15	20,000	0.450	0.450	0.010
			1.5	20	25,000	0.450	0.450	0.010
			1.5	40	35,000	0.450	0.450	0.010
			1.5	70	45,000	0.450	0.450	0.010
			2.0	15	20,000	0.600	0.600	0.012
			2.0	20	25,000	0.600	0.600	0.012
			2.0	40	35,000	0.600	0.600	0.012
			2.0	70	45,000	0.600	0.600	0.012
			2.5	15	20,000	0.750	0.750	0.012
			2.5	20	25,000	0.750	0.750	0.012
			2.5	40	35,000	0.750	0.750	0.012
			2.5	70	45,000	0.750	0.750	0.012
			3.0	15	20,000	0.900	0.900	0.012
			3.0	20	25,000	0.900	0.900	0.012
			3.0	40	35,000	0.900	0.900	0.012
			3.0	70	45,000	0.900	0.900	0.012
			4.0	15	20,000	1.200	1.200	0.015
			4.0	20	25,000	1.200	1.200	0.015
			4.0	40	35,000	1.200	1.200	0.015
			4.0	70	45,000	1.200	1.200	0.015
			5.0	15	20,000	1.500	1.500	0.015
			5.0	20	25,000	1.500	1.500	0.015
			5.0	40	35,000	1.500	1.500	0.015
			5.0	70	45,000	1.500	1.500	0.015
			6.0	15	20,000	1.800	1.800	0.020
			6.0	20	25,000	1.800	1.800	0.020
			6.0	40	35,000	1.800	1.800	0.020
			6.0	70	45,000	1.800	1.800	0.020

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Al-Si 9% (80-160 HB)	Slot Milling (End-Mill)	0.5	15	20,000	0.500	0.100	0.008
			0.5	20	25,000	0.500	0.100	0.008
			0.5	40	35,000	0.500	0.100	0.008
			0.5	70	45,000	0.500	0.100	0.008
			0.8	15	20,000	0.800	0.160	0.008
			0.8	20	25,000	0.800	0.160	0.008
			0.8	40	35,000	0.800	0.160	0.008
			0.8	70	45,000	0.800	0.160	0.008
			1.0	15	20,000	1.000	0.200	0.010
			1.0	20	25,000	1.000	0.200	0.010
			1.0	40	35,000	1.000	0.200	0.010
			1.0	70	45,000	1.000	0.200	0.010
			2.0	15	20,000	2.000	0.400	0.015
			2.0	20	25,000	2.000	0.400	0.015
			2.0	40	35,000	2.000	0.400	0.015
			2.0	70	45,000	2.000	0.400	0.015
			3.0	15	20,000	3.000	0.600	0.020
			3.0	20	25,000	3.000	0.600	0.020
			3.0	40	35,000	3.000	0.600	0.020
			3.0	70	45,000	3.000	0.600	0.020
			4.0	15	20,000	4.000	0.800	0.025
			4.0	20	25,000	4.000	0.800	0.025
			4.0	40	35,000	4.000	0.800	0.025
			4.0	70	45,000	4.000	0.800	0.025
			5.0	15	20,000	5.000	1.000	0.025
			5.0	20	25,000	5.000	1.000	0.025
			5.0	40	35,000	5.000	1.000	0.025
			5.0	70	45,000	5.000	1.000	0.025
			5.5	15	20,000	5.500	1.100	0.025
			5.5	20	25,000	5.500	1.100	0.025
			5.5	40	35,000	5.500	1.100	0.025
			5.5	70	45,000	5.500	1.100	0.025
			6.0	15	20,000	6.000	1.200	0.030
			6.0	20	25,000	6.000	1.200	0.030
			6.0	40	35,000	6.000	1.200	0.030
			6.0	70	45,000	6.000	1.200	0.030
		Shoulder Milling (End-Mill)	1.0	15	20,000	0.100	1.000	0.010
			1.0	20	25,000	0.100	1.000	0.010
			1.0	40	35,000	0.100	1.000	0.010
			1.0	70	45,000	0.100	1.000	0.010
			2.0	15	20,000	0.200	2.000	0.015
			2.0	20	25,000	0.200	2.000	0.015
			2.0	40	35,000	0.200	2.000	0.015
			2.0	70	45,000	0.200	2.000	0.015
			3.0	15	20,000	0.300	3.000	0.018
			3.0	20	25,000	0.300	3.000	0.018
			3.0	40	35,000	0.300	3.000	0.018
			3.0	70	45,000	0.300	3.000	0.018
			4.0	15	20,000	0.400	4.000	0.020
			4.0	20	25,000	0.400	4.000	0.020
			4.0	40	35,000	0.400	4.000	0.020
			4.0	70	45,000	0.400	4.000	0.020
			5.0	15	20,000	0.500	5.000	0.020
			5.0	20	25,000	0.500	5.000	0.020
			5.0	40	35,000	0.500	5.000	0.020
			5.0	70	45,000	0.500	5.000	0.020
			6.0	15	20,000	0.600	6.000	0.020
			6.0	20	25,000	0.600	6.000	0.020
			6.0	40	35,000	0.600	6.000	0.020
			6.0	70	45,000	0.600	6.000	0.020

POWER Jet - Recommended Cutting Parameters

POWER Jet

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Cu alloys (80-200 HB)	Drilling (Drill)	0.5	15	20,000	Pecking steps: 0,25-0,5xD Max length of the hole: 5xD		0.004
			0.5	20	25,000			0.004
			0.5	40	35,000			0.004
			0.8	15	20,000			0.006
			0.8	20	25,000			0.006
			1.0	15	20,000			0.006
			1.0	20	25,000			0.006
			1.5	15	20,000			0.006
			1.5	20	25,000			0.006
			2.0	15	20,000			0.008
			2.0	20	25,000			0.008
			2.5	15	20,000			0.008
			3.0	15	20,000			0.008
		Profile Milling (Ball-Nose)	0.5	15	20,000	0.012	0.010	0.007
			0.5	20	25,000	0.012	0.010	0.007
			0.5	40	35,000	0.012	0.010	0.007
			0.5	70	45,000	0.012	0.010	0.007
			1.0	15	20,000	0.030	0.066	0.012
			1.0	20	25,000	0.030	0.066	0.012
			1.5	15	20,000	0.046	0.110	0.012
			1.5	20	25,000	0.046	0.110	0.012
			2.0	15	20,000	0.063	0.153	0.012
			2.0	20	25,000	0.063	0.153	0.012
			2.5	15	20,000	0.080	0.200	0.012
			2.5	20	25,000	0.080	0.200	0.012
			3.0	15	20,000	0.100	0.240	0.006
			3.0	20	25,000	0.100	0.240	0.006
			4.0	15	20,000	0.131	0.327	0.006
			5.0	15	20,000	0.165	0.414	0.006
			6.0	15	20,000	0.200	0.500	0.006
		Slot Milling (End-Mill)	0.5	15	20,000	0.500	0.010	0.005
			0.5	20	25,000	0.500	0.010	0.005
			0.5	40	35,000	0.500	0.010	0.005
			0.5	70	45,000	0.500	0.010	0.005
			0.8	15	20,000	0.800	0.017	0.008
			0.8	20	25,000	0.800	0.017	0.008
			0.8	40	35,000	0.800	0.017	0.008
			0.8	70	45,000	0.800	0.017	0.008
			1.0	15	20,000	1.000	0.022	0.010
			1.0	20	25,000	1.000	0.022	0.010
			1.5	15	20,000	1.500	0.035	0.015
			1.5	20	25,000	1.500	0.035	0.015
			2.0	15	20,000	2.000	0.047	0.020
			2.0	20	25,000	2.000	0.047	0.020
			2.5	15	20,000	2.500	0.060	0.024
			2.5	20	25,000	2.500	0.060	0.024
			3.0	15	20,000	3.000	0.072	0.025
			3.0	20	25,000	3.000	0.072	0.025
			4.0	15	20,000	4.000	0.100	0.025
		Shoulder Milling (End-Mill)	1.0	15	20,000	0.100	1.000	0.008
			1.0	20	25,000	0.100	1.000	0.008
			2.0	15	20,000	0.200	2.000	0.100
			2.0	20	25,000	0.200	2.000	0.100
			3.0	15	20,000	0.300	3.000	0.010
			3.0	20	25,000	0.300	3.000	0.010
			4.0	15	20,000	0.400	4.000	0.010
			5.0	15	20,000	0.500	5.000	0.012
			6.0	15	20,000	0.500	6.000	0.012

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
S	Ti alloys (170-250 HB)	Drilling (Drill)	0.5	15	20,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.004
			0.5	20	25,000			0.004
			0.5	40	35,000			0.004
			0.8	15	20,000			0.006
			0.8	20	25,000			0.006
			1.0	15	20,000			0.006
			1.0	20	25,000			0.006
			1.5	15	20,000			0.006
			1.5	20	25,000			0.006
			2.0	15	20,000			0.008
			2.0	20	25,000			0.008
			2.5	15	20,000			0.008
			3.0	15	20,000			0.008
		Profile Milling (Ball-Nose)	0.5	15	20,000	0.012	0.010	0.007
			0.5	20	25,000	0.012	0.010	0.007
			0.5	40	35,000	0.012	0.010	0.007
			0.5	70	45,000	0.012	0.010	0.007
			1.0	15	20,000	0.030	0.066	0.012
			1.0	20	25,000	0.030	0.066	0.012
			1.0	40	35,000	0.030	0.066	0.012
			1.5	15	20,000	0.046	0.110	0.012
			1.5	20	25,000	0.046	0.110	0.012
			1.5	40	35,000	0.046	0.110	0.012
			2.0	15	20,000	0.063	0.153	0.012
			2.0	20	25,000	0.063	0.153	0.012
			2.0	40	35,000	0.063	0.153	0.012
			2.5	15	20,000	0.080	0.200	0.012
			2.5	20	25,000	0.080	0.200	0.012
			2.5	40	35,000	0.080	0.200	0.012
			3.0	15	20,000	0.100	0.240	0.006
			3.0	20	25,000	0.100	0.240	0.006
			4.0	15	20,000	0.131	0.327	0.006
			4.0	20	25,000	0.131	0.327	0.006
			5.0	15	20,000	0.165	0.414	0.006
			5.0	20	25,000	0.165	0.414	0.006
			6.0	15	20,000	0.200	0.500	0.006
			6.0	20	25,000	0.200	0.500	0.006

