

**FITS
NPT & BSPT
THREADS**



AL360

MODULAR HOSE SYSTEM

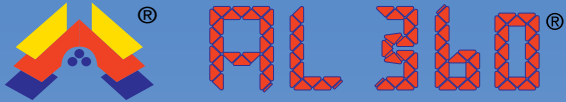


TO GET WHERE OTHERS CANNOT REACH

- *Extremely flexible system affords unparalleled range of motion*
- *Vibration resistant* ■ *Non electro-conductive* ■ *Resistant to chemical agents*
- *Fits NPT and BSPT threads*



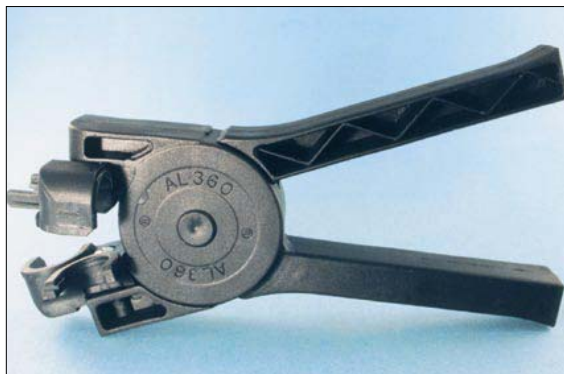
Material: Acetal.
Maximum Operating Temperature: 122°F (50° C)
Maximum Pressure: up to 90 PSI (6 bar)
(will vary with application)



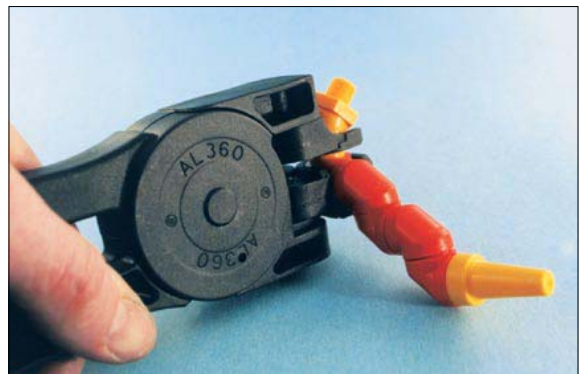
AL 360 - Standard Fittings			Inside Diameter 10mm (3/8 inch)		
	Part No.	Description		Part No.	Description
	AL1818	Standard Pack 22 radial connectors 3 nozzles (2mm, 3.5mm & 6.5mm dia. orifice) 2 fittings (1/4" and 1/8" NPT/BSPT) Overall length = 335mm		AL1833	Pack of 4 connectors (45°)
				AL1835	Pack of 2 tees
	AL1819	22 radial connectors (length = 305mm)		AL1837	Pack of 4 nozzles (10mm diameter)
	AL1821	Pack of 4 nozzles (2mm diameter)		AL1839	Pack of 4 fittings (3/8" NPT/BSPT)
	AL1823	Pack of 4 nozzles (3.5mm diameter)		AL1841	Pack of 2 flat nozzles (55mm x 3.5mm)
	AL1825	Pack of 4 nozzles (6.5mm diameter)		AL1843	Pack of 4 fittings (1/8" NPT/BSPT)
	AL1827	Pack of 2 flat nozzles (26.5mm x 1mm)		AL1845	Pack of 4 fittings (1/4" NPT/BSPT)
	AL1829	Pack of 4 fittings (1/8" NPT/BSPT)		AL1847	Pack of 4 nozzles (2mm diameter - 9 holes)
	AL1831	Pack of 4 fittings (1/4" NPT/BSPT)			

Assembly Pliers

Versatile pliers ease assembly of AL360 connectors



Part No. AL6295





Ball Valves



- Compact design is ideal for a wide variety of machining applications.
- Use with water-based coolants, oil or air (also vacuum applications)
- Corrosion resistant chrome-plated brass ■ Teflon Seals ■ Rated to 250 psi (16 bar) max

DIMENSIONS IN INCHES (except as noted)

Part No.	Pipe Thread	L	N	H	B Hex	d Flow Ø	Handle Color	Pkg Qty	Configuration
BV19401	1/8 NPTF	1.45	.86	.74	14mm	.21	Blue	2	
BV19402	1/4 NPTF	1.70	.86	.74	14mm	.21	Blue	2	
BV19403	3/8 NPTF	1.89	.92	.74	18mm	.31	Blue	2	
BV19411	1/8 BSPT	1.42	.86	.74	14mm	.21	Red	2	
BV19412	1/4 BSPT	1.70	.86	.74	14mm	.21	Red	2	
BV19413	3/8 BSPT	1.81	.92	.74	18mm	.31	Red	2	

Material: Body: Chrome-plated Brass Seals: Teflon **Max Pressure:** 250 psi (33 bar)
Maximum Operating Temperature: 175° F (80° C)

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.



New metric tapped balls allow use with Extension Tubes and Spray Tips.

BlackEye™



Available with tapped ball to allow quick plugging!

SCREW-LOCK COOLANT NOZZLE FOR CNC LATHES

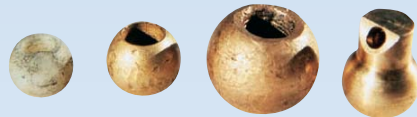
- An easy-to-aim replacement for screw-lock spherical coolant nozzles.
- Rated to 150 psi (10 bar) maximum ■ Sizes available to fit almost every machine or toolholder.
- Just install and tighten lock-screw once, then aim the stainless steel ball with the tip of your allen wrench.
- Choose tapped balls if your toolholders have multiple ports that occasionally need plugging (setscrew included).

DIMENSIONS IN INCHES (except as noted)

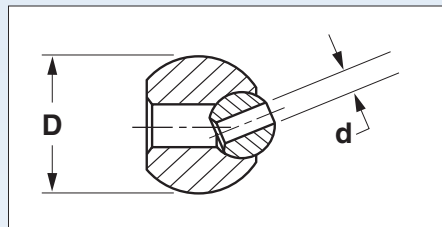
Part No.	Nom. Dia. "D"	Orifice Dia. "d"	Pkg Qty
BE00112	10 mm	.11	5
BE00210	10 mm	#6-32 UNC	5
BE00212	10 mm	M3.5 x .6	5
BE00107	12 mm	.16	5
BE00220	12 mm	#8-32 UNC	5
BE00222	12 mm	M4 x .7	5
BE00108	14 mm	.16	5
BE00230	14 mm	#8-32 UNC	5
BE00232	14 mm	M4 x .7	5
BE00109	15 mm	.16	5
BE00240	15 mm	#8-32 UNC	5
BE00242	15 mm	M4 x .7	5
BE02020	18 mm	.16	5
BE02030	18 mm	#10-32 UNF	5
BE02032	18 mm	M5 x .8	5
BE00110	22 mm	.22	5
BE00250	22 mm	1/4-28 UNF	5
BE00252	22 mm	M6 x 1.0	5
BE00120	3/8 inch	.11	5
BE00260	3/8 inch	#6-32 UNC	5
BE00262	3/8 inch	M3.5 x .6	5
BE00111	1/2 inch	.16	5
BE00270	1/2 inch	#8-32 UNC	5
BE00272	1/2 inch	M4 x .7	5
BE02010	5/8 inch	.16	5
BE00280	5/8 inch	#8-32 UNC	5
BE00282	5/8 inch	M4 x .7	5

BlackEye™

Nozzles replace these:



BlackEyes shown in boring bar holder.



Material: Body - Acetal
Ball - Stainless Steel
Max Operating Temperature: 160° F
Maximum Pressure: 150 PSI (10 bar)



BlackEye installed on quick change turning tool.

Ordering Information: Measure the diameter of the original ball in your machine and order the nominal diameter to suit.



BorePlug™

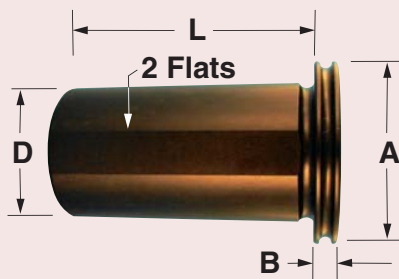


PLUGS FOR BORING BAR HOLDERS

- Prevents chip accumulation in empty boring bar holders
- Prevents loss of clamping screws
- Prolongs toolholder life
- Best when used on toolholders fitted with CoolCaps (see page 00).

DIMENSIONS IN INCHES (except as noted)

Part No.	Nominal Dia "D"	Length "L"	Diameter "D"	Width "B"	Pkg Qty
BP20100	1 inch	2.75	1.44	.25	1
BP20125	1 1/4 inch	2.75	1.69	.25	1
BP20150	1 1/2 inch	2.75	1.94	.25	1
BP20200	2 inch	2.75	2.44	.25	1
BP20025	25 mm	2.75	1.44	.25	1
BP20032	32 mm	2.75	1.69	.25	1
BP20040	40 mm	2.75	1.94	.25	1
BP20050	50 mm	2.75	2.44	.25	1



BorePlugs prevent swarf accumulation and associated damage in non-active boring bar holders.

Material: Aluminum (Hardcoat Anodized)
Maximum Operating Temperature: 300°F



Brass Balls™



SCREW-LOCK BRASS BALL COOLANT NOZZLES FOR CNC LATHES

- Conventional brass ball nozzles available in a variety of orifice sizes and configurations
- Tapped balls can be plugged with setscrew (included), or used with **Extension Tubes**.

DIMENSIONS IN INCHES (except as noted)

Type	Part No.	Nom. Dia "D"	Orifice Dia "D"	Extension "L"	Pkg Qty	Configuration
DRILLED HOLE	BB11004	10 mm	.11	0	5	
	BB11007	10 mm	.16	0	5	
	BB11014	11 mm	.11	0	5	
	BB11015	11 mm	.16	0	5	
	BB11024	12 mm	.16	0	5	
	BB11027	12 mm	.22	0	5	
	BB11037	14 mm	.16	0	5	
	BB11040	14 mm	.22	0	5	
	BB11049	15 mm	.16	0	5	
	BB11052	15 mm	.22	0	5	
	BB11071	22 mm	.16	0	5	
	BB11074	22 mm	.22	0	5	
	BB11083	1/2 inch	.16	0	5	
	BB11086	1/2 inch	.22	0	5	
	BB11107	5/8 inch	.16	0	5	
BB11110	5/8 inch	.22	0	5		
TAPPED HOLE	BB11001	10 mm	M6x1.0	0	5	
	BB11016	11 mm	M5x.8	.24	5	
	BB11018	12 mm	M5x.8	.24	5	
	BB11031	14 mm	M6x1.0	.31	5	
	BB11043	15 mm	M6x1.0	.31	5	
	BB11065	22 mm	M6x1.0	.31	5	
	BB11077	1/2 inch	M5x.8	.24	5	
	BB11101	5/8 inch	M6x1.0	.31	5	
ANGLED OUTLET HOLE	BB11012	10 mm	.11	.25	5	
	BB11017	11 mm	.16	.36	5	
	BB11021	12 mm	.16	.36	5	
	BB11034	14 mm	.16	.36	5	
	BB11046	15 mm	.16	.36	5	
	BB11068	22 mm	.16	.36	5	
	BB11080	1/2 inch	.16	.36	5	
	BB11104	5/8 inch	.16	.36	5	



The upper port on this boring bar holder uses an Angled Outlet BrassBall, while the lower port employs a Tapped Hole BrassBall fitted with a Bendable Extension Tube.

Material: Brass

Maximum Pressure: 500 psi (33 bar)

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New metric tapped balls allow use with Extension Tubes and Spray Tips.

