General Data

Operating Data	Model: SPINJET-GREEN LINE
Operating range of coolant pressure [bar]	20 - 40
Operating range of coolant flow rate [l/min]	10-20
Rotational spindle speed [rpm]*	35000- 55000
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

SPINJET GREEN LINE

New Shaft Lock Mechanism

Shaft lock flag key has been replaced by a "GJET" shaft lock key

Fig.1. Shaft lock in old SPINJET spindle

Fig.2. Shaft lock in new SPINJET-GREEN LINE

Machine tool requirements for using SPINJET-GREEN LINE spindles

1. Coolant flow through the machine spindle
2. Min. coolant pressure at the spindle outlet: 20 bar (290 psi).
3. Max. coolant pressure at the spindle outlet: 40 bar (580 psi).
4. Min. flow rate: 12 l/min (3.17 gal/min.).
5. Coolant filtration level: max. 100 µm.

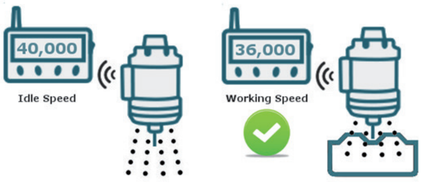
Using Precision ER11 Collets

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

Max. collet runout (TIR) - 5 µm

Follow the 10% Rule:

As the cutting tool enters the workpiece, RPMs will be reduced due to load. The GREEN LINE Jet Spindle RPM value when working should not drop more than 10% of the RPM value registered at 'idle speed'.



Cutting Conditions

1. Monitoring RPMs during GREEN LINE Jet Spindle operation is critical, to ensure optimum machining conditions and to aviod damage.
2. Cutting speed may be influenced by material hardness,workpiece topography and/or cutting tool geometry. Refer to cutting tool manufacturer's documentation.
3. Dramatic RPM fluctuations during GREEN LINE Jet Spindle operation can indicate problems such as inadequate coolant pressure or a broken cutting tool.

Jet Spindle Operating Guidelines

Application	Material	Cutting Tool Dia.		Z (Teeth)	Ap - Depth of Cut		Ae - Width of Cut		Coolant Pressure (bar)	RPM	Fz per tooth	
		mm	inch		mm	inch	mm	inch			mm	inch
Milling Full Slot	SAE 4340 (24-25HRC)	End Mill Ø 1.0	End Mill Ø .040	2	0.1	.004	1.0	0.040	40	47,000	0.04	.0015
	SAE 4340 (42-45HRC)	End Mill Ø 2.0	End Mill Ø .080	2	0.1	.004	2.0	0.080	40	47,000	0.007	.0003
	SAE 4340 (24-25HRC)	End Mill Ø 2.0	End Mill Ø .080	2	0.1	.004	2.0	0.080	40	47,000	0.02	.0008
	SAE 4340 (24-25HRC)	End Mill Ø 2.0	End Mill Ø .080	2	0.1	.004	2.0	0.080	40	47,000	0.02	.0008
	SAE 4340 (24-25HRC)	End Mill Ø 3.0	End Mill Ø .120	4	0.1	.004	3.0	0.120	40	47,000	0.002	.00008
	SAE 316L 130-136 HB	End Mill Ø 1.0	End Mill Ø .040	2	0.1	.004	1.0	0.040	40	47,000	0.03	.0001
	SAE 316L 130-136 HB	End Mill Ø 2.0	End Mill Ø .080	2	0.1	.004	2.0	0.080	40	47,000	0.02	.0008
	SAE 316L 130-136 HB	End Mill Ø 3.0	End Mill Ø .120	4	0.1	.004	3.0	0.120	40	47,000	0.005	.0002
	Aluminum SI 9% 30 HB	End Mill Ø 1.0	End Mill Ø .040	3	0.1	.004	1.0	0.040	40	47,000	0.015	.0006
	Aluminum SI 9% 30 HB	End Mill Ø 2.0	End Mill Ø .080	2	0.3	.012	2.0	0.080	40	47,000	0.02	.0008
	Aluminum SI 9% 30 HB	End Mill Ø 3.0	End Mill Ø .120	3	0.2	.008	3.0	0.120	40	47,000	0.025	.0010
Milling Shoulder	SAE H13 (40-42Hrc)	End mill Ø 1.5	End mill Ø .059	2	0.3	.012	0.3	.012	40	47,000	0.008	.0003
	St 52-3 (A 36)	End mill Ø 1.0	End mill Ø .040	2	0.5	.020	0.1	.004	40	47,000	0.005	.0002
	SAE 4340 (24-25HRC)	Ball nose Ø 1.0	Ball nose Ø .040	2	0.5	.020	0.03	.0012	40	47,000	0.03	.0012
	SAE 4340 (24-25HRC)	Ball nose Ø 3.0	Ball nose Ø .120	2	0.5	.020	0.05	.002	40	47,000	0.07	.0027
	SAE 316L 130-136 HB	Ball nose Ø 3.0	Ball nose Ø .120	2	0.5	.020	0.05	.002	40	47,000	0.04	.0015
	Aluminum SI 9% 30 HB	Ball nose Ø 1.0	Ball nose Ø .040	3	0.5	.020	0.06	.0024	40	47,000	0.03	.012
	Aluminum SI 9% 30 HB	Ball nose Ø 3.0	Ball nose Ø .120	3	1.5	.060	0.05	.002	40	47,000	0.03	.012

General instructions for storage:

The **SPINJET-GREEN LINE** spindles do not require specific periodic maintenance; however the following instructions should be followed before storing a spindle:

1. Clean the spindle by air blowing for 10-15 seconds.
2. Max. air pressure for cleaning is 2 bar (30 psi). The rotational speed during cleaning must not exceed 50000 rpm.
3. After cleaning, disconnect the spindle from the display device.
4. Place the spindle in its original packaging box and store it in the appropriate place.

***** New Warranty Policy**

Warranty policy for new SPINJET-HPC LINE spindles:
At least 300 hours of use or 12 months from the date of invoice, whichever comes first.

Warranty policy for repaired / refurbished SPINJET-HPC LINE spindles:
At least 200 hours of use or 6 months from the date of invoice, whichever comes first.

Spindle Case Contents

1. TJS SHAFT LOCK KEY GJET
2. WRENCH ER11 SMS
3. HW2.0: HEX (ALLEN) KEY