



WELCOME TO THE WORLD OF HIGH-SPEED INNOVATION

Established in 2003, Colibri Spindles Ltd., has rapidly risen from a niche industry into a world leader in advanced high-speed spindle technologies and solutions; specializing in the design and manufacture of compact, coolant-driven spindles, operating with minimal vibrations and run-out.

The patented HSM Jet Spindle is a real game changer – utilizing innovative, cost-saving coolant-driven technology and wireless, real-time RPM monitoring and display, to cut machined parts with far greater speed and accuracy than ever before.

Continuously engaged in high-level R&D projects, Colibri is dedicated to improving existing technology and introducing new innovations to the metal machining industry; including complimentary applications and accessories for a smarter way to operate.

Our products are specifically designed and certified to meet the extreme demands of high-speed machining environments, where accuracy and repeatability is a must. Colibri also works hand-in-hand with customer to provide solutions for turn-key projects including sub-assemblies and custom applications.



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COLIBRI
The Metalworking Innovators

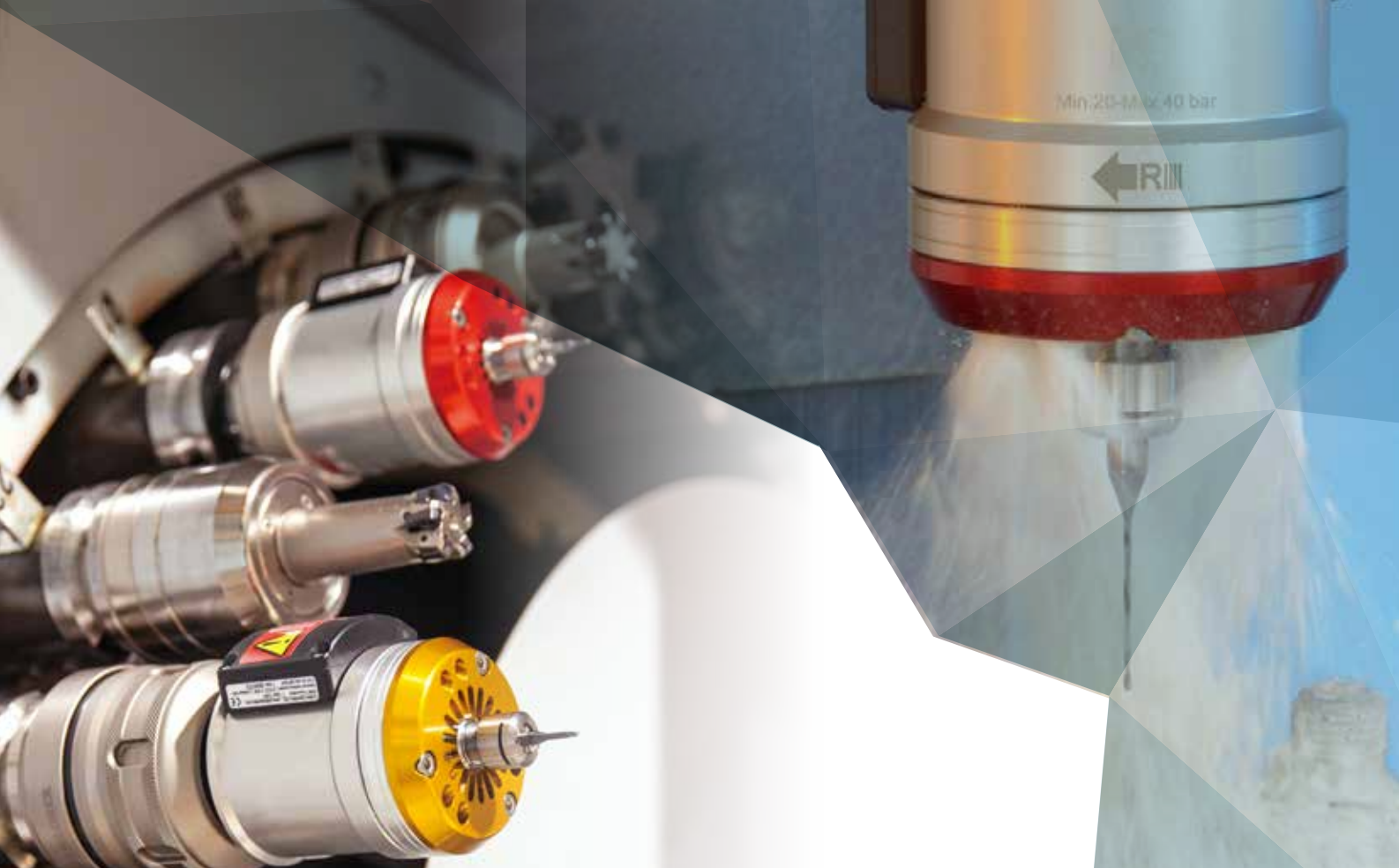


**HSM
JET
SPINDLE**

COOLANT DRIVEN HIGH SPEED TECHNOLOGY



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ENHANCED PERFORMANCE COOLANT-DRIVEN HIGH-SPEED SPINDLE

CUTS MACHINING TIME UP TO 70%

- Driven by internal coolant supply – no external power source needed
- Compact 'Plug & Play' design – fits on any ATC or tool magazine
- Real-time, wireless device monitoring & display gives you accurate operational data straight from the spindle

The HSM Jet Spindle (trade names SPINJET/ Typhoon) is STABLE & FAST, reaching rotational speeds from 20,000 to 60,000rpm, while main machine spindle remains idle. Characterized by high precision and low run-out, the modular Jet Spindle design, with a built-in ER32 collet, offers flexibility for a wide range of applications giving you the ability to create various configurations as needed. Supports shank diameters of up to 7.0 mm.



JET SPINDLE SELECTION



HSM JETSPINDLE TYPE	TJS 20K	TJS 30K	TJS 40K
