

TOOL HOLDING

Typhoon Jet Spindles

Power - PJET

Speed - SJET

Tool Uses

Milling

Drilling

Engraving

Thread Milling

Chamfering

Universal Style

ER32

ST20

Integral Style

BT30 & 40

CAT 40

C5 & C6

DIN69871-40

HSKA40 & A63

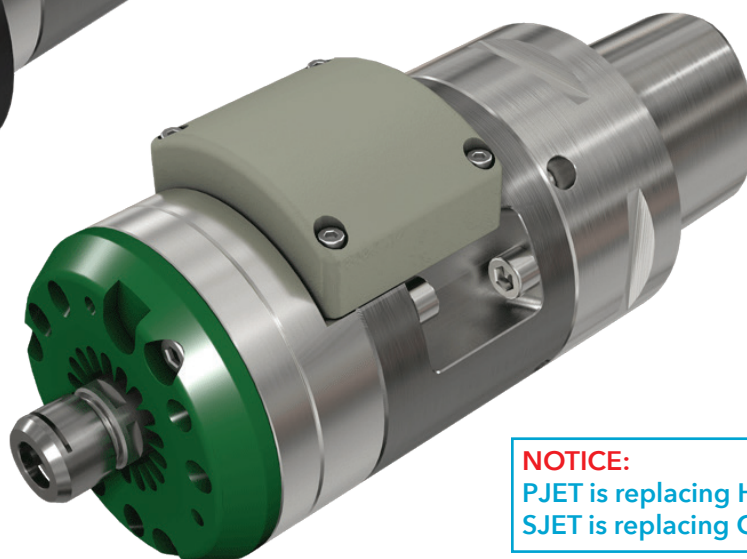
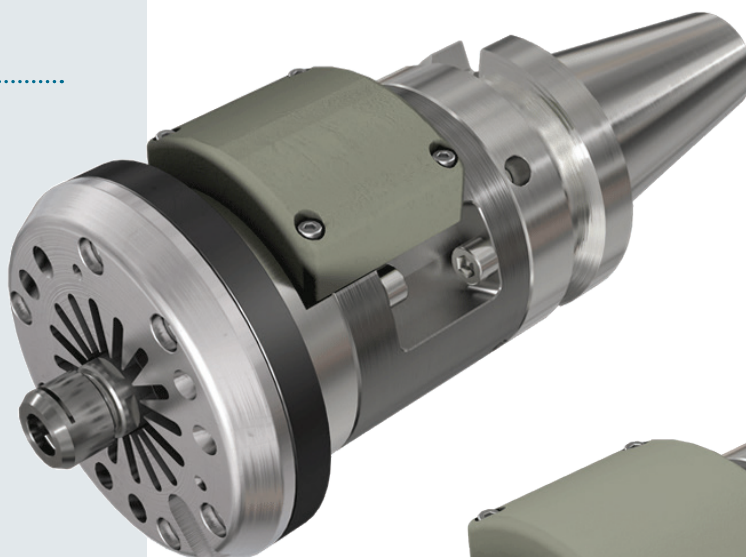
TYPHOON™

NEW

High Speed Coolant-Driven Spindles

Convert your coolant thru machining centers to high speed technology

- » New modular design for flexibility
- » Easier maintenance
- » Bluetooth transmitter provides RPM monitoring on portable devices
- » Plug and play in automatic tool changer
- » For milling and turning centers
- » **TYPHOON^{PJET}**™ for higher torque
- » **TYPHOON^{SJET}**™ for maximum RPM



NOTICE:

PJET is replacing HPC
SJET is replacing GreenJet

See it in
action! »



Overview

New Modular Typhoon High-Speed Coolant-Driven Spindles for finish and semi-finish machining. Integrated Bluetooth data transmitter allows real time RPM monitoring using free Jet Spindle Monitor App.

FEATURES & BENEFITS:

- Modular design
- Plug and play in ATC
- New design provides flexibility and easy maintenance:
 - » Switch between SJET and PJET spindles utilizing the same housing
 - » Easily replace worn spindles
- Utilizes a high precision ER11 collet
- Low runout; Accuracy up to 3 microns
- Supports cutting tools up to 7 mm shank
- Precision ceramic ball bearings
- High speed machining up to 55,000 RPM
- Spindles powered by high pressure coolant (or oil)

TYPHOON PJET™

217 to 1015 psi (15 to 70 BAR)
20k to 45k RPM



TYPHOON SJET™

290 to 580 psi (20 to 40 BAR)
33k to 55k RPM



Prerequisites to Qualify Customer

- Coolant flow through the main CNC spindle
- Min. coolant pressure: 217 psi / 15bar (PJET), 290 psi / 20 bar (SJET)
- Max. coolant pressure: 1,015 psi / 70 bar (PJET), 580 psi / 40 bar (SJET)
- Minimum flow rate: 2.6 gal/min (10 l/min)
- Filter element: Minimum 100 micron
- Max. viscosity: ISO VG 15 (15 cSt)
- Active mist collector
- When using emulsion coolant, use an anti-foaming agent additive suitable for emulsion
- When using oil-based coolant the high pressure increases oil fumes:
 - Use an appropriate fire protection system
 - Use anti-dissolution additive suitable for oil
- During replacement of the coolant or coolant filter:
 - Remove Typhoon spindle from the ATC
 - Run high pressure coolant pump for 10 seconds before reinstalling Typhoon spindle in ATC

"10% Rule"

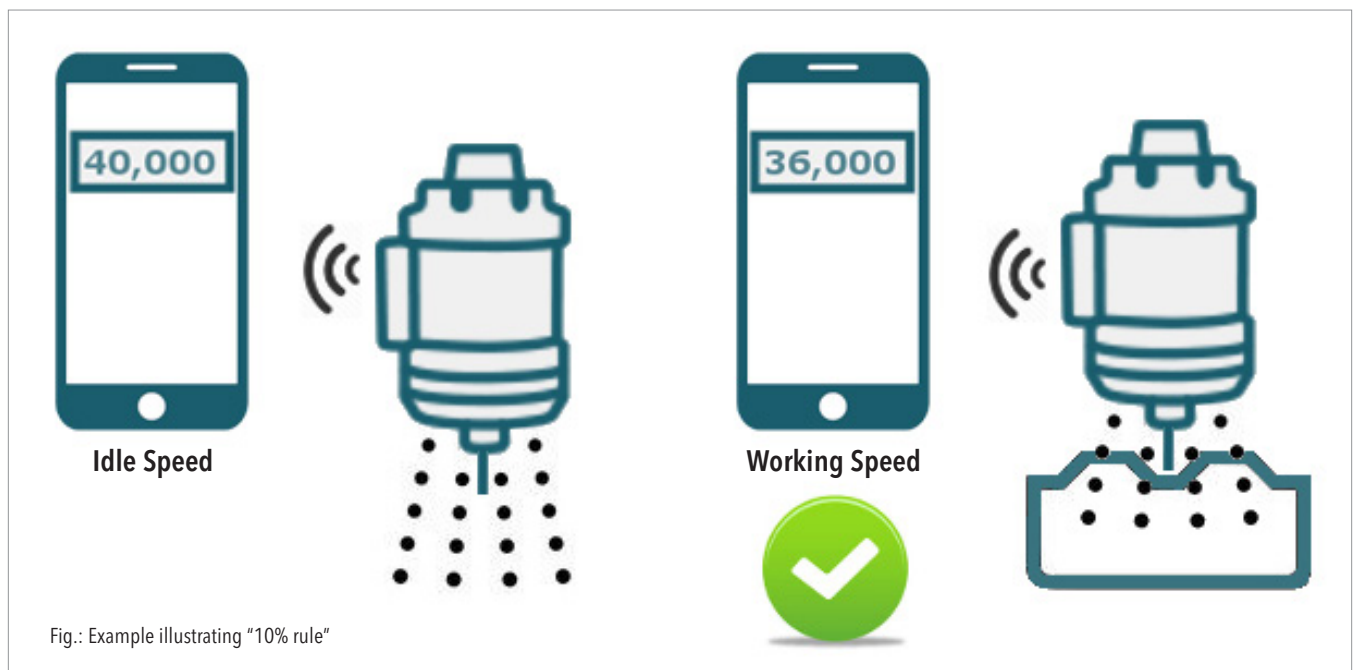
To maximize Typhoon spindle life we recommend following the 10% rule.

The Typhoon spindle RPM value when working should not drop more than 10% of the RPM value registered at "idle speed".

Following this rule ensures reducing axial and radial load on the internal components.

To Register Idle Rotational Speed

- Install Typhoon High Speed Coolant-Driven Spindle with a cutting tool in the machine.
- Turn on the machining center's through spindle coolant system to start the Typhoon and record the idle speed.
- More information is available in the Jet Spindle Monitor app.



Warranty

Warranty policy for High-Speed Spindle:

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

Warranty policy for repaired / refurbished Typhoon High-Speed Spindle:

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

Clamping and Coolant

When machining at high speeds, you need a high-precision spindle that delivers the required speed, accuracy, and power.

A high-precision nut and collet system improves dynamic balance, while pinpointed coolant is delivered directly to the cutting edge to enhance cutting performance and tool life.

The result is a highly efficient setup that enables quick, simple tool changes with no setup time, while maintaining consistently low runout.

Nut and Collet

- NUT ER 11 GHS
(2 microns runout)
- AAA Ultra Precision ER 11 Collet
(1 micron runout)
(not included)
- ChipSurfer Solid ER11 for T05
& T04 tips



Tools

- Shaft Lock Wrench
- Wrench for NUT ER11 GHS



Power and Speed

TyphoonPJET



Jet Spindle Operating Parameters					TyphoonPJET	
High pressure coolant	217 psi	290 psi	580 psi	1015 psi	Terms of use	
Min. coolant supply diameter	0.157" (4 mm)				Collet	ER11 AA/UP
Min. flow rate (gal/min)	2.6	3.2	4.2	5.8	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	0.118" (3 mm)		0.157" (4 mm)	0.118" (3 mm)	
Slot Milling	0.236" (6 mm)	0.157" (4 mm)	0.236" (6 mm)	0.157" (4 mm)	
Profile Milling	0.236" (6 mm)				
Shoulder Milling					
Chamfering					
Deburring					
Engraving					

Speed for Small Tools

TyphoonSJET



Jet Spindle Operating Parameters				TyphoonSJET	
High pressure coolant	290 psi	435 psi	580 psi	Terms of use	
Min. coolant supply diameter	0.157" (4 mm)			Collet	ER11 AA/UP
Min. flow rate (gal/min)	2.6	4.0	5.3	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	0.078" (2 mm)		0.118" (3 mm)	0.078" (2 mm)	
Profile Milling	0.236" (6 mm)	0.157" (4 mm)	0.236" (6 mm)	0.157" (4 mm)	
Slot Milling	0.157" (4 mm)	0.118" (3 mm)	0.157" (4 mm)	0.118" (3 mm)	
Shoulder Milling	0.236" (6 mm)	0.157" (4 mm)	0.236" (6 mm)	0.157" (4 mm)	
Chamfering	0.236" (6 mm)				
Deburring					
Engraving					

Cartridge Replacement

Cartridge replacement can be done by the end user by following the steps below. Both PJET and SJET TR cartridges can be used interchangeably in the same Typhoon housings.