BugEye™



SCREW-LOCK BALL EXTENDED COOLANT NOZZLE FOR CNC LATHES

- Extended ball socket provides greater range of aimability than the BlackEye while still being relatively compact
- Ideal for tool positions where tool tip is difficult to reach with standard screw-lock ball (i.e. short tool projections)
 - Rated to 150 PSI maximum
 - Sizes available to fit almost every machine or toolholder
 - Choose the orifice diameter to suit your application

DIMENSIONS IN INCHES (except as noted)

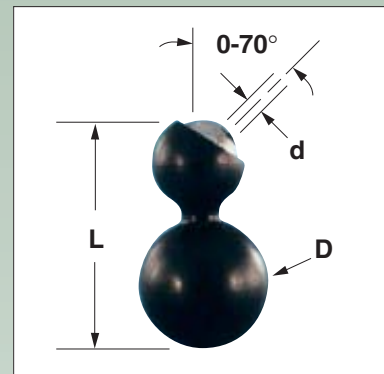
Part No.	Nominal Dia. "D"	Orifice Dia. "d"	L	Pkg Qty
BUG02305	12 mm	.11	1.10	5
BUG02310	12 mm	.16	1.10	5
BUG02312	12 mm	M6 x 1.0	1.10	5
BUG02315	14 mm	.11	1.20	5
BUG02320	14 mm	.16	1.20	5
BUG02322	14 mm	M6 x 1.0	1.20	5
BUG02325	15 mm	.11	1.23	5
BUG02330	15 mm	.16	1.23	5
BUG02332	15 mm	M6 x 1.0	1.23	5
BUG02335	22 mm	.11	1.50	5
BUG02340	22 mm	.16	1.50	5
BUG02342	22 mm	M6 x 1.0	1.50	5
BUG02345	1/2 inch	.11	1.12	5
BUG02350	1/2 inch	.16	1.12	5
BUG02352	1/2 inch	M6 x 1.0	1.12	5
BUG02355	5/8 inch	.11	1.23	5
BUG02360	5/8 inch	.16	1.23	5
BUG02362	5/8 inch	M6 x 1.0	1.23	5

Material:

Body: Acetal
Ball: Stainless Steel

Maximum Pressure:
150 PSI (10 bar)

Maximum Operating Temperature: 160°F



BugEye shown installed on CNC turning center.

Ordering Information: Measure the diameter of the original ball in your machine and order the nominal diameter to suit.



CapJet™

RATED TO 150 PSI (10 BAR)

FITS NPT & BSPT PIPE NIPPLES



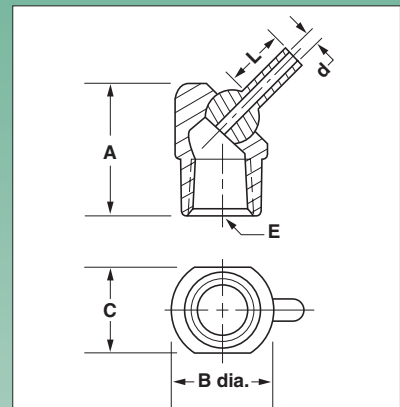
New metric tapped balls allow use with Extension Tubes and Spray Tips.

UNIVERSAL CAP-TYPE COOLANT NOZZLE

- Screws onto any NPT or BSPT pipe nipple just like a pipe cap
- Same great features as the TurretJet, except with female pipe thread
- Ideal for high production, dedicated machine tools with rigid coolant piping
 - Choose orifice size and nozzle extension to suit your application
 - Choose short extensions for tight spaces and where stringy swarf is a problem
 - Long extensions make aiming a breeze and shoot farther
- Choose larger orifices for maximum flow ■ Choose smaller orifices when using multiple nozzles
- Choose tapped ball if you need to quickly plug the orifice (setscrew included)
- Metric tapped balls allow use with **Extension Tubes** and **Spray Tips**.

DIMENSIONS IN INCHES

Part No.	Thread Size "E"	Orifice Dia. "d"	Extension "L"	A	B	C	Pkg Qty
CJ07510	1/8 NPT/BSPT	.11	0	.82	.63	.50	5
CJ07512	1/8 NPT/BSPT	.11	.25	.82	.63	.50	5
CJ07513	1/8 NPT/BSPT	.11	.50	.82	.63	.50	5
CJ07514	1/8 NPT/BSPT	.11	1.25	.82	.63	.50	5
CJ07516	1/8 NPT/BSPT	.16	0	.82	.63	.50	5
CJ07518	1/8 NPT/BSPT	.16	.50	.82	.63	.50	5
CJ07520	1/8 NPT/BSPT	.16	1.25	.82	.63	.50	5
CJ07522	1/8 NPT/BSPT	#10-32 UNF	0	.82	.63	.50	5
CJ07523	1/8 NPT/BSPT	M5 x .8	0	.82	.63	.50	5
CJ07524	1/4 NPT/BSPT	.11	0	.94	.75	.63	5
CJ07526	1/4 NPT/BSPT	.11	.25	.94	.75	.63	5
CJ07527	1/4 NPT/BSPT	.11	.50	.94	.75	.63	5
CJ07528	1/4 NPT/BSPT	.11	1.25	.94	.75	.63	5
CJ07530	1/4 NPT/BSPT	.16	0	.94	.75	.63	5
CJ07532	1/4 NPT/BSPT	.16	.50	.94	.75	.63	5
CJ07534	1/4 NPT/BSPT	.16	1.25	.94	.75	.63	5
CJ07536	1/4 NPT/BSPT	#10-32 UNF	0	.94	.75	.63	5
CJ07537	1/4 NPT/BSPT	M5 x .8	0	.82	.63	.50	5
CJ07560	3/8 NPT/BSPT	.11	0	1.13	.88	.75	5
CJ07538	3/8 NPT/BSPT	.16	0	1.13	.88	.75	5
CJ07540	3/8 NPT/BSPT	.16	.50	1.13	.88	.75	5
CJ07542	3/8 NPT/BSPT	.16	1.25	1.13	.88	.75	5
CJ07544	3/8 NPT/BSPT	.22	0	1.13	.88	.75	5
CJ07546	3/8 NPT/BSPT	.22	.50	1.13	.88	.75	5
CJ07548	3/8 NPT/BSPT	.22	1.25	1.13	.88	.75	5
CJ07550	3/8 NPT/BSPT	1/4-28 UNF	0	1.13	.88	.75	5
CJ07552	3/8 NPT/BSPT	M6 x 1.0	0	1.13	.88	.75	5



CapJet shown installed on end of threaded pipe.

Material: Body: Acetal
 Ball & Extension: Stainless Steel
Maximum Pressure: 150 PSI (10 bar)
Maximum Operating Temperature: 160°F

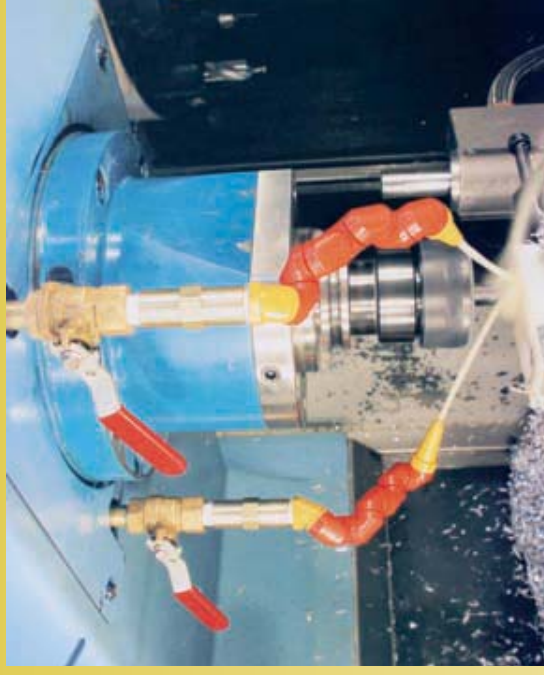


Check Valves

- Ideal for horizontal and vertical machining centers
- Stops drain-down of coolant lines between tool changes
- Eliminates delay of coolant flow, preventing dry cutting

DIMENSIONS IN INCHES

Part No.	Configuration	Pkg Qty
CV19005	<p>1/8" NPT Female both ends 1.38" 9/16" HEX</p>	1
CV19010	<p>1/4" NPT Female both ends 1.80" 11/16" HEX</p>	1
CV19015	<p>3/8" NPT Female both ends 2.25" 7/8" HEX</p>	1



QPM Check Valves dramatically speed up coolant response time in this machining center application.

Material: Brass **Cracking Pressure:** 1 psi (.07 bar)

Maximum Pressure: 500 psi (33 bar)

Maximum Operating Temperature: 160°F

Recommended Coolant Filtration: 100 microns

NOTE: Use *DualFit* nipples to adapt to BSPT ports



ChuckPuck™

Contact Us
for Custom
Orders!



FLEXIBLE FOAM DISK FOR PLUGGING LATHE CHUCK THROUGH-HOLES

- Keeps swarf and coolant from accumulating in the spindle bore
- Reduces vibration
- Reduces wear on chuck and spindle
- Improves roundness and concentricity
- Fire retarded for safety

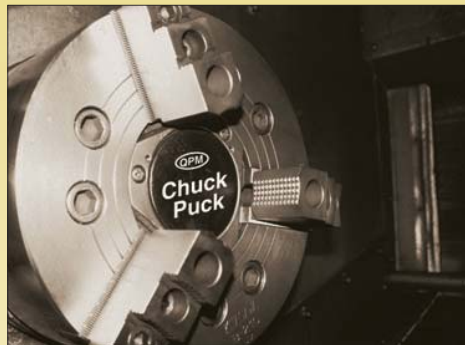
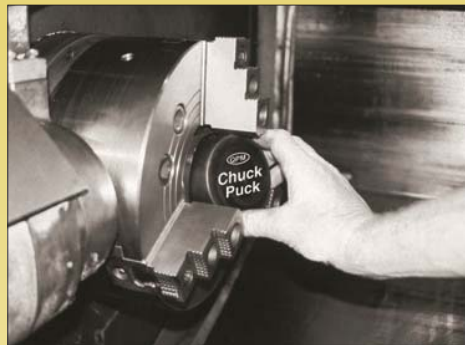
DIMENSIONS IN MILLIMETERS

Part No.	Nominal Size (Free Dia.)	Best Fitting Chuck Bore	Min. Bore	Max. Bore	Pkg Qty
CP 12035	35 mm	33 mm (KITIGAWA B205)	30 mm	34 mm	2
CP 12048	48 mm	45 mm (KITIGAWA B206)	42 mm	47 mm	2
CP 12055	55 mm	52 mm (KITIGAWA B208)	49 mm	54 mm	2
CP 12080	80 mm	75 mm (KITIGAWA B210)	72 mm	78 mm	2

Material: Flame-resistant neoprene foam

Ordering Information

Measure your chuck bore and order the nominal diameter to suit. (Your chuck bore must be between the max. and min. bore sizes). Contact us for custom sizes



ChuckPucks install easily.
Just squeeze them into the chuck hole.



