

NEW PRODUCT NEWS



New Generation TYPHOON GREEN Replaces Previous Models



KEY POINT

TaeguTec's TYPHOON line has replaced the current three spindles with one new wider range model. New from TaeguTec, a more advanced TYPHOON GREEN (TJS GJET).

Features

- A broader rotational speed output range: 35,000-55,000 rpm
- A new and improved bearing system:
 - New bearing system design
 - Increased number of bearings: current models-2 -> new model-3
 - New bearing seals
 - New bearing lubricant with better viscosity and additive agents
- A new shaft lock

TYPHOON GREEN (TJS GJET) advantages

- Rotational speed range meets most required values
- Bearing system design minimizes risk of overload and fluid penetration for improved spindle reliability and better tool life
- New shaft locks enable simplified, secure mounting of the cutting tool to the spindle

General Data

Operating data	Model: TYPHOON GREEN
Coolant pressure [bar] operating range	20 – 40
Coolant flow rate [l/min] operating range	10 – 20
Rotational spindle speed [rpm]*	35,000 - 55,000
Optimum cutting tool diameter [mm]	Drilling: 0.5 – 4
	Milling: 1.5 – 3.5
Maximum tool shank diameter [mm]	7

Notes

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

Strategic Advantages:

Cutting Tools

- Small cutting tools (dia. 0.5-4.0 mm)
- Small cutting tools at high speeds enable precision while reducing tool wear

Applications

- Milling, drilling, thread milling, engraving, chamfering, deburring, fine radial grinding
- Operation: Finishing and semi-finishing operations

Flexibility

- CNC machines: milling centers / turning / turn mills / tap mills
- Suitable for most adaptor types + lathe turret mounting

Economical Advantages

- Upgrades existing CNC machines to a high-speed milling (HSM) performer at a fraction of the cost of dedicated high-speed machines
- Boosts productivity – shortens production time and cuts costs
- Quick ROI
- Simple and easy to integrate – no pre-installation or external feed lines
- Compact – no size restriction due to added parts or power feeds, fits ATC or turrets
- Cuts utility costs such as compressed air and electricity
- Uses the machine's own coolant as pressurized power source

Industrial Sectors

- Covers a wide range of industries worldwide:
- Die and Mold
- Medical
- Energy
- Automotive
- Aerospace
- 3D Printing
- General Industries

New Shaft Lock Mechanism

A more convenient and safer lock mechanism for changing the tool.



Fig. 1 Current shaft lock key



Fig. 2 New TYPHOON GREEN Shaft lock key

TYPHOON GREEN Spindle Machine Tool Requirements:

1. Coolant flow capable through the machine spindle
2. Spindle outlet minimum coolant pressure: 20 bar (290 psi)
3. Spindle outlet Maximum coolant pressure: 40 bar (580 psi)
4. Minimum flow rate: 12 l/min (3.17 gal/min)
5. Coolant filtration level: 100 μ m maximum

Operating Tips

1. When operating TYPHOON GREEN spindles, monitoring rotational speed is critical. A correctly set rotational speed ensures optimal machining conditions and avoids damaging the spindle.
2. Cutting speed depends on the workpiece material, its hardness, the machined surface's shape, a machining strategy and cutting tool geometry. Refer to your TaeguTec cutting tool documentation for details.
3. Dramatic fluctuations of the rotational speed (rpm) operation can indicate problems such as incorrect coolant pressure or a broken cutting tool.

Operating Tips

Using Precision ER11 Collets

When using ER11 collets, it is recommended to use only high quality, precision collets that are engineered for maximum accuracy and tool life.



