

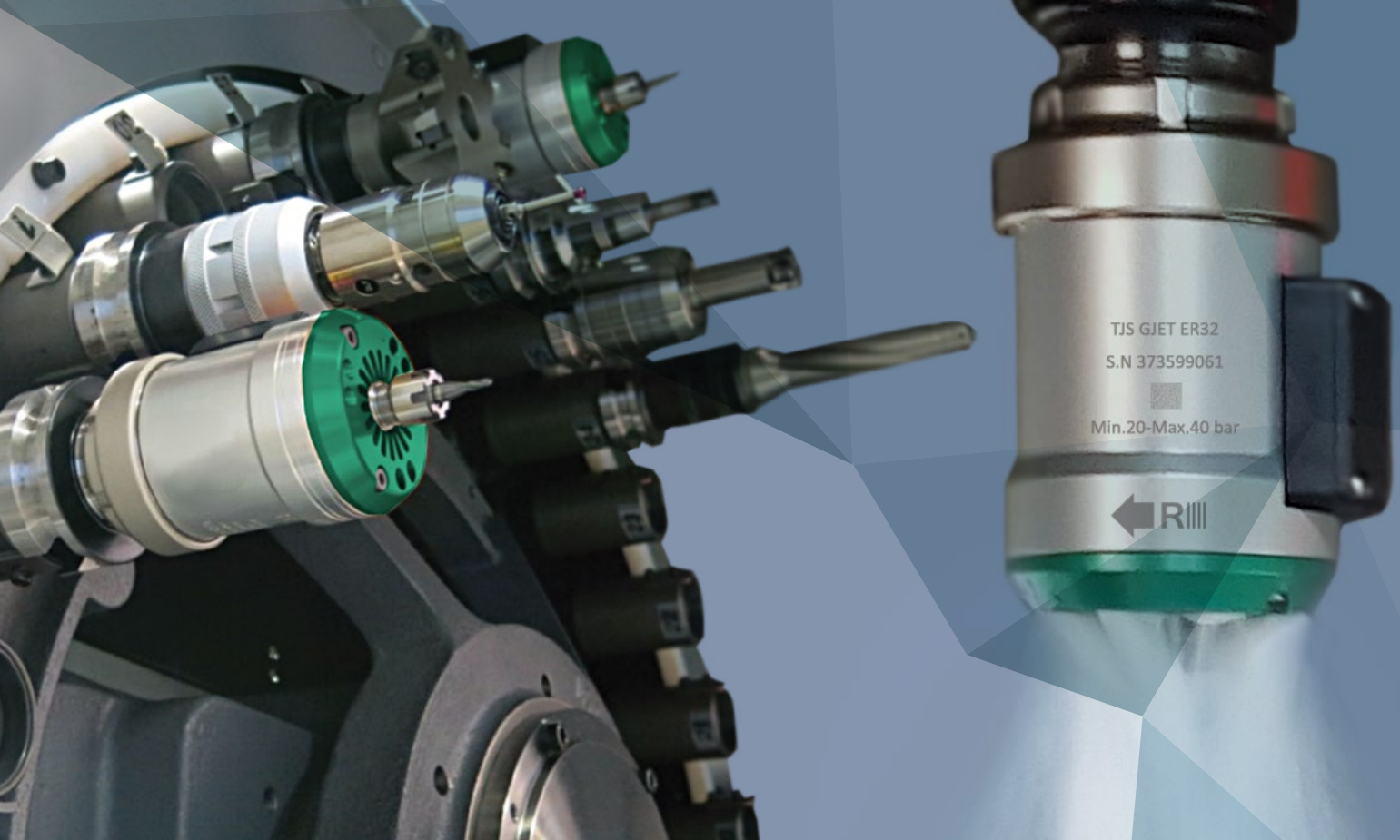


HSM

JET

SPINDLE

COOLANT DRIVEN HIGH SPEED TECHNOLOGY



ENHANCED PERFORMANCE COOLANT-DRIVEN HIGH-SPEED SPINDLE

CUTS MACHINING TIME UP TO 70%

- Driven by internal coolant supply with no external power source
- Compact 'Plug & Play' design – fits on any ATC or tool magazine
- Ideal for small cutting tools and precision machining
- Real-time, wireless device monitoring & display

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 6.0mm.



MAIN FEATURES

ROBUST, STABLE & FAST! The HSM Jet Spindle - GreenJET model is the culmination of an advanced R&D initiative in high speed spindle engineering; offering speeds from 35,000 to 55,000 rpm while the main machine spindle remains idle. It's ideal for a wide range of semi-finishing and finishing applications using small cutting tools such as milling, drilling, thread-milling, engraving, chamfering, deburring, grinding and more.

| Spindle Operating Data | Model: GreenJET |
|--|--------------------|
| Operating range of coolant pressure [bar] | 20 - 40 |
| Operating range of coolant flow rate [l/min] | 10-20 |
| Rotational spindle speed [Krpm]* | 35 - 55 |
| Optimum cutting tool diameter [mm] | Drilling 0.1 - 2.0 |
| | Milling 0.3 - 3.5 |
| Maximum tool shank diameter [mm] | 6.0 |

*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 $\varnothing 7.0\text{mm}$
- **ER11 Thermal (Shrink)** for extended overhang up to 25mm and solid carbide tools with shanks $\varnothing 3.0$, 4.0 and 6.0mm
- **Nut ER11 GHS**



JET SPINDLE APPLICATIONS

MILLING

- Slotting - up to $ae= 3.0\text{mm}$ & $ap= 0.1D$
- Shouldering - up to $D=3.5\text{mm}$, $ae=1D$ & $ap=0.25D$
- Profiling - up to $D=6.0\text{mm}$, $ap=0.2\text{mm}$

THREAD MILLING

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

DRILLING

- Max drill dia. 2mm

GRINDING

- Fine radial grinding G. wheels: 1A1W up to 6mm
- WC shank max shank dia. 6mm

DEBURRING

- Max shank dia. 6mm

ENGRAVING

- Max shank dia. 6mm

HIGH PRESSURE COOLANT - HIGH SPEED JET SPINDLE

POWER / SPEED / EFFICIENCY

The only coolant-driven, auxiliary high-speed spindle on the market specially engineered for use with high pressure coolant pumps – robust design handles operating pressure up to 70 bar (7Mpa).

- Optimal pressure range from [15 to 70] bars
- Available power 0.35 to 1.5 [Kw]
- RPM range 18 to 45 [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 diameter cutting tools; 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.





WELCOME TO THE WORLD OF HIGH-SPEED INNOVATION

Established in 2003, Colibri Spindles Ltd. is a world leader in advanced high-speed spindle technologies; specializing in the design and manufacture of compact, coolant-driven spindle speed increasers operating with minimal vibrations and run-out.

The patented HSM Jet Spindle technology utilizes an innovative, cost-saving coolant-driven power system with wireless, real-time RPM monitoring and display to machine parts with 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.

Products are specifically designed and certified to meet the extreme demands of high-speed machining environments, where precision and repeatability is a must. Colibri also works hand-in-hand with MTBs to provide efficient, tailor-made solutions.





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COLIBRI
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