POWER Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
S	Ti alloys (170-250 HB)	Slot Milling (End-Mill)	0.5	15	20,000	0.500	0.010	0.005
			0.5	20	25,000	0.500	0.010	0.005
			0.5	40	35,000	0.500	0.010	0.005
			0.5	70	45,000	0.500	0.010	0.005
			0.8	15	20,000	0.800	0.017	0.008
			0.8	20	25,000	0.800	0.017	0.008
			0.8	40	35,000	0.800	0.017	0.008
			0.8	70	45,000	0.800	0.017	0.008
			1.0	15	20,000	1.000	0.022	0.010
			1.0	20	25,000	1.000	0.022	0.010
			1.0	40	35,000	1.000	0.022	0.010
			1.0	70	45,000	1.000	0.022	0.010
			1.5	15	20,000	1.500	0.035	0.015
			1.5	20	25,000	1.500	0.035	0.015
			1.5	40	35,000	1.500	0.035	0.015
			2.0	15	20,000	2.000	0.047	0.020
			2.0	20	25,000	2.000	0.047	0.020
			2.0	40	35,000	2.000	0.047	0.020
			2.5	15	20,000	2.500	0.060	0.024
			2.5	20	25,000	2.500	0.060	0.024
			2.5	40	35,000	2.500	0.060	0.024
			3.0	15	20,000	3.000	0.072	0.025
			3.0	20	25,000	3.000	0.072	0.025
			4.0	15	20,000	4.000	0.100	0.025
			4.0	20	25,000	4.000	0.100	0.025
		Shoulder Milling (End-Mill)	1.0	15	20,000	0.100	1.000	0.008
			1.0	20	25,000	0.100	1.000	0.008
			1.0	40	35,000	0.100	1.000	0.008
			1.0	70	45,000	0.100	1.000	0.008
			2.0	15	20,000	0.200	2.000	0.100
			2.0	20	25,000	0.200	2.000	0.100
			2.0	40	35,000	0.200	2.000	0.100
			2.0	70	45,000	0.200	2.000	0.100
			3.0	15	20,000	0.300	3.000	0.010
			3.0	20	25,000	0.300	3.000	0.010
			4.0	15	20,000	0.400	4.000	0.010
			4.0	20	25,000	0.400	4.000	0.010
			5.0	15	20,000	0.500	5.000	0.012
			5.0	20	25,000	0.500	5.000	0.012
			6.0	15	20,000	0.500	6.000	0.012
			6.0	20	25,000	0.500	6.000	0.012

JET SPINDLE PRO

NPR
New Product Release

SPEED Jet - Recommended Cutting Parameters

2025 | Metric

SPEED Jet

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
P	SAE 1.2316 (35 HRC)	Drilling (Drill)	0.3	20	33,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.002
			0.3	30	44,000			0.002
			0.3	40	55,000			0.002
			0.5	20	33,000			0.003
			0.5	30	44,000			0.003
			0.5	40	55,000			0.003
			0.8	20	33,000			0.005
			1.0	20	33,000			0.005
			1.0	30	44,000			0.005
			1.5	20	33,000			0.005
			1.5	30	44,000			0.005
			2.0	20	33,000			0.006
		Profile Milling (Ball-Nose)	0.3	20	33,000	0.004	0.004	0.004
			0.3	30	44,000	0.004	0.004	0.004
			0.3	40	55,000	0.004	0.004	0.004
			0.5	20	33,000	0.010	0.008	0.006
			0.5	30	44,000	0.010	0.008	0.006
			0.5	40	55,000	0.010	0.008	0.006
			1.0	20	33,000	0.024	0.053	0.010
			1.0	30	44,000	0.024	0.053	0.010
			1.0	40	55,000	0.024	0.053	0.010
			1.5	20	33,000	0.037	0.088	0.010
			1.5	30	44,000	0.037	0.088	0.010
			1.5	40	55,000	0.037	0.088	0.010
			2.0	20	33,000	0.050	0.122	0.010
			2.0	30	44,000	0.050	0.122	0.010
			2.0	40	55,000	0.050	0.122	0.010
			2.5	20	33,000	0.064	0.160	0.010
			2.5	30	44,000	0.064	0.160	0.010
			2.5	40	55,000	0.064	0.160	0.010
			3.0	20	33,000	0.080	0.192	0.005
			3.0	30	44,000	0.080	0.192	0.005
			4.0	20	33,000	0.105	0.262	0.005
			4.0	30	44,000	0.105	0.262	0.005
			5.0	20	33,000	0.132	0.331	0.005
			5.0	30	44,000	0.132	0.331	0.005
			6.0	20	33,000	0.160	0.400	0.005

COLIBRI SPINDLES

SPEED Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
P	SAE 1.2316 (35 HRC)	Slot Milling (End-Mill)	0.3	20	33,000	0.300	0.004	0.002
			0.3	30	44,000	0.300	0.004	0.002
			0.3	40	55,000	0.300	0.004	0.002
			0.5	20	33,000	0.500	0.008	0.004
			0.5	30	44,000	0.500	0.008	0.004
			0.5	40	55,000	0.500	0.008	0.004
			0.8	20	33,000	0.800	0.014	0.006
			0.8	30	44,000	0.800	0.014	0.006
			0.8	40	55,000	0.800	0.014	0.006
			1.0	20	33,000	1.000	0.018	0.008
			1.0	30	44,000	1.000	0.018	0.008
			1.0	40	55,000	1.000	0.018	0.008
			1.5	20	33,000	1.500	0.028	0.012
			1.5	30	44,000	1.500	0.028	0.012
			1.5	40	55,000	1.500	0.028	0.012
			2.0	20	33,000	2.000	0.038	0.016
			2.0	30	44,000	2.000	0.038	0.016
			2.0	40	55,000	2.000	0.038	0.016
			2.5	20	33,000	2.500	0.048	0.019
			2.5	30	44,000	2.500	0.048	0.019
			2.5	40	55,000	2.500	0.048	0.019
			3.0	20	33,000	3.000	0.058	0.020
			3.0	30	44,000	3.000	0.058	0.020
			3.0	40	55,000	3.000	0.058	0.020
			4.0	20	33,000	4.000	0.080	0.020
			4.0	30	44,000	4.000	0.080	0.020
			4.0	40	55,000	4.000	0.080	0.020
		Shoulder Milling (End-Mill)	0.5	20	33,000	0.040	0.400	0.004
			0.5	30	44,000	0.040	0.400	0.004
			0.5	40	55,000	0.040	0.400	0.004
			1.0	20	33,000	0.080	0.800	0.006
			1.0	30	44,000	0.080	0.800	0.006
			1.0	40	55,000	0.080	0.800	0.006
			2.0	20	33,000	0.160	1.600	0.080
			2.0	30	44,000	0.160	1.600	0.080
			2.0	40	55,000	0.160	1.600	0.080
			3.0	20	33,000	0.240	2.400	0.008
			3.0	30	44,000	0.240	2.400	0.008
			3.0	40	55,000	0.240	2.400	0.008
			4.0	20	33,000	0.320	3.200	0.008

SPEED Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
M	SS 316 (180-250 HB)	Drilling (Drill)	0.5	20	33,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.003
			0.5	30	44,000			0.003
			0.5	40	55,000			0.003
			0.8	20	33,000			0.005
			0.8	30	44,000			0.005
			0.8	40	55,000			0.005
			1.0	20	33,000			0.005
			1.0	30	44,000			0.005
			1.0	40	55,000			0.005
			1.5	20	33,000			0.005
			1.5	30	44,000			0.005
			1.5	40	55,000			0.005
			2.0	20	33,000			0.006
		Profile Milling (Ball-Nose)	0.5	20	33,000	0.010	0.008	0.006
			0.5	30	44,000	0.010	0.008	0.006
			0.5	40	55,000	0.010	0.008	0.006
			1.0	20	33,000	0.024	0.053	0.010
			1.0	30	44,000	0.024	0.053	0.010
			1.0	40	55,000	0.024	0.053	0.010
			1.5	20	33,000	0.037	0.088	0.010
			1.5	30	44,000	0.037	0.088	0.010
			2.0	20	33,000	0.050	0.122	0.010
			2.0	30	44,000	0.050	0.122	0.010
			2.5	20	33,000	0.064	0.160	0.010
			3.0	20	33,000	0.080	0.192	0.005
			4.0	20	33,000	0.105	0.262	0.005
		Slot Milling (End-Mill)	0.5	20	33,000	0.500	0.008	0.004
			0.5	30	44,000	0.500	0.008	0.004
			0.5	40	55,000	0.500	0.008	0.004
			0.8	20	33,000	0.800	0.014	0.006
			0.8	30	44,000	0.800	0.014	0.006
			0.8	40	55,000	0.800	0.014	0.006
			1.0	20	33,000	1.000	0.018	0.008
			1.0	30	44,000	1.000	0.018	0.008
			1.0	40	55,000	1.000	0.018	0.008
			1.5	20	33,000	1.500	0.028	0.012
			1.5	30	44,000	1.500	0.028	0.012
			2.0	20	33,000	2.000	0.038	0.016
			2.5	20	33,000	2.500	0.048	0.019
			2.5	30	44,000	2.500	0.048	0.019
			3.0	20	33,000	3.000	0.058	0.020
		Shoulder Milling (End-Mill)	1.0	20	33,000	0.080	0.800	0.006
			1.0	30	44,000	0.080	0.800	0.006
			1.0	40	55,000	0.080	0.800	0.006
			2.0	20	33,000	0.160	1.600	0.080
			2.0	30	44,000	0.160	1.600	0.080
			3.0	20	33,000	0.240	2.400	0.008
			3.0	30	44,000	0.240	2.400	0.008
			4.0	20	33,000	0.320	3.200	0.008
			5.0	20	33,000	0.400	4.000	0.010
			6.0	20	33,000	0.400	4.800	0.010

