MOLD COOLING

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MOLD COOLING

Brass Baffles

- Flush-seal type (7/8 taper) brass pipe plugs standard
- Patented XT Technology allows 300% more wrenching torque
- Separates machined waterlines into multiple channels
- Divert the flow of water or coolant

Brass Baffles are used to divert the flow of water or coolant within the mold. This product allows machined waterlines to be separated into multiple channels. A brass pipe plug comes standard with each baffle. Available lengths range from 4" to 24".

SPECIFICATIONS	
Blade Width Tolerance	-.005 / -.015
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	PLUG SIZE	BLADE WIDTH	BLADE THICKNESS	DRILL SIZE	OVERALL LENGTH
BB-062-4	1/16-27	1/4	0.057	1/4	4
BB-062-8	1/16-27	1/4	0.057	1/4	8
BB-062-12	1/16-27	1/4	0.057	1/4	12
BB-125-4	1/8-27	5/16	0.057	5/16	4
BB-125-8	1/8-27	5/16	0.057	5/16	8
BB-125-8S*	1/8-27	5/16	0.057	5/16	8
BB-125-12	1/8-27	5/16	0.057	5/16	12
BB-250-5	1/4-18	7/16	0.085	7/16	5
BB-250-5S*	1/4-18	7/16	0.085	7/16	5
BB-250-10	1/4-18	7/16	0.085	7/16	10
BB-250-10S*	1/4-18	7/16	0.085	7/16	10
BB-250-15	1/4-18	7/16	0.085	7/16	15
BB-375-6	3/8-18	9/16	0.093	9/16	6
BB-375-6S*	3/8-18	9/16	0.093	9/16	6
BB-375-12	3/8-18	9/16	0.093	9/16	12
BB-375-12S*	3/8-18	9/16	0.093	9/16	12
BB-375-18	3/8-18	9/16	0.093	9/16	18
BB-375-18S*	3/8-18	9/16	0.093	9/16	18
BB-500-8	1/2-14	11/16	0.093	11/16	8
BB-500-8S*	1/2-14	11/16	0.093	11/16	8
BB-500-12S*	1/2-14	11/16	0.093	11/16	12
BB-500-16	1/2-14	11/16	0.093	11/16	16
BB-500-16S*	1/2-14	11/16	0.093	11/16	16
BB-750-12	3/4-14	15/16	0.093	15/16	12
BB-750-12S*	3/4-14	15/16	0.093	15/16	12
BB-750-20	3/4-14	15/16	0.093	15/16	20
BB-750-20S*	3/4-14	15/16	0.093	15/16	20
BB-1000-16	1-11½	1-1/8	0.102	1-1/8	16
BB-1000-24	1-11½	1-1/8	0.102	1-1/8	24

***Items with 'S' at the end of the catalog number have steel plugs**

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Brass Spiral Baffles

- Flush-seal type (7/8 taper) brass pipe plugs standard
- Patented XT Technology allows 300% more wrenching torque
- Separates machined waterlines into multiple channels
- Divert the flow of water or coolant
- Allows for more uniform cooling
- Spiral design creates turbulent water flow for more efficient cooling

Spiral Brass Baffles are used to divert the flow of water or coolant within the mold. This product allows machined waterlines to be separated into multiple channels. Spiral Brass Baffles lengthen the cooling path and keep the baffle centered creating up to 11% greater flow rate. A brass pipe plug comes standard with each baffle. Available lengths range from 4” to 24”.

SPECIFICATIONS	
Blade Width Tolerance	-.005/-.015
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	PLUG SIZE	BLADE WIDTH	BLADE THICKNESS	DRILL SIZE	S SHOULDER LENGTH	OVERALL LENGTH
SB-062-4	1/16-27	1/4	0.057	1/4	2	4
SB-062-8	1/16-27	1/4	0.057	1/4	4	8
SB-062-12	1/16-27	1/4	0.057	1/4	6	12
SB-125-4	1/8-27	5/16	0.057	5/16	2	4
SB-125-8	1/8-27	5/16	0.057	5/16	4	8
SB-125-12	1/8-27	5/16	0.057	5/16	6	12
SB-250-5	1/4-18	7/16	0.085	7/16	2	5
SB-250-10	1/4-18	7/16	0.085	7/16	4	10
SB-250-15	1/4-18	7/16	0.085	7/16	6	15
SB-375-6	3/8-18	9/16	0.093	9/16	2	6
SB-375-12	3/8-18	9/16	0.093	9/16	4	12
SB-375-12S*	3/8-18	9/16	0.093	9/16	4	12
SB-375-18	3/8-18	9/16	0.093	9/16	6	18
SB-500-8	1/2-14	11/16	0.093	11/16	3	8
SB-500-16	1/2-14	11/16	0.093	11/16	5	16
SB-750-12	3/4-14	15/16	0.093	15/16	4	12
SB-750-12S*	3/4-14	15/16	0.093	15/16	4	12
SB-750-20	3/4-14	15/16	0.093	15/16	6	20
SB-1000-16	1-11½	1-1/8	0.102	1-1/8	5	16
SB-1000-24	1-11½	1-1/8	0.102	1-1/8	8	24

***Items with ‘S’ at the end of the catalog number have steel plugs**

Brass Blade Stock

- Same tolerances as straight and spiral blade baffles
- Solid brass
- Longer lengths available
- Same tolerances as PCS straight and Spiral baffles
- Separates machined waterlines into multiple channels
- Divert the flow of water or coolant

Brass Blade Stock helps to divert the flow of water or coolant within the mold. The blade stock allows machined waterlines to be separated into multiple channels. Brass Blade Stock has the same tolerances as PCS standard straight and spiral blade baffles. Blade stock is offered in standard 36” lengths.