Compression Fittings

RECOMMENDED FOR USE WITH **JetTube™** COOLANT NOZZLES

■ Available in NPT and BSPT pipe threads

DIMENSIONS IN INCHES

Material: Brass

Maximum Pressure: 500 psi (33 bar)

MALE CONNECTOR (includes nut and sleeve)							
Part No.	Tube Size	Pipe Thread	Straight Thread (Nut End)	"C" Hex	L	Pkg Qty	Configuration
CF15010	3/16"	1/8 NPT	3/8" - 24 UN	7/16	1.08	5	
CF15210		1/8 BSPT		7/16	1.08	5	
CF15030		1/4 NPT		9/16	1.27	5	
CF15230		1/4 BSPT		9/16	1.27	5	
CF15020	1/4"	1/8 NPT	7/16" - 24 UN	7/16	1.10	5	
CF15220		1/8 BSPT		7/16	1.10	5	
CF15040		1/4 NPT		9/16	1.30	5	
CF15240		1/4 BSPT		9/16	1.30	5	
CF15025	5/16"	1/8 NPT	1/2" - 24 UN	1/2	1.15	5	
CF15225		1/8 BSPT		1/2	1.15	5	
CF15050		1/4 NPT		9/16	1.33	5	
CF15250		1/4 BSPT		9/16	1.33	5	
CF15060	3/8"	1/4 NPT	9/16 - 24 UN	9/16	1.42	5	
CF15260		1/4 BSPT		9/16	1.42	5	
CF15070		3/8 NPT		11/16	1.44	5	
CF15270		3/8 BSPT		11/16	1.44	5	

MALE ELBOW (includes nut and sleeve)							
Part No.	Tube Size	Pipe Thread	Straight Thread (Nut End)	L	N	Pkg Qty	Configuration
CF15110	3/16"	1/8 NPT	3/8" - 24 UN	.84	.69	5	
CF15310		1/8 BSPT		.84	.69	5	
CF15130		1/4 NPT		.86	.93	5	
CF15330		1/4 BSPT		.86	.93	5	
CF15120	1/4"	1/8 NPT	7/16" - 24 UN	.86	.74	5	
CF15320		1/8 BSPT		.86	.74	5	
CF15140		1/4 NPT		.86	.94	5	
CF15340		1/4 BSPT		.86	.94	5	
CF15125	5/16"	1/8 NPT	1/2" - 24 UN	.88	.74	5	
CF15325		1/8 BSPT		.88	.74	5	
CF15150		1/4 NPT		.95	.93	5	
CF15350		1/4 BSPT		.95	.93	5	
CF15160	3/8"	1/4 NPT	9/16 - 24 UN	1.03	.93	5	
CF15360		1/4 BSPT		1.03	.93	5	
CF15170		3/8 NPT		1.03	1.00	5	
CF15370		3/8 BSPT		1.03	1.00	5	

NUT					
Part No.	Tube Size	Internal Thread	"C" Hex	Pkg Qty	Configuration
CF15410	3/16	3/8 - 24 UN	7/16	25	
CF15420	1/4	7/16 - 24 UN	1/2	25	
CF15422	5/16	1/2 - 24 UN	9/16	25	
CF15424	3/8	9/16 - 24 UN	5/8	25	

SLEEVE			
Part No.	Tube Size	Pkg Qty	Configuration
CF15430	3/16	25	
CF15440	1/4	25	
CF15450	5/16	25	
CF15460	3/8	25	

Material: Brass Maximum Pressure: 500 PSI (33 bar) Maximum Operating Temperature: 300° F

Ordering Information

Determine if your machine employs NPT or BSPT ports. Order connectors and elbows to suit. Order spare nuts and sleeves to enable easy swapping of **JetTubes** without changing connectors.

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.



DualFit™

Available in Brass or Acetal

FITS NPT and BSPT

STOP!
Now you can use NPT fittings on your metric machine tools! Put that NPT tap away!

These work great with TurretJets and CapJets!



PIPE FITTINGS FOR COOLANT NOZZLES

- Fits both NPT and BSPT (metric pipe) threads
- Compact design is ideal for tight spaces
- Allows you to use inch or metric fittings and nozzles
- Acetal version rated to 150 PSI (10 bar) maximum
- Brass version rated to 1500 PSI (100 bar) maximum



DualFit brass adaptor allows PressureMax nozzle to be used in screw-lock socket having BSPT port.

DIMENSIONS IN INCHES

	Part No.	Thread E	Thread F	Material	"L"	A	D	Dia d	Pkg Qty	Configuration
Close Nipple	DF08505	1/8 NPT/BSPT	1/8 NPT/BSPT	Acetal	.80	.40	.41	.25	5	
	DF08705B	1/8 NPT/BSPT	1/8 NPT/BSPT	Brass	.80	.40	.41	.25	5	
	DF08510	1/4 NPT/BSPT	1/4 NPT/BSPT	Acetal	.88	.44	.53	.31	5	
	DF08710B	1/4 NPT/BSPT	1/4 NPT/BSPT	Brass	.88	.44	.53	.31	5	
	DF08515	3/8 NPT/BSPT	3/8 NPT/BSPT	Acetal	1.00	.50	.66	.44	5	
	DF08715B	3/8 NPT/BSPT	3/8 NPT/BSPT	Brass	1.00	.50	.66	.44	5	
Long Nipple	DF08520	1/8 NPT/BSPT	1/8 NPT/BSPT	Acetal	1.50	.34	.41	.25	5	
	DF08720B	1/8 NPT/BSPT	1/8 NPT/BSPT	Brass	1.50	.34	.41	.25	5	
	DF08525	1/4 NPT/BSPT	1/4 NPT/BSPT	Acetal	1.50	.44	.53	.31	5	
	DF08725B	1/4 NPT/BSPT	1/4 NPT/BSPT	Brass	1.50	.44	.53	.31	5	
	DF08530	3/8 NPT/BSPT	3/8 NPT/BSPT	Acetal	1.50	.50	.66	.44	5	
	DF08730B	3/8 NPT/BSPT	3/8 NPT/BSPT	Brass	1.50	.50	.66	.44	5	
Bushing	DF08835B	M12x1.75	1/8 NPT/BSPT	Brass	.81	.50	.56	.28	5	
	DF08840B	M14x1.0	1/8 NPT/BSPT	Brass	.40	.28	.62	.31	5	
	DF08535	1/4 NPT/BSPT	1/8 NPT/BSPT	Acetal	.65	.44	.56	.31	5	
	DF08735B	1/4 NPT/BSPT	1/8 NPT/BSPT	Brass	.65	.44	.56	.31	5	
	DF08540	3/8 NPT/BSPT	1/4 NPT/BSPT	Acetal	.73	.50	.75	.42	5	
	DF08740B	3/8 NPT/BSPT	1/4 NPT/BSPT	Brass	.73	.50	.75	.42	5	
Adaptor	DF08545	1/8 NPT/BSPT	1/8 NPT/BSPT	Acetal	.78	.40	.46	.25	5	
	DF08745B	1/8 NPT/BSPT	1/8 NPT/BSPT	Brass	.78	.40	.46	.25	5	
	DF08550	1/4 NPT/BSPT	1/4 NPT/BSPT	Acetal	.93	.50	.60	.31	5	
	DF08750B	1/4 NPT/BSPT	1/4 NPT/BSPT	Brass	.93	.50	.60	.31	5	
	DF08555	3/8 NPT/BSPT	3/8 NPT/BSPT	Acetal	1.04	.55	.73	.37	5	
	DF08755B	3/8 NPT/BSPT	3/8 NPT/BSPT	Brass	1.04	.55	.73	.37	5	

Maximum Pressure: Acetal: 150 PSI (10 bar) Brass: 1500 PSI (100 bar)

Maximum Operating Temperature: Acetal: 160°F Brass: 300°F

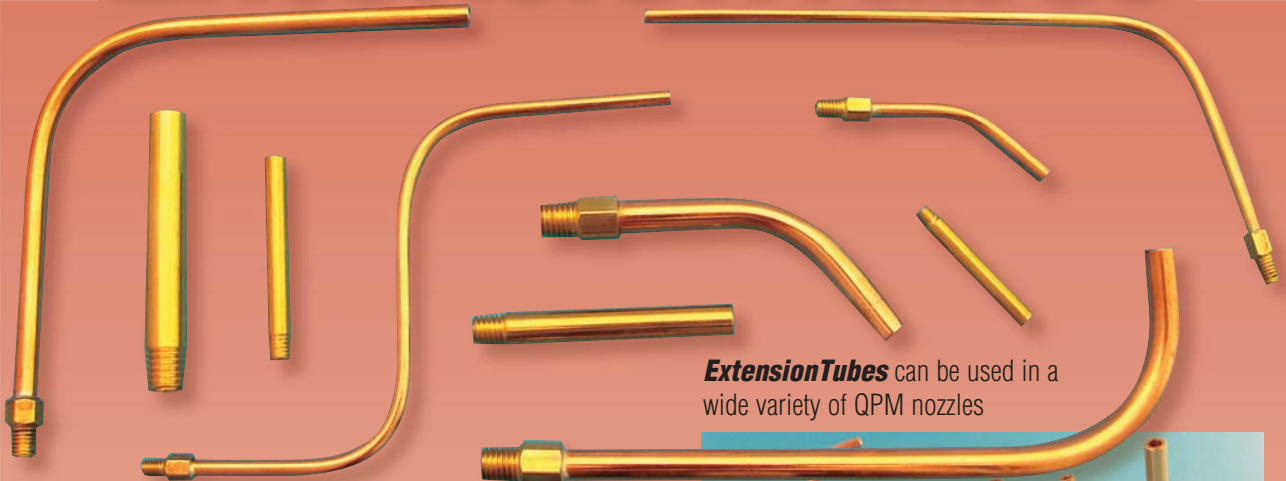
WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.

Adaptors are great for mounting TurretJet and PressureMax nozzles in counterbored ports

DF08840B is perfect for JOHNFORD Turning Centers



Extension Tubes



Extension Tubes can be used in a wide variety of QPM nozzles

- *Extension Tubes install in seconds and make aiming a breeze*
- *Choose rigid brass Extension Tubes to direct coolant straight to the cutting edge*
- *Choose bendable copper Extension Tubes to direct coolant around obstructions*
- *Cut tube to desired length to suit your application*



DIMENSIONS IN MILLIMETERS **RIGID BRASS EXTENSION TUBES**

PART NO.	THREAD "E"	LENGTH "L"	INSIDE Dia. "d"	Pkg Qty	Configuration
SBT09705	M3.5 X .6	30mm	2mm	5	
SBT09710	M4 x .7	35mm	2mm	5	
SBT09720	M5 x .8	40mm	3mm	5	
SBT09730	M6 x 1.0	50mm	4mm	5	
SBT09735	M7 x 1.0	55mm	5mm	5	
SBT09740	M8 x 1.25	55mm	5.5mm	5	

Material: Brass **Maximum Pressure:** 500 PSI (33 bar) **Max Operating Temperature:** 300° F

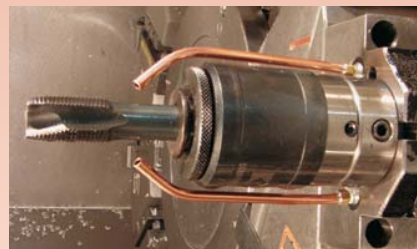
DIMENSIONS IN INCHES (except as noted) **BENDABLE COPPER EXTENSION TUBES**

PART NO.	THREAD "E"	"C" Hex	Tubing Size "A"	Tubing ID "d"	Pkg Qty	Configuration
ET09805	M3.5 x .6	3/16"	1/8"	.07"	5	
ET09810	M4 x .7	1/4"	1/8"	.07"	5	
ET09820	M5 x .8	1/4"	3/16"	.12"	5	
ET09830	M6 x 1.0	1/4"	3/16"	.12"	5	
ET09835	M7 x 1.0	5/16"	1/4"	.18"	5	
ET09840	M8 x 1.25	5/16"	1/4"	.18"	5	

Material: Hex Fitting: Brass Tube: Copper Solder: Lead-free **Max Pressure:** 500 PSI (33 bar) **Maximum Operating Temperature:** 300° F



Brass Extension Tubes are ideal for directing coolant straight to the cutting edges.



Bendable Extension Tubes allow coolant to be directed around obstructions such as floating tap holders or collet chucks.