SPEED Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Al-Si 9% (80-160 HB)	Drilling (Drill)	0.3	20	33,000	Pecking steps: 0,25-0,5xD Max length of the hole: 3-4xD		0.002
			0.3	30	44,000			0.002
			0.3	40	55,000			0.002
			0.5	20	33,000			0.006
			0.5	30	44,000			0.006
			0.5	40	55,000			0.006
			0.8	20	33,000			0.006
			0.8	30	44,000			0.006
			0.8	40	55,000			0.006
			1.0	20	33,000			0.006
			1.0	30	44,000			0.006
			1.0	40	55,000			0.006
			1.5	20	33,000			0.006
			1.5	30	44,000			0.006
			1.5	40	55,000			0.006
			2.0	20	33,000			0.006
			2.0	30	44,000			0.006
			2.0	40	55,000			0.006
			3.0	20	33,000			0.006
			3.0	30	44,000			0.006
			3.0	40	55,000			0.006
		Profile Milling (Ball-Nose)	0.5	20	33,000	0.120	0.120	0.004
			0.5	30	44,000	0.120	0.120	0.004
			0.5	40	55,000	0.120	0.120	0.004
			0.8	20	33,000	0.192	0.192	0.005
			0.8	30	44,000	0.192	0.192	0.005
			0.8	40	55,000	0.192	0.192	0.005
			1.0	20	33,000	0.240	0.240	0.006
			1.0	30	44,000	0.240	0.240	0.006
			1.0	40	55,000	0.240	0.240	0.006
			1.5	20	33,000	0.360	0.360	0.008
			1.5	30	44,000	0.360	0.360	0.008
			1.5	40	55,000	0.360	0.360	0.008
			2.0	20	33,000	0.480	0.480	0.010
			2.0	30	44,000	0.480	0.480	0.010
			2.0	40	55,000	0.480	0.480	0.010
			2.5	20	33,000	0.600	0.600	0.010
			2.5	30	44,000	0.600	0.600	0.010
			2.5	40	55,000	0.600	0.600	0.010
			3.0	20	33,000	0.720	0.720	0.010
			3.0	30	44,000	0.720	0.720	0.010
			3.0	40	55,000	0.720	0.720	0.010
			4.0	20	33,000	0.960	0.960	0.012
			4.0	30	44,000	0.960	0.960	0.012
			4.0	40	55,000	0.960	0.960	0.012
			5.0	20	33,000	1.200	1.200	0.012
			5.0	30	44,000	1.200	1.200	0.012
			5.0	40	55,000	1.200	1.200	0.012
			6.0	20	33,000	1.440	1.440	0.016
			6.0	30	44,000	1.440	1.440	0.016
			6.0	40	55,000	1.440	1.440	0.016

SPEED Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Al-Si 9% (80-160 HB)	Slot Milling (End-Mill)	0.5	20	33,000	0.500	0.080	0.006
			0.5	30	44,000	0.500	0.080	0.006
			0.5	40	55,000	0.500	0.080	0.006
			0.8	20	33,000	0.800	0.128	0.006
			0.8	30	44,000	0.800	0.128	0.006
			0.8	40	55,000	0.800	0.128	0.006
			1.0	20	33,000	1.000	0.160	0.008
			1.0	30	44,000	1.000	0.160	0.008
			1.0	40	55,000	1.000	0.160	0.008
			1.5	20	33,000	1.500	0.240	0.010
			1.5	30	44,000	1.500	0.240	0.010
			1.5	40	55,000	1.500	0.240	0.010
			2.0	20	33,000	2.000	0.320	0.012
			2.0	30	44,000	2.000	0.320	0.012
			2.0	40	55,000	2.000	0.320	0.012
			2.5	20	33,000	2.500	0.400	0.014
			2.5	30	44,000	2.500	0.400	0.014
			2.5	40	55,000	2.500	0.400	0.014
			3.0	20	33,000	3.000	0.480	0.016
			3.0	30	44,000	3.000	0.480	0.016
			3.0	40	55,000	3.000	0.480	0.016
			3.5	20	33,000	3.500	0.560	0.018
			3.5	30	44,000	3.500	0.560	0.018
			3.5	40	55,000	3.500	0.560	0.018
			4.0	20	33,000	4.000	0.640	0.020
			4.0	30	44,000	4.000	0.640	0.020
			4.0	40	55,000	4.000	0.640	0.020
		Shoulder Milling (End-Mill)	1.0	20	33,000	0.080	0.800	0.008
			1.0	30	44,000	0.080	0.800	0.008
			1.0	40	55,000	0.080	0.800	0.008
			2.0	20	33,000	0.160	1.600	0.012
			2.0	30	44,000	0.160	1.600	0.012
			2.0	40	55,000	0.160	1.600	0.012
			3.0	20	33,000	0.240	2.400	0.014
			3.0	30	44,000	0.240	2.400	0.014
			3.0	40	55,000	0.240	2.400	0.014
			4.0	20	33,000	0.320	3.200	0.016
			4.0	30	44,000	0.320	3.200	0.016
			4.0	40	55,000	0.320	3.200	0.016
			5.0	20	33,000	0.400	4.000	0.016
			5.0	30	44,000	0.400	4.000	0.016
			5.0	40	55,000	0.400	4.000	0.016
			6.0	20	33,000	0.480	4.800	0.016
			6.0	30	44,000	0.480	4.800	0.016
			6.0	40	55,000	0.480	4.800	0.016

SPEED Jet - Recommended Cutting Parameters

SPEED Jet

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
N	Cu alloys (80-200 HB)	Drilling (Drill)	0.5	20	33,000	Pecking steps: 0,25-0,5xD Max length of the hole: 5xD		0.003
			0.5	30	44,000			0.003
			0.5	40	55,000			0.003
			0.8	20	33,000			0.005
			0.8	30	44,000			0.005
			0.8	40	55,000			0.005
			1.0	20	33,000			0.005
			1.0	30	44,000			0.005
			1.0	40	55,000			0.005
			1.5	20	33,000			0.005
			2.0	20	33,000			0.006
		Profile Milling (Ball-Nose)	0.5	20	33,000	0.010	0.008	0.006
			0.5	30	44,000	0.010	0.008	0.006
			0.5	40	55,000	0.010	0.008	0.006
			1.0	20	33,000	0.024	0.053	0.010
			1.5	20	33,000	0.037	0.088	0.010
			2.0	20	33,000	0.050	0.122	0.010
			2.5	20	33,000	0.064	0.160	0.010
			3.0	20	33,000	0.080	0.192	0.005
			4.0	20	33,000	0.105	0.262	0.005
		Slot Milling (End-Mill)	0.5	20	33,000	0.500	0.008	0.004
			0.5	30	44,000	0.500	0.008	0.004
			0.5	40	55,000	0.500	0.008	0.004
			0.8	20	33,000	0.800	0.014	0.006
			0.8	30	44,000	0.800	0.014	0.006
			0.8	40	55,000	0.800	0.014	0.006
			1.0	20	33,000	1.000	0.018	0.008
			1.5	20	33,000	1.500	0.028	0.012
			2.0	20	33,000	2.000	0.038	0.016
			2.5	20	33,000	2.500	0.048	0.019
			3.0	20	33,000	3.000	0.058	0.020
		Shoulder Milling (End-Mill)	1.0	20	33,000	0.080	0.800	0.006
			2.0	20	33,000	0.160	1.600	0.080
			3.0	20	33,000	0.240	2.400	0.008
			4.0	20	33,000	0.320	3.200	0.008
			5.0	20	33,000	0.400	4.000	0.010
			6.0	20	33,000	0.400	4.800	0.010

SPEED Jet - Recommended Cutting Parameters

	Material	Process	Cutting Tool dia. (mm)	Pressure (bar)	Speed (rpm)	Ae (mm)	Ap (mm)	Fz (mm/t)
S	Ti alloys (170-250 HB)	Drilling (Drill)	0.5	20	33,000	Pecking steps: 0,25-0,5xD Max length of the hole: 5xD		0.003
			0.5	30	44,000			0.003
			0.5	40	55,000			0.003
			0.8	20	33,000			0.005
			0.8	30	44,000			0.005
			0.8	40	55,000			0.005
			1.0	20	33,000			0.005
			1.0	30	44,000			0.005
			1.0	40	55,000			0.005
			1.5	20	33,000			0.005
			1.5	30	44,000			0.005
			1.5	40	55,000			0.005
			2.0	20	33,000			0.006
		Profile Milling (Ball-Nose)	0.5	20	33,000	0.010	0.008	0.006
			0.5	30	44,000	0.010	0.008	0.006
			0.5	40	55,000	0.010	0.008	0.006
			1.0	20	33,000	0.024	0.053	0.010
			1.0	30	44,000	0.024	0.053	0.010
			1.0	40	55,000	0.024	0.053	0.010
			1.5	20	33,000	0.037	0.088	0.010
			1.5	30	44,000	0.037	0.088	0.010
			2.0	20	33,000	0.050	0.122	0.010
			2.0	30	44,000	0.050	0.122	0.010
			2.5	20	33,000	0.064	0.160	0.010
			3.0	20	33,000	0.080	0.192	0.005
			4.0	20	33,000	0.105	0.262	0.005
		Slot Milling (End-Mill)	0.5	20	33,000	0.500	0.008	0.004
			0.5	30	44,000	0.500	0.008	0.004
			0.5	40	55,000	0.500	0.008	0.004
			0.8	20	33,000	0.800	0.014	0.006
			0.8	30	44,000	0.800	0.014	0.006
			0.8	40	55,000	0.800	0.014	0.006
			1.0	20	33,000	1.000	0.018	0.008
			1.0	30	44,000	1.000	0.018	0.008
			1.0	40	55,000	1.000	0.018	0.008
			1.5	20	33,000	1.500	0.028	0.012
			1.5	30	44,000	1.500	0.028	0.012
			2.0	20	33,000	2.000	0.038	0.016
			2.5	20	33,000	2.500	0.048	0.019
			2.5	30	44,000	2.500	0.048	0.019
			3.0	20	33,000	3.000	0.058	0.020
		Shoulder Milling (End-Mill)	1.0	20	33,000	0.080	0.800	0.006
			1.0	30	44,000	0.080	0.800	0.006
			1.0	40	55,000	0.080	0.800	0.006
			2.0	20	33,000	0.160	1.600	0.080
			2.0	30	44,000	0.160	1.600	0.080
			3.0	20	33,000	0.240	2.400	0.008
			3.0	30	44,000	0.240	2.400	0.008
			4.0	20	33,000	0.320	3.200	0.008
			5.0	20	33,000	0.400	4.000	0.010
			6.0	20	33,000	0.400	4.800	0.010

Cartridge Replacement

To replace the cartridge there are two steps, first remove the existing cartridge and then install the new cartridge:

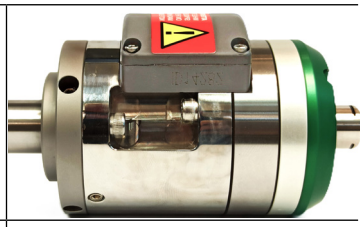
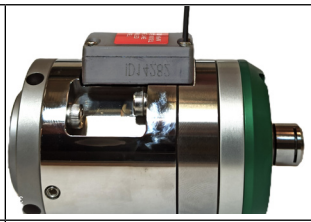
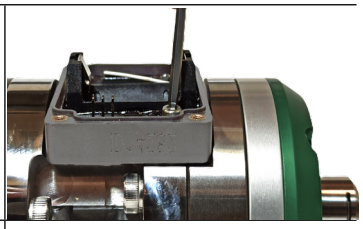
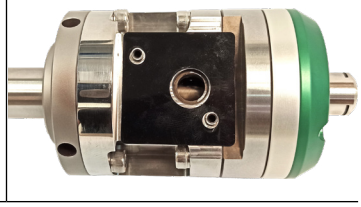
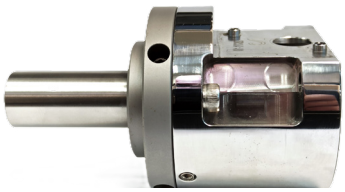
REMOVE CARTRIDGE