Maximum collet runout (TIR) – 5 μ m

Cutting Feed Table

Application	Material	Cutting Tool Diameter		Z (Teeth)	Ap		Ae		RPM	Fz per tooth	
		mm	inch		mm	inch	mm	inch		mm	inch
Milling Full Slot	Aluminum SI 9% 30 HB	End Mill Ø2.0	End Mill Ø0.080	2	0.3	0.012	2	0.08	40,000	0.01	0.0004
Milling Shoulder	H13 (40-42Hrc)	End Mill Ø1.5	End Mill Ø0.059	2	1	0.04	0.3	0.012	35,000	0.008	0.0003
	St 52-3 (A 36)	End Mill Ø1.0	End Mill Ø0.040	2	0.5	0.02	0.1	0.004	40,000	0.005	0.0002

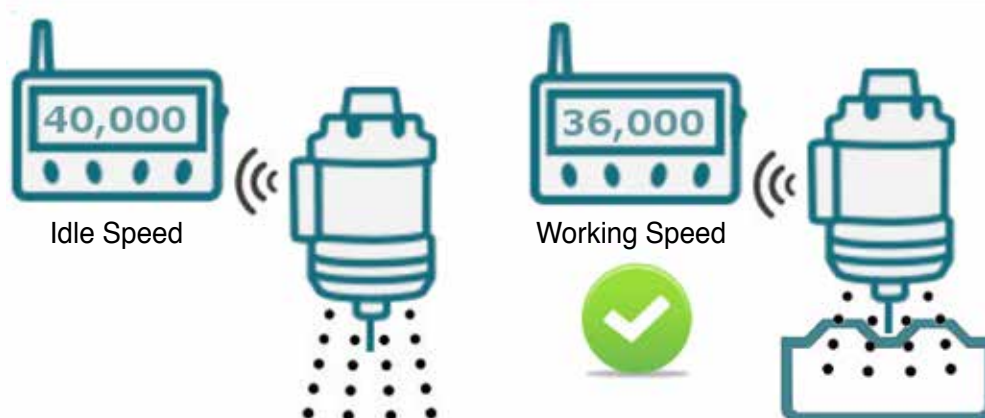
To maximize TYPHOON GREEN spindle tool life, TaeguTec recommends following the 10% rule:

The working rotational speed (rpm) should drop by up to 10% of the rotational speed (rpm), which is registered at idle speed.

Keeping this rule ensures reducing axial and radial load on the internal mechanism.

To register idle rotational speed:

1. Install the TYPHOON GREEN spindle mounted with a cutting tool into the machine
2. Start the spindle rotation by turning on the fluid supply at the required pressure and find the idle RPM speed by reading the spindle's display monitor



General storage instructions:

The TYPHOON GREEN spindles do not require specific periodic maintenance; however, the following instructions should be followed before storage:

1. Clean the spindle by air blowing for 10-15 seconds.
2. Maximum air pressure for cleaning is 2 bar (30 psi).
The rotational speed during cleaning must not exceed 50,000 rpm.
3. After cleaning, disconnect the spindle from the display device.
4. Place the spindle in its original packaging box and store it in an appropriate place.

***** New warranty policy**

Warranty policy for the new TYPHOON GREEN spindles:

At least 300 hours of use or 12 months from the date of the invoice, whichever comes first.

Warranty policy for repaired / refurbished TYPHOON GREEN spindles:

At least 200 hours of use or 6 months from the date of invoice, whichever comes first.

Phase-out Procedure

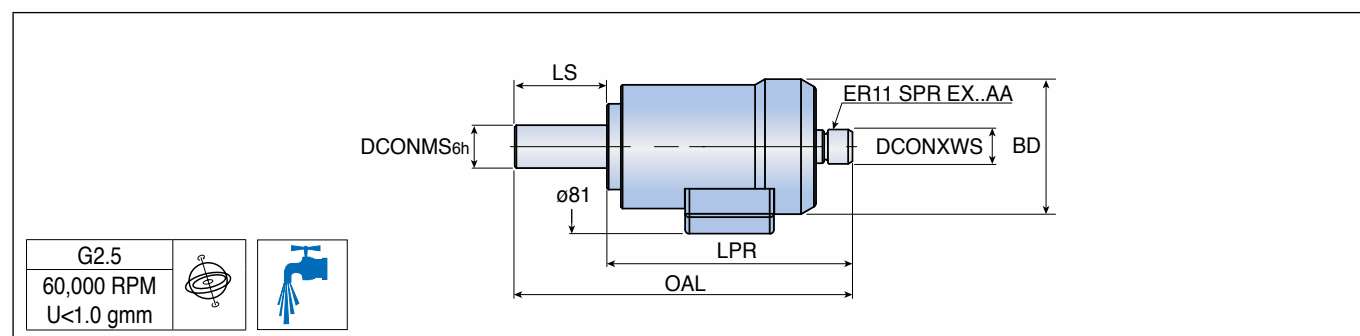
Please refer to the TJS 20K / 30K / 40K phase-out milestone table below:

Milestone	Definition	Date
End-of-Sale Date	The last date to order the product through Colibri and its partners. The product is no longer available for sale after this date.	As long as product inventory remains available.
Last Date of Warranty Support	The last date to receive applicable service and technical support for the product as entitled by warranty terms and conditions. After this date, all support services for the product are unavailable, and the product becomes obsolete.	December 31, 2019
End of Repair and Maintenance	After this date, Colibri will no longer repair, maintain or test the product.	December 31, 2020



TJS-GJET-ST

Coolant driven high-speed compact spindles with cylindrical shanks



Designation	Dimension (mm)						Kg
	DCONMS	LPR	OAL	LS	DCONXWS ⁽¹⁾	BD	
TJS GJET ST20	20.0	115.0	158.0	43.0	7.0	63.0	1.2

- Minimum coolant pressure 20 bar and flow rate 12 l/min
 - The spindle provides only external strong coolant jet around the tool
- (1) Maximum diameter

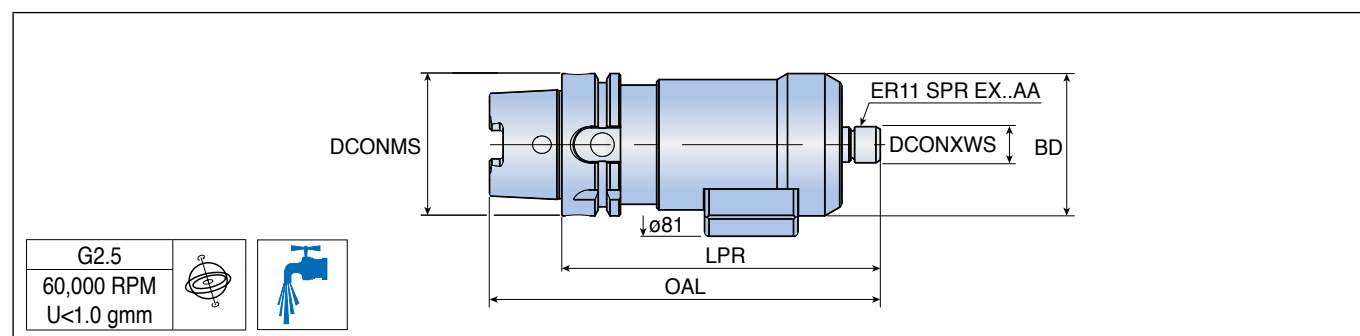
Spare parts

Designation	Mini ER nut 	ER wrench 	Key 	Locking pin 	Display
TJS-GJET-ST	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY GJET	TJS TSD DISPLAY*

* Optional, sold separately

TJS-GJET-HSK A63

Coolant driven high-speed compact spindles with HSK shanks



Designation	Dimension (mm)					Kg
	DCONMS	LPR	OAL	BD	DCONXWS ⁽¹⁾	
TJS GJET HSK A63	63.0	141.0	173.0	63.0	7.0	1.8

- Minimum coolant pressure 20 bar and flow rate 12 l/min
 - The spindle provides only external strong coolant jet around the tool
- (1) Maximum diameter