SPECIFICATIONS	
Blade Width Tolerance	-.005 / -.015
Material Type	Brass
Overall Length	36
Unit of Measure	Inch

CATALOG NO.	BLADE WIDTH	BLADE THICKNESS	PLUG SIZE
BBS-25	1/4	0.057	1/16
BBS-31	5/16	0.057	1/8
BBS-43	7/16	0.085	1/4
BBS-56	9/16	0.093	3/8
BBS-68	11/16	0.093	1/2
BBS-71	15/16	0.093	3/4
BBS-93	29/32	0.093	3/4
BBS-112	1-1/8	0.102	1

Economical Baffle

- Inexpensive way to baffle long waterlines
- Brass construction
- Special design prevents turning
- Lengths up to 48”

Economical baffles offer an inexpensive way to baffle long water lines. These baffles are used to divert the flow of water or coolant within the mold. This product allows machined waterlines to be separated into multiple channels. Economical Baffles are offered in standard 48” lengths.

SPECIFICATIONS	
Material Type	Brass
L Overall Length	48
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD	DRILL SIZE
FB500-48	1/2 -14	11/16
FB750-48	3/4 -14	15/16
FB1000-48	1 - 11½	1-1/8

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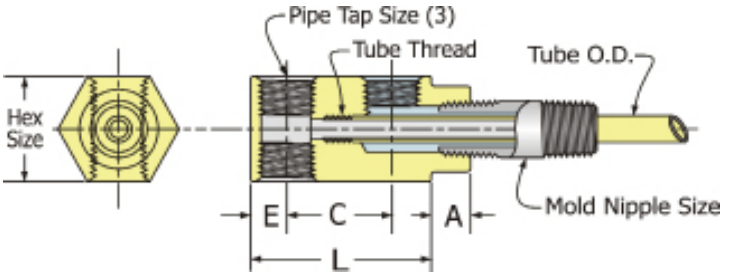
Nipple Type Cascade Assemblies

- Most popular style of cascade
- Efficient design improves cooling rates
- 12” Brass Tube Included
- 2” Stainless steel pipe nipple included
- Brass Pipe plug included

Nipple Type Cascade Assemblies are an economical solution for many cooling applications. The solid brass heads are precision machined for accurate assembly. Each assembly includes a brass head, 12” brass tube, 2” pipe nipples and brass pipe plug.

SPECIFICATIONS	
Material Type	Brass Head, Brass Tube, Brass Pipe Plug, Steel Pipe Nipple
Mold Nipple Length	2
Tube Length	12
Unit of Measure	Inch



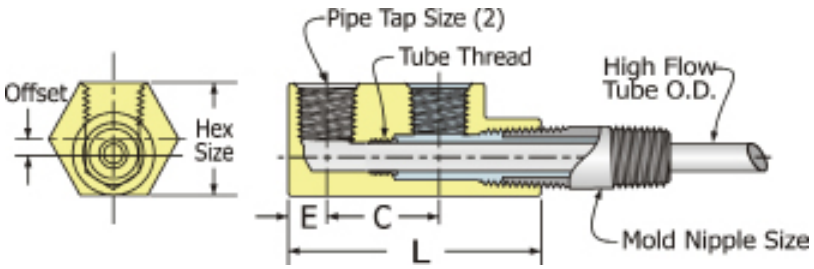
CATALOG NO.	PIPE TAP SIZE (NPT)	TUBE O.D.	TUBE I.D.	HEX KEY SIZE	E INLET HOLE LOCATION	C OUTLET HOLE SPREAD	A PILOT DIAMETER	L HEAD LENGTH
Mold Nipple: 1/8								
C130	1/8	0.187	0.123	7/8	21/64	11/16	9/32	1-11/32
C130A	1/8	0.187	0.123	7/8	21/64	1	9/32	1-21/32
Mold Nipple: 1/4								
C131	1/8	0.250	0.170	1	21/64	11/16	7/32	1-11/32
C131A	1/4	0.250	0.170	1	21/64	11/16	7/32	1-11/32
C132	1/8	0.250	0.170	1	21/64	1	7/16	1-21/32
C132A	1/4	0.250	0.170	1	21/64	1	7/16	1-21/32
Mold Nipple: 3/8								
C136A	1/4	0.312	0.210	1	11/32	1	13/32	1-11/16
Mold Nipple: 1/2								
C138A	1/4	0.437	0.307	1-1/4	12/32	1	9/16	1-13/16
Mold Nipple: 3/4								
C140A	3/8	0.625	0.495	1-1/2	1/2	1/14	3/4	2-1/4

High-Flow Cascade Assemblies

- Increased inlet area allows for higher flow rate
- Eliminates leaks with off set deisgn and prevents flow restriction
- Thin-wall stainless steel tubes

High-Flow Cascade Assemblies offer 35% - 65% higher flow rates than standard nipple type cascades. The offset design provides more sealing threads without any pipe interference. Assemblies include brass head, 12” high flow stainless tube and 2” pipe nipples.

SPECIFICATIONS	
Material Type	Brass Head, Stainless Steel Tube, Stainless Steel Pipe Nipple
Mold Nipple Length	2
Tube Length	12
Unit of Measure	Inch



CATALOG NO.	PIPE TAP SIZE (NPT)	TUBE O.D.	TUBE I.D.	HEX KEY SIZE	OFFSET	E INLET HOLE LOCATION	C OUTLET HOLE SPREAD	L HEAD LENGTH	ACTUAL FLOW INCREASE %
Mold Nipple: 1/16									
HF16N	1/16	0.125	0.109	5/8	3/32	1/4	1/2	1-1/4	-
Mold Nipple: 1/8									
HF186N	1/8	0.187	0.167	3/4	3/32	5/16	11/16	1-5/8	64%
HF181N	1/8	0.187	0.167	3/4	3/32	5/16	1	1-15/16	64%
Mold Nipple: 1/4									
HF146N-4	1/4	0.250	0.230	1	5/32	11/32	11/16	1-7/8	48%
HF141N-4	1/4	0.250	0.230	1	5/32	11/32	1	2-3/16	48%
Mold Nipple: 3/8									
HF381N-4	1/4	0.365	0.340	1-1/8	1/8	11/32	1	2-1/4	38%