DIMENSIONS IN INCHES (except as noted)

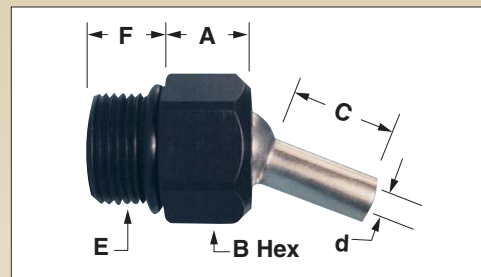
Part No.	Thread Size "E"	Orifice Dia. "d"	Projection "C"	B (Hex)	A	F	Pkg Qty
JB09005	M10 x 1.25	.11	0	17mm	.41	.36	5
JB09010	M10 x 1.25	.11	.25	17mm	.41	.36	5
JB09013	M10 x 1.25	.11	.50	17mm	.41	.36	5
JB09015	M10 x 1.25	.11	1.25	17mm	.41	.36	5
JB09020	M10 x 1.25	.16	0	17mm	.41	.36	5
JB09025	M10 x 1.25	.16	.50	17mm	.41	.36	5
JB09030	M10 x 1.25	.16	1.25	17mm	.41	.36	5
JB09032	M10 x 1.25	#10-32 UNF	0	17mm	.41	.36	5
JB09033	M10 x 1.25	M5 x .8	0	17mm	.41	.36	5
JB09035	M10 x 1.5	.11	0	17mm	.41	.36	5
JB09040	M10 x 1.5	.11	.25	17mm	.41	.36	5
JB09043	M10 x 1.5	.11	.50	17mm	.41	.36	5
JB09045	M10 x 1.5	.11	1.25	17mm	.41	.36	5
JB09050	M10 x 1.5	.16	0	17mm	.41	.36	5
JB09055	M10 x 1.5	.16	.50	17mm	.41	.36	5
JB09060	M10 x 1.5	.16	1.25	17mm	.41	.36	5
JB09062	M10 x 1.5	#10-32 UNF	0	17mm	.41	.36	5
JB09063	M10 x 1.5	M5 x .8	0	17mm	.41	.36	5
JB09065	M12 x 1.75	.11	0	17mm	.41	.36	5
JB09070	M12 x 1.75	.11	.25	17mm	.41	.36	5
JB09073	M12 x 1.75	.11	.50	17mm	.41	.36	5
JB09075	M12 x 1.75	.11	1.25	17mm	.41	.36	5
JB09080	M12 x 1.75	.16	0	17mm	.41	.36	5
JB09085	M12 x 1.75	.16	.50	17mm	.41	.36	5
JB09090	M12 x 1.75	.16	1.25	17mm	.41	.36	5
JB09092	M12 x 1.75	#10-32 UNF	0	17mm	.41	.36	5
JB09093	M12 x 1.75	M5 x .8	0	17mm	.41	.36	5
JB09095	M20 x 1.5	.16	.75	24mm	.60	.50	5
JB09094	M20 x 1.5	.16	1.50	24mm	.60	.50	5
JB09096	M20 x 1.5	.22	.75	24mm	.60	.50	5
JB09098	M20 x 1.5	.22	1.50	24mm	.60	.50	5
JB09097	M20 x 1.5	.28	.75	24mm	.60	.50	5
JB09099	M20 x 1.5	.28	1.50	24mm	.60	.50	5
JB09100	1/8 NPT/BSPT	.11	0	17mm	.41	.39	5
JB09130	1/8 NPT/BSPT	.11	.25	17mm	.41	.39	5
JB09131	1/8 NPT/BSPT	.11	.50	17mm	.41	.39	5
JB09132	1/8 NPT/BSPT	.11	1.25	17mm	.41	.39	5
JB09134	1/8 NPT/BSPT	.16	0	17mm	.41	.39	5
JB09136	1/8 NPT/BSPT	.16	.50	17mm	.41	.39	5
JB09138	1/8 NPT/BSPT	.16	1.25	17mm	.41	.39	5
JB09140	1/8 NPT/BSPT	#10-32 UNF	0	17mm	.41	.39	5
JB09141	1/8 NPT/BSPT	M5 x .8	0	17mm	.41	.39	5
JB09142	1/4 NPT/BSPT	.11	0	17mm	.41	.50	5
JB09144	1/4 NPT/BSPT	.11	.25	17mm	.41	.50	5
JB09145	1/4 NPT/BSPT	.11	.50	17mm	.41	.50	5
JB09146	1/4 NPT/BSPT	.11	1.25	17mm	.41	.50	5
JB09101	1/4 NPT/BSPT	.16	0	17mm	.41	.50	5
JB09148	1/4 NPT/BSPT	.16	.50	17mm	.41	.50	5
JB09150	1/4 NPT/BSPT	.16	1.25	17mm	.41	.50	5
JB09152	1/4 NPT/BSPT	#10-32 UNF	0	17mm	.41	.50	5
JB09153	1/4 NPT/BSPT	M5 x .8	0	17mm	.41	.50	5
JB09166	3/8 NPT/BSPT	.11	0	17mm	.41	.50	5
JB09168	3/8 NPT/BSPT	.11	.50	17mm	.41	.50	5
JB09170	3/8 NPT/BSPT	.11	1.25	17mm	.41	.50	5
JB09154	3/8 NPT/BSPT	.16	0	17mm	.41	.50	5
JB09156	3/8 NPT/BSPT	.16	.50	17mm	.41	.50	5
JB09158	3/8 NPT/BSPT	.16	1.25	17mm	.41	.50	5
JB09102	3/8 NPT/BSPT	.22	0	17mm	.41	.50	5
JB09160	3/8 NPT/BSPT	.22	.50	17mm	.41	.50	5
JB09162	3/8 NPT/BSPT	.22	1.25	17mm	.41	.50	5
JB09164	3/8 NPT/BSPT	1/4-28 UNF	0	17mm	.41	.50	5
JB09165	3/8 NPT/BSPT	M6 x 1.0	0	17mm	.41	.50	5

Jet Bolt™



SCREW-IN, BOLT TYPE COOLANT NOZZLE

- Screws into a threaded coolant port just like a bolt
- 35 degrees of adjustment either side of centerline
 - Rated to 150 PSI (10 bar)
- Sizes available to fit almost every machine or tool-holder
 - Choose the orifice diameter and projection length to suit your application
 - Choose larger orifices for maximum flow
- Choose smaller orifices when using multiple nozzles
 - Choose tapped ball if you need to quickly plug the orifice (setscrew included)
 - Metric tapped balls allow use with **Extension Tubes** and **Spray Tips**.
- Short extensions are ideal for CNC lathes or vertical turning centers
- Long extensions are a breeze to aim and are perfect for horizontal machining centers



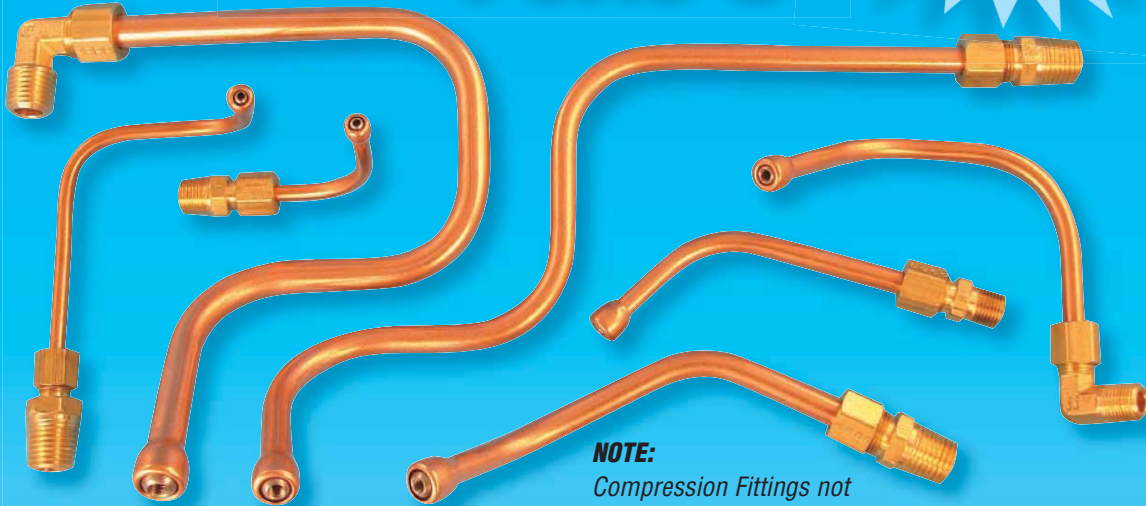
Material: Body: Acetal
Ball & Extension: Stainless Steel
Maximum Operating Temperature: 160°F
Maximum Pressure: 150 PSI (10 bar)

CONTACT US FOR CUSTOM ORDERS



JetTube™

Now available
in 4 tubing sizes



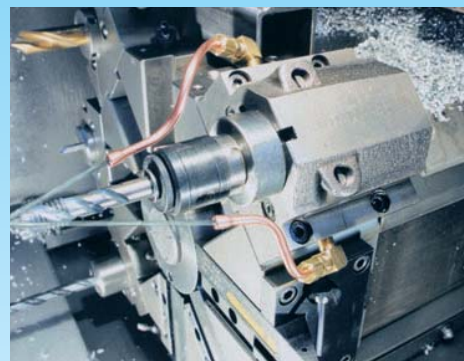
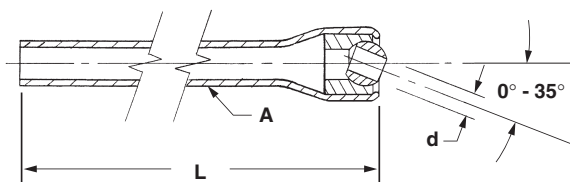
NOTE:
Compression Fittings not
included (see page 25)

COPPER TUBE WITH INTEGRAL, AIMABLE OUTLET ORIFICE

- Just cut the copper tube to your desired length, bend as required, then aim the spherical outlet orifice to hit your target
- Ideal for CNC grinders, mill/turn centers and screw machines
- Rated up to 500 psi (33 bar) (will vary with application)
- Metric tapped balls in the 1/4", 5/16", and 3/8" sizes allow use with Extension Tubes (page 00) and Spray Tips (page 00)

DIMENSIONS IN INCHES

PART NO.	TUBING SIZE "A"	LENGTH "L"	ORIFICE Dia. "d"	Pkg Qty
JT13010	3/16"	5 3/4"	.08"	5
JT13020	1/4"	5 3/4"	M3.5 x .6	5
JT13025	5/16"	11 3/4"	M4 x .7	5
JT13030	3/8"	11 3/4"	M5 x .8	5



JetTubes shown on CNC turning center.

Material: Tube: Copper
 Socket: Acetal
 Ball: Stainless Steel

Maximum Pressure: 500 PSI (33 bar)

Maximum Operating Temperature: 160° F



Jiffy Jet™



PRESS-IN COOLANT NOZZLE

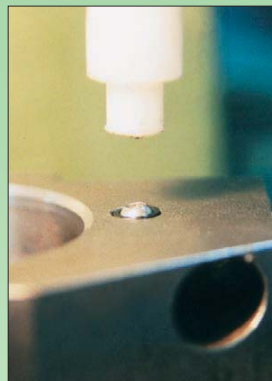
- Just drill and ream a hole, press in a **JiffyJet**, and you've got an easily aimable coolant nozzle!
- Ideal for special tooling, VDI holders, CNC lathe tooling, screw machines, etc.
- Rated to 150 psi (10 bar) maximum ■ ±35° of adjustment either side of centerline



1 Drill coolant passage, leaving reaming allowance.



2 Ream hole to nominal size $-0 +.002$."



3 Press in **JiffyJet** until body is flush.

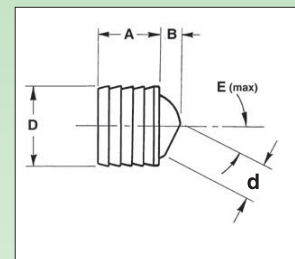


Cutaway view showing **JiffyJet** installed.