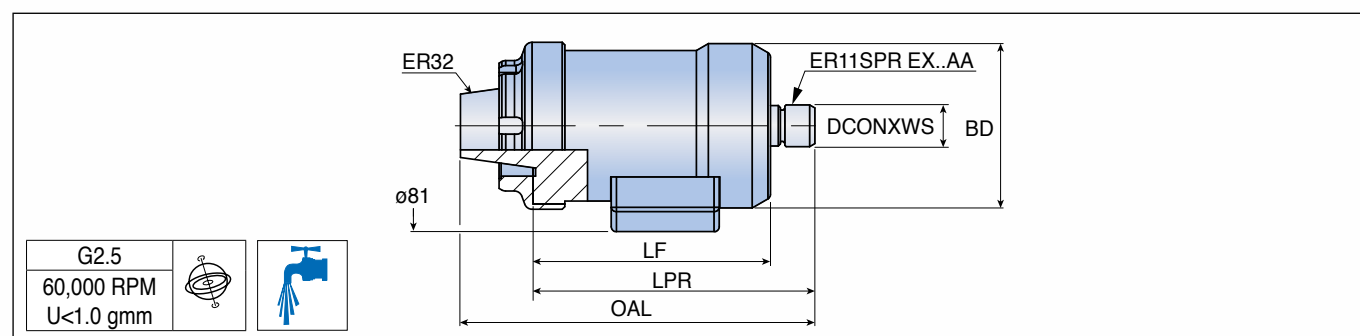
Spare parts

Designation	Mini ER nut 	ER wrench 	Key 	Locking pin 	Display
TJS-GJET-HSK A63	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY GJET	TJS TSD DISPLAY*

* Optional, sold separately

TJS-GJET-ER32

Coolant driven high-speed compact spindles with ER32 shanks



Designation	Dimension (mm)					Kg
	LF	LPR	OAL	BD	DCONXWS ⁽¹⁾	
TJS GJET ER32	92.0	109.0	136.0	63.0	7.0	1.3

- Minimum coolant pressure 20 bar and flow rate 12 l/min
 - The spindle provides only external strong coolant jet around the tool
- (1) Maximum diameter

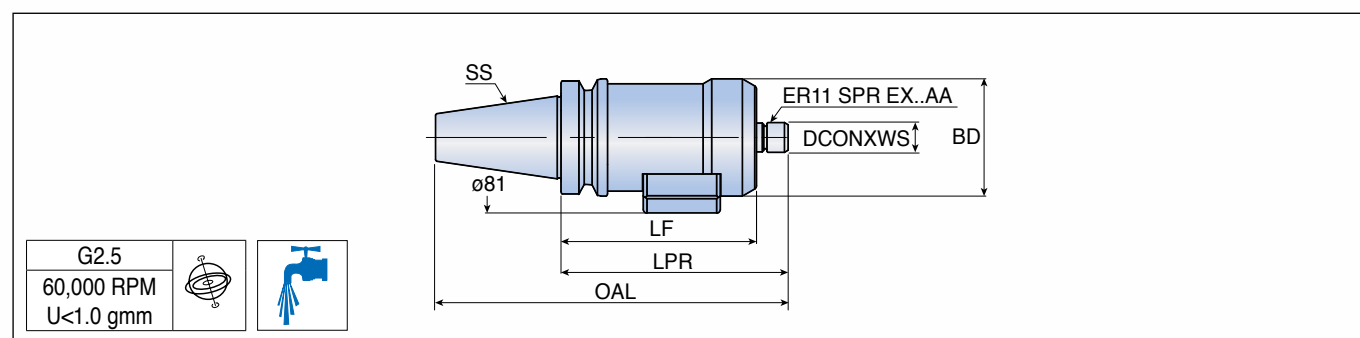
Spare parts

Designation	Mini ER nut 	ER wrench 	Key 	Locking pin 	Display
TJS-GJET-ER32	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY GJET	TJS TSD DISPLAY*