- Remove the sensor cover and sensor base (image 2, 3)
- Remove the bolts that hold the cartridge in place and remove the cartridge (image 6, 7)

INSTALL CARTRIDGE

- Insert the cartridge
- Align the cartridge, while secruing the bolts
- Assemble the sensor base and sensor cover

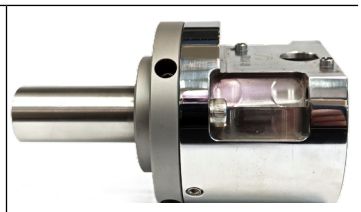
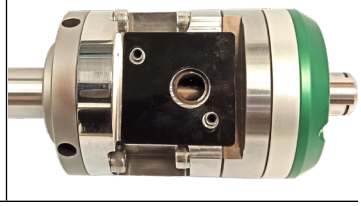
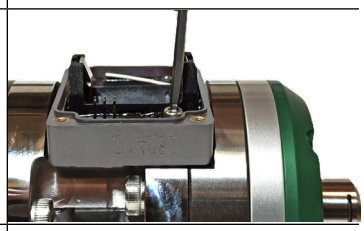
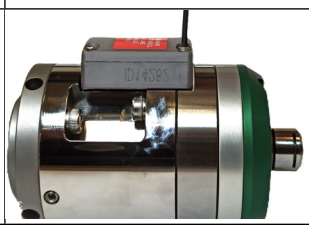
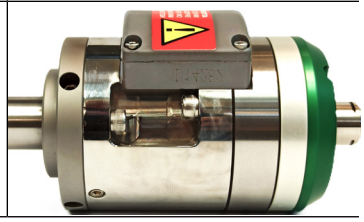
Cartridge Removal

1		2		3	
4		5		6	
		7			

Cartridge Assembly

INSTALL NEW CARTRIDGE

- Insert the cartridge
- Align the cartridge, while secruing the bolts
- Assemble the sensor base and sensor cover

1		2		3	
4		5		6	
		7			

90 Degrees Jet Spindle Setup

MACHINE SPINDLE

- Ensure machine spindle is locked.

HOLDER

- Use a hydraulic holder for quickest and most accurate setup;
  OR
- Use an ER sealed collet 20.00 mm

Clamping and Coolant

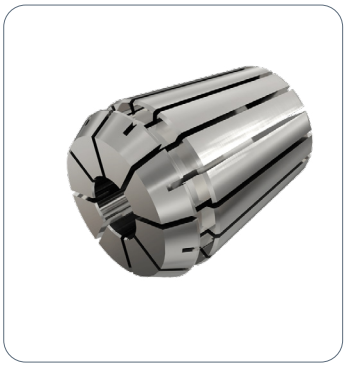
When machining at high speeds you must have a high precision spindle that provides the speed, accuracy and power using high-precision nut & collet to optimize dynamic balancing with pinpointed coolant to the cutting edge. **Assures a simple tool change with no setup time and a low runout**.

Coolant outlets from the front turbine cover point high pressure coolant direclty towards the cutting edge.

Nut & Collet

NUT ER 11 GHS
(2 microns runout)

AAA SPEED Precision ER 11
Collet (1 micron runout)
(not included)



Tools

Shaft Lock Wrench

Wrench for NUT ER11 GHS

Catalog

The Jet Spindle cartridge can be replaced onsite or by a regional certified service center.

Prices
Your price list will provided upon request.

Availability

Holder	V2 Status	Availability
ST20	Out of stock	In stock
ST20 90 Degrees	N/A	In stock
ER32	Out of stock	In stock
BT30 / 40	In Stock	In stock
HSK A40	In stock	Q4 2025
HSK A63	In stock	In stock
CAPTO C5 / C6	Only C5 SPEED Jet in stock	In stock
SK40	Only POWER Jet in stock	Q3 2025
CAT40	In stock	In stock

Commercial
Contact one of Colibri Partners for details.

Each package contains:

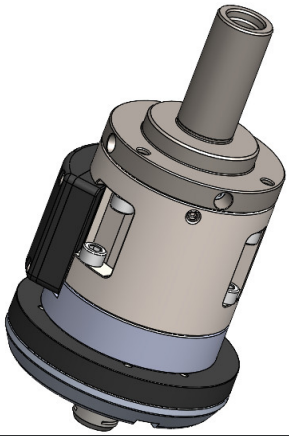
NUT ER11 GHS x1
NUT ER11 GHS Wrench x1
Shaft Lock Wrench x1

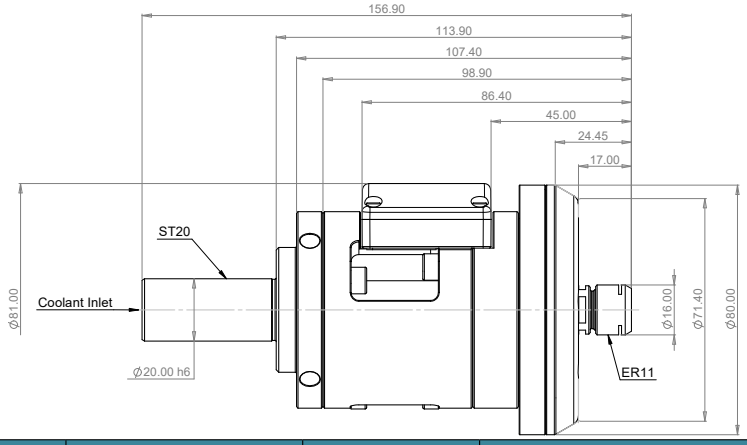
Catalog

POWER Jet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





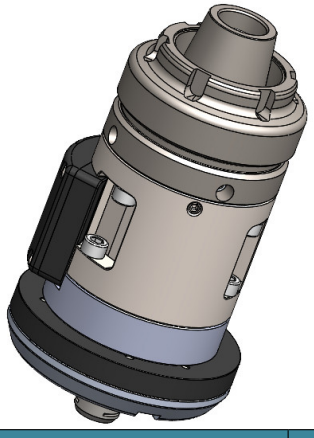
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet ST20	47-085-099	**ST20**	113.90	6.0	1.8

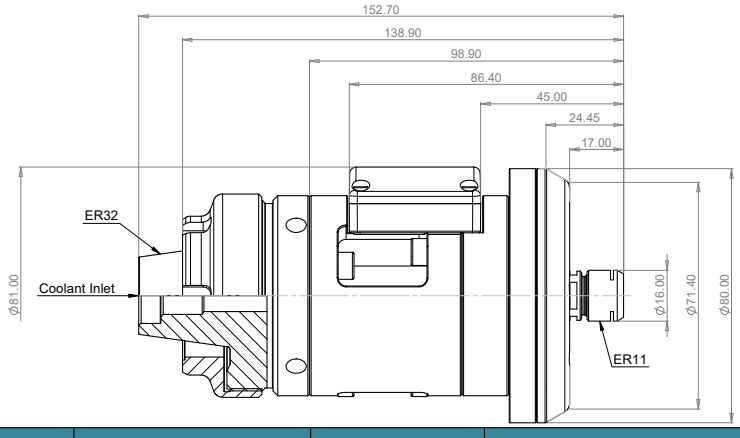
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

ST20 Primary View 2D – DXF	ST20 Model 3D Detail – STP	ST20 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet ER32	47-085-599	**ER32**	125.90	6.0	2.3

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

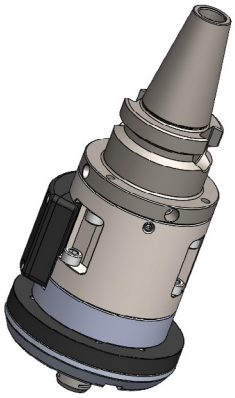
ER32 Primary View 2D – DXF	ER32 Model 3D Detail – STP	ER32 Model 3D Light – STP

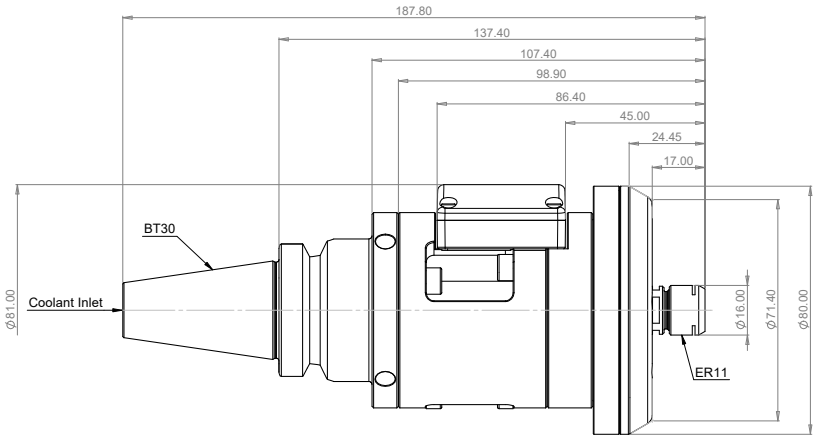
Catalog

POWER Jet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





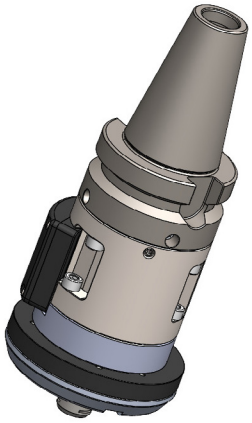
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet BT30	47-085-399	**BT30**	137.40	6.0	2.1

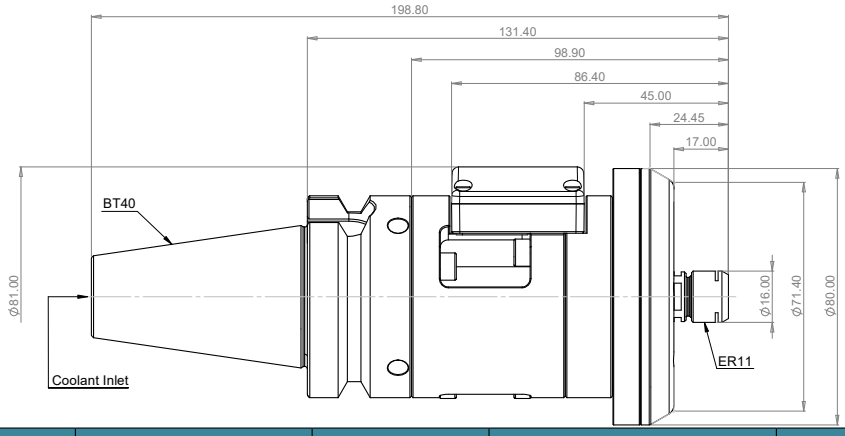
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