Cartridge Removal

- Remove the sensor cover and sensor base (image 2 & 3)
- Remove the bolts that hold the cartridge in place (image 5) and remove the cartridge (image 6)



Typhoon Housing



Typhoon Cartridge with TR Connection

Cartridge Replacement

Install new cartridge

- Insert the cartridge (image 2)
- Align the cartridge, while securing the bolts (image 3 & 4)
- Assemble the sensor base and sensor cover (image 5 & 6)





90 Degrees Jet Spindle Setup

Machine Spindle

- Ensure machine spindle is locked with toolholder in spindle.
- Put Typhoon into toolholder hand-tight, but still able to be adjusted.
- Use flat on side of Typhoon body to align as needed.
- Tighten holder to lock in Typhoon orientation.

Holder

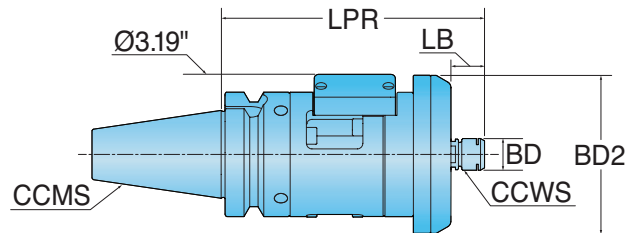
- Use a hydraulic holder for quickest and most accurate setup.

OR

- Use an ER 20 mm sealed collet.

Series TJS • BT Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



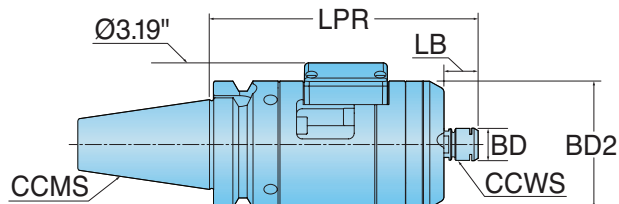
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-BT30	BT30	ER11	0.630	3.150	5.409	0.669	4.63
TJS-PJET-BT40	BT40	ER11	0.630	3.150	5.173	0.669	5.73

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-BT30	BT30	ER11	0.630	2.480	5.406	0.669	4.41
TJS-SJET-BT40	BT40	ER11	0.630	2.480	5.169	0.669	5.51

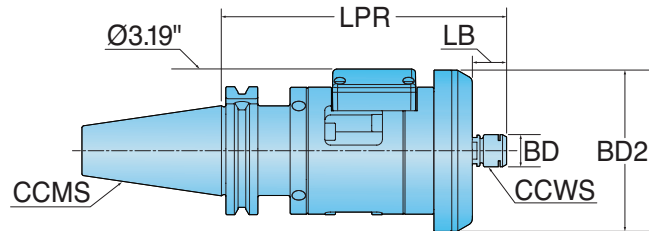
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • CAT Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



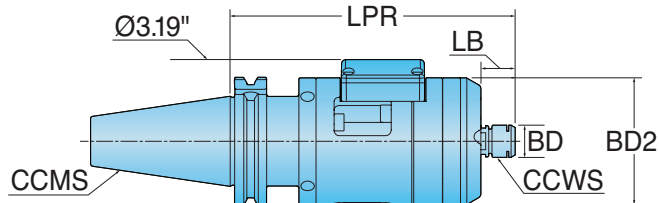
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-CAT40	CAT40	ER11	0.630	3.150	5.484	0.669	5.73

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-CAT40	CAT40	ER11	0.630	2.480	5.480	0.669	5.51

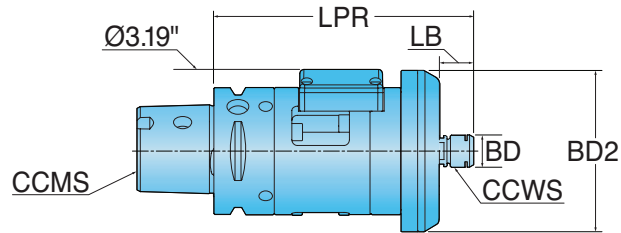
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • C-Adapter Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



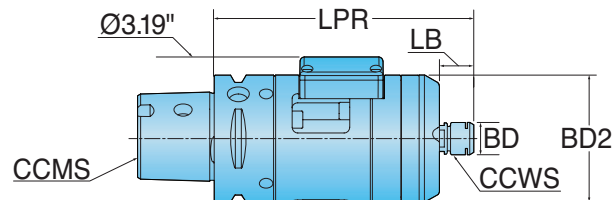
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-C5	C5	ER11	0.630	3.150	5.016	0.669	4.63
TJS-PJET-C6	C6	ER11	0.630	3.150	5.075	0.669	5.29

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-C5	C5	ER11	0.630	2.480	5.012	0.669	4.41
TJS-SJET-C6	C6	ER11	0.630	2.480	5.071	0.669	5.07

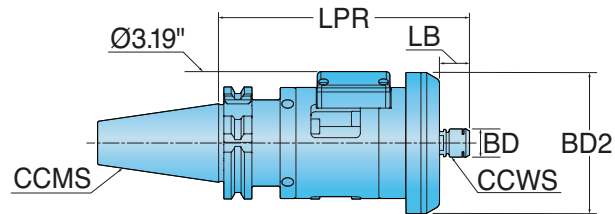
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • DIN69871 Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



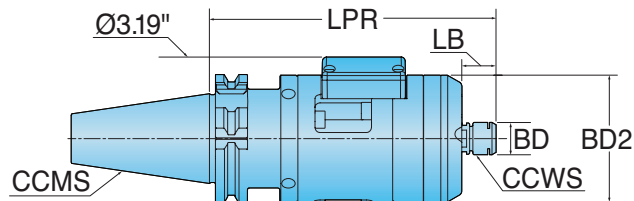
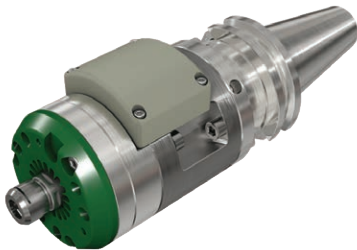
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-DIN69871-40	DIN69871 40	ER11	0.630	3.150	5.484	0.669	5.95

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-DIN69871-40	DIN69871 40	ER11	0.630	2.480	5.480	0.669	5.73

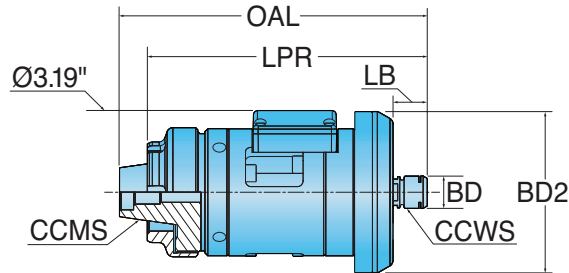
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • ER Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



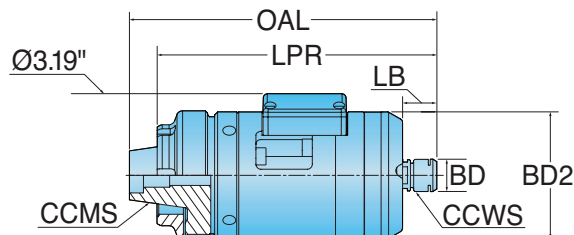
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH								
TJS-PJET-ER32	ER32	ER11	6.012	0.630	3.150	5.469	0.669	5.07

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH								
TJS-SJET-ER32	ER32	ER11	6.008	0.630	2.480	5.465	0.669	4.85

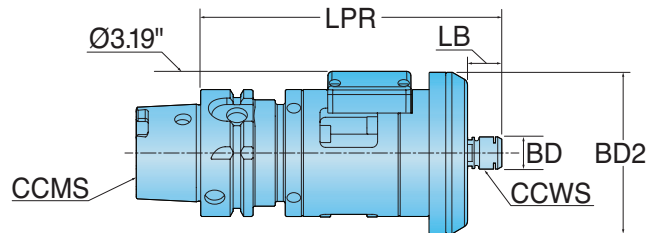
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • HSK Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



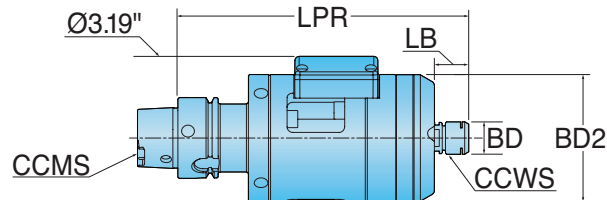
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-HSKA40	HSK A40	ER11	0.630	3.150	5.685	0.669	4.41
TJS-PJET-HSKA63	HSK A63	ER11	0.630	3.150	5.882	0.669	5.51

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-HSKA40	HSK A40	ER11	0.630	2.480	5.681	0.669	4.19
TJS-SJET-HSKA63	HSK A63	ER11	0.630	2.480	5.878	0.669	5.29

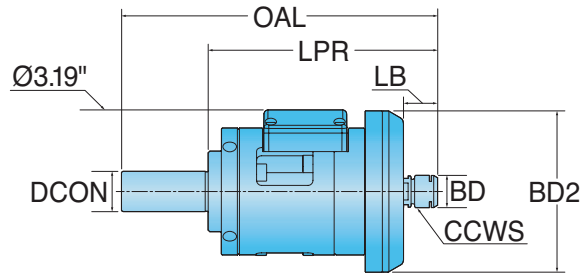
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • ST Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



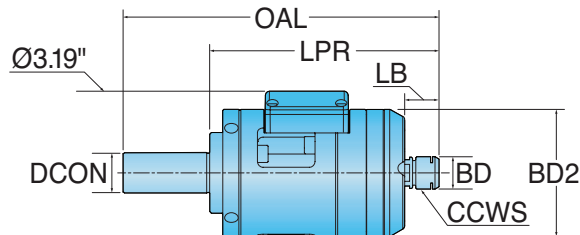
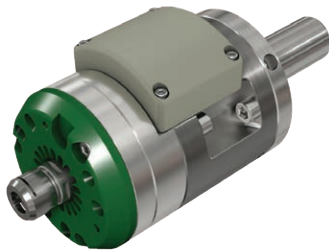
Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH								
TJS-PJET-ST20	20 mm	ER11	6.177	0.630	3.150	4.484	0.669	3.97

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH								
TJS-SJET-ST20	20 mm	ER11	6.173	0.630	2.480	4.480	0.669	3.75