DIMENSIONS IN INCHES (except as noted)

Part No.	Nom. Dia. "D"	A	B	Orifice Dia. "d"	E(degrees)	Prepared Hole Dia.	Pkg Qty
JJ07050	1/4 inch	.190	.05	.08	35°	.250/.2515	5
JJ00103	5/16 inch	.250	.06	.11	35°	.3125/.3145	5
JJ00104	3/8 inch	.312	.08	.16	35°	.375/.377	5
JJ00105	7/16 inch	.360	.10	.16	35°	.4375/.4395	5
JJ00106	9/16 inch	.437	.13	.22	35°	.5625/.5645	5
JJ00118	5/8 inch	.437	.13	.22	35°	.625/.627	5
JJ07160	6 mm	.190	.05	.06	35°	.2362/.2377	5
JJ07150	6 mm	.190	.05	.08	35°	.2362/.2377	5
JJ00119	8 mm	.250	.06	.11	35°	.315/.317	5
JJ00113	10 mm	.312	.08	.16	35°	.3937/.3957	5
JJ00114	12 mm	.360	.10	.16	35°	.4724/.4744	5
JJ00115	14 mm	.437	.13	.22	35°	.551/.553	5
JJ00116	15 mm	.437	.13	.22	35°	.5906/.5926	5

– Please contact us for availability of other sizes or for special orders –



Material:

Body - Acetal
Ball - Stainless Steel

Max Operating

Temperature: 160° F

Maximum Pressure:

150 PSI (10 bar)



LolliPop™

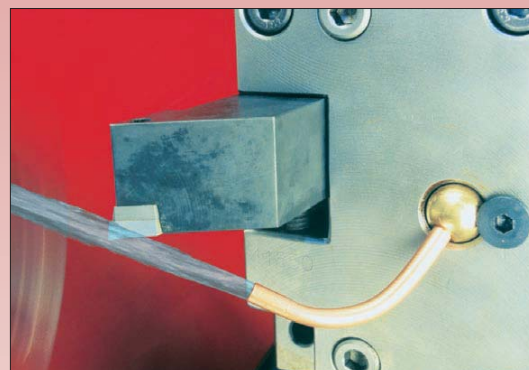
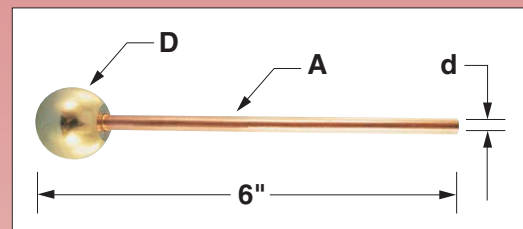
SCREW-LOCK BALL COOLANT NOZZLE WITH INTEGRAL COPPER TUBE FOR CNC LATHES



- Just cut the copper tube to your desired length and bend as required
- Space efficient design is ideal for tight spaces
- Ideal for machines with live tooling
- Unlimited routing possibilities
- Rated to 500 psi (33 bar)
- Sizes available to fit almost every machine or toolholder
- Two tubing sizes to choose from: (3/16" is easiest to bend or choose 1/4" for maximum flow)

DIMENSIONS IN INCHES (except as noted)

Part No.	Ball Dia. "D"	Tubing Size "A"	Tubing I.D. "d"	Pkg Qty
LP05501	9 mm	3/16"	.12	5
LP05502	10 mm	3/16"	.12	5
LP05504	11 mm	3/16"	.12	5
LP05506	12 mm	3/16"	.12	5
LP05508	12 mm	1/4"	.18	5
LP05510	14 mm	3/16"	.12	5
LP05512	14 mm	1/4"	.18	5
LP05514	15 mm	3/16"	.12	5
LP05516	15 mm	1/4"	.18	5
LP05518	18 mm	3/16"	.12	5
LP05520	18 mm	1/4"	.18	5
LP05522	22 mm	3/16"	.12	5
LP05524	22 mm	1/4"	.18	5
LP05526	3/8 inch	3/16"	.12	5
LP05530	1/2 inch	3/16"	.12	5
LP05532	1/2 inch	1/4"	.18	5
LP05534	5/8 inch	3/16"	.12	5
LP05536	5/8 inch	1/4"	.18	5



LolliPop nozzle shown installed in lathe turret.

Material: Ball - Brass Tube - Copper

Maximum Operating Temperature: 300°F

Maximum Pressure: 500 PSI (33 bar)

Ordering Information

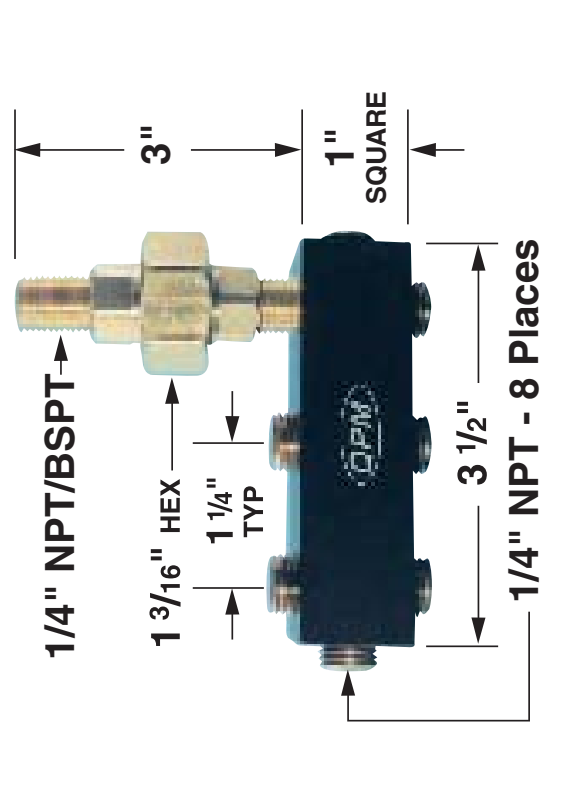
Measure the diameter of the original ball in your machine and order the nominal diameter to suit (specify desired tubing size).



Manifold

■ Ideal for adding multiple nozzles on horizontal and vertical machining centers.

DIMENSIONS IN INCHES

Part No.	Configuration
<p>MF17100</p> <p>NOTE: Assembly includes manifold, pipe union, 2 DualFit nipples and 7 pipe plugs.</p>	 <p>1/4" NPT/BSPT</p> <p>1 3/16" HEX</p> <p>1 1/4" TYP</p> <p>3"</p> <p>1" SQUARE</p> <p>3 1/2"</p> <p>1/4" NPT - 8 Places</p>



QPM Manifolds enable 6 **SwivelMax** nozzles to be used in this face milling operation.

Maximum Pressure: 500 psi (33 bar)
Maximum Operating Temperature: 160°F

Material: Manifold Aluminum (anodized) Union: Brass
Plugs: Plated Steel **Nipples:** Brass



Mill Jet™



COOLANT NOZZLE FOR VERTICAL & HORIZONTAL MACHINING CENTERS

- Adjusts from full shutoff to fine fan spray to direct stream
- Aimable from zero to 90° with 360° sweep
- Stays put (doesn't vibrate out of place)
- No interference problems with clamps, fixtures or swarf
- Fits NPT and BSPT threads
- Rated to 100 psi (6.7 bar) maximum

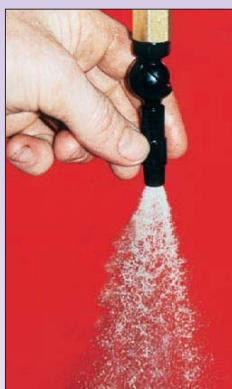
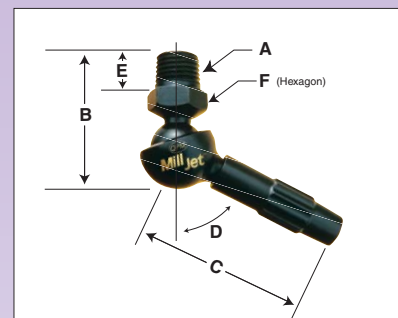
DIMENSIONS IN INCHES

Part No.	Thread Size A	B	C	D (Degrees)	E	F	Pkg Qty
MJ03010	1/8 NPT/BSPT	1.50	1.70	0-90	.44	.625	2
MJ00117	1/4 NPT/BSPT	1.50	1.70	0-90	.44	.625	2

– Recommended coolant filtration - 100 microns –

Material: Acetal **Maximum Pressure:** 100 PSI (6.7 bar)

Max Operating Temperature: 160° F



MillJets shown in use at various angles and spray widths.

MillJets shown installed on Vertical Machining Center showing wide and narrow spray.



Odd Ball™

Now available in Brass or Acetal



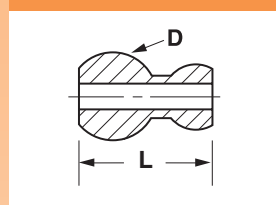
SCREW-LOCK BALLS THAT ADAPT YOUR FAVORITE HOSES AND NOZZLES TO FIT YOUR CNC LATHE

- Allows Loc-Line*, Snap-Loc** and 1/8 NPT/BSPT fittings to be used on CNC lathes that employ screw-lock balls.
- Sizes available to fit almost every machine or toolholder ■ Rated to 150 PSI (10 bar) †
- Choose acetal material for low pressures up to 150 psi (10 bar) ■ Choose brass material for higher pressures up to 500 psi (33 bar)

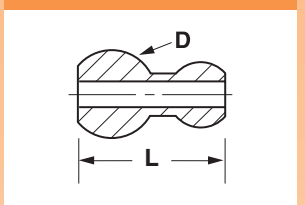
DIMENSIONS IN INCHES (except as noted)

Mtl	Part No.	Nom. Dia. "D"	Adaptor Type	Through hole	Length "L"	Pkg. Qty.
ACETAL	OB06501	10 mm	1	.25 dia.	.63	5
	OB06502	12 mm	1	.25 dia.	.67	5
	OB06504	12 mm	2	.25 dia.	.76	5
	OB06506	12 mm	4	.25 dia.	.91	5
	OB06508	14 mm	1	.25 dia.	.76	5
	OB06510	14 mm	2	.25 dia.	.84	5
	OB06512	14 mm	3	.25 dia.	.38	5
	OB06514	15 mm	1	.25 dia.	.81	5
	OB06516	15 mm	2	.25 dia.	.89	5
	OB06518	15 mm	3	.25 dia.	.43	5
	OB06526	22 mm	1	.25 dia.	1.12	5
	OB06528	22 mm	2	.25 dia.	1.20	5
	OB06530	22 mm	3	.25 dia.	.74	5
	OB06532	1/2 inch	1	.25 dia.	.71	5
	OB06534	1/2 inch	2	.25 dia.	.79	5
	OB06536	1/2 inch	4	.25 dia.	.94	5
	OB06538	5/8 inch	1	.25 dia.	.87	5
	OB06540	5/8 inch	2	.25 dia.	.95	5
OB06542	5/8 inch	3	.25 dia.	.47	5	
BRASS	OB06601	10mm	1	.25 dia.	.64	5
	OB06602	12mm	1	.25 dia.	.67	5
	OB06606	12mm	4	7/32 hex	.90	5
	OB06608	14mm	1	.25 dia.	.77	5
	OB06612	14mm	3	7/32 hex	.39	5
	OB06614	15mm	1	.25 dia.	.81	5
	OB06618	15mm	3	7/32 hex	.45	5
	OB06626	22mm	1	.25 dia.	1.15	5
	OB06630	22mm	3	7/32 hex	.77	5
	OB06632	1/2 inch	1	.25 dia.	.71	5
	OB06636	1/2 inch	4	7/32 hex	.94	5
	OB06638	5/8 inch	1	.25 dia.	.87	5
OB06642	5/8 inch	3	7/32 hex	.49	5	

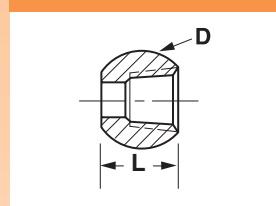
TYPE 1 - Fits 1/4" LOC-LINE*



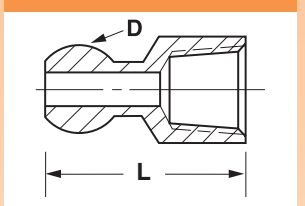
TYPE 2 - Fits 1/4" SNAP-LOC**



TYPE 3 - Fits 1/8 NPT/BSPT

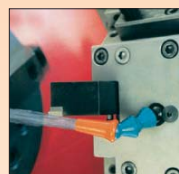


TYPE 4 - Fits 1/8 NPT/BSPT



Maximum Pressure: Acetal: 150 PSI (10 bar) †
Brass: 500 PSI (33 bar) †

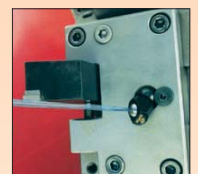
Maximum Operating Temperature: Acetal: 160°F
Brass: 300°F



TYPE 1 OddBall attached to 1/4" Loc-Line* hose.