BT30 Primary View 2D – DXF	BT30 Model 3D Detail – STP	BT30 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet BT40	47-085-799	**BT40**	131.40	6.0	2.6

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

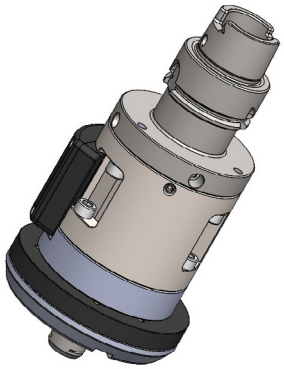
BT40 Primary View 2D – DXF	BT40 Model 3D Detail – STP	BT40 Model 3D Light – STP

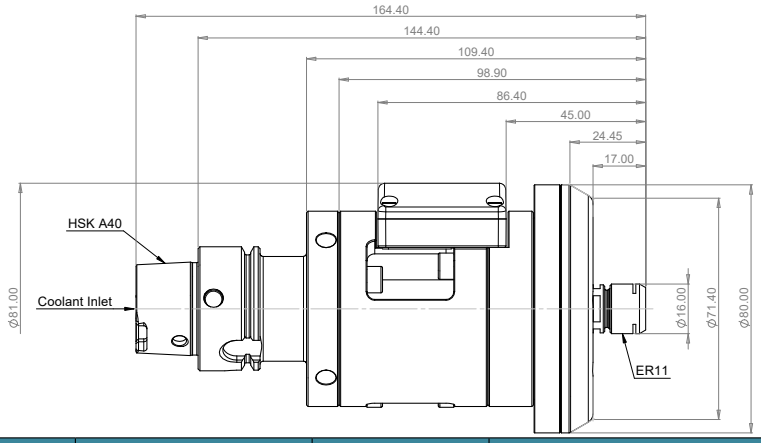
Catalog

POWER Jet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





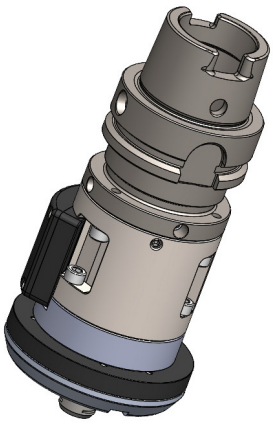
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet HSK A40	47-085-249	**HSK A40**	144.40	6.0	2.0

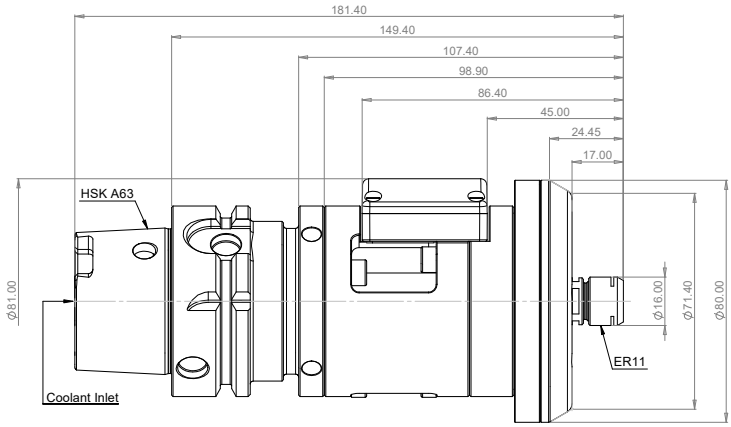
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

HSK A40 Primary View 2D – DXF	HSK A40 Model 3D Detail – STP	HSK A40 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet HSK A63	47-085-299	**HSK A63**	149.40	6.0	2.5

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

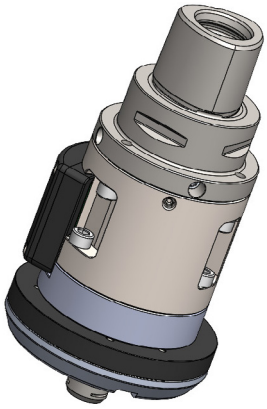
HSK A63 Primary View 2D – DXF	HSK A63 Model 3D Detail – STP	HSK A63 Model 3D Light – STP

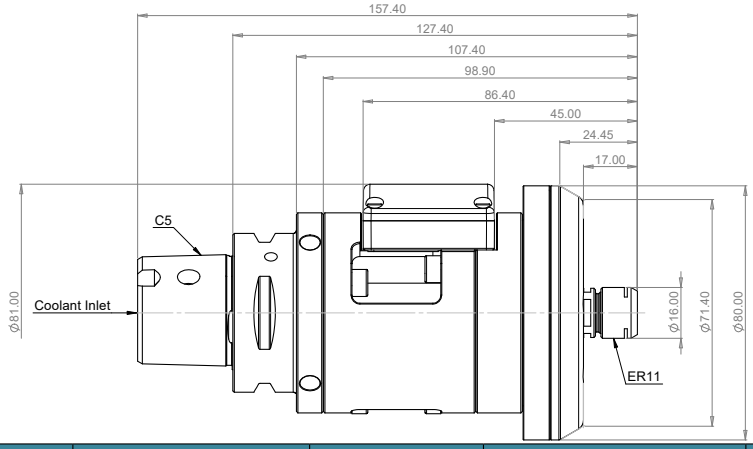
Catalog

POWER Jet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





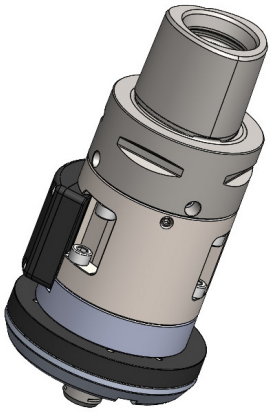
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet C5	47-085-499	**C5**	127.40	6.0	2.1

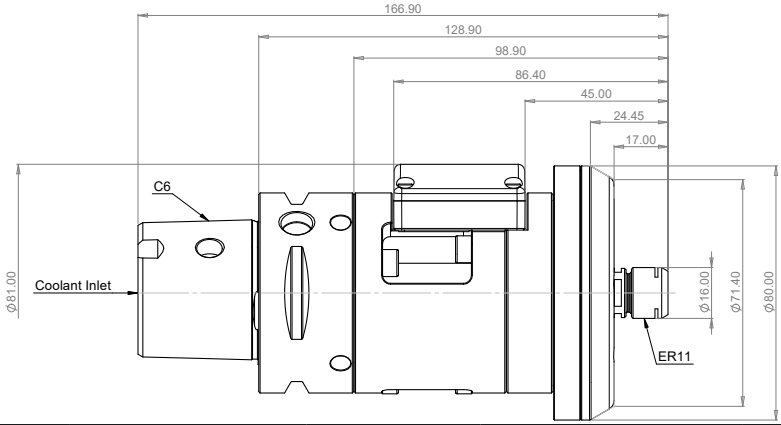
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

C5 Primary View 2D – DXF	C5 Model 3D Detail – STP	C5 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet C6	47-085-199	**C6**	128.90	6.0	2.4

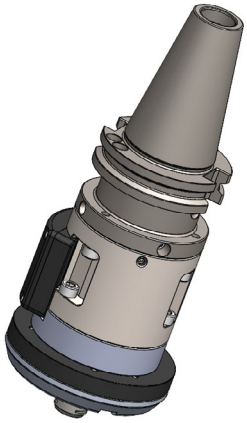
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

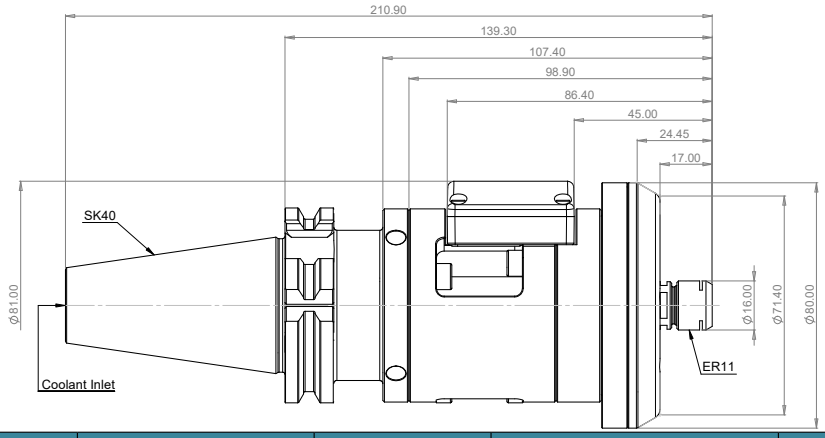
C6 Primary View 2D – DXF	C6 Model 3D Detail – STP	C6 Model 3D Light – STP

Catalog

POWER Jet

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40

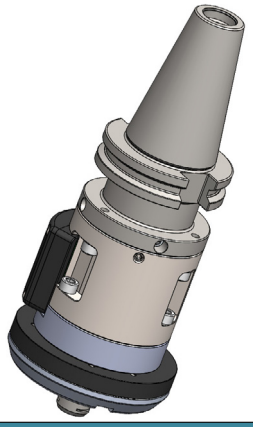


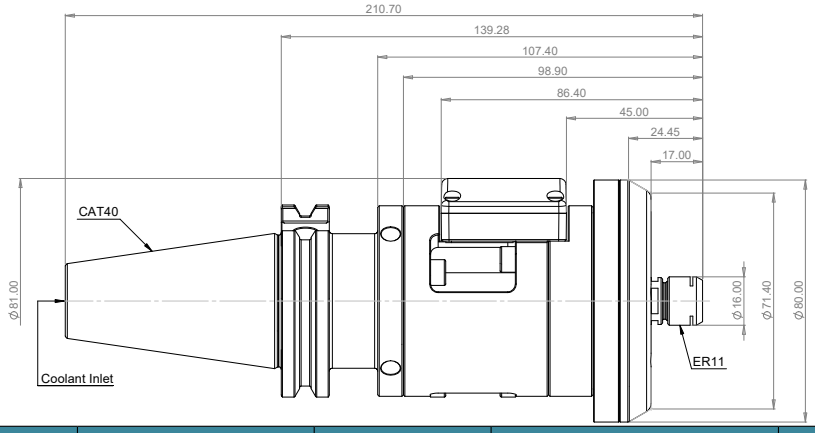


Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet SK40	47-085-849	**SK40**	139.30	6.0	2.7