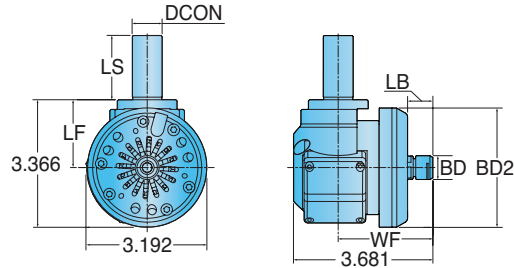
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • ST 90D Connection

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



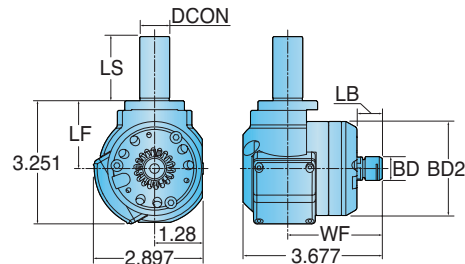
Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	LS Shank Length	LF Functional Length	BD Body Diameter	BD2 Body Diameter 2	WF Functional Width	LB Body Length	WEIGHT Lbs
INCH									
TJS-PJET-ST20-90D	20 mm	ER11	1.693	1.791	0.630	3.150	2.500	0.669	3.75

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	LS Shank Length	LF Functional Length	BD Body Diameter	BD2 Body Diameter 2	WF Functional Width	LB Body Length	WEIGHT Lbs
INCH									
TJS-SJET-ST20-90D	20 mm	ER11	1.693	1.791	0.630	3.150	2.496	0.669	3.53

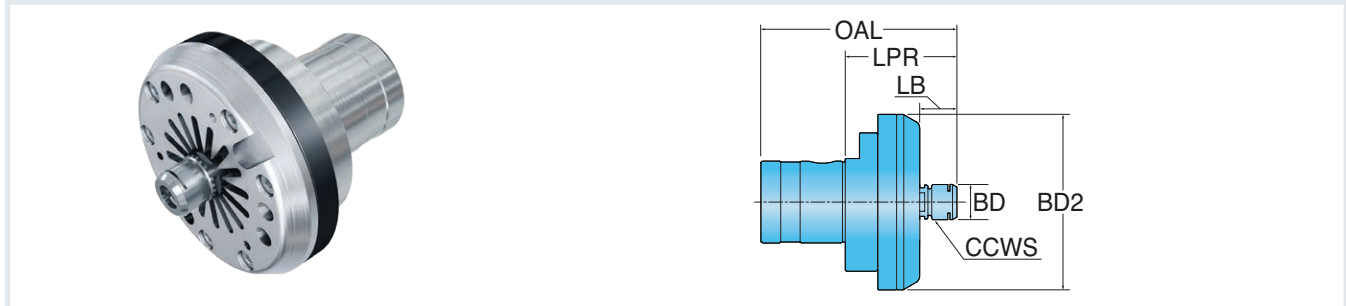
» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

Series TJS • Typhoon Replacement Spindle Cartridge

PJET POWER-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



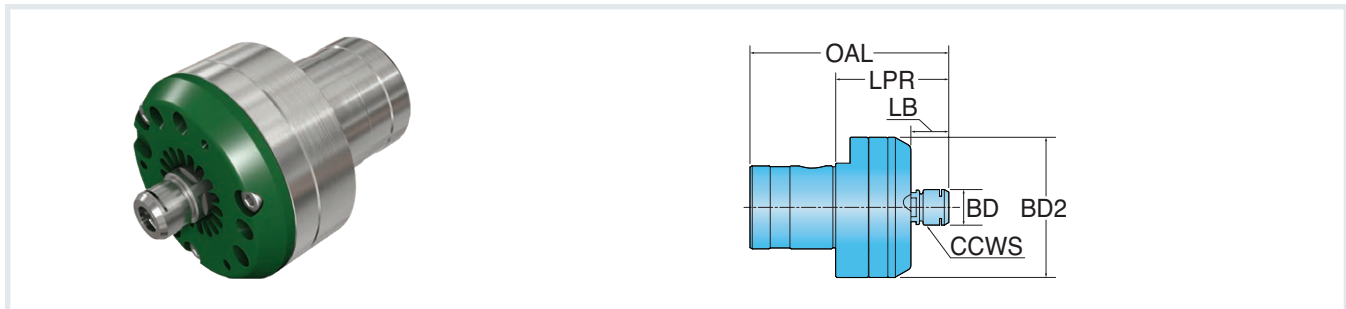
Part Number	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-PJET-TR	ER11	3.519	0.630	3.150	2.004	0.669	1.76

» Coolant pressure: 217-1015 psi

» Spindle speed: 20,000-45,000 rpm (rev/min)

» Flow rate: 2.6-5.8 gal/min

SJET SPEED-TYPE HIGH-SPEED COOLANT DRIVEN SPINDLES ▼



Part Number	CCWS Connection Code Workpiece Side	OAL Overall Length	BD Body Diameter	BD2 Body Diameter 2	LPR Protruding Length	LB Body Length	WEIGHT Lbs
INCH							
TJS-SJET-TR	ER11	3.516	0.630	2.480	2.000	0.669	1.76

» Coolant pressure: 290-580 psi

» Spindle speed: 33,000-55,000 rpm (rev/min)

» Flow rate: 2.6-5.3 gal/min

PJET Cutting Chart (Drilling)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
P	SAE 1.2316 (35 HRC)	Drilling (Drill)	0.0118 (0.3)	217.5 (15)	22000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00008 (0.002)
			0.0118 (0.3)	290 (20)	25000		0.00008 (0.002)
			0.0118 (0.3)	580 (40)	35000		0.00008 (0.002)
			0.0118 (0.3)	1015 (70)	45000		0.00008 (0.002)
			0.0197 (0.5)	217.5 (15)	22000		0.00016 (0.004)
			0.0197 (0.5)	290 (20)	25000		0.00016 (0.004)
			0.0197 (0.5)	580 (40)	35000		0.00016 (0.004)
			0.0197 (0.5)	1015 (70)	45000		0.00016 (0.004)
			0.0315 (0.8)	217.5 (15)	22000		0.00024 (0.006)
			0.0315 (0.8)	290 (20)	25000		0.00024 (0.006)
			0.0315 (0.8)	580 (40)	35000		0.00024 (0.006)
			0.0315 (0.8)	1015 (70)	45000		0.00024 (0.006)
			0.0394 (1)	217.5 (15)	22000		0.00024 (0.006)
			0.0394 (1)	290 (20)	25000		0.00024 (0.006)
			0.0394 (1)	580 (40)	35000		0.00024 (0.006)
			0.0591 (1.5)	217.5 (15)	22000		0.00024 (0.006)
			0.0591 (1.5)	290 (20)	25000		0.00024 (0.006)
			0.0591 (1.5)	580 (40)	35000		0.00024 (0.006)
			0.0787 (2)	217.5 (15)	22000		0.00031 (0.008)
			0.0787 (2)	290 (20)	25000		0.00031 (0.008)
			0.0787 (2)	580 (40)	35000		0.00031 (0.008)
			0.0984 (2.5)	217.5 (15)	22000		0.00031 (0.008)
			0.0984 (2.5)	290 (20)	25000		0.00031 (0.008)
			0.1181 (3)	217.5 (15)	22000		0.00031 (0.008)

PJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
P	SAE 1.2316 (35 HRC)	Profile Milling (Ball Nose)	0.0118 (0.3)	217.5 (15)	22000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	290 (20)	25000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	580 (40)	35000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	1015 (70)	45000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0197 (0.5)	217.5 (15)	22000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	290 (20)	25000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	580 (40)	35000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	1015 (70)	45000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0394 (1)	217.5 (15)	22000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	290 (20)	25000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	580 (40)	35000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	1015 (70)	45000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0591 (1.5)	217.5 (15)	22000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	290 (20)	25000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	580 (40)	35000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	1015 (70)	45000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0787 (2)	217.5 (15)	22000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	290 (20)	25000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	580 (40)	35000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	1015 (70)	45000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0984 (2.5)	217.5 (15)	22000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	25000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	580 (40)	35000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	1015 (70)	45000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.1181 (3)	217.5 (15)	22000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1181 (3)	290 (20)	25000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1575 (4)	217.5 (15)	22000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1575 (4)	290 (20)	25000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1969 (5)	217.5 (15)	22000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.1969 (5)	290 (20)	25000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.2362 (6)	217.5 (15)	22000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)
			0.2362 (6)	290 (20)	25000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)

PJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
P	SAE 1.2316 (35 HRC)	Slot Milling (End Mill)	0.0118 (0.3)	217.5 (15)	22000	0.0118 (0.3)	0.0002 (0.005)	0.00012 (0.003)
			0.0118 (0.3)	290 (20)	25000	0.0118 (0.3)	0.0002 (0.005)	0.00012 (0.003)
			0.0118 (0.3)	580 (40)	35000	0.0118 (0.3)	0.0002 (0.005)	0.00012 (0.003)
			0.0118 (0.3)	1015 (70)	45000	0.0118 (0.3)	0.0002 (0.005)	0.00012 (0.003)
			0.0197 (0.5)	217.5 (15)	22000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0315 (0.8)	217.5 (15)	22000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	580 (40)	35000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	1015 (70)	45000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0591 (1.5)	217.5 (15)	22000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	290 (20)	25000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	580 (40)	35000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0787 (2)	217.5 (15)	22000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	290 (20)	25000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0984 (2.5)	217.5 (15)	22000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	290 (20)	25000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.1181 (3)	217.5 (15)	22000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1181 (3)	290 (20)	25000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1575 (4)	217.5 (15)	22000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)
			0.1575 (4)	290 (20)	25000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)
			0.1772 (4.5)	217.5 (15)	22000	0.1772 (4.5)	0.0043 (0.110)	0.00102 (0.026)
			0.1772 (4.5)	290 (20)	25000	0.1772 (4.5)	0.0043 (0.110)	0.00102 (0.026)
			0.1969 (5)	217.5 (15)	22000	0.1969 (5)	0.0048 (0.122)	0.00098 (0.025)
			0.1969 (5)	290 (20)	25000	0.1969 (5)	0.0048 (0.122)	0.00098 (0.025)
			0.2362 (6)	217.5 (15)	22000	0.2362 (6)	0.0058 (0.147)	0.00098 (0.025)
			0.2362 (6)	290 (20)	25000	0.2362 (6)	0.0058 (0.147)	0.00098 (0.025)

PJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F _z in/t (mm/t)
P	SAE 1.2316 (35 HRC)	Shoulder Milling (End Mill)	0.0197 (0.5)	217.5 (15)	22000	0.0020 (0.05)	0.0197 (0.500)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0020 (0.05)	0.0197 (0.500)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0020 (0.05)	0.0197 (0.500)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0020 (0.05)	0.0197 (0.500)	0.00020 (0.005)
			0.0394 (1)	217.5 (15)	22000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	290 (20)	25000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	580 (40)	35000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0787 (2)	217.5 (15)	22000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.0787 (2)	290 (20)	25000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.1181 (3)	217.5 (15)	22000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1181 (3)	290 (20)	25000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1575 (4)	217.5 (15)	22000	0.0157 (0.4)	0.1575 (4.000)	0.00039 (0.01)
			0.1575 (4)	290 (20)	25000	0.0157 (0.4)	0.1575 (4.000)	0.00039 (0.01)
			0.1969 (5)	217.5 (15)	22000	0.0197 (0.5)	0.1969 (5.000)	0.00047 (0.012)
			0.1969 (5)	290 (20)	25000	0.0197 (0.5)	0.1969 (5.000)	0.00047 (0.012)
			0.2362 (6)	217.5 (15)	22000	0.0197 (0.5)	0.2362 (6.000)	0.00047 (0.012)

PJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
M	SS 316 (180-250 HB)	Drilling (Drill)	0.0197 (0.5)	217.5 (15)	22000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00016 (0.004)
			0.0197 (0.5)	290 (20)	25000		0.00016 (0.004)
			0.0197 (0.5)	580 (40)	35000		0.00016 (0.004)
			0.0315 (0.8)	217.5 (15)	22000		0.00024 (0.006)
			0.0315 (0.8)	290 (20)	25000		0.00024 (0.006)
			0.0394 (1)	217.5 (15)	22000		0.00024 (0.006)
			0.0394 (1)	290 (20)	25000		0.00024 (0.006)
			0.0591 (1.5)	217.5 (15)	22000		0.00024 (0.006)
			0.0591 (1.5)	290 (20)	25000		0.00024 (0.006)
			0.0787 (2)	217.5 (15)	22000		0.00031 (0.008)
			0.0787 (2)	290 (20)	25000		0.00031 (0.008)
			0.0984 (2.5)	217.5 (15)	22000		0.00031 (0.008)
			0.1181 (3)	217.5 (15)	22000		0.00031 (0.008)

PJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316 (180-250 HB)	Profile Milling (Ball Nose)	0.0197 (0.5)	217.5 (15)	22000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	290 (20)	25000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	580 (40)	35000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	1015 (70)	45000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0394 (1)	217.5 (15)	22000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	290 (20)	25000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	580 (40)	35000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0591 (1.5)	217.5 (15)	22000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	290 (20)	25000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	580 (40)	35000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0787 (2)	217.5 (15)	22000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	290 (20)	25000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	580 (40)	35000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0984 (2.5)	217.5 (15)	22000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	25000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	580 (40)	35000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.1181 (3)	217.5 (15)	22000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1181 (3)	290 (20)	25000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1575 (4)	217.5 (15)	22000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1575 (4)	290 (20)	25000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1969 (5)	217.5 (15)	22000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.1969 (5)	290 (20)	25000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.2362 (6)	217.5 (15)	22000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)
			0.2362 (6)	290 (20)	25000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)

PJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316 (180-250 HB)	Slot Milling (End Mill)	0.0197 (0.5)	217.5 (15)	22000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0315 (0.8)	217.5 (15)	22000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	580 (40)	35000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	1015 (70)	45000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0591 (1.5)	217.5 (15)	22000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	290 (20)	25000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	580 (40)	35000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0787 (2)	217.5 (15)	22000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	290 (20)	25000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	580 (40)	35000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0984 (2.5)	217.5 (15)	22000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	290 (20)	25000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	580 (40)	35000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.1181 (3)	217.5 (15)	22000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1181 (3)	290 (20)	25000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1575 (4)	217.5 (15)	22000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)
			0.1575 (4)	290 (20)	25000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)

PJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316 (180-250 HB)	Shoulder Milling (End Mill)	0.0394 (1)	217.5 (15)	22000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	290 (20)	25000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	580 (40)	35000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	1015 (70)	45000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0787 (2)	217.5 (15)	22000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.0787 (2)	290 (20)	25000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.0787 (2)	580 (40)	35000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.0787 (2)	1015 (70)	45000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.1181 (3)	217.5 (15)	22000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1181 (3)	290 (20)	25000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1575 (4)	217.5 (15)	22000	0.0157 (0.4)	0.1575 (4.000)	0.00039 (0.01)
			0.1575 (4)	290 (20)	25000	0.0157 (0.4)	0.1575 (4.000)	0.00039 (0.01)
			0.1969 (5)	217.5 (15)	22000	0.0197 (0.5)	0.1969 (5.000)	0.00047 (0.012)
			0.1969 (5)	290 (20)	25000	0.0197 (0.5)	0.1969 (5.000)	0.00047 (0.012)
			0.2362 (6)	217.5 (15)	22000	0.0197 (0.5)	0.2362 (6.000)	0.00047 (0.012)
			0.2362 (6)	290 (20)	25000	0.0197 (0.5)	0.2362 (6.000)	0.00047 (0.012)

PJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
N	Al-Si 9% (80-160 HB)	Drilling (Drill)	0.0118 (0.3)	217.5 (15)	22000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00008 (0.002)
			0.0118 (0.3)	290 (20)	25000		0.00008 (0.002)
			0.0118 (0.3)	580 (40)	35000		0.00008 (0.002)
			0.0118 (0.3)	1015 (70)	45000		0.00008 (0.002)
			0.0197 (0.5)	217.5 (15)	22000		0.00012 (0.003)
			0.0197 (0.5)	290 (20)	25000		0.00031 (0.008)
			0.0197 (0.5)	580 (40)	35000		0.00031 (0.008)
			0.0197 (0.5)	1015 (70)	45000		0.00031 (0.008)
			0.0315 (0.8)	217.5 (15)	22000		0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000		0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000		0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000		0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000		0.00031 (0.008)
			0.0394 (1)	290 (20)	25000		0.00031 (0.008)
			0.0394 (1)	580 (40)	35000		0.00031 (0.008)
			0.0394 (1)	1015 (70)	45000		0.00031 (0.008)
			0.0591 (1.5)	217.5 (15)	22000		0.00031 (0.008)
			0.0591 (1.5)	290 (20)	25000		0.00031 (0.008)
			0.0591 (1.5)	580 (40)	35000		0.00031 (0.008)
			0.0591 (1.5)	1015 (70)	45000		0.00031 (0.008)
			0.0787 (2)	217.5 (15)	22000		0.00031 (0.008)
			0.0787 (2)	290 (20)	25000		0.00031 (0.008)
			0.0787 (2)	580 (40)	35000		0.00031 (0.008)
			0.0787 (2)	1015 (70)	45000		0.00031 (0.008)
			0.1181 (3)	217.5 (15)	22000		0.00031 (0.008)
			0.1181 (3)	290 (20)	25000		0.00031 (0.008)
			0.1181 (3)	580 (40)	35000		0.00031 (0.008)
			0.1181 (3)	1015 (70)	45000		0.00031 (0.008)
			0.1575 (4)	217.5 (15)	22000		0.00031 (0.008)
			0.1575 (4)	290 (20)	25000		0.00039 (0.01)
			0.1575 (4)	580 (40)	35000		0.00039 (0.01)
			0.1575 (4)	1015 (70)	45000		0.00039 (0.01)

PJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9% (80-160 HB)	Profile Milling (Ball Nose)	0.0197 (0.5)	217.5 (15)	22000	0.0059 (0.15)	0.0059 (0.150)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0059 (0.15)	0.0059 (0.150)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0059 (0.15)	0.0059 (0.150)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0059 (0.15)	0.0059 (0.150)	0.00020 (0.005)
			0.0315 (0.8)	217.5 (15)	22000	0.0094 (0.24)	0.0094 (0.240)	0.00024 (0.006)
			0.0315 (0.8)	290 (20)	25000	0.0094 (0.24)	0.0094 (0.240)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	35000	0.0094 (0.24)	0.0094 (0.240)	0.00024 (0.006)
			0.0315 (0.8)	1015 (70)	45000	0.0094 (0.24)	0.0094 (0.240)	0.00024 (0.006)
			0.0394 (1)	217.5 (15)	22000	0.0118 (0.3)	0.0118 (0.300)	0.00031 (0.008)
			0.0394 (1)	290 (20)	25000	0.0118 (0.3)	0.0118 (0.300)	0.00031 (0.008)
			0.0394 (1)	580 (40)	35000	0.0118 (0.3)	0.0118 (0.300)	0.00031 (0.008)
			0.0394 (1)	1015 (70)	45000	0.0118 (0.3)	0.0118 (0.300)	0.00039 (0.01)
			0.0591 (1.5)	217.5 (15)	22000	0.0177 (0.45)	0.0177 (0.450)	0.00039 (0.01)
			0.0591 (1.5)	290 (20)	25000	0.0177 (0.45)	0.0177 (0.450)	0.00039 (0.01)
			0.0591 (1.5)	580 (40)	35000	0.0177 (0.45)	0.0177 (0.450)	0.00039 (0.01)
			0.0591 (1.5)	1015 (70)	45000	0.0177 (0.45)	0.0177 (0.450)	0.00039 (0.01)
			0.0787 (2)	217.5 (15)	22000	0.0236 (0.6)	0.0236 (0.600)	0.00047 (0.012)
			0.0787 (2)	290 (20)	25000	0.0236 (0.6)	0.0236 (0.600)	0.00047 (0.012)
			0.0787 (2)	580 (40)	35000	0.0236 (0.6)	0.0236 (0.600)	0.00047 (0.012)
			0.0787 (2)	1015 (70)	45000	0.0236 (0.6)	0.0236 (0.600)	0.00047 (0.012)
			0.0984 (2.5)	217.5 (15)	22000	0.0295 (0.75)	0.0295 (0.750)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	25000	0.0295 (0.75)	0.0295 (0.750)	0.00047 (0.012)
			0.0984 (2.5)	580 (40)	35000	0.0295 (0.75)	0.0295 (0.750)	0.00047 (0.012)
			0.0984 (2.5)	1015 (70)	45000	0.0295 (0.75)	0.0295 (0.750)	0.00047 (0.012)
			0.1181 (3)	217.5 (15)	22000	0.0354 (0.9)	0.0354 (0.900)	0.00047 (0.012)
			0.1181 (3)	290 (20)	25000	0.0354 (0.9)	0.0354 (0.900)	0.00047 (0.012)
			0.1181 (3)	580 (40)	35000	0.0354 (0.9)	0.0354 (0.900)	0.00047 (0.012)
			0.1181 (3)	1015 (70)	45000	0.0354 (0.9)	0.0354 (0.900)	0.00047 (0.012)
			0.1575 (4)	217.5 (15)	22000	0.0472 (1.2)	0.0472 (1.200)	0.00059 (0.015)
			0.1575 (4)	290 (20)	25000	0.0472 (1.2)	0.0472 (1.200)	0.00059 (0.015)
			0.1575 (4)	580 (40)	35000	0.0472 (1.2)	0.0472 (1.200)	0.00059 (0.015)
			0.1575 (4)	1015 (70)	45000	0.0472 (1.2)	0.0472 (1.200)	0.00059 (0.015)
			0.1969 (5)	217.5 (15)	22000	0.0591 (1.5)	0.0591 (1.500)	0.00059 (0.015)
			0.1969 (5)	290 (20)	25000	0.0591 (1.5)	0.0591 (1.500)	0.00059 (0.015)
			0.1969 (5)	580 (40)	35000	0.0591 (1.5)	0.0591 (1.500)	0.00059 (0.015)
			0.1969 (5)	1015 (70)	45000	0.0591 (1.5)	0.0591 (1.500)	0.00059 (0.015)
			0.2362 (6)	217.5 (15)	22000	0.0709 (1.8)	0.0709 (1.800)	0.00079 (0.02)
			0.2362 (6)	290 (20)	25000	0.0709 (1.8)	0.0709 (1.800)	0.00079 (0.02)
			0.2362 (6)	580 (40)	35000	0.0709 (1.8)	0.0709 (1.800)	0.00079 (0.02)
			0.2362 (6)	1015 (70)	45000	0.0709 (1.8)	0.0709 (1.800)	0.00079 (0.02)

PJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9% (80-160 HB)	Slot Milling (End Mill)	0.0197 (0.5)	217.5 (15)	22000	0.0197 (0.5)	0.0039 (0.100)	0.00031 (0.008)
			0.0197 (0.5)	290 (20)	25000	0.0197 (0.5)	0.0039 (0.100)	0.00031 (0.008)
			0.0197 (0.5)	580 (40)	35000	0.0197 (0.5)	0.0039 (0.100)	0.00031 (0.008)
			0.0197 (0.5)	1015 (70)	45000	0.0197 (0.5)	0.0039 (0.100)	0.00031 (0.008)
			0.0315 (0.8)	217.5 (15)	22000	0.0315 (0.8)	0.0063 (0.160)	0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000	0.0315 (0.8)	0.0063 (0.160)	0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000	0.0315 (0.8)	0.0063 (0.160)	0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000	0.0315 (0.8)	0.0063 (0.160)	0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000	0.0394 (1)	0.0079 (0.200)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0394 (1)	0.0079 (0.200)	0.00039 (0.01)
			0.0394 (1)	580 (40)	35000	0.0394 (1)	0.0079 (0.200)	0.00039 (0.01)
			0.0394 (1)	1015 (70)	45000	0.0394 (1)	0.0079 (0.200)	0.00039 (0.01)
			0.0787 (2)	217.5 (15)	22000	0.0787 (2)	0.0157 (0.400)	0.00059 (0.015)
			0.0787 (2)	290 (20)	25000	0.0787 (2)	0.0157 (0.400)	0.00059 (0.015)
			0.0787 (2)	580 (40)	35000	0.0787 (2)	0.0157 (0.400)	0.00059 (0.015)
			0.0787 (2)	1015 (70)	45000	0.0787 (2)	0.0157 (0.400)	0.00059 (0.015)
			0.1181 (3)	217.5 (15)	22000	0.1181 (3)	0.0236 (0.600)	0.00079 (0.02)
			0.1181 (3)	290 (20)	25000	0.1181 (3)	0.0236 (0.600)	0.00079 (0.02)
			0.1181 (3)	580 (40)	35000	0.1181 (3)	0.0236 (0.600)	0.00079 (0.02)
			0.1181 (3)	1015 (70)	45000	0.1181 (3)	0.0236 (0.600)	0.00079 (0.02)
			0.1575 (4)	217.5 (15)	22000	0.1575 (4)	0.0315 (0.800)	0.00098 (0.025)
			0.1575 (4)	290 (20)	25000	0.1575 (4)	0.0315 (0.800)	0.00098 (0.025)
			0.1575 (4)	580 (40)	35000	0.1575 (4)	0.0315 (0.800)	0.00098 (0.025)
			0.1575 (4)	1015 (70)	45000	0.1575 (4)	0.0315 (0.800)	0.00098 (0.025)
			0.1969 (5)	217.5 (15)	22000	0.1969 (5)	0.0394 (1.000)	0.00098 (0.025)
			0.1969 (5)	290 (20)	25000	0.1969 (5)	0.0394 (1.000)	0.00098 (0.025)
			0.1969 (5)	580 (40)	35000	0.1969 (5)	0.0394 (1.000)	0.00098 (0.025)
			0.1969 (5)	1015 (70)	45000	0.1969 (5)	0.0394 (1.000)	0.00098 (0.025)
			0.2165 (5.5)	217.5 (15)	22000	0.2165 (5.5)	0.0433 (1.100)	0.00098 (0.025)
			0.2165 (5.5)	290 (20)	25000	0.2165 (5.5)	0.0433 (1.100)	0.00098 (0.025)
			0.2165 (5.5)	580 (40)	35000	0.2165 (5.5)	0.0433 (1.100)	0.00098 (0.025)
			0.2165 (5.5)	1015 (70)	45000	0.2165 (5.5)	0.0433 (1.100)	0.00098 (0.025)
			0.2362 (6)	217.5 (15)	22000	0.2362 (6)	0.0472 (1.200)	0.00118 (0.03)
			0.2362 (6)	290 (20)	25000	0.2362 (6)	0.0472 (1.200)	0.00118 (0.03)
			0.2362 (6)	580 (40)	35000	0.2362 (6)	0.0472 (1.200)	0.00118 (0.03)
			0.2362 (6)	1015 (70)	45000	0.2362 (6)	0.0472 (1.200)	0.00118 (0.03)

PJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9% (80-160 HB)	Shoulder Milling (End Mill)	0.0394 (1)	217.5 (15)	22000	0.0039 (0.1)	0.0394 (1.000)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0039 (0.1)	0.0394 (1.000)	0.00039 (0.01)
			0.0394 (1)	580 (40)	35000	0.0039 (0.1)	0.0394 (1.000)	0.00039 (0.01)
			0.0394 (1)	1015 (70)	45000	0.0039 (0.1)	0.0394 (1.000)	0.00039 (0.01)
			0.0787 (2)	217.5 (15)	22000	0.0079 (0.2)	0.0787 (2.000)	0.00059 (0.015)
			0.0787 (2)	290 (20)	25000	0.0079 (0.2)	0.0787 (2.000)	0.00059 (0.015)
			0.0787 (2)	580 (40)	35000	0.0079 (0.2)	0.0787 (2.000)	0.00059 (0.015)
			0.0787 (2)	1015 (70)	45000	0.0079 (0.2)	0.0787 (2.000)	0.00059 (0.015)
			0.1181 (3)	217.5 (15)	22000	0.0118 (0.3)	0.1181 (3.000)	0.00071 (0.018)
			0.1181 (3)	290 (20)	25000	0.0118 (0.3)	0.1181 (3.000)	0.00071 (0.018)
			0.1181 (3)	580 (40)	35000	0.0118 (0.3)	0.1181 (3.000)	0.00071 (0.018)
			0.1181 (3)	1015 (70)	45000	0.0118 (0.3)	0.1181 (3.000)	0.00071 (0.018)
			0.1575 (4)	217.5 (15)	22000	0.0157 (0.4)	0.1575 (4.000)	0.00079 (0.02)
			0.1575 (4)	290 (20)	25000	0.0157 (0.4)	0.1575 (4.000)	0.00079 (0.02)
			0.1575 (4)	580 (40)	35000	0.0157 (0.4)	0.1575 (4.000)	0.00079 (0.02)
			0.1575 (4)	1015 (70)	45000	0.0157 (0.4)	0.1575 (4.000)	0.00079 (0.02)
			0.1969 (5)	217.5 (15)	22000	0.0197 (0.5)	0.1969 (5.000)	0.00079 (0.02)
			0.1969 (5)	290 (20)	25000	0.0197 (0.5)	0.1969 (5.000)	0.00079 (0.02)
			0.1969 (5)	580 (40)	35000	0.0197 (0.5)	0.1969 (5.000)	0.00079 (0.02)
			0.1969 (5)	1015 (70)	45000	0.0197 (0.5)	0.1969 (5.000)	0.00079 (0.02)
			0.2362 (6)	217.5 (15)	22000	0.0236 (0.6)	0.2362 (6.000)	0.00079 (0.02)
			0.2362 (6)	290 (20)	25000	0.0236 (0.6)	0.2362 (6.000)	0.00079 (0.02)
			0.2362 (6)	580 (40)	35000	0.0236 (0.6)	0.2362 (6.000)	0.00079 (0.02)
			0.2362 (6)	1015 (70)	45000	0.0236 (0.6)	0.2362 (6.000)	0.00079 (0.02)

PJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
N	Cu Alloys (80-200 HB)	Drilling (Drill)	0.0197 (0.5)	217.5 (15)	22000	Pecking steps: 0.01-0.2xD	0.00016 (0.004)
			0.0197 (0.5)	290 (20)	25000		0.00016 (0.004)
			0.0197 (0.5)	580 (40)	35000		0.00016 (0.004)
			0.0315 (0.8)	217.5 (15)	22000		0.00024 (0.006)
			0.0315 (0.8)	290 (20)	25000		0.00024 (0.006)
			0.0394 (1)	217.5 (15)	22000		0.00024 (0.006)
			0.0394 (1)	290 (20)	25000	Max length of the hole: 5xD	0.00024 (0.006)
			0.0591 (1.5)	217.5 (15)	22000		0.00024 (0.006)
			0.0591 (1.5)	290 (20)	25000		0.00024 (0.006)
			0.0787 (2)	217.5 (15)	22000		0.00031 (0.008)
			0.0787 (2)	290 (20)	25000		0.00031 (0.008)
			0.0984 (2.5)	217.5 (15)	22000		0.00031 (0.008)
			0.1181 (3)	217.5 (15)	22000		0.00031 (0.008)

PJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Cu Alloys (80-200 HB)	Profile Milling (Ball Nose)	0.0197 (0.5)	217.5 (15)	22000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	290 (20)	25000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	580 (40)	35000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	1015 (70)	45000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0394 (1)	217.5 (15)	22000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	290 (20)	25000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0591 (1.5)	217.5 (15)	22000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	290 (20)	25000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0787 (2)	217.5 (15)	22000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	290 (20)	25000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0984 (2.5)	217.5 (15)	22000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	25000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.1181 (3)	217.5 (15)	22000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1181 (3)	290 (20)	25000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1575 (4)	217.5 (15)	22000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1969 (5)	217.5 (15)	22000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.2362 (6)	217.5 (15)	22000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)

PJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Cu Alloys (80-200 HB)	Slot Milling (End Mill)	0.0197 (0.5)	217.5 (15)	22000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0315 (0.8)	217.5 (15)	22000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0591 (1.5)	217.5 (15)	22000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	290 (20)	25000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0787 (2)	217.5 (15)	22000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	290 (20)	25000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0984 (2.5)	217.5 (15)	22000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	290 (20)	25000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.1181 (3)	217.5 (15)	22000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1181 (3)	290 (20)	25000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1575 (4)	217.5 (15)	22000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)

PJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Cu Alloys (80-200 HB)	Shoulder Milling (End Mill)	0.0394 (1)	217.5 (15)	22000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0394 (1)	290 (20)	25000	0.0039 (0.1)	0.0394 (1.000)	0.00031 (0.008)
			0.0787 (2)	217.5 (15)	22000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.0787 (2)	290 (20)	25000	0.0079 (0.2)	0.0787 (2.000)	0.00394 (0.1)
			0.1181 (3)	217.5 (15)	22000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1181 (3)	290 (20)	25000	0.0118 (0.3)	0.1181 (3.000)	0.00039 (0.01)
			0.1575 (4)	217.5 (15)	22000	0.0157 (0.4)	0.1575 (4.000)	0.00039 (0.01)
			0.1969 (5)	217.5 (15)	22000	0.0197 (0.5)	0.1969 (5.000)	0.00047 (0.012)
			0.2362 (6)	217.5 (15)	22000	0.0197 (0.5)	0.2362 (6.000)	0.00047 (0.012)

PJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
S	Ti Alloys (170-250 HB)	Drilling (Drill)	0.0197 (0.5)	217.5 (15)	22000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00016 (0.004)
			0.0197 (0.5)	290 (20)	25000		0.00016 (0.004)
			0.0197 (0.5)	580 (40)	35000		0.00016 (0.004)
			0.0315 (0.8)	217.5 (15)	22000		0.00024 (0.006)
			0.0315 (0.8)	290 (20)	25000		0.00024 (0.006)
			0.0394 (1)	217.5 (15)	22000		0.00024 (0.006)
			0.0394 (1)	290 (20)	25000		0.00024 (0.006)
			0.0591 (1.5)	217.5 (15)	22000		0.00024 (0.006)
			0.0591 (1.5)	290 (20)	25000		0.00024 (0.006)
			0.0787 (2)	217.5 (15)	22000		0.00031 (0.008)
			0.0787 (2)	290 (20)	25000		0.00031 (0.008)
			0.0984 (2.5)	217.5 (15)	22000		0.00031 (0.008)
			0.1181 (3)	217.5 (15)	22000		0.00031 (0.008)

PJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys (170-250 HB)	Profile Milling (Ball Nose)	0.0197 (0.5)	217.5 (15)	22000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	290 (20)	25000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	580 (40)	35000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	1015 (70)	45000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0394 (1)	217.5 (15)	22000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	290 (20)	25000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	580 (40)	35000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0591 (1.5)	217.5 (15)	22000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	290 (20)	25000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	580 (40)	35000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0787 (2)	217.5 (15)	22000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	290 (20)	25000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0787 (2)	580 (40)	35000	0.0025 (0.063)	0.0060 (0.153)	0.00047 (0.012)
			0.0984 (2.5)	217.5 (15)	22000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	25000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.0984 (2.5)	580 (40)	35000	0.0031 (0.08)	0.0079 (0.200)	0.00047 (0.012)
			0.1181 (3)	217.5 (15)	22000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1181 (3)	290 (20)	25000	0.0039 (0.1)	0.0094 (0.240)	0.00024 (0.006)
			0.1575 (4)	217.5 (15)	22000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1575 (4)	290 (20)	25000	0.0052 (0.131)	0.0129 (0.327)	0.00024 (0.006)
			0.1969 (5)	217.5 (15)	22000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.1969 (5)	290 (20)	25000	0.0065 (0.165)	0.0163 (0.414)	0.00024 (0.006)
			0.2362 (6)	217.5 (15)	22000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)
			0.2362 (6)	290 (20)	25000	0.0079 (0.2)	0.0197 (0.500)	0.00024 (0.006)

PJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys (170-250 HB)	Slot Milling (End Mill)	0.0197 (0.5)	217.5 (15)	22000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	290 (20)	25000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	580 (40)	35000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0197 (0.5)	1015 (70)	45000	0.0197 (0.5)	0.0004 (0.010)	0.00020 (0.005)
			0.0315 (0.8)	217.5 (15)	22000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	290 (20)	25000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	580 (40)	35000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0315 (0.8)	1015 (70)	45000	0.0315 (0.8)	0.0007 (0.017)	0.00031 (0.008)
			0.0394 (1)	217.5 (15)	22000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	290 (20)	25000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	580 (40)	35000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0394 (1)	1015 (70)	45000	0.0394 (1)	0.0009 (0.022)	0.00039 (0.01)
			0.0591 (1.5)	217.5 (15)	22000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	290 (20)	25000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0591 (1.5)	580 (40)	35000	0.0591 (1.5)	0.0014 (0.035)	0.00059 (0.015)
			0.0787 (2)	217.5 (15)	22000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	290 (20)	25000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0787 (2)	580 (40)	35000	0.0787 (2)	0.0019 (0.047)	0.00079 (0.02)
			0.0984 (2.5)	217.5 (15)	22000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	290 (20)	25000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.0984 (2.5)	580 (40)	35000	0.0984 (2.5)	0.0024 (0.060)	0.00094 (0.024)
			0.1181 (3)	217.5 (15)	22000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1181 (3)	290 (20)	25000	0.1181 (3)	0.0028 (0.072)	0.00098 (0.025)
			0.1575 (4)	217.5 (15)	22000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)
			0.1575 (4)	290 (20)	25000	0.1575 (4)	0.0039 (0.100)	0.00098 (0.025)

PJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys (170-250 HB)	Shoulder Milling (End Mill)	0.0118 (0.3)	217.5 (15)	22000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	290 (20)	25000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	580 (40)	35000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0118 (0.3)	1015 (70)	45000	0.0002 (0.005)	0.0002 (0.005)	0.00020 (0.005)
			0.0197 (0.5)	217.5 (15)	22000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	290 (20)	25000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	580 (40)	35000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0197 (0.5)	1015 (70)	45000	0.0005 (0.012)	0.0004 (0.010)	0.00028 (0.007)
			0.0394 (1)	217.5 (15)	22000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	290 (20)	25000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	580 (40)	35000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0394 (1)	1015 (70)	45000	0.0012 (0.03)	0.0026 (0.066)	0.00047 (0.012)
			0.0591 (1.5)	217.5 (15)	22000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	290 (20)	25000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	580 (40)	35000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)
			0.0591 (1.5)	1015 (70)	45000	0.0018 (0.046)	0.0043 (0.110)	0.00047 (0.012)

SJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
P	SAE 1.2316	Drilling (Drill)	0.0118 (0.3)	290 (20)	33000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00008 (0.002)
			0.0118 (0.3)	435 (30)	44000		0.00008 (0.002)
			0.0118 (0.3)	580 (40)	55000		0.00008 (0.002)
			0.0197 (0.5)	290 (20)	33000		0.00012 (0.003)
			0.0197 (0.5)	435 (30)	44000		0.00012 (0.003)
			0.0197 (0.5)	580 (40)	55000		0.00012 (0.003)
			0.0315 (0.8)	290 (20)	33000		0.00020 (0.005)
			0.0394 (1)	290 (20)	33000		0.00020 (0.005)
			0.0394 (1)	435 (30)	44000		0.00020 (0.005)
			0.0591 (1.5)	290 (20)	33000		0.00020 (0.005)
			0.0591 (1.5)	435 (30)	44000		0.00020 (0.005)
			0.0787 (2)	290 (20)	33000		0.00024 (0.006)

SJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
P	SAE 1.2316	Profile Milling (Ball Nose)	0.0118 (0.3)	290 (20)	33000	0.0002 (0.004)	0.0002 (0.004)	0.00016 (0.004)
			0.0118 (0.3)	435 (30)	44000	0.0002 (0.004)	0.0002 (0.004)	0.00016 (0.004)
			0.0118 (0.3)	580 (40)	55000	0.0002 (0.004)	0.0002 (0.004)	0.00016 (0.004)
			0.0197 (0.5)	290 (20)	33000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	435 (30)	44000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	580 (40)	55000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0591 (1.5)	290 (20)	33000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0591 (1.5)	435 (30)	44000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0591 (1.5)	580 (40)	55000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0787 (2)	290 (20)	33000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0787 (2)	435 (30)	44000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0787 (2)	580 (40)	55000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0984 (2.5)	290 (20)	33000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.0984 (2.5)	435 (30)	44000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.0984 (2.5)	580 (40)	55000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.1181 (3)	290 (20)	33000	0.0031 (0.080)	0.0076 (0.192)	0.00020 (0.005)
			0.1181 (3)	435 (30)	44000	0.0031 (0.080)	0.0076 (0.192)	0.00020 (0.005)
			0.1575 (4)	290 (20)	33000	0.0041 (0.105)	0.0103 (0.262)	0.00020 (0.005)
			0.1575 (4)	435 (30)	44000	0.0041 (0.105)	0.0103 (0.262)	0.00020 (0.005)
			0.1969 (5)	290 (20)	33000	0.0052 (0.132)	0.0130 (0.331)	0.00020 (0.005)
			0.1969 (5)	435 (30)	44000	0.0052 (0.132)	0.0130 (0.331)	0.00020 (0.005)
			0.2362 (6)	290 (20)	33000	0.0063 (0.160)	0.0157 (0.4)	0.00020 (0.005)

SJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
P	SAE 1.2316	Slot Milling (End Mill)	0.0118 (0.3)	290 (20)	33000	0.0118 (0.300)	0.0002 (0.004)	0.00008 (0.002)
			0.0118 (0.3)	435 (30)	44000	0.0118 (0.300)	0.0002 (0.004)	0.00008 (0.002)
			0.0118 (0.3)	580 (40)	55000	0.0118 (0.300)	0.0002 (0.004)	0.00008 (0.002)
			0.0197 (0.5)	290 (20)	33000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0315 (0.8)	290 (20)	33000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	435 (30)	44000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	580 (40)	55000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0591 (1.5)	290 (20)	33000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0591 (1.5)	435 (30)	44000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0591 (1.5)	580 (40)	55000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0787 (2)	290 (20)	33000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0787 (2)	435 (30)	44000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0787 (2)	580 (40)	55000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0984 (2.5)	290 (20)	33000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.0984 (2.5)	435 (30)	44000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.0984 (2.5)	580 (40)	55000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.1181 (3)	290 (20)	33000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)
			0.1181 (3)	435 (30)	44000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)
			0.1181 (3)	580 (40)	55000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)
			0.1575 (4)	290 (20)	33000	0.1575 (4.000)	0.0031 (0.08)	0.00079 (0.02)
			0.1575 (4)	435 (30)	44000	0.1575 (4.000)	0.0031 (0.08)	0.00079 (0.02)
			0.1575 (4)	580 (40)	55000	0.1575 (4.000)	0.0031 (0.08)	0.00079 (0.02)

SJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
P	SAE 1.2316	Shoulder Milling (End Mill)	0.0197 (0.5)	290 (20)	33000	0.0016 (0.040)	0.0157 (0.4)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0016 (0.040)	0.0157 (0.4)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0016 (0.040)	0.0157 (0.4)	0.00016 (0.004)
			0.0394 (1)	290 (20)	33000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	435 (30)	44000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	580 (40)	55000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0787 (2)	290 (20)	33000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.0787 (2)	435 (30)	44000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.0787 (2)	580 (40)	55000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.1181 (3)	290 (20)	33000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1181 (3)	435 (30)	44000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1181 (3)	580 (40)	55000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1575 (4)	290 (20)	33000	0.0126 (0.320)	0.1260 (3.2)	0.00031 (0.008)

SJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
M	SS 316	Drilling (Drill)	0.0197 (0.5)	290 (20)	33000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00012 (0.003)
			0.0197 (0.5)	435 (30)	44000		0.00012 (0.003)
			0.0197 (0.5)	580 (40)	55000		0.00012 (0.003)
			0.0315 (0.8)	290 (20)	33000		0.00020 (0.005)
			0.0315 (0.8)	435 (30)	44000		0.00020 (0.005)
			0.0315 (0.8)	580 (40)	55000		0.00020 (0.005)
			0.0394 (1)	290 (20)	33000		0.00020 (0.005)
			0.0394 (1)	435 (30)	44000		0.00020 (0.005)
			0.0394 (1)	580 (40)	55000		0.00020 (0.005)
			0.0591 (1.5)	290 (20)	33000		0.00020 (0.005)
			0.0591 (1.5)	435 (30)	44000		0.00020 (0.005)
			0.0591 (1.5)	580 (40)	55000		0.00020 (0.005)
			0.0787 (2)	290 (20)	33000		0.00024 (0.006)

SJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316	Profile Milling (Ball Nose)	0.0197 (0.5)	290 (20)	33000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	435 (30)	44000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	580 (40)	55000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0591 (1.5)	290 (20)	33000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0591 (1.5)	435 (30)	44000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0787 (2)	290 (20)	33000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0787 (2)	435 (30)	44000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0984 (2.5)	290 (20)	33000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.1181 (3)	290 (20)	33000	0.0031 (0.080)	0.0076 (0.192)	0.00020 (0.005)
			0.1575 (4)	290 (20)	33000	0.0041 (0.105)	0.0103 (0.262)	0.00020 (0.005)

SJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316	Slot Milling (End Mill)	0.0197 (0.5)	290 (20)	33000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0315 (0.8)	290 (20)	33000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	435 (30)	44000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	580 (40)	55000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0591 (1.5)	290 (20)	33000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0591 (1.5)	435 (30)	44000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0787 (2)	290 (20)	33000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0984 (2.5)	290 (20)	33000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.0984 (2.5)	435 (30)	44000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.1181 (3)	290 (20)	33000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)

SJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
M	SS 316 (180-250 HB)	Shoulder Milling (End Mill)	0.0394 (1)	290 (20)	33000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	435 (30)	44000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	580 (40)	55000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0787 (2)	290 (20)	33000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.0787 (2)	435 (30)	44000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.1181 (3)	290 (20)	33000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1181 (3)	435 (30)	44000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1575 (4)	290 (20)	33000	0.0126 (0.320)	0.1260 (3.2)	0.00031 (0.008)
			0.1969 (5)	290 (20)	33000	0.0157 (0.400)	0.1575 (4)	0.00039 (0.01)
			0.2362 (6)	290 (20)	33000	0.0157 (0.400)	0.1890 (4.8)	0.00039 (0.01)

SJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
N	Al-Si 9%	Drilling (Drill)	0.0118 (0.3)	290 (20)	33000	Pecking steps: 0.01-0.2xD Max length of the hole: 3-4xD	0.00008 (0.002)
			0.0118 (0.3)	435 (30)	44000		0.00008 (0.002)
			0.0118 (0.3)	580 (40)	55000		0.00008 (0.002)
			0.0197 (0.5)	290 (20)	33000		0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000		0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000		0.00024 (0.006)
			0.0315 (0.8)	290 (20)	33000		0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000		0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000		0.00024 (0.006)
			0.0394 (1)	290 (20)	33000		0.00024 (0.006)
			0.0394 (1)	435 (30)	44000		0.00024 (0.006)
			0.0394 (1)	580 (40)	55000		0.00024 (0.006)
			0.0591 (1.5)	290 (20)	33000		0.00024 (0.006)
			0.0591 (1.5)	435 (30)	44000		0.00024 (0.006)
			0.0591 (1.5)	580 (40)	55000		0.00024 (0.006)
			0.0787 (2)	290 (20)	33000		0.00024 (0.006)
			0.0787 (2)	435 (30)	44000		0.00024 (0.006)
			0.0787 (2)	580 (40)	55000		0.00024 (0.006)
			0.1181 (3)	290 (20)	33000		0.00024 (0.006)
			0.1181 (3)	435 (30)	44000		0.00024 (0.006)
			0.1181 (3)	580 (40)	55000		0.00024 (0.006)

SJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9%	Profile Milling (Ball Nose)	0.0197 (0.5)	290 (20)	33000	0.0047 (0.120)	0.0047 (0.12)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0047 (0.120)	0.0047 (0.12)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0047 (0.120)	0.0047 (0.12)	0.00016 (0.004)
			0.0315 (0.8)	290 (20)	33000	0.0076 (0.192)	0.0076 (0.192)	0.00020 (0.005)
			0.0315 (0.8)	435 (30)	44000	0.0076 (0.192)	0.0076 (0.192)	0.00020 (0.005)
			0.0315 (0.8)	580 (40)	55000	0.0076 (0.192)	0.0076 (0.192)	0.00020 (0.005)
			0.0394 (1)	290 (20)	33000	0.0094 (0.240)	0.0094 (0.24)	0.00024 (0.006)
			0.0394 (1)	435 (30)	44000	0.0094 (0.240)	0.0094 (0.24)	0.00024 (0.006)
			0.0394 (1)	580 (40)	55000	0.0094 (0.240)	0.0094 (0.24)	0.00024 (0.006)
			0.0591 (1.5)	290 (20)	33000	0.0142 (0.360)	0.0142 (0.36)	0.00031 (0.008)
			0.0591 (1.5)	435 (30)	44000	0.0142 (0.360)	0.0142 (0.36)	0.00031 (0.008)
			0.0591 (1.5)	580 (40)	55000	0.0142 (0.360)	0.0142 (0.36)	0.00031 (0.008)
			0.0787 (2)	290 (20)	33000	0.0189 (0.480)	0.0189 (0.48)	0.00039 (0.01)
			0.0787 (2)	435 (30)	44000	0.0189 (0.480)	0.0189 (0.48)	0.00039 (0.01)
			0.0787 (2)	580 (40)	55000	0.0189 (0.480)	0.0189 (0.48)	0.00039 (0.01)
			0.0984 (2.5)	290 (20)	33000	0.0236 (0.600)	0.0236 (0.6)	0.00039 (0.01)
			0.0984 (2.5)	435 (30)	44000	0.0236 (0.600)	0.0236 (0.6)	0.00039 (0.01)
			0.0984 (2.5)	580 (40)	55000	0.0236 (0.600)	0.0236 (0.6)	0.00039 (0.01)
			0.1181 (3)	290 (20)	33000	0.0283 (0.720)	0.0283 (0.72)	0.00039 (0.01)
			0.1181 (3)	435 (30)	44000	0.0283 (0.720)	0.0283 (0.72)	0.00039 (0.01)
			0.1181 (3)	580 (40)	55000	0.0283 (0.720)	0.0283 (0.72)	0.00039 (0.01)
			0.1575 (4)	290 (20)	33000	0.0378 (0.960)	0.0378 (0.96)	0.00047 (0.012)
			0.1575 (4)	435 (30)	44000	0.0378 (0.960)	0.0378 (0.96)	0.00047 (0.012)
			0.1575 (4)	580 (40)	55000	0.0378 (0.960)	0.0378 (0.96)	0.00047 (0.012)
			0.1969 (5)	290 (20)	33000	0.0472 (1.200)	0.0472 (1.2)	0.00047 (0.012)
			0.1969 (5)	435 (30)	44000	0.0472 (1.200)	0.0472 (1.2)	0.00047 (0.012)
			0.1969 (5)	580 (40)	55000	0.0472 (1.200)	0.0472 (1.2)	0.00047 (0.012)
			0.2362 (6)	290 (20)	33000	0.0567 (1.440)	0.0567 (1.44)	0.00063 (0.016)
			0.2362 (6)	435 (30)	44000	0.0567 (1.440)	0.0567 (1.44)	0.00063 (0.016)
			0.2362 (6)	580 (40)	55000	0.0567 (1.440)	0.0567 (1.44)	0.00063 (0.016)

SJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9%	Slot Milling (End Mill)	0.0197 (0.5)	290 (20)	33000	0.0197 (0.500)	0.0031 (0.08)	0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000	0.0197 (0.500)	0.0031 (0.08)	0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000	0.0197 (0.500)	0.0031 (0.08)	0.00024 (0.006)
			0.0315 (0.8)	290 (20)	33000	0.0315 (0.800)	0.0050 (0.128)	0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000	0.0315 (0.800)	0.0050 (0.128)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000	0.0315 (0.800)	0.0050 (0.128)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0394 (1.000)	0.0063 (0.16)	0.00031 (0.008)
			0.0394 (1)	435 (30)	44000	0.0394 (1.000)	0.0063 (0.16)	0.00031 (0.008)
			0.0394 (1)	580 (40)	55000	0.0394 (1.000)	0.0063 (0.16)	0.00031 (0.008)
			0.0591 (1.5)	290 (20)	33000	0.0591 (1.500)	0.0094 (0.24)	0.00039 (0.01)
			0.0591 (1.5)	435 (30)	44000	0.0591 (1.500)	0.0094 (0.24)	0.00039 (0.01)
			0.0591 (1.5)	580 (40)	55000	0.0591 (1.500)	0.0094 (0.24)	0.00039 (0.01)
			0.0787 (2)	290 (20)	33000	0.0787 (2.000)	0.0126 (0.32)	0.00047 (0.012)
			0.0787 (2)	435 (30)	44000	0.0787 (2.000)	0.0126 (0.32)	0.00047 (0.012)
			0.0787 (2)	580 (40)	55000	0.0787 (2.000)	0.0126 (0.32)	0.00047 (0.012)
			0.0984 (2.5)	290 (20)	33000	0.0984 (2.500)	0.0157 (0.4)	0.00055 (0.014)
			0.0984 (2.5)	435 (30)	44000	0.0984 (2.500)	0.0157 (0.4)	0.00055 (0.014)
			0.0984 (2.5)	580 (40)	55000	0.0984 (2.500)	0.0157 (0.4)	0.00055 (0.014)
			0.1181 (3)	290 (20)	33000	0.1181 (3.000)	0.0189 (0.48)	0.00063 (0.016)
			0.1181 (3)	435 (30)	44000	0.1181 (3.000)	0.0189 (0.48)	0.00063 (0.016)
			0.1181 (3)	580 (40)	55000	0.1181 (3.000)	0.0189 (0.48)	0.00063 (0.016)
			0.1378 (3.5)	290 (20)	33000	0.1378 (3.500)	0.0220 (0.56)	0.00071 (0.018)
			0.1378 (3.5)	435 (30)	44000	0.1378 (3.500)	0.0220 (0.56)	0.00071 (0.018)
			0.1378 (3.5)	580 (40)	55000	0.1378 (3.500)	0.0220 (0.56)	0.00071 (0.018)
			0.1575 (4)	290 (20)	33000	0.1575 (4.000)	0.0252 (0.64)	0.00079 (0.02)
			0.1575 (4)	435 (30)	44000	0.1575 (4.000)	0.0252 (0.64)	0.00079 (0.02)
			0.1575 (4)	580 (40)	55000	0.1575 (4.000)	0.0252 (0.64)	0.00079 (0.02)

SJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Al-Si 9%	Shoulder Milling (End Mill)	0.0394 (1)	290 (20)	33000	0.0031 (0.080)	0.0315 (0.8)	0.00031 (0.008)
			0.0394 (1)	435 (30)	44000	0.0031 (0.080)	0.0315 (0.8)	0.00031 (0.008)
			0.0394 (1)	580 (40)	55000	0.0031 (0.080)	0.0315 (0.8)	0.00031 (0.008)
			0.0787 (2)	290 (20)	33000	0.0063 (0.160)	0.0630 (1.6)	0.00047 (0.012)
			0.0787 (2)	435 (30)	44000	0.0063 (0.160)	0.0630 (1.6)	0.00047 (0.012)
			0.0787 (2)	580 (40)	55000	0.0063 (0.160)	0.0630 (1.6)	0.00047 (0.012)
			0.1181 (3)	290 (20)	33000	0.0094 (0.240)	0.0945 (2.4)	0.00055 (0.014)
			0.1181 (3)	435 (30)	44000	0.0094 (0.240)	0.0945 (2.4)	0.00055 (0.014)
			0.1181 (3)	580 (40)	55000	0.0094 (0.240)	0.0945 (2.4)	0.00055 (0.014)
			0.1575 (4)	290 (20)	33000	0.0126 (0.320)	0.1260 (3.2)	0.00063 (0.016)
			0.1575 (4)	435 (30)	44000	0.0126 (0.320)	0.1260 (3.2)	0.00063 (0.016)
			0.1575 (4)	580 (40)	55000	0.0126 (0.320)	0.1260 (3.2)	0.00063 (0.016)
			0.1969 (5)	290 (20)	33000	0.0157 (0.400)	0.1575 (4)	0.00063 (0.016)
			0.1969 (5)	435 (30)	44000	0.0157 (0.400)	0.1575 (4)	0.00063 (0.016)
			0.1969 (5)	580 (40)	55000	0.0157 (0.400)	0.1575 (4)	0.00063 (0.016)
			0.2362 (6)	290 (20)	33000	0.0189 (0.480)	0.1890 (4.8)	0.00063 (0.016)
			0.2362 (6)	435 (30)	44000	0.0189 (0.480)	0.1890 (4.8)	0.00063 (0.016)
			0.2362 (6)	580 (40)	55000	0.0189 (0.480)	0.1890 (4.8)	0.00063 (0.016)

SJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F _z in/t (mm/t)
N	Cu Alloys	Drilling (Drill)	0.0197 (0.5)	290 (20)	33000	Pecking steps: 0.01-0.2xD Max length of the hole: 5xD	0.00012 (0.003)
			0.0197 (0.5)	435 (30)	44000		0.00012 (0.003)
			0.0197 (0.5)	580 (40)	55000		0.00012 (0.003)
			0.0315 (0.8)	290 (20)	33000		0.00020 (0.005)
			0.0315 (0.8)	435 (30)	44000		0.00020 (0.005)
			0.0315 (0.8)	580 (40)	55000		0.00020 (0.005)
			0.0394 (1)	290 (20)	33000		0.00020 (0.005)
			0.0394 (1)	435 (30)	44000		0.00020 (0.005)
			0.0394 (1)	580 (40)	55000		0.00020 (0.005)
			0.0591 (1.5)	290 (20)	33000		0.00020 (0.005)
			0.0787 (2)	290 (20)	33000		0.00024 (0.006)

SJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F _z in/t (mm/t)
N	Cu Alloys	Profile Milling (Ball Nose)	0.0197 (0.5)	290 (20)	33000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0591 (1.5)	290 (20)	33000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0787 (2)	290 (20)	33000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0984 (2.5)	290 (20)	33000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.1181 (3)	290 (20)	33000	0.0031 (0.080)	0.0076 (0.192)	0.00020 (0.005)
			0.1575 (4)	290 (20)	33000	0.0041 (0.105)	0.0103 (0.262)	0.00020 (0.005)

SJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F _z in/t (mm/t)
N	Cu Alloys	Slot Milling (End Mill)	0.0197 (0.5)	290 (20)	33000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0315 (0.8)	290 (20)	33000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0591 (1.5)	290 (20)	33000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0787 (2)	290 (20)	33000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0984 (2.5)	290 (20)	33000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.1181 (3)	290 (20)	33000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)

SJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
N	Cu Alloys	Shoulder Milling (End Mill)	0.0394 (1)	290 (20)	33000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0787 (2)	290 (20)	33000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.1181 (3)	290 (20)	33000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1575 (4)	290 (20)	33000	0.0126 (0.320)	0.1260 (3.2)	0.00031 (0.008)
			0.1969 (5)	290 (20)	33000	0.0157 (0.400)	0.1575 (4)	0.00039 (0.01)
			0.2362 (6)	290 (20)	33000	0.0157 (0.400)	0.1890 (4.8)	0.00039 (0.01)

SJET Cutting Chart (Drilling - Drill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Notes	F_z in/t (mm/t)
S	Ti Alloys	Drilling (Drill)	0.0197 (0.5)	290 (20)	33000	Pecking steps: 0.01-0.2xD Max length of the hole: 5xD	0.00012 (0.003)
			0.0197 (0.5)	435 (30)	44000		0.00012 (0.003)
			0.0197 (0.5)	580 (40)	55000		0.00012 (0.003)
			0.0315 (0.8)	290 (20)	33000		0.00020 (0.005)
			0.0315 (0.8)	435 (30)	44000		0.00020 (0.005)
			0.0315 (0.8)	580 (40)	55000		0.00020 (0.005)
			0.0394 (1)	290 (20)	33000		0.00020 (0.005)
			0.0394 (1)	435 (30)	44000		0.00020 (0.005)
			0.0394 (1)	580 (40)	55000		0.00020 (0.005)
			0.0591 (1.5)	290 (20)	33000		0.00020 (0.005)
			0.0591 (1.5)	435 (30)	44000		0.00020 (0.005)
			0.0591 (1.5)	580 (40)	55000		0.00020 (0.005)
			0.0787 (2)	290 (20)	33000		0.00024 (0.006)

SJET Cutting Chart (Profile Milling - Ball Nose)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys	Profile Milling (Ball Nose)	0.0197 (0.5)	290 (20)	33000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	435 (30)	44000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0197 (0.5)	580 (40)	55000	0.0004 (0.010)	0.0003 (0.008)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	435 (30)	44000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0394 (1)	580 (40)	55000	0.0009 (0.024)	0.0021 (0.053)	0.00039 (0.01)
			0.0591 (1.5)	290 (20)	33000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0591 (1.5)	435 (30)	44000	0.0015 (0.037)	0.0035 (0.088)	0.00039 (0.01)
			0.0787 (2)	290 (20)	33000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0787 (2)	435 (30)	44000	0.0020 (0.050)	0.0048 (0.122)	0.00039 (0.01)
			0.0984 (2.5)	290 (20)	33000	0.0025 (0.064)	0.0063 (0.16)	0.00039 (0.01)
			0.1181 (3)	290 (20)	33000	0.0031 (0.080)	0.0076 (0.192)	0.00020 (0.005)
			0.1575 (4)	290 (20)	33000	0.0041 (0.105)	0.0103 (0.262)	0.00020 (0.005)

SJET Cutting Chart (Slot Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys	Slot Milling (End Mill)	0.0197 (0.5)	290 (20)	33000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	435 (30)	44000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0197 (0.5)	580 (40)	55000	0.0197 (0.500)	0.0003 (0.008)	0.00016 (0.004)
			0.0315 (0.8)	290 (20)	33000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	435 (30)	44000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0315 (0.8)	580 (40)	55000	0.0315 (0.800)	0.0006 (0.014)	0.00024 (0.006)
			0.0394 (1)	290 (20)	33000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	435 (30)	44000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0394 (1)	580 (40)	55000	0.0394 (1.000)	0.0007 (0.018)	0.00031 (0.008)
			0.0591 (1.5)	290 (20)	33000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0591 (1.5)	435 (30)	44000	0.0591 (1.500)	0.0011 (0.028)	0.00047 (0.012)
			0.0787 (2)	290 (20)	33000	0.0787 (2.000)	0.0015 (0.038)	0.00063 (0.016)
			0.0984 (2.5)	290 (20)	33000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.0984 (2.5)	435 (30)	44000	0.0984 (2.500)	0.0019 (0.048)	0.00075 (0.019)
			0.1181 (3)	290 (20)	33000	0.1181 (3.000)	0.0023 (0.058)	0.00079 (0.02)

SJET Cutting Chart (Shoulder Milling - End Mill)

ISO	Material	Operation	Tool Dia. inch (mm)	Pressure psi (bar)	Speed (RPM)	Ae inch (mm)	Ap inch (mm)	F_z in/t (mm/t)
S	Ti Alloys	Shoulder Milling (End Mill)	0.0394 (1)	290 (20)	33000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	435 (30)	44000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0394 (1)	580 (40)	55000	0.0031 (0.080)	0.0315 (0.8)	0.00024 (0.006)
			0.0787 (2)	290 (20)	33000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.0787 (2)	435 (30)	44000	0.0063 (0.160)	0.0630 (1.6)	0.00315 (0.08)
			0.1181 (3)	290 (20)	33000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1181 (3)	435 (30)	44000	0.0094 (0.240)	0.0945 (2.4)	0.00031 (0.008)
			0.1575 (4)	290 (20)	33000	0.0126 (0.320)	0.1260 (3.2)	0.00031 (0.008)
			0.1969 (5)	290 (20)	33000	0.0157 (0.400)	0.1575 (4)	0.00039 (0.01)
			0.2362 (6)	290 (20)	33000	0.0157 (0.400)	0.1890 (4.8)	0.00039 (0.01)