TYPE 2 OddBall attached to 1/4" Snap-Loc** hose.



TYPE 3 OddBall threaded onto 1/8 NPT/BSPT TurretJet.

Ordering Information: Measure the diameter of the original ball in your machine and order the nominal diameter that suits your favorite nozzle system.

* LOC-LINE IS A TRADEMARK OF LOCKWOOD PRODUCTS INC. ** SNAP-LOC IS A TRADEMARK OF CEDARBURG INDUSTRIES

† DO NOT EXCEED MAXIMUM PRESSURE RATING OF MATING HOSE SYSTEM

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.



Plug Jet™



SCREW-IN, FLUSH MOUNT COOLANT NOZZLE

- Screws into an NPT or BSPT hole just like a flush plug
- 35 degrees adjustment either side of centerline
- Rated to 150 psi max
- Ideal for machining applications where nozzle projections must be minimized

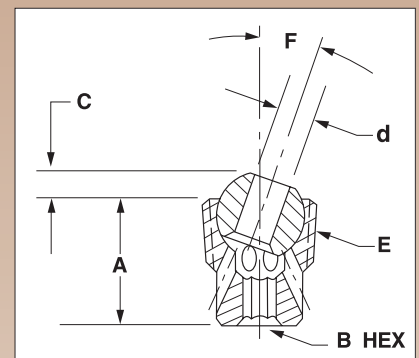
DIMENSIONS IN INCHES

Part No.	Size "E"	A	B(HEX)	C	d	F(degrees)	Pkg Qty
PJ00510	1/8 NPT	.50	9/64	.12	.16	0-35	5
PJ00520	1/8 BSPT	.50	9/64	.12	.16	0-35	5
PJ00530	1/4 NPT/BSPT	.62	9/64	.15	.16	0-40	5
PJ00540	3/8 NPT/BSPT	.75	3/16	.18	.22	0-40	5

Material: Body - Acetal Ball - Stainless Steel

Maximum Operating Temperature: 160°F

Maximum Pressure: 150 PSI (10 bar)



Simply insert the end of allen wrench (included) into the hole in the stainless ball until it engages the hex hole in the acetal body, then tighten the **PlugJet** into the tapped hole until the body is flush.

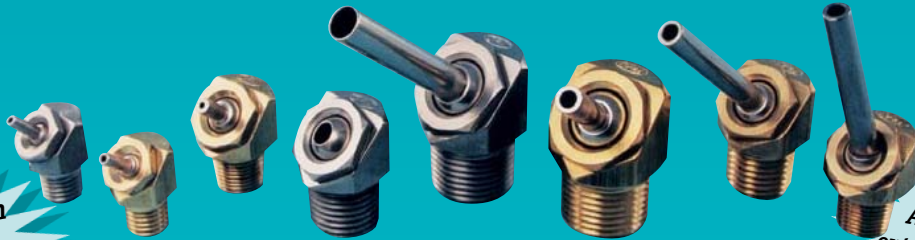


Pipe
Sizes fit
**NPT & BSPT
THREADS**

**RATED
TO
1500 PSI
(100 BAR)**

PressureMax™

Available in
Brass or
Stainless Steel



Available with
extended spray tips
to shoot farther

HIGH PRESSURE COOLANT NOZZLE FOR CNC MACHINES

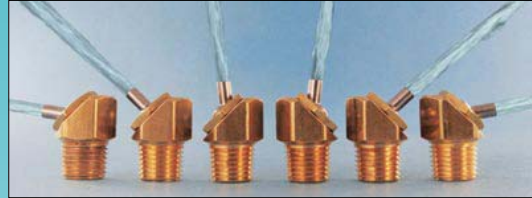
- High velocity coolant stream increases productivity and tool life in machining and grinding operations
 - Also ideal for low pressure applications where abrasive swarf is a problem
 - Hits any target above mounting plane
 - Interchangeable spray tips available!
 - Easy to aim
 - Choose short extensions for tight spaces like CNC Turning Centers and Screw Machines
- Choose stainless steel bodies when using cutting oils not compatible with brass (i.e. oils containing active sulphur)
 - Choose brass bodies for economy
 - Pipe sizes fit NPT and BSPT threads
 - 1500 PSI Max (100 bar)
- Longer extensions are a breeze to aim and shoot farther, great for Machining Centers and CNC Multi-Axis Grinders



Short extensions aim easily with aiming tool (included).



Long extensions aim easily by hand.

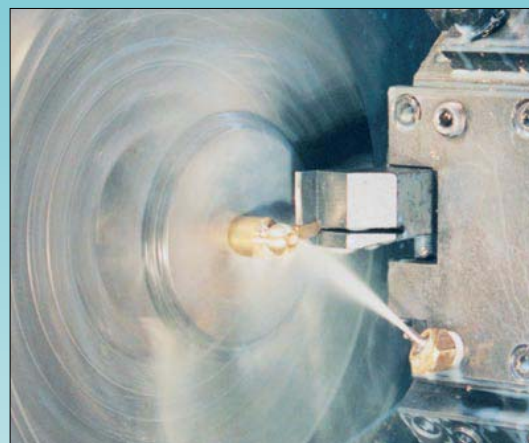
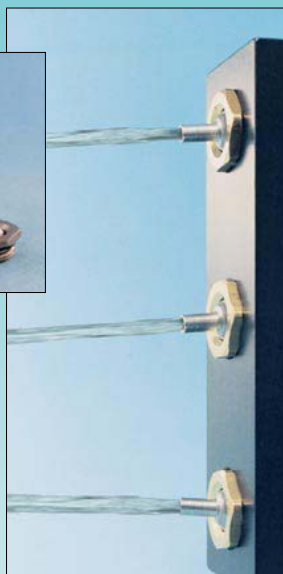


Hits any target above mounting plane.



Interchangeable spray tips allow you to easily change orifice size and extension length to suit your application.

PressureMax Spray Tips can be mounted directly to toolholders or manifolds when space is limited, as in screw machine applications. See Page 7 and 8 for port preparation detail.



PressureMax nozzle shown in use on CNC turning center. High velocity coolant stream prolongs tool life and aids chip control.



PressureMax™

Ordering Information: 1. Determine the port thread size required for your machine tool. 2. Choose nozzle body material (brass for general purpose, stainless steel when using cuttings oils not compatible with cuprous alloys). 3. Determine orifice diameter required to match your pump's capacity at the desired pressure (refer to table on page 2). 4. Choose the extension length "L" to suit your application (longer extensions give more laminar flow, aim easily and shoot farther, while short extensions are ideal for tight spaces or where stringy swarf is a problem).

DIMENSIONS IN INCHES

Nominal Size: 5/16 - 24 UNF								
Nozzle & Port Detail	Mtl.	Part No. Complete Nozzle*	Pkg. Qty.	Orifice Dia. "d"	Extension "L"	Part No. Spray Tip Only	Pkg. Qty.	Spray Tip and Mating Port Detail
<p>5/16" - 24 UNF (tapered) 5/16 - 24 UNF x .30 DP MIN.</p>	BRASS	PM07310	5	.040	.25	PMT08410	5	
		PM07315	5	.062	0	PMT08415	5	
		PM07320	5	.062	.25	PMT08420	5	
		PM07330	5	.086	0	PMT08430	5	
	STAINLESS	PM07312-SS	5	.040	.25	PMT08412-SS	5	
		PM07316-SS	5	.062	0	PMT08416-SS	5	
		PM07322-SS	5	.062	.25	PMT08422-SS	5	
		PM07332-SS	5	.086	0	PMT08432-SS	5	

*Complete nozzle part no. includes body and spray tip.

DIMENSIONS IN INCHES

Nominal Size: 1/8 NPT/BSPT								
Nozzle & Port Detail	Mtl.	Part No. Complete Nozzle*	Pkg. Qty.	Orifice Dia. "d"	Extension "L"	Part No. Spray Tip Only	Pkg. Qty.	Spray Tip and Mating Port Detail
<p>1/8" NPT/BSPT 1/8" NPT or 1/8" BSPT</p>	BRASS	PM04010	5	.040	.25	PMT05020	5	
		PM05010	5	.062	.25	PMT04510	5	
		PM04022	5	.062	1.25	PMT04514	5	
		PM06010	5	.086	.25	PMT04520	5	
		PM04032	5	.086	1.25	PMT04523	5	
		PM07001	5	.117	0	PMT04525	5	
		PM04038	5	.117	.25	PMT04526	5	
		PM04042	5	.117	1.25	PMT04528	5	
	PM04046	5	.160	0	PMT04534	5		
	STAINLESS	PM04012-SS	5	.040	.25	PMT04505-SS	5	
		PM04020-SS	5	.062	.25	PMT04512-SS	5	
		PM04024-SS	5	.062	1.25	PMT04516-SS	5	
		PM04030-SS	5	.086	.25	PMT04522-SS	5	
		PM04034-SS	5	.086	1.25	PMT04524-SS	5	
		PM04039-SS	5	.117	0	PMT04532-SS	5	
		PM04040-SS	5	.117	.25	PMT04527-SS	5	
PM04044-SS		5	.117	1.25	PMT04529-SS	5		
PM04048-SS	5	.160	0	PMT04536-SS	5			

*Complete nozzle part no. includes body and spray tip.



PressureMax™

DIMENSIONS IN INCHES

Nominal Size: 1/4" NPT/BSPT								
Nozzle & Port Detail	Mtl.	Part No. Complete Nozzle*	Pkg. Qty.	Orifice Dia. "d"	Extension "L"	Part No. Spray Tip Only	Pkg. Qty.	Spray Tip and Mating Port Detail
<p>5/8" HEX 15/16" 9/16" HEX 1/4" NPT/BSPT 1/4" NPT or 1/4" BSPT</p>	BRASS	PM07100	5	.040	.25	PMT07020	5	<p>9/16" HEX 1/2" - 20 UNJF O-RING - 11mm ID x 1mm \varnothing Part No. OR10230 1/2" - 20 UNF x .30 DP MIN. .529 .535 Diameter .451 .459 Minor DIA. 30° 32°</p>
		PM07110	5	.062	.25	PMT08010	5	
		PM04122	5	.062	1.25	PMT08014	5	
		PM07120	5	.086	.25	PMT08020	5	
		PM04132	5	.086	1.25	PMT08024	5	
		PM07130	5	.117	0	PMT08030	5	
		PM04139	5	.117	.25	PMT08029	5	
		PM04158	5	.117	.50	PMT08050	5	
		PM04142	5	.117	1.25	PMT08034	5	
		PM07140	5	.160	0	PMT08040	5	
		PM04148	5	.160	.50	PMT08042	5	
		PM04152	5	.160	1.25	PMT08044	5	
		PM04110-SS	5	.040	.25	PMT08005-SS	5	
		PM04120-SS	5	.062	.25	PMT08012-SS	5	
		PM04124-SS	5	.062	1.25	PMT08016-SS	5	
PM04130-SS	5	.086	.25	PMT08022-SS	5			
PM04134-SS	5	.086	1.25	PMT08026-SS	5			
PM04138-SS	5	.117	0	PMT08028-SS	5			
PM04140-SS	5	.117	.25	PMT08032-SS	5			
PM04159-SS	5	.117	.50	PMT08051-SS	5			
PM04144-SS	5	.117	1.25	PMT08036-SS	5			
PM04146-SS	5	.160	0	PMT08041-SS	5			
PM04150-SS	5	.160	.50	PMT08043-SS	5			
PM04154-SS	5	.160	1.25	PMT08046-SS	5			

*Complete nozzle part no. includes body and spray tip.