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/		
SK40 Primary View 2D – DXF	SK40 Model 3D Detail – STP	SK40 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A63	HSK A40	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet CAT40	47-085-699	**CAT40**	139.275	6.0	2.6

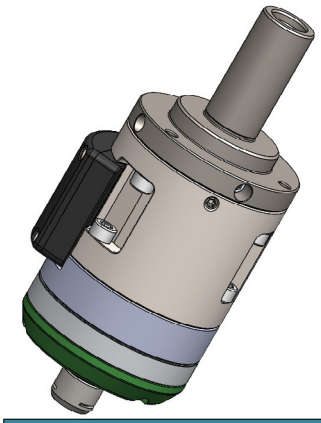
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/		
CAT40 Primary View 2D – DXF	CAT40 Model 3D Detail – STP	CAT40 Model 3D Light – STP

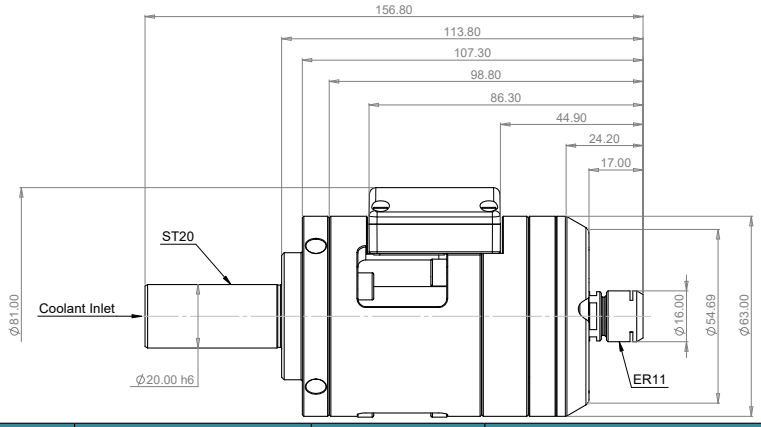
Catalog

SPEED Jet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





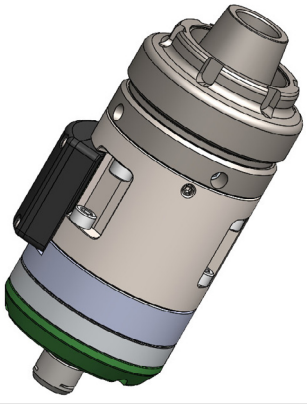
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet ST20	37-085-099	**ST20**	113.80	4.0	1.7

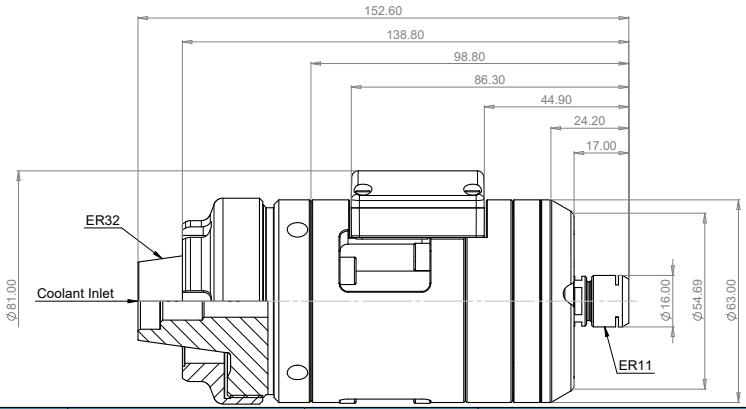
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

ST20 Primary View 2D – DXF	ST20 Model 3D Detail – STP	ST20 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS

Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet ER32	37-085-599	**ER32**	125.80	4.0	2.2

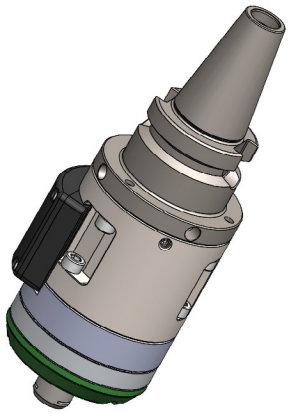
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//

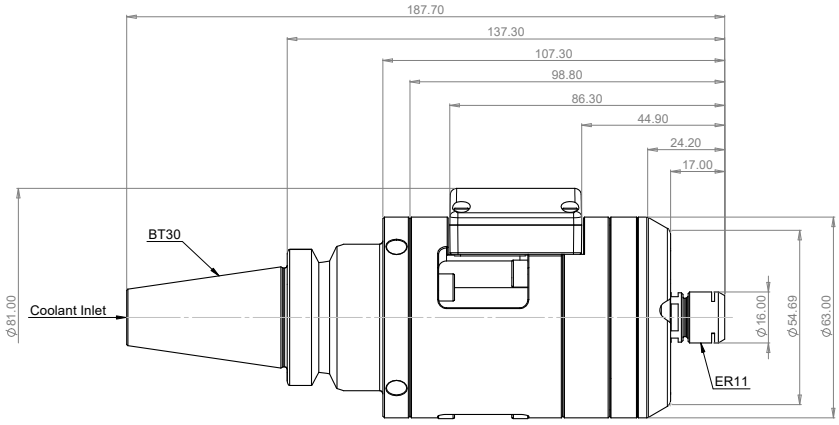
ER32 Primary View 2D – DXF	ER32 Model 3D Detail – STP	ER32 Model 3D Light – STP

Catalog

SPEED Jet

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	**BT30**	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40

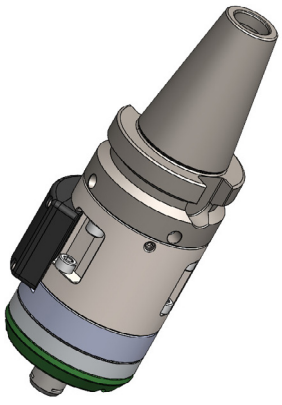


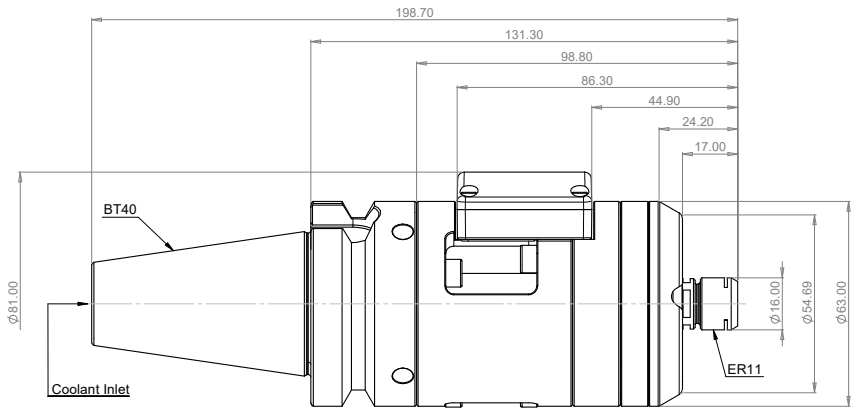


Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet BT30	37-085-399	**BT30**	137.30	4.0	2.0

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
BT30 Primary View 2D – DXF	BT30 Model 3D Detail – STP	BT30 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	**BT40**	HSK A40	HSK A63	C5	C6	SK40	CAT40



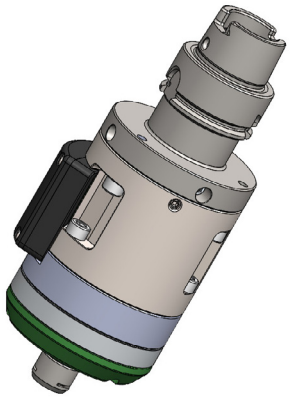


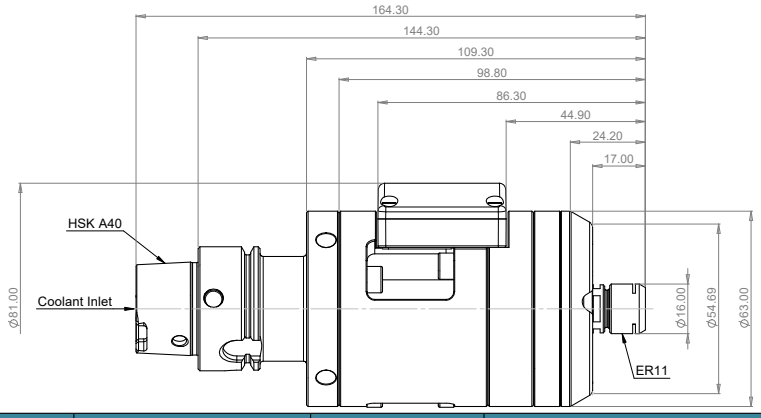
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet BT40	37-085-799	**BT40**	131.30	4.0	2.5

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
BT40 Primary View 2D – DXF	BT40 Model 3D Detail – STP	BT40 Model 3D Light – STP

Catalog

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	**HSK A40**	HSK A63	C5	C6	SK40	CAT40

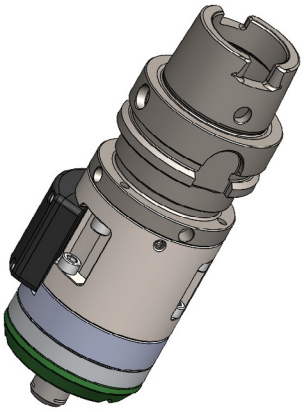


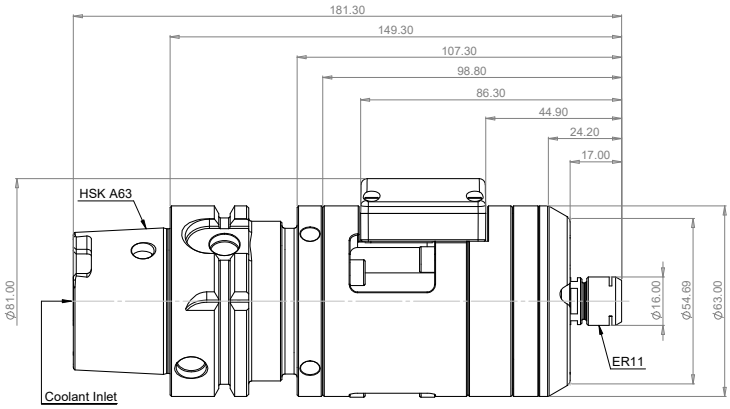


Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet HSK A40	37-085-249	**HSK A40**	144.30	4.0	1.9

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
HSK A40 Primary View 2D – DXF	HSK A40 Model 3D Detail – STP	HSK A40 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A40	**HSK A63**	C5	C6	SK40	CAT40