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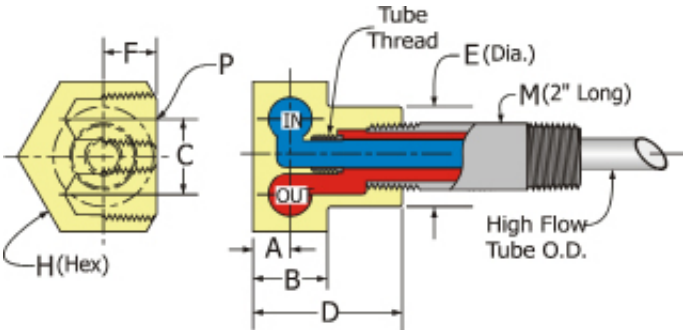
Compact Cascade Assemblies

- Perpendicular inlet/outlet connections
- Pipe plugs not required
- Used exclusively with High-Flow Tubes
- Ideal for use with thin mold plates

Compact Cascade Assemblies provide maximum cooling rates with improved design and high flow tubes. In/Out connections are positioned sideways for mounting in tight spaces or thin mold plates. Assemblies include brass head, 12” high flow tube and 2” pipe nipples.

SPECIFICATIONS	
Material Type	Brass Head, Stainless Steel Tube, Stainless Steel Pipe Nipple
Mold Nipple Length	2
Tube Length	12
Unit of Measure	Inch

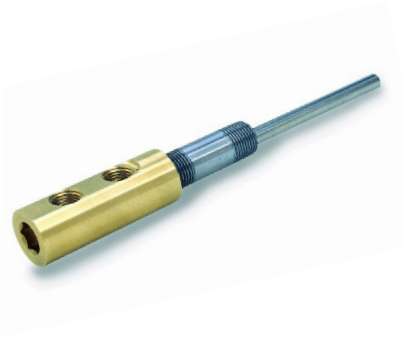


CATALOG NO.	PIPE TAP SIZE (NPT)	TUBE O.D.	TUBE I.D.	HEX KEY SIZE	TUBE THREAD SIZE	A INLET/OUTLET HOLE LOCATIONS	B HEAD THICK.	C OUTLET HOLE SPREAD	D OVERALL LENGTH	E PILOT DIA.	F THREAD DEPTH
Mold Nipple: 1/8											
ET1816	1/16	0.187	0.123	15/16	1/4-28	7/32	7/16	1/2	1	5/8	0.33
Mold Nipple: 1/4											
ET1418	1/8	0.250	0.170	1-1/4	5/16-24	5/16	5/8	11/16	1-1/4	3/4	0.41
ET1414	1/4	0.250	0.170	1-1/2	5/16-24	3/8	3/4	3/4	1-1/2	7/8	0.54
Mold Nipple: 3/8											
ET3814	1/4	0.312	0.210	1-1/2	3/8-24	3/8	3/4	3/4	1-1/2	1	0.54
Mold Nipple: 1/2											
ET1214	1/4	0.375	0.273	1-3/4	7/16-20	3/8	3/4	1	1-3/4	1-3/16	0.54

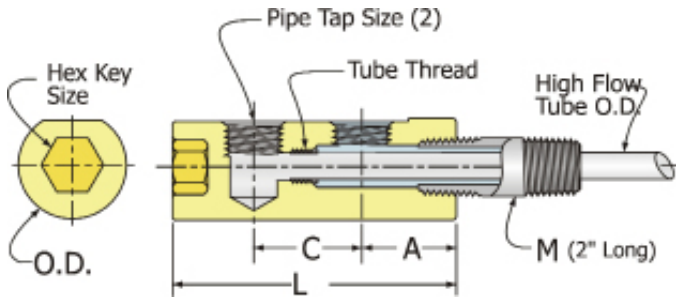
Hex Key Cascade Assemblies

- Easy hex key assemblies
- Compact design allows for minimum clearance installation
- 12” Stainless Steel Tube Included
- 2” Stainless steel pipe nipple included

Hex Key Cascade Assemblies can be installed and removed in very tight spaces with a hex key wrench. The high flow tubes ensure flow is maintained in these very tight spaces. Assemblies include brass head, 12” high flow stainless tube and 2” pipe nipples.



SPECIFICATIONS	
Material Type	Brass Head, Stainless Steel Pipe Nipple, Stainless Steel Tube
Mold Nipple Length	2
Tube Length	12
Unit of Measure	Inch



CATALOG NO.	PIPE TAP SIZE (NPT)	TUBE O.D.	TUBE I.D.	L LENGTH	C OUTLET HOLE SPREAD	A OUTLET HOLE LOCATION	HEX KEY SIZE	NOMINAL CLEARANCE DRILL	O.D.
Mold Nipple: 1/16									
E16N	1/16	0.125	0.109	1.625	9/16	1/2	5/16	5/8	.610
Mold Nipple: 1/8									
E16N-2	1/16	0.125	0.109	1.687	9/16	9/16	3/8	3/4	.735
E186N	1/8	0.187	0.167	1.875	11/16	9/16	3/8	7/8	.860
E181N	1/8	0.187	0.167	2.187	1	9/16	3/8	7/8	.860
Mold Nipple: 1/4									
E141N	1/8	0.250	0.230	2.500	1	13/16	1/2	1	.985
E146N	1/8	0.250	0.230	2.187	11/16	13/16	1/2	1	.985
E141N-4	1/4	0.250	0.230	2.625	1	7/8	1/2	1	.985
E146N-4	1/4	0.250	0.230	2.312	11/16	7/8	1/2	1	.985
Mold Nipple: 3/8									
E381N-4	1/4	0.312	0.288	2.625	1	7/8	1/2	1	.985
Mold Nipple: 1/2									
E121N-4	1/4	0.365	0.273	2.812	1	1	1/2	1-1/4	1.235