DIMENSIONS IN INCHES

Nominal Size: 3/8" NPT/BSPT								
Nozzle & Port Detail	Mtl.	Part No. Complete Nozzle*	Pkg. Qty.	Orifice Dia. "d"	Extension "L"	Part No. Spray Tip Only	Pkg. Qty.	Spray Tip and Mating Port Detail
<p>3/4" HEX 1 1/8" 11/16" HEX 3/8" NPT/BSPT 3/8" NPT or 3/8" BSPT</p>	BRASS	PM08210	5	.062	.38	PMT08110	5	<p>11/16" HEX 5/8" - 18 UNJF O-RING - 13mm ID x 1mm \varnothing Part No. OR10240 5/8" - 18 UNF x .30 DP MIN. .654 .660 Diameter .571 .579 Minor DIA. 30° 32°</p>
		PM08214	5	.062	1.25	PMT08114	5	
		PM08220	5	.086	.38	PMT08120	5	
		PM08224	5	.086	1.25	PMT08124	5	
		PM08230	5	.117	.50	PMT08130	5	
		PM08234	5	.117	1.25	PMT08134	5	
		PM08238	5	.160	0	PMT08138	5	
		PM08240	5	.160	.50	PMT08140	5	
		PM08244	5	.160	1.25	PMT08144	5	
		PM08258	5	.197	.50	PMT08158	5	
		PM08248	5	.220	0	PMT08148	5	
		PM08250	5	.220	.50	PMT08150	5	
		PM08254	5	.220	1.25	PMT08154	5	
		PM08212-SS	5	.062	.38	PMT08112-SS	5	
		PM08216-SS	5	.062	1.25	PMT08116-SS	5	
	PM08222-SS	5	.086	.38	PMT08122-SS	5		
	PM08226-SS	5	.086	1.25	PMT08126-SS	5		
	PM08232-SS	5	.117	.50	PMT08132-SS	5		
	PM08236-SS	5	.117	1.25	PMT08136-SS	5		
	PM08239-SS	5	.160	0	PMT08139-SS	5		
	PM08242-SS	5	.160	.50	PMT08142-SS	5		
	PM08246-SS	5	.160	1.25	PMT08146-SS	5		
	PM08260-SS	5	.197	.50	PMT08160-SS	5		
	PM08249-SS	5	.220	0	PMT08149-SS	5		
	PM08252-SS	5	.220	.50	PMT08152-SS	5		
PM08256-SS	5	.220	1.25	PMT08156-SS	5			

*Complete nozzle part no. includes body and spray tip.



Quill Jet™

CONTACT
US FOR
CUSTOM
ORDERS

You'll
wonder how you
ever got by without
this incredible
system!



CLAMP-ON COOLANT NOZZLE SYSTEM FOR BRIDGEPORT-TYPE MILLS

- Clamps onto the quill of your Bridgeport-type knee-mill ■ Ideal for both CNC and manual mills
- Nozzles move up and down with the tool eliminating the constant adjustments required with other systems
- Equipped with two **SwivelMax** coolant hoses with **VariFlow** nozzles for easy aiming and total flow control
 - Allows up to six nozzles to be used! ■ Minimal loss of quill travel ■ Helps spindle run cooler
 - Sizes available to fit your machine!

DIMENSIONS IN INCHES (except as noted)

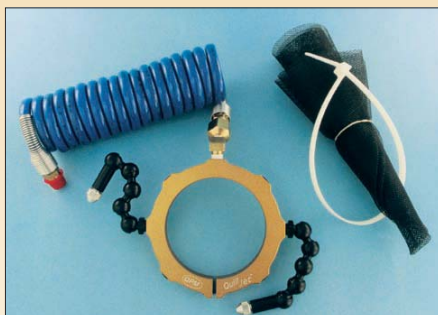
Part No.	Quill Diameter	Pkg Qty
QJ03705	3.250	1
QJ03710	3.375	1
QJ03720	3.543 (90 mm)	1
QJ03730	3.937 (100 mm)	1
QJ03735	4.016 (102 mm)	1
QJ03740	4.134 (105 mm)	1
QJ03750	4.331 (110 mm)	1

Maximum Operating Temperature: 160°F

Maximum Pressure: 100 PSI (6.7 bar)



▲ Each **VariFlow** nozzle is infinitely adjustable from full shut off to maximum flow.



◀ Kit includes anodized aluminum **QuillJet** manifold, polyurethane flexible hose, two **SwivelMax** hoses with **VariFlow** nozzles and pump inlet screen.

Ordering Information

Measure the quill diameter of your mill and order the size that fits your machine. Contact us for availability of other sizes.



ScrewBall™

CONTACT US FOR CUSTOM ORDERS

CONTACT US FOR BULK PRICING



NEW COLORS NOW AVAILABLE

PRESS-IN COOLANT NOZZLE WITH TAPPED HOLE

- Just drill and ream a hole, press in a **ScrewBall**, and you've got an easily aimable coolant nozzle
- Threaded hole can be fitted with an **ExtensionTube**, **SprayTip** or plugged with a setscrew
- ±35 degrees of adjustment either side of centerline
- Ideal for quick change toolholders with multiple ports
- Rated to 150 PSI (10 bar) max
- Choose Black or White body color for best economy
- Choose Blue, Yellow or Orange body color for aesthetic value when implementing corporate color schemes

DIMENSIONS IN MILLIMETERS

Part No.	Nominal Dia "D"	Body Color	"A"	Thread "B"	"C"	Prepared Hole Tolerance	Pkg Qty	Configuration
SB09505	8 mm	White	6 mm	M3.5x.6	1.5	H9	5	
SB09506	8 mm	Black	6 mm	M3.5x.6	1.5	H9	5	
SB09507	8 mm	Blue	6 mm	M3.5x.6	1.5	H9	5	
SB09508	8 mm	Yellow	6 mm	M3.5x.6	1.5	H9	5	
SB09509	8 mm	Orange	6 mm	M3.5x.6	1.5	H9	5	
SB09510	10 mm	White	7 mm	M4x.7	2.0	H9	5	
SB09511	10 mm	Black	7 mm	M4x.7	2.0	H9	5	
SB09512	10 mm	Blue	7 mm	M4x.7	2.0	H9	5	
SB09513	10 mm	Yellow	7 mm	M4x.7	2.0	H9	5	
SB09514	10 mm	Orange	7 mm	M4x.7	2.0	H9	5	
SB09520	12 mm	White	8 mm	M5x.8	2.5	H9	5	
SB09521	12 mm	Black	8 mm	M5x.8	2.5	H9	5	
SB09522	12 mm	Blue	8 mm	M5x.8	2.5	H9	5	
SB09523	12 mm	Yellow	8 mm	M5x.8	2.5	H9	5	
SB09524	12 mm	Orange	8 mm	M5x.8	2.5	H9	5	
SB09530	14 mm	White	10 mm	M6x1.0	3.0	H9	5	
SB09531	14 mm	Black	10 mm	M6x1.0	3.0	H9	5	
SB09540	15 mm	Black	6 mm	M6x1.0	3.0	H9	5	

Material: Body: Acetal Ball: Stainless Steel **Maximum Operating Temperature:** 160°F
Maximum Pressure: 150 PSI (10 bar)

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.



SprayTips



SCREW-IN, BRASS SPRAY TIPS FOR USE IN TAPPED-BALL NOZZLES

- Available in various orifice diameters ■ Ideal for concentrating the coolant stream at the cutting edge
- Angled outlet **SprayTips** enable aiming outside a nozzle's normal range of motion

DIMENSIONS IN INCHES

Type	Part No.	Mounting Thread "E"	Orifice Dia. "d"	Overall Length "L"	Thread Length "A"	"C" Hex	Pkg Qty	Configuration
Straight Outlet	ST16510	M3.5 x .6	.062	.42	.14	3/16	5	
	ST16515	M3.5 x .6	.086	.42	.14	3/16	5	
	ST16520	M4 x .7	.062	.54	.18	3/16	5	
	ST16525	M4 x .7	.086	.54	.18	3/16	5	
	ST16530	M5 x .8	.062	.63	.21	1/4	5	
	ST16535	M5 x .8	.086	.63	.21	1/4	5	
	ST16540	M5 x .8	.117	.63	.21	1/4	5	
	ST16545	M6 x 1.0	.062	.63	.21	1/4	5	
	ST16550	M6 x 1.0	.086	.63	.21	1/4	5	
	ST16555	M6 x 1.0	.117	.63	.21	1/4	5	
	ST16560	M6 x 1.0	.150	.63	.21	1/4	5	
	ST16565	M8 x 1.25	.062	.80	.30	3/8	5	
	ST16570	M8 x 1.25	.086	.80	.30	3/8	5	
	ST16575	M8 x 1.25	.117	.80	.30	3/8	5	
	ST16580	M8 x 1.25	.160	.80	.30	3/8	5	
	ST16585	M8 x 1.25	.220	.80	.30	3/8	5	
	ST16610	1/8NPT/BSPT	.062	.90	.37	1/2	5	
	ST16615	1/8NPT/BSPT	.086	.90	.37	1/2	5	
ST16620	1/8NPT/BSPT	.117	.90	.37	1/2	5		
ST16625	1/8NPT/BSPT	.160	.90	.37	1/2	5		
ST16630	1/8NPT/BSPT	.220	.90	.37	1/2	5		
ST16635	1/8NPT/BSPT	.280	.90	.37	1/2	5		
Angled Outlet	ST16650	M3.5 x .6	.062	.32	.14	3/16	5	
	ST16655	M4 x .7	.062	.36	.18	3/16	5	
	ST16660	M5 x .8	.086	.42	.21	1/4	5	
	ST16665	M6 x 1.0	.086	.42	.21	1/4	5	
	ST16670	M6 x 1.0	.117	.42	.21	1/4	5	



SprayTips can be used in a wide variety of nozzles including;
ScrewBolts, JetBolts, BrassBalls, BlackEyes, TurretJets, JetTubes, SweatJets, CapJets and BugEyes.

Material: Brass

Maximum Pressure: 500° psi (33 bar)



SweatJet™



SWEAT FITTINGS THAT ADAPT YOUR FAVORITE HOSES AND NOZZLES TO COPPER TUBING

- Easy to solder ■ Increases nozzle reliability by allowing use of short rigid hoses ■ Rated to 500 psi†
- Allows **SwivelMax**, 1/4" Loc-Line*, **QPM Spray Tips** and **PressureMax Spray Tips** to be used on copper tubing
- Ideal for CNC Tool and Cutter Grinders, CNC Mill/Turn Centers and screw machines

DIMENSIONS IN INCHES

BALL TYPE (fits SwivelMax or 1/4" Loc-Line*)								
Part No.	Tubing Size A	Outlet Ball Fits:	L	F	Dia D	Dia d	Pkg Qty	Configuration
SJ14040	1/4	SwivelMax	.99	.38	.38	.22	5	
SJ14045	1/4	1/4" Loc-Line	.52	.38	.38	.22	5	
SJ14050	5/16	SwivelMax	1.05	.44	.44	.22	5	
SJ14055	5/16	1/4" Loc-Line	.90	.44	.44	.28	5	
SJ14060	3/8	SwivelMax	1.15	.50	.49	.22	5	
SJ14065	3/8	1/4" Loc-Line	1.08	.56	.50	.28	5	

THREADED TYPE (fits QPM SprayTips)								
Part No.	Tubing Size A	Outlet Thread E	L	F	B	C Hex	Pkg Qty	Configuration
SJ14130	3/16	M5 x .8	.56	.31	.25	.25	5	
SJ14140	1/4	M6 x 1.0	.62	.37	.25	.31	5	
SJ14150	5/16	M8 x 1.25	.81	.50	.31	.38	5	
SJ14160	3/8	1/8 NPT/BSPT	.94	.56	.25	.50	5	

PressureMax TYPE (fits PressureMax SprayTips)								
Part No.	Tubing Size A	Outlet Thread E	L	F	B	C Hex	Pkg Qty	Configuration
SJ14240	1/4	5/16-24 UNJF	.68	.38	.20	.44	5	
SJ14245	1/4	7/16-20 UNJF	.75	.42	.20	.56	5	
SJ14250	5/16	7/16-20 UNJF	.75	.44	.20	.56	5	
SJ14255	5/16	1/2-20 UNJF	1.0	.56	.25	.62	5	
SJ14260	3/8	7/16-20 UNJF	.75	.44	.20	.56	5	
SJ14265	3/8	1/2-20 UNJF	1.0	.56	.25	.62	5	



SweatJets allow a wide variety of nozzles to be mounted to copper tubing.