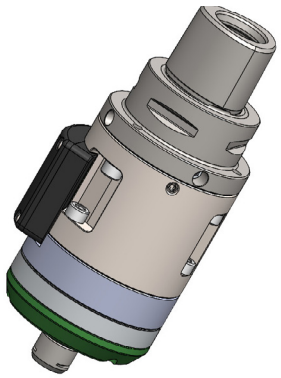
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet HSK A63	37-085-299	**HSK A63**	149.30	4.0	2.4

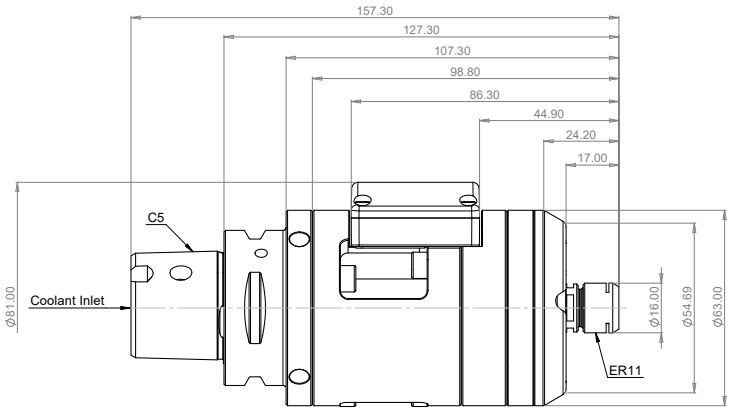
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
HSK A63 Primary View 2D – DXF	HSK A63 Model 3D Detail – STP	HSK A63 Model 3D Light – STP

Catalog

SPEED Jet

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40

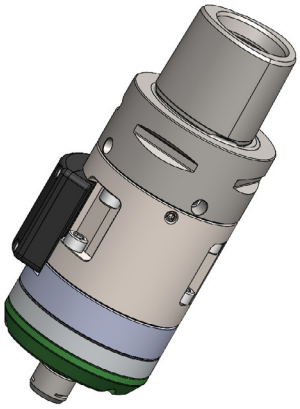


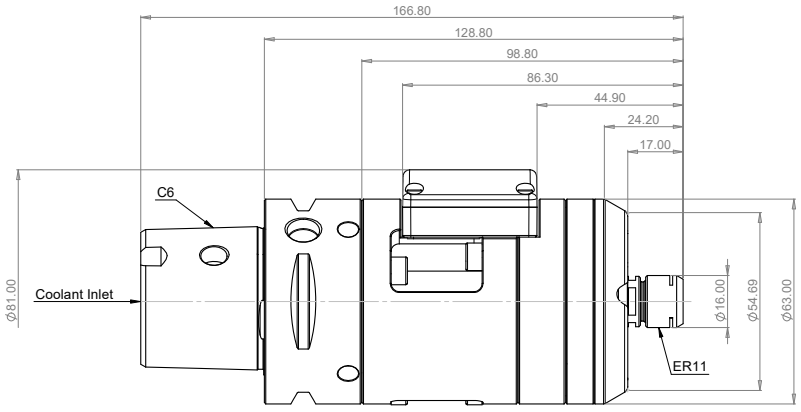


Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet CAPTO C5	37-085-499	**C5**	127.30	4.0	2.0

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
C5 Primary View 2D – DXF	C5 Model 3D Detail – STP	C5 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





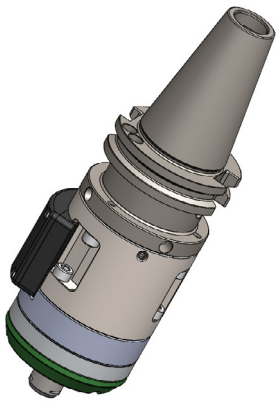
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet CAPTO C6	37-085-199	**C6**	128.80	4.0	2.3

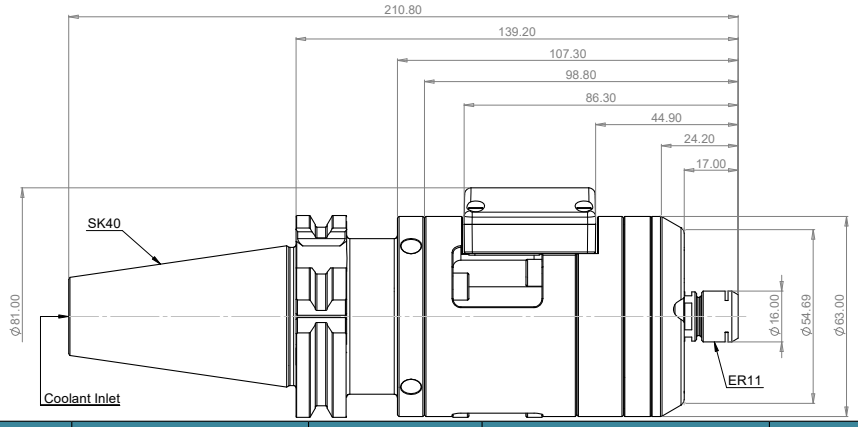
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
C6 Primary View 2D – DXF	C6 Model 3D Detail – STP	C6 Model 3D Light – STP

Catalog

SPEED Jet

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40

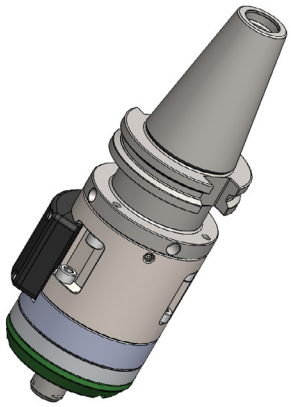


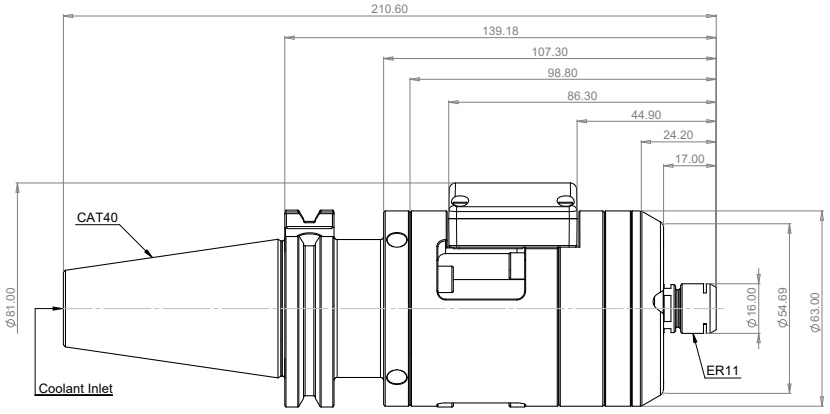


Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet SK40	37-085-849	**SK40**	139.20	4.0	2.6

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
SK40 Primary View 2D – DXF	SK40 Model 3D Detail – STP	SK40 Model 3D Light – STP

COMPATIBLE ADAPTOR MODELS										
Adapter	ST20	ER32	BT30	BT40	HSK A40	HSK A63	C5	C6	SK40	CAT40





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet CAT40	37-085-699	**CAT40**	139.20	4.0	2.5

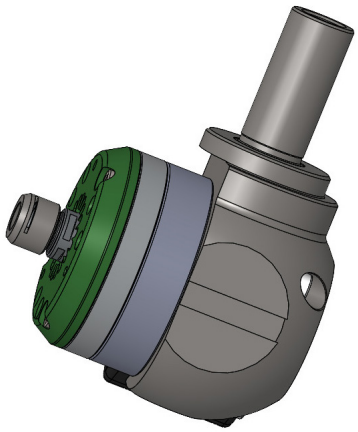
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog//		
CAT40 Primary View 2D – DXF	CAT40 Model 3D Detail – STP	CAT40 Model 3D Light – STP

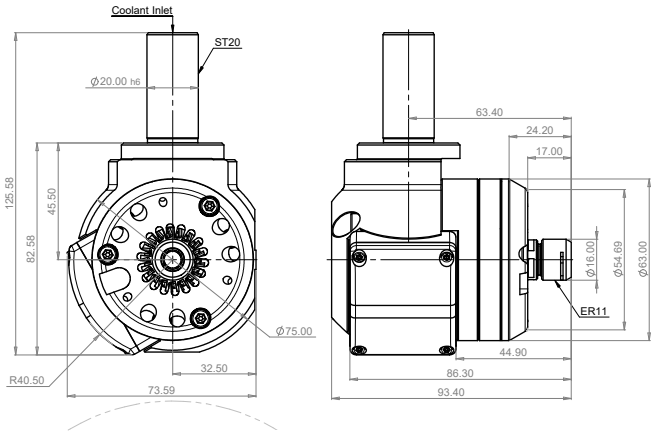
Catalog

90DEGJet

COMPATIBLE ADAPTOR MODELS

Adapter	ST20 90D SPEED Jet	ST20 90D POWER Jet





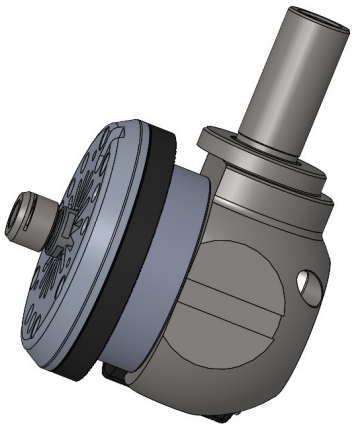
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
ST20 90D SPEED Jet	37-035-999	**ST20**	82.70	4.0	1.6

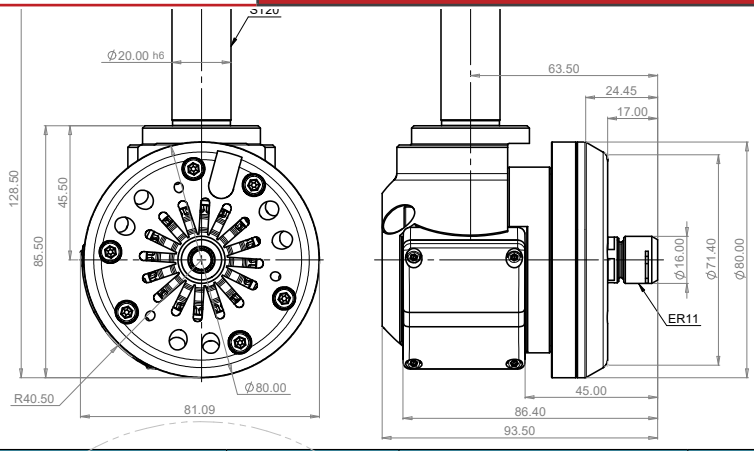
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