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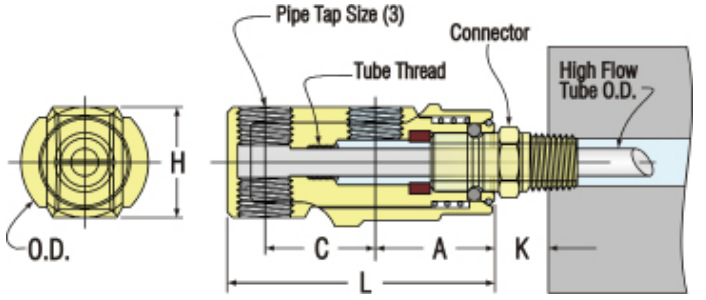
Quick-Coupler Type Cascade Assemblies

- High flow design provides maximum cooling rates
- Viton Seals Included
- Easily installed and removed from cooling circuit
- Thin-wall stainless steel tubes

The Quick-Coupler Type Cascade Assembly can be installed and removed without disconnecting the coolant lines. Its robust construction ensures long life and dependable performance. The high flow design provides maximum cooling rates. Assemblies include brass head, 12” high flow stainless tube and brass pipe plug.

SPECIFICATIONS	
Material Type	Brass Head, Stainless Steel Tube
Tube Length	12
Unit of Measure	Inch



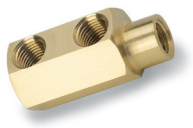
CATALOG NO.	PIPE TAP SIZE (NPT)	TUBE O.D.	TUBE I.D.	TUBE THREAD SIZE	L LENGTH	C OUTLET HOLE SPREAD	A OUTLET HOLE LOCATION	H HEAD WIDTH	O.D.
Connector Series: 200									
SC186N	1/8	0.187	0.167	1/4-28	1.937	11/16	31/32	13/16	7/8
SC181N	1/8	0.187	0.167	1/4-28	2.250	1	31/32	13/16	7/8
Connector Series: 300									
SC146N-4	1/4	0.250	0.230	5/16-24	2.187	11/16	1-5/32	1	1-1/8
SC141N-4	1/4	0.250	0.230	5/16-24	2.500	1	1-5/32	1	1-1/8
Connector Series: 500									
SC121N-4	1/4	0.427	0.397	1/2 - 20	3.125	1-1/4	1-3/8	1-1/4	1-3/8
SC121N-6	3/8	0.427	0.397	1/2 - 20	3.125	1-1/4	1-3/8	1-1/4	1-3/8

Replacement Heads for Brass Tubes

- Made from solid brass
- Brass pipe plug included
- Must be used with standard brass tubes

Replacement Heads for Brass Tubes come standard in solid brass. These heads must be used with standard brass tubes.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch



CATALOG NO.	CLOSE	PIPE TAP SIZE (NPT)	OUTLET HOLE SPREAD	PILOT DIAMETER	HEX SIZE	HEAD LENGTH	USE WITH HIGH FLOW TUBE NO.
Tube Thread Size: 10-32							
HC130	21/64	1/8	11/16	9/32	7/8	1-11/32	TB-187-
HC130A	21/64	1/8	1	9/32	7/8	1-21/32	TB-187-
Tube Thread Size: 1/4-28							
HC131	21/64	1/8	11/16	7/32	1	1-11/32	TB-250-
HC131A	21/64	1/4	11/16	7/32	1	1-11/32	TB-250-
HC132	21/64	1/8	1	7/16	1	1-21/32	TB-250-
HC132A	21/64	1/4	1	7/16	1	1-21/32	TB-250-
Tube Thread Size: 5/16-24							
HC136A	11/32	1/4	1	13/32	1	1-11/16	TB-312-
Tube Thread Size: 7/16-20							
HC138A	12/32	1/4	1	9/16	1-1/4	1-13/16	TB-437-
Tube Thread Size: 5/8 -18							
HC140A	1/2	3/8	1/14	3/4	1-1/2	2-1/4	TB-626-

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Replacement Heads for Compact Cascades

- Made from solid brass
- Must be used with High Flow tubes
- Perpendicular inlet/outlet connections
- Pipe plugs not required

Compact Cascade Replacement Heads come standard in solid brass. In/Out connections are positioned sideways for mounting in tight spaces or thin mold plates. These heads require no pipe plugs and must be used with high flow stainless tubes.

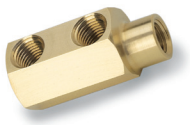
SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	INLET/OUTLET HOLE LOCATIONS	HEAD THICK.	OUTLET HOLE SPREAD	OVERALL LENGTH	PILOT DIA.	THREAD DEPTH	HEX SIZE	PIPE TAP SIZE (NPT)	TUBE THREAD SIZE	USE WITH HIGH FLOW TUBE NO.
Mold Nipple: 1/8										
ET1816H	7/32	7/16	1/2	1	5/8	0.33	15/16	1/16	1/4-28	HF187T
Mold Nipple: 1/4										
ET1418H	5/16	5/8	11/16	1-1/4	3/4	0.41	1-1/4	1/8	5/16-24	HF250T
ET1414H	3/8	3/4	3/4	1-1/2	7/8	0.54	1-1/2	1/4	5/16-24	HF250T
Mold Nipple: 3/8										
ET3814H	3/8	3/4	3/4	1-1/2	1	0.54	1-1/2	1/4	3/8-24	HF312T
Mold Nipple: 1/2										
ET1214H	3/8	3/4	1	1-3/4	1-3/16	0.54	1-3/4	1/4	7/16-20	HF375T

Replacement Heads for High-flow Stainless Tubes

- Made from solid brass
- Brass pipe plug included
- Must be used with High Flow stainless steel tubes
- 30 - 60% increased flow
- Higher flow from standard cascades

Replacement Heads for High Flow Stainless Tubes come standard in solid brass. These heads are designed to be used with high flow stainless tubes.



SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	PILOT DIAMETER	CLOSE	OUTLET HOLE SPREAD	HEX SIZE	TUBE THREAD SIZE	HEAD LENGTH	USE WITH HIGH FLOW TUBE NO.
Pipe Tap Size (NPT): 1/8							
SHC130	9/32	21/64	11/16	7/8	1/4-28	1-11/32	HF187T-
SHC130A	9/32	21/64	1	7/8	1/4-28	1-21/32	HF187T-
SHC131	7/32	21/64	11/16	1	5/16-24	1-11/32	HF250T-
SHC132	7/16	21/64	1	1	5/16-24	1-21/32	HF250T-
Pipe Tap Size (NPT): 1/4							
SHC131A	7/32	21/64	11/16	1	5/16-24	1-11/32	HF250T-
SHC132A	7/16	21/64	1	1	5/16-24	1-21/32	HF250T-
SHC136A	13/32	11/32	1	1	3/8-24	1-11/16	HF312T-
SHC138A	9/16	12/32	1	1-1/4	1/2-20	1-13/16	HF437T-

Replacement Heads for Quick-Coupler Cascades

- Aids in quick & efficient assembly and disassembly of cooling circuit
- Made from Solid Brass and Stainless Steel

Quick-Coupler Replacement Heads aid in the assembly and disassembly of cooling circuits.

SPECIFICATIONS	
Material Type	Brass and Stainless Steel
Unit of Measure	Inch

CATALOG NO.	TUBE THREAD SIZE	CONNECTOR SERIES	O.D.	LENGTH	OUTLET HOLE SPREAD	OUTLET HOLE LOCATION	HEAD WIDTH	USE WITH HIGH FLOW TUBE NO.
Pipe Tap Size (NPT): 1/8								
SC181H	1/4-28	200	7/8	2.250	1	31/32	13/16	HF187T-
SC186H	1/4-28	200	7/8	1.937	11/16	31/32	13/16	HF187T-
Pipe Tap Size (NPT): 1/4								
SC141H-4	5/16-24	300	1-1/8	2.500	1	1-5/32	1	HF250T-
SC146H-4	5/16-24	300	1-1/8	2.187	11/16	1-5/32	1	HF250T-
Pipe Tap Size (NPT): 3/8								
SC121H-6	1/2-20	500	1-3/8	3.125	1-1/4	1-3/8	1-1/4	HF437T-

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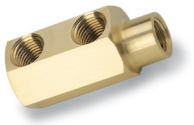
Replacement Heads for High-flow Assemblies

- Made from solid brass
- For use with high flow tubes only

High Flow Assembly Replacement Heads are made from solid brass. The offset design allows for deeper threads to eliminate leaks and flow restrictions. These heads must be used with high flow stainless tubes.



SPECIFICATIONS	
Material Type	Solid Brass
Unit of Measure	Inch

CATALOG NO.	MOLD NIPPLE	TUBE THREAD SIZE	HEX SIZE	OFF-SET	CLOSE	OUTLET HOLE SPREAD	HEAD LENGTH	ACTUAL FLOW INCREASE %	USE WITH HIGH FLOW TUBE NO.
Pipe Tap Size (NPT): 1/16									
HF16H	1/16	10-32	5/8	3/32	1/4	1/2	1-1/4	—	HF125T-
Pipe Tap Size (NPT): 1/8									
HF186H	1/8	1/4-28	3/4	3/32	5/16	11/16	1-5/8	64%	HF187T-
HF181H	1/8	1/4-28	3/4	3/32	5/16	1	1-15/16	64%	HF187T-
Pipe Tap Size (NPT): 1/4									
HF146H-4	1/4	5/16-24	1	5/32	11/32	11/16	1-7/8	48%	HF250T-
HF141H-4	1/4	5/16-24	1	5/32	11/32	1	2-3/16	48%	HF250T-
HF381H-4	3/8	7/16-20	1-1/8	1/8	11/32	1	2-1/4	38%	HF375T-

Replacement Heads for Hex Key Cascade Water Junction

- Brass construction
- Requires minimum clearance to install
- For use with High Flow Tubes only

Hex Key Cascade Water Junction Replacement Heads come standard with a solid brass construction. These replacement heads require minimum clearance to install.

SPECIFICATIONS	
Material Type	Brass
Use with Cascade Type	Hex Key
Unit of Measure	Inch

CATALOG NO.	TUBE THREAD SIZE	OUTLET HOLE LOCATION	HEX SIZE	NOMINAL CLEARANCE DRILL	O.D.	USE WITH HIGH FLOW TUBE NO.
Pipe Tap Size (NPT): 1/16						
E16H	10-32	1/2	5/16	5/8	.610	HF125T
E16H-2	1/4-28	9/16	3/8	3/4	.735	HF187T
Pipe Tap Size (NPT): 1/8						
E186H	1/4-28	9/16	3/8	7/8	.860	HF187T
E181H	1/4-28	9/16	3/8	7/8	.860	HF187T
E146H	5/16-24	13/16	1/2	1	.985	HF250T
E141H	5/16-24	13/16	1/2	1	.985	HF250T
Pipe Tap Size (NPT): 1/4						
E146H-4	5/16-24	7/8	1/2	1	.985	HF250T
E141H-4	5/16-24	7/8	1/2	1	.985	HF250T
E381H-4	3/8-24	7/8	1/2	1	.985	HF312T
E121H-4	7/16-20	1	1/2	1-1/4	1.235	HF375T

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Cascade Pipe Nipples - Brass

- Used with all PCS cascades
- Standard NPT pipe threads on both ends

Brass Pipe Nipples are used when connecting components within mold water lines. Pipe Nipples have standard NPT pipe threads on both ends.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	PIPE SIZE (NPT)	OVERALL LENGTH															
		CLOSE	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2	6	7	8	9	10	11	12
BPN16-	1/16	5/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BPN18-	1/8	3/4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BPN14-	1/4	7/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BPN38-	3/8	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BPN12-	1/2	1-1/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Add length to end of catalog number (i.e. BPN16-1 1/2)

Cascade Pipe Nipples - Stainless Steel

- Used with all PCS cascades
- Standard NPT pipe threads on both ends

Stainless Steel Pipe Nipples are used when connecting components within mold water lines. Pipe Nipples have standard NPT pipe threads on both ends.