Operating Range Coolant Pressure [Bar]	20~40	20~40	20~40
Operating Range Coolant Flow Rate [L/min]	12~18	12~18	12~18
Rotational Spindle Speed [Krpm]*	30k~45k	35k~55k	40k~60k
Optimum Tool Cutting Diameter [mm]	Drilling 0.5~2.0 Milling 1.0~3.5	Drilling 0.5~2.0 Milling 1.5~3.5	Drilling 0.5~1.0 Milling 0.5~1.2

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

CLAMPING OPTIONS

High-speed clamping accessories include thermal collets, adaptors and tightening nuts to determine runout accuracy for assembled CNC machine cutting tools. Standard clamping accessories are not sufficient to ensure accuracy at higher RPMs.



- **ER11 Spring Collet** for cutting tool shanks up to Ø6.0mm
- **ER11 Thermal (Shrink)** for extended overhang up to 25mm and solid carbide tools with shanks Ø3.0, 4.0mm
- **Nut ER11 GHS**



JET SPINDLE APPLICATIONS

MILLING

- Slotting - up to ae= 3.0mm & ap= 0.1D
- Shouldering – up to D=3.5mm, ae=1D & ap=0.25D
- Profiling - up to D=6.0mm, ap=0.2mm

THREAD MILLING

- Max. M5 thread
- Left or right-hand rotation

DRILLING

- Max drill dia. 2mm

GRINDING

- Fine radial grinding G. wheels: 1A1W up to 10mm
- WC shank max shank dia. 7mm

DEBURRING

- Max shank dia. 7mm

ENGRAVING

- Max shank dia. 7mm

HIGH PRESSURE COOLANT - HIGH SPEED JET SPINDLE

HIGH SPEED / MORE POWER / GREATER EFFICIENCY

The only coolant-driven, auxiliary high-speed spindle on the market especially engineered for use with high pressure coolant pumps – robust design handles operating pressure up to 80 bar (8Mpa).

- Optimal pressure range from [30 to 70] bars
- Available power 0.35 to 1.5 [Kw]
- RPM range 25 to 50 [Krpm]
- Uses standard ER11 collet chuck, less than 2 micron run-out (TIR)
- Compatible with almost all machine adaptor types

The HPC Jet Spindle is ideal for finishing and semi-finishing applications using small cutters and grinding wheels; milling, drilling, chamfering, grinding and more.



- Plug & Play convenience - no wires or pre-installation
- Fits as a live tool on the ATC or machine turret
- Real-time wireless RPM monitoring and display

Now you can easily take advantage of machines with high pressure coolant capability for better machining results, longer tool life and increased efficiency.