ST20 90D SPEED Jet Primary View 2D – DXF	ST20 90D SPEED Jet Model 3D Detail – STP

COMPATIBLE ADAPTOR MODELS

Adapter	St20 90D SPEED Jet	ST20 90D POWER Jet





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
ST20 90D POWER Jet	47-055-999	**ST20**	85.50	6.0	1.7

FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

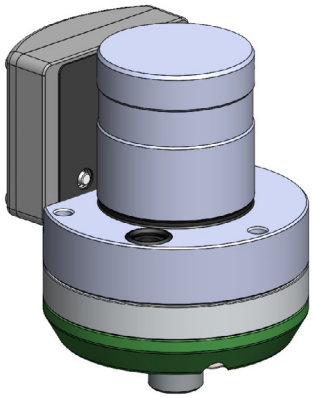
ST20 90D POWER Jet Primary View 2D – DXF	ST20 90D POWER Jet Model 3D Detail – STP

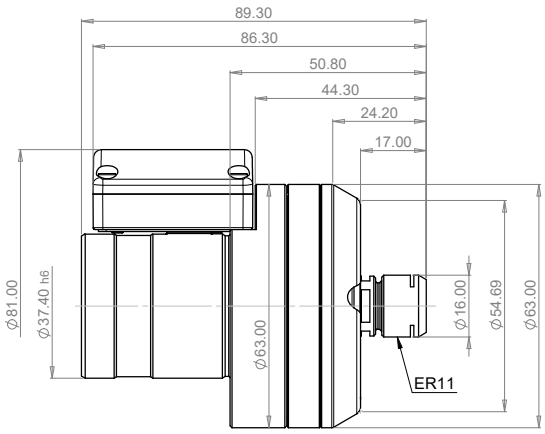
Catalog

TR Jet

COMPATIBLE ADAPTOR MODELS

Adapter	SPEED Jet TR	POWER Jet TR





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet TR	37-085-996	**FLANGE CLAMP**	89.30	4.0	0.7

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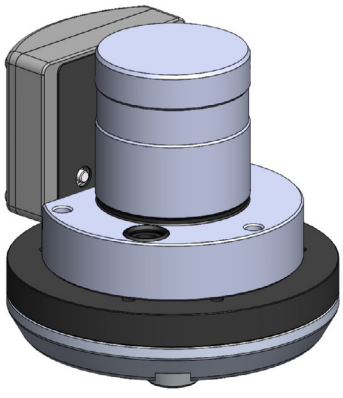
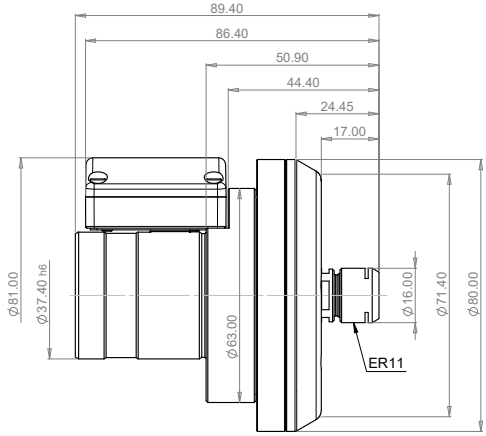
SPEED Jet TR Primary View 2D – DXF	SPEED Jet TR Model 3D Detail – STP

COMPATIBLE ADAPTOR MODELS

Adapter	SPEED Jet TR	POWER Jet TR





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet TR	47-085-996	**FLANGE CLAMP**	89.40	6.0	0.8

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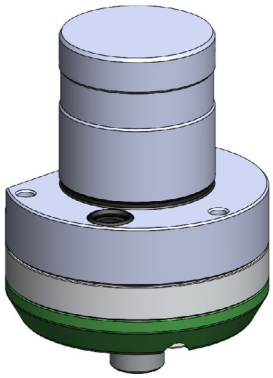
POWER Jet TR Primary View 2D – DXF	POWER Jet TR Model 3D Detail – STP

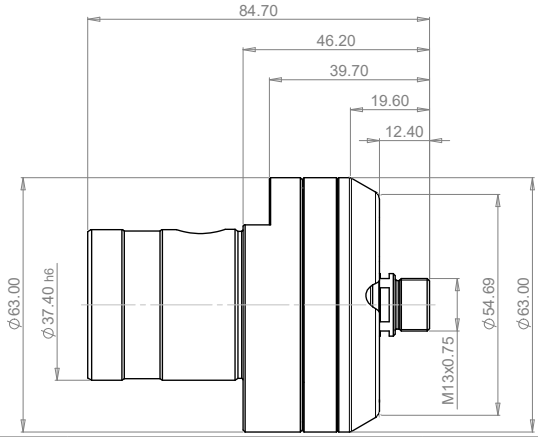
Catalog

TR Jet

COMPATIBLE ADAPTOR MODELS

Adapter	SPEED Jet TR Cartridge	POWER Jet TR Cartridge





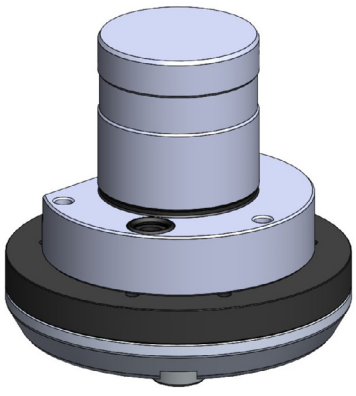
Designation	P/N	Adapter	L mm	Tool d max mm	Kg
SPEED Jet TR Cartridge	37-085-997	**FLANGE CLAMP**	89.30	4.0	0.7

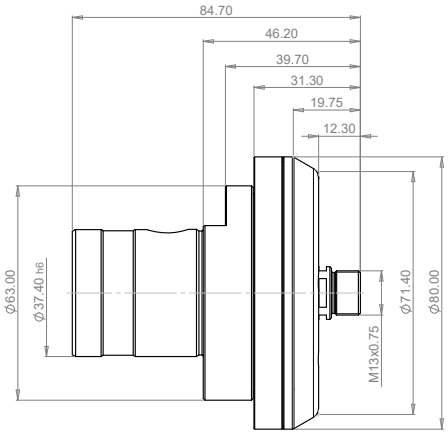
FILES AVAILABLE FOR DOWNLOAD IN ONLINE CATALOGUE: https://colibrispindles.com/catalog/

SPEED Jet TR Cartridge Primary View 2D – DXF	SPEED Jet TR Cartridge Model 3D Detail – STP

COMPATIBLE ADAPTOR MODELS

Adapter	SPEED Jet TR Cartridge	POWER Jet TR Cartridge





Designation	P/N	Adapter	L mm	Tool d max mm	Kg
POWER Jet TR Cartridge	47-085-997	**FLANGE CLAMP**	89.40	6.0	0.8

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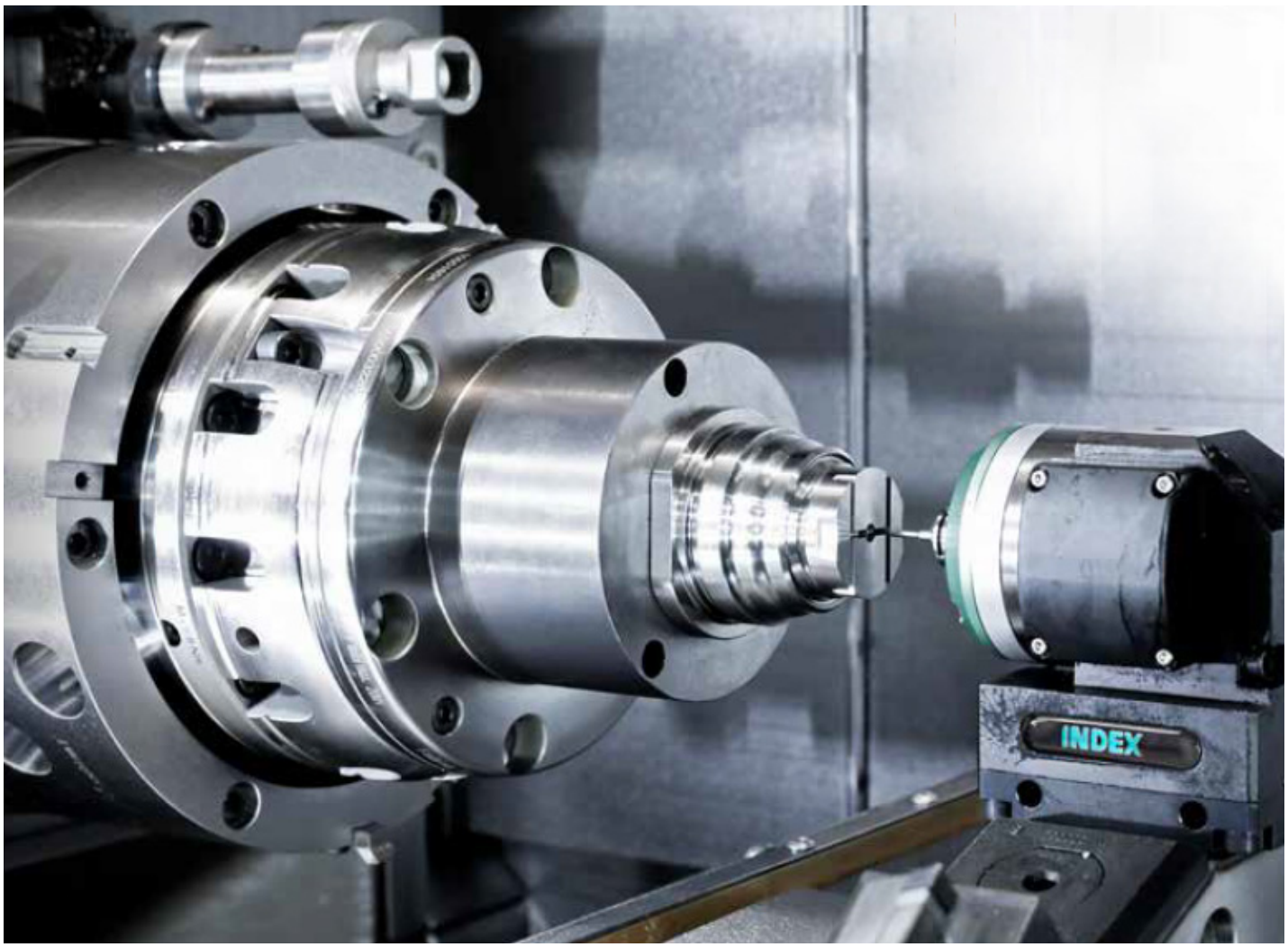
POWER Jet TR Cartridge Primary View 2D – DXF	POWER Jet TR Cartridge Model 3D Detail – STP



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