SPECIFICATIONS	
Material Type	Stainless Steel
Unit of Measure	Inch

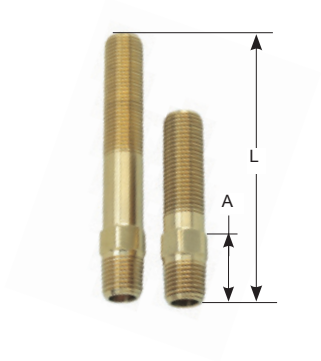
CATALOG NO.	PIPE SIZE (NPT)	OVERALL LENGTH															
		CLOSE	1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2	6	7	8	9	10	11	12
SSPN16-	1/16	5/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SSPN18-	1/8	3/4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SSPN14-	1/4	7/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SSPN38-	3/8	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SSPN12-	1/2	1-1/8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Add length to end of catalog number (i.e. SSPN16-1 1/2)

Adjustable Hex Pipe Nipples - Brass

- Hex allows for easy assembly
- Made from brass
- NPT pipe threads on both ends

Adjustable Hex Pipe Nipples are used when connecting components within mold water lines. Pipe Nipples have standard NPT pipe threads on both ends.



SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

CATALOG NO.	PIPE SIZE	A	HEX SIZE	L OVERALL LENGTH							
				2-1/2	4	5-1/2	7	8-1/2	10	11-1/2	13
APN16-	1/16	11/16	3/8	•	•	•	•	•	•	•	•
APN18-	1/8	3/4	7/16	•	•	•	•	•	•	•	•
APN14-	1/4	7/8	9/16	•	•	•	•	•	•	•	•
APN38-	3/8	1	11/16	•	•	•	•	•	•	•	•
APN12-	1/2	1-3/8	7/8	•	•	•	•	•	•	•	•

Add length to end of catalog number (i.e. APN16-2 1/2)

Cascade Brass Tubes

- Threads on both ends of tube
- Used with nipple type cascades
- Made from solid brass

Cascade Brass Tubes are threaded on both ends. These tubes come standard at a length of 18”. Cascade Tubes are also available in stainless steel.

SPECIFICATIONS	
Material Type	Brass
Use with Cascade Type	Nipple Type, Hex Key Type
Unit of Measure	Inch

CATALOG NO.	TUBE O.D.	TUBE I.D.	TUBE THREAD SIZE
Tube Length: 18			
TB-125	0.125	0.061	5-44
TB-187	0.187	0.123	10-32
TB-250	0.250	0.170	1/4-28
TB-312	0.312	0.210	5/16-24
TB-375	0.375	0.273	3/8-24
TB-437	0.437	0.307	7/16-20
TB-625	0.625	0.495	5/8-18

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Cascade Stainless Steel Tubes

- Threads on both ends of tube
- Used with nipple type cascades

Cascade Stainless Steel Tubes are threaded on both ends. These tubes come standard at a length of 18”. Cascade Tubes are also available in brass.

SPECIFICATIONS	
Material Type	Stainless Steel
Unit of Measure	Inch

CATALOG NO.	TUBE O.D.	TUBE I.D.	TUBE THREAD SIZE
Tube Length: 18			
TS-125	0.125	0.062	5-44
TS-187	0.187	0.123	10-32
TS-250	0.250	0.170	1/4-28
TS-312	0.312	0.210	5/16-24
TS-375	0.375	0.273	3/8-24
TS-437	0.437	0.307	7/16-20
TS-625	0.625	0.495	5/8-18

Cascade Stainless Steel High-Flow Tubes

- Stainless construction for high strength and durability
- “J” Item number prefix indicates the next largest thread size

Cascade Stainless High Flow Tubes offer a high strength construction and durability. Flow rate is increased up to 300% when compared with standard tubes. High Flow Tubes are available in lengths of 12”, 18”, 24”, 36”.

SPECIFICATIONS	
Material Type	Stainless Steel
Unit of Measure	Inch

CATALOG NO.	TUBE O.D.	TUBE I.D.	THREAD SIZE	THREAD LENGTH	OVERALL LENGTH			
					12	18	24	36
HF093T-	.090	.076	5-44	1/8	•	•	•	•
JHF093T-	.090	.076	10-32	3/16	•	•	•	•
HF125T-	.125	.109	10-32	3/16	•	•	•	•
JHF125T-	.125	.109	1/4-28	1/4	•	•	•	•
HF187T-	.187	.167	1/4-28	1/4	•	•	•	•
JHF187T-	.187	.167	5/16-24	5/16	•	•	•	•
HF250T-	.250	.230	5/16-24	5/16	•	•	•	•
JHF250T-	.250	.230	3/8-24	3/8	•	•	•	•
HF312T-	.312	.288	3/8-24	3/8	•	•	•	•
JHF312T-	.312	.288	7/16-20	7/16	•	•	•	•
HF375T	.365	.340	7/16-20	7/16	•	•	•	•
JHF375T-	.375	.345	1/2-20	1/2	•	•	•	•
HF437T-	.427	.397	1/2-20	1/2	•	•	•	•

Add length to end of catalog number (i.e. HF093T-12)

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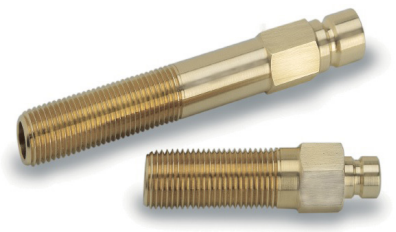
200 Series - 1/4” Extension Plugs



- Brass material
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up

Extension Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction. When special length adjustments are required, simply cut the plug to length and chamfer the end.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/4
Pipe Thread Length	1-5/8
Series	200
Unit of Measure	Inch

CATALOG NO.	OVERALL LENGTH	PIPE THREAD SIZE	HEX SIZE	HEAD LENGTH
250 X 2 1/2	2-1/2	1/16	3/8	11/16
250 X 4	4	1/16	3/8	13/16
250 X 4NB	4	1/16	3/8	13/16
250 X 5 1/2	5-1/2	1/16	3/8	13/16
250 X 5 1/2NB	5-1/2	1/16	3/8	13/16
250 X 6	6	1/16	3/8	13/16
250 X 7	7	1/16	3/8	13/16
250 X 7NB	7	1/16	3/8	13/16
251 X 10	10	1/8	7/16	1
251 X 11 1/2	11-1/2	1/8	7/16	1
251 X 13	13	1/8	7/16	1
251 X 2 1/2	2-1/2	1/8	7/16	1
251 X 4	4	1/8	7/16	1
251 X 5 1/2	5-1/2	1/8	7/16	1
251 X 6	6	1/8	7/16	1
251 X 7	7	1/8	7/16	1
251 X 8 1/2	8-1/2	1/8	7/16	1
252 X 10	10	1/4	9/16	1-1/4
252 X 11 1/2	11-1/2	1/4	9/16	1-1/4
252 X 13	13	1/4	9/16	1-1/4
252 X 2 1/2	2-1/2	1/4	9/16	7/8
252 X 4	4	1/4	9/16	1-1/4
252 X 4NB	4	1/4	9/16	1-1/4
252 X 5 1/2	5-1/2	1/4	9/16	1-1/4
252 X 7	7	1/4	9/16	1-1/4
252 X 8 1/2	8-1/2	1/4	9/16	1-1/4

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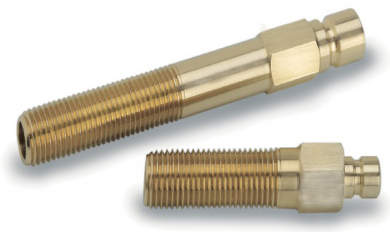
200 Series - 1/4” Extension Plugs

- Brass material
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up



Extension Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction. When special length adjustments are required, simply cut the plug to length and chamfer the end.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/4
Pipe Thread Length	1-5/8
Series	200
Unit of Measure	Inch

CATALOG NO.	OVERALL LENGTH	PIPE THREAD SIZE	HEX SIZE	HEAD LENGTH
253 X 10	10	3/8	11/16	1-1/4
253 X 2 1/2	2-1/2	3/8	11/16	1-1/4
253 X 4	4	3/8	11/16	1-1/4
253 X 5 1/2	5-1/2	3/8	11/16	1-1/4
253 X 7	7	3/8	11/16	1-1/4
253 X 8 1/2	8-1/2	3/8	11/16	1-1/4

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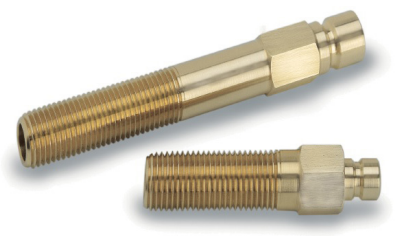
300 Series - 3/8” Extension Plugs



- Brass material
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up

Extension Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction. When special length adjustments are required, simply cut the plug to length and chamfer the end.

SPECIFICATIONS	
Material Type	Brass
Pipe Thread Length	1-5/8
Series	300
Unit of Measure	Inch

CATALOG NO.	OVERALL LENGTH	PIPE THREAD SIZE	HEX SIZE	HEAD LENGTH	HOLE SIZE
350 X 2 1/2	2-1/2	1/16	9/16	7/8	3/8
350 X 4	4	1/16	9/16	1	3/8
350 X 5 1/2	5-1/2	1/16	9/16	1	3/8
350 X 7	7	1/16	9/16	1	3/8
351 X 2 1/2	2-1/2	1/8	9/16	7/8	3/8
351 X 4	4	1/8	9/16	1	3/8
351 X 5 1/2	5-1/2	1/8	9/16	1	3/8
351 X 6	6	1/8	9/16	1	3/8
351 X 7	7	1/8	9/16	1	3/8
351 X 8 1/2	8-1/2	1/8	9/16	1	3/8
351 X 10	10	1/8	9/16	1	3/8
351 X 11 1/2	11-1/2	1/8	9/16	1	3/8
351 X 13	13	1/8	9/16	1	3/8
352 X 2 1/2	2-1/2	1/4	9/16	7/8	3/8
352 X 2 1/2NB	2-1/2	1/4	9/16	7/8	3/8
352 X 4	4	1/4	9/16	1-1/4	3/8
352 X 4NB	4	1/4	9/16	1-1/4	3/8
352 X 5 1/2	5-1/2	1/4	9/16	1-1/4	3/8
352 X 5 1/2NB	5-1/2	1/4	9/16	1-1/4	3/8
352 X 6	6	1/4	9/16	1-1/4	3/8
352 X 7	7	1/4	9/16	1-1/4	3/8
352 X 7NB	7	1/4	9/16	1-1/4	3/8
352 X 8	8	1/4	9/16	1-1/4	3/8
352 X 8 1/2	8-1/2	1/4	9/16	1-1/4	3/8
352 X 10	10	1/4	9/16	1-1/4	3/8
352 X 11 1/2	11-1/2	1/4	9/16	1-1/4	3/8
352 X 13	13	1/4	9/16	1-1/4	3/8

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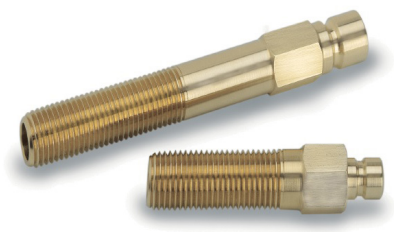
300 Series - 3/8” Extension Plugs

- Brass material
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up



Extension Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction. When special length adjustments are required, simply cut the plug to length and chamfer the end.

SPECIFICATIONS	
Material Type	Brass
Pipe Thread Length	1-5/8
Series	300
Unit of Measure	Inch

CATALOG NO.	OVERALL LENGTH	PIPE THREAD SIZE	HEX SIZE	HEAD LENGTH	HOLE SIZE
353 X 2 1/2	2-1/2	3/8	11/16	1	3/8
353 X 4	4	3/8	11/16	1-1/4	3/8
353 X 5 1/2	5-1/2	3/8	11/16	1-1/4	3/8
353 X 7	7	3/8	11/16	1-1/4	3/8
353 X 8 1/2	8-1/2	3/8	11/16	1-1/4	3/8
353 X 10	10	3/8	11/16	1-1/4	3/8
353 X 11 1/2	11-1/2	3/8	11/16	1-1/4	3/8
353 X 13	13	3/8	11/16	1-1/4	3/8
354 X 2 1/2	2-1/2	1/2	7/8	1-1/8	3/8
354 X 4	4	1/2	7/8	1-1/2	3/8
354 X 5 1/2	5-1/2	1/2	7/8	1-1/2	3/8
354 X 7	7	1/2	7/8	1-1/2	3/8
354 X 8 1/2	8-1/2	1/2	7/8	1-1/2	3/8
354 X 10	10	1/2	7/8	1-1/2	3/8
354 X 11 1/2	11-1/2	1/2	7/8	1-1/2	3/8
354 X 13	13	1/2	7/8	1-1/2	3/8

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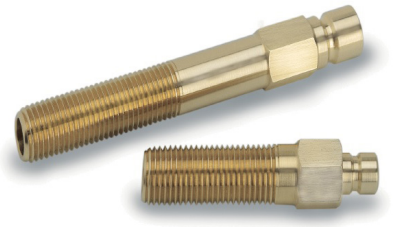
500 Series - 1/2” Extension Plugs



- Brass material
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature.
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up.

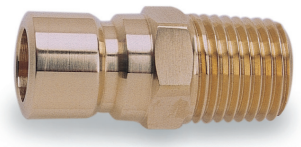
Extension Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction. When special length adjustments are required, simply cut the plug to length and chamfer the end.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/2
Pipe Thread Length	1-5/8
Unit of Measure	Inch

CATALOG NO.	OVERALL LENGTH	PIPE THREAD SIZE	HEX SIZE	HEAD LENGTH
553 X 2 1/2	2-1/2	3/8	13/16	1-1/8
553 X 4	4	3/8	13/16	1-3/8
553 X 5 1/2	5-1/2	3/8	13/16	1-3/8
553 X 8 1/2	8-1/2	3/8	13/16	1-3/8
554 X 10	10	1/2	7/8	1-1/2
554 X 11 1/2	11-1/2	1/2	7/8	1-1/2
554 X 13	13	1/2	7/8	1-1/2
554 X 2 1/2	2-1/2	1/2	7/8	1-1/8
554 X 4	4	1/2	7/8	1-1/2
554 X 5 1/2	5-1/2	1/2	7/8	1-1/2
554 X 7	7	1/2	7/8	1-1/2
554 X 8 1/2	8-1/2	1/2	7/8	1-1/2

200 Series - 1/4” Male Connector Plugs

- Brass material
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up



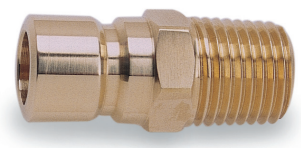
Male Connector Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/4
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER
PC-250	1/16	3/16
PC-251	1/8	1/4
PC-252	1/4	1/4
PC-253	3/8	1/4
PC-250NB	1/16	3/16
PC-251NB	1/8	1/4
PC-252NB	1/4	1/4
PC-252FNB	1/4	1/4

300 Series - 3/8” Male Connector Plugs

- Brass material
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up



Male Connector Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction.

SPECIFICATIONS	
Material Type	Brass
Hole Size	3/8
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER
PC-351	1/8	1/4
PC-352	1/4	3/8
PC-353	3/8	3/8
PC-354	1/2	3/8

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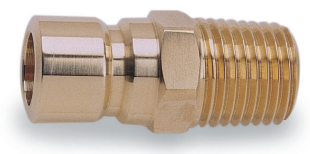
300 Series - 3/8” Male Connector Plugs



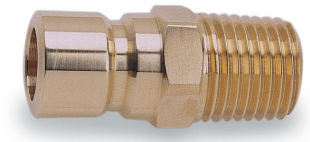
- Brass material
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up

Male Connector Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction.

SPECIFICATIONS	
Material Type	Brass
Hole Size	3/8
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER
PC-351NB	1/8	1/4
PC-352NB	1/4	3/8
PC-353NB	3/8	3/8

500 Series - 1/2” Male Connector Plugs



- Brass material
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature
- Error proof waterline hook-ups by using a standard fitting for the hot water hook-up and an “NB” fitting for the cold water hook-up

Male Connector Plugs can be used with valved and non-valved socket connectors. These plugs are available in a solid brass construction.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/2
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER
PC-552	1/4	3/8
PC-553	3/8	1/2
PC-554	1/2	5/8
PC-556	3/4	5/8
PC-553NB	3/