* Optional, sold separately

TJS-GJET-BT

Coolant driven high-speed compact spindles with BT shanks



Designation	Dimension (mm)						Kg
	SS	LF	LPR	DCONXWS ⁽¹⁾	BD	OAL	
TJS GJET BT30	30	124.0	141.0	7.0	63.0	189.4	1.6
GJET BT40	40	107.0	124.0	7.0	63.0	189.5	1.8

- Minimum coolant pressure 20 bar and flow rate 12 l/min
 - The spindle provides only external strong coolant jet around the tool
- (1) Maximum diameter

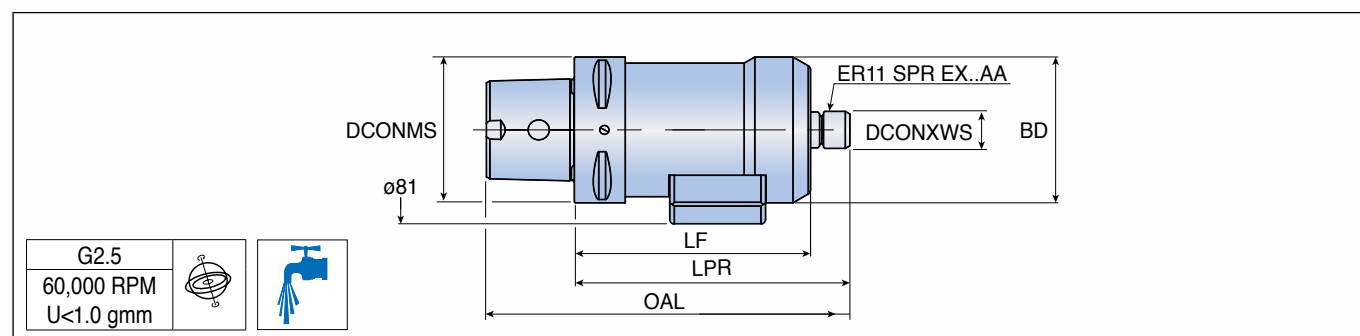
Spare parts

Designation	Mini ER nut	ER wrench	Key	Locking pin	Display
TJS-GJET-BT	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY GJET	TJS TSD DISPLAY*

* Optional, sold separately

TJS-GJET-C#

Coolant driven high-speed compact spindles with C-ADAPTER shanks



Designation	Dimension (mm)						
	DCONMS	LF	LPR	DCONXWS ⁽¹⁾	OAL	BD	
TJS GJET C5	50.0	112.0	129.0	7.0	129.0	63.0	1.5
GJET C6	63.0	102.0	119.0	7.0	119.0	63.0	1.6

- Minimum coolant pressure 20 bar and flow rate 12 l/min
 - The spindle provides only external strong coolant jet around the tool
- (1) Maximum diameter

Spindle Case Contents	Display Case Contents
<ol style="list-style-type: none"> 1. TJS SHAFT LOCK KEY GJET 2. WRENCH ER11 SMS 3. Battery – Lithium metal non-rechargeable, CR2 type 4. HW2.0: Hex (Allen) key 	<p>For Europe:</p> <ol style="list-style-type: none"> 1. TJS TSD display Eur – wireless RPM display 2. TJS DISP. power supply EUR – AC/DC 5V <p>For USA/Japan</p> <ol style="list-style-type: none"> 1. TJS TSD display -- USA 2. TJS DISP. Power supply – USA – AC/DC 5V

Activating Your Spindle Warranty

Registration:

Subsidiaries and distributors can activate the warranty by registering online via a product management system available at reg.colibri-jet.com. This enables the viewing and managing of registered products as well as obtaining technical and repair support services during the warranty period.

The Product Management Interface Includes:

- a. Number of units
- b. Serial numbers
- c. To whom the product was sold
- d. Sale date
- e. Warranty (active / not active)
- f. Service history

Customer Registration:

1. Register online at reg.colibri-jet.com
2. Scan the QR code

When the product is officially registered, it not only activates the warranty but entitles the customer to receive important product support features:

- Product ATP
- Online Training and Documentation
- Product Management Interface
- Help and Technical Support Services