SweatJets are easy to solder using a propane torch.

Material: Brass

Maximum Pressure: 500 psi (33 bar)

Maximum Operating Temperature: 160° F (70° C)

Refrigeration Grade Coil
Length = 118 in (3 m)



SOLDER
Highly recommended for soldering **SweatJets**
Part No. SOL 14600
.062" (1.5 mm)
Lead Free, Rosin Core
4 oz. (227g) roll



† DO NOT EXCEED MAXIMUM PRESSURE RATING OF MATING HOSE SYSTEM

* LOC-LINE IS A TRADEMARK OF LOCKWOOD PRODUCTS INC.

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COPPER TUBING

Part No.	Tubing Size	TUBE I.D.
COP14730	3/16	.12
COP14740	1/4	.18
COP14750	5/16	.25
COP14760	3/8	.31



Available with **FixedFlow** or **VariFlow** end nozzles

SwivelMax™

RATED TO 100 PSI (6.7 BAR)

Each joint swivels an incredible 72° either side of centerline

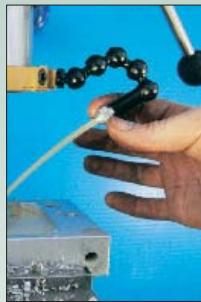
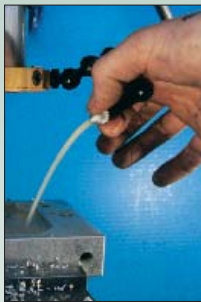
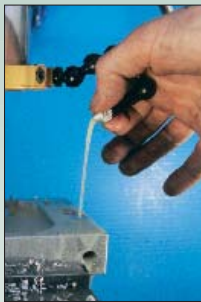
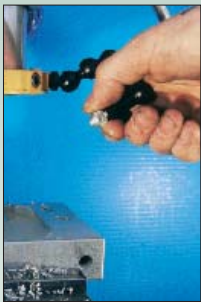


MODULAR COOLANT NOZZLE SYSTEM FOR CNC AND MANUAL MACHINE TOOLS

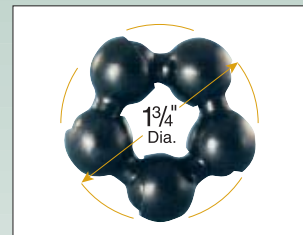
- Extremely versatile system with incredible range of motion in each joint
- Compact design is ideal for tight spaces
- Available with **FixedFlow** or **VariFlow** nozzles and interchangeable orifices
- Rated to 100 PSI (6.7 bar) maximum ■ Available with threaded or spherical bases
- Vibration resistant joints provide superior reliability in CNC lathe turrets where inertial forces are high



SwivelMax system with **FixedFlow** end nozzles is ideal for CNC lathes due to its compactness and flexibility.



VariFlow end nozzles enable infinite flow control from full shutoff to full flow with fingertip control. They are ideal for manual and CNC mills.



SwivelMax links swivel 72° either side of centerline enabling it to come full circle within a 1 3/4" inscribed circle.



ORDERING INFORMATION

SwivelMax components can be ordered in packages using the Part No.'s below (pliers SM02910 are required for assembly and disassembly). They can also be ordered pre-assembled in a wide variety of configurations. To order pre-assembled nozzles, specify the type of base, the number of intermediate links, end nozzle and orifice diameter as per examples below.


Example 1

L - 3 - V 3



Base			
Type	Size "E"	Part No.	Configuration
G	10mm BALL	SM02505	 Material: Brass
A	12mm BALL	SM02510	
B	14mm BALL	SM02515	
C	15mm BALL	SM02520	
D	22mm BALL	SM02525	
E	1/2" BALL	SM02530	
F	5/8" BALL	SM02535	
K	1/8 NPT/BSPT	SM02540	 Material: Acetal
L	1/4 NPT/BSPT	SM02545	
M	M10 x 1.25	SM02550	
N	M10 x 1.5	SM02555	
P	M12 x 1.25	SM02560	
Q	M12 x 1.75	SM02565	
R	M14 x 1.0	SM02570	
S	M14 x 2.0	SM02575	


VariFlow End Nozzle

Type	Part No.	Configuration
V	SM02810	 1.12" Material: Acetal

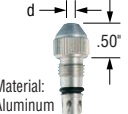
Intermediate Links

Part No.	Configuration
SM02610	 .60" Material: Acetal

FixedFlow End Nozzle

Type	Part No.	Configuration
F	SM02710	 .50" Material: Acetal

VariFlow Spray Tips (for Type V Nozzles only)


Type	Part No.	Orifice Dia. d	Color	Configuration
1	SM02820	.086"	Blue	 Material: Aluminum
2	SM02830	.117"	Gold	
3	SM02840	.160"	Silver	
	SM02850	Variety Pack contains one each of above		

Maximum Pressure: 100 PSI (6.7 bar) max.

Maximum Operating Temperature: 110°F

Inside Diameter: .20 inches

FixedFlow Spray Tips (for Type F Nozzles only)


Type	Part No.	Orifice Dia. d	Color	Configuration
1	SM02720	.062"	Red	 Material: Aluminum
2	SM02730	.086"	Blue	
3	SM02740	.117"	Gold	
4	SM02750	.160"	Silver	
	SM02760	Variety Pack contains one each of above		

Example 2

D - 2 - F 3



Reversing Link

Part No.	Configuration
SM02620	 .65" allows bases to be used on both ends.



Part No. SM02910

Assembly Pliers

These are a must to assemble or disassemble **SwivelMax** parts. High quality construction with lifetime warranty.



Build Your Own

You can order **SwivelMax** components separately and assemble them yourself with **SwivelMax** assembly pliers. This gives you maximum flexibility and economy.



Reversing Link

Allows bases to be used on both ends of assembled **SwivelMax** line; ideal for plumbing coolant to insert drills (not available pre-assembled).



**FITS
NPT & BSPT
THREADS**

Turret Jet™

**RATED
TO
150 PSI
(10 BAR)**

You can choose
the orifice size and
extension to suit your
application!



New metric tapped
balls allow use with
Extension Tubes and
Spray Tips.

UNIVERSAL COOLANT NOZZLE FOR CNC MACHINES

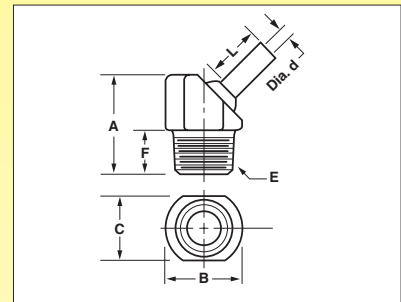
- Converts any NPT or BSPT hole to a fully adjustable nozzle ■ Hits any target above mounting plane
- Adjusts easily for accurate coolant placement ■ Difficult to accidentally knock out of adjustment
- Choose larger orifices for maximum flow ■ Choose smaller orifices when using multiple nozzles
- Choose tapped ball if you need to quickly plug the orifice (setscrew included)
- Metric tapped balls allow use with **Extension Tubes** and **Spray Tips**.

■ Choose short extensions for tight spaces like CNC Turning Centers and Screw Machines

■ Longer extensions are a breeze to aim and shoot farther, great for Machining Centers and CNC Multi-Axis Grinders

DIMENSIONS IN INCHES

Part No.	Thread Size "E"	Orifice Dia. "d"	Extension "L"	A	B	C	F	Pkg QTY
TJ00100	1/8 NPT/BSPT	.11	0	.82	.63	.50	.38	5
TJ00130	1/8 NPT/BSPT	.11	.25	.82	.63	.50	.38	5
TJ00131	1/8 NPT/BSPT	.11	.50	.82	.63	.50	.38	5
TJ00132	1/8 NPT/BSPT	.11	1.25	.82	.63	.50	.38	5
TJ00134	1/8 NPT/BSPT	.16	0	.82	.63	.50	.38	5
TJ00136	1/8 NPT/BSPT	.16	.50	.82	.63	.50	.38	5
TJ00138	1/8 NPT/BSPT	.16	1.25	.82	.63	.50	.38	5
TJ00140	1/8 NPT/BSPT	#10-32 UNF	0	.82	.63	.50	.38	5
TJ00141	1/8 NPT/BSPT	M5 x .8	0	.82	.63	.50	.38	5
TJ00142	1/4 NPT/BSPT	.11	0	.94	.75	.63	.44	5
TJ00144	1/4 NPT/BSPT	.11	.25	.94	.75	.63	.44	5
TJ00145	1/4 NPT/BSPT	.11	.50	.94	.75	.63	.44	5
TJ00146	1/4 NPT/BSPT	.11	1.25	.94	.75	.63	.44	5
TJ00101	1/4 NPT/BSPT	.16	0	.94	.75	.63	.44	5
TJ00148	1/4 NPT/BSPT	.16	.50	.94	.75	.63	.44	5
TJ00150	1/4 NPT/BSPT	.16	1.25	.94	.75	.63	.44	5
TJ00152	1/4 NPT/BSPT	#10-32 UNF	0	.94	.75	.63	.44	5
TJ00153	1/4 NPT/BSPT	M5 x .8	0	.94	.75	.63	.44	5
TJ00166	3/8 NPT/BSPT	.11	0	1.13	.88	.75	.50	5
TJ00154	3/8 NPT/BSPT	.16	0	1.13	.88	.75	.50	5
TJ00156	3/8 NPT/BSPT	.16	.50	1.13	.88	.75	.50	5
TJ00158	3/8 NPT/BSPT	.16	1.25	1.13	.88	.75	.50	5
TJ00102	3/8 NPT/BSPT	.22	0	1.13	.88	.75	.50	5
TJ00160	3/8 NPT/BSPT	.22	.50	1.13	.88	.75	.50	5
TJ00162	3/8 NPT/BSPT	.22	1.25	1.13	.88	.75	.50	5
TJ00164	3/8 NPT/BSPT	1/4-28 UNF	0	1.13	.88	.75	.50	5
TJ00165	3/8 NPT/BSPT	M6 x 1.0	0	1.13	.88	.75	.50	5



TurretJet shown installed in lathe turret.



Combine with standard pipefittings to suit your application.

Material: Body: Acetal Ball & Extension: Stainless Steel
Maximum Pressure: 150 PSI (10 bar) **Maximum Operating Temperature:** 160°F

WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE OR OBLIGATION.



TwinPop™



SCREW-LOCK BALL COOLANT NOZZLE WITH TWO COPPER TUBES

- Double tubes allow coolant to be directed above AND below the tool, using only one port.
- Ideal for use with part-off and grooving tools.

DIMENSIONS IN INCHES (except as noted)

Part No.	Ball Dia. "D"	Tubing Size "A"	Tubing I.D. "d"	Pkg Qty
TP05805	1/2 inch	3/16"	.12	5
TP05810	5/8 inch	3/16"	.12	5
TP05815	12mm	3/16"	.12	5
TP05820	14mm	3/16"	.12	5
TP05825	15mm	3/16"	.12	5
TP05827	18mm	3/16"	.12	5
TP05830	22mm	3/16"	.12	5

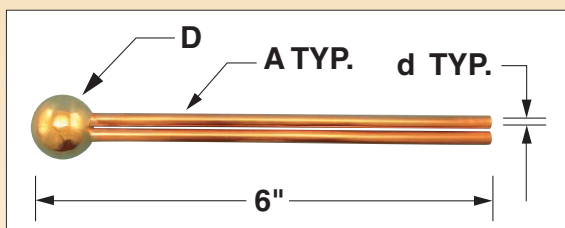
Material: Ball - Brass • Tube - Copper • Solder - Lead Free

Maximum Operating Temperature: 300°F

Maximum Pressure: 500 psi (33 bar)



TwinPop nozzle shown installed in lathe turret.



Ordering Information

Measure the diameter of the original ball in your machine and order the nominal diameter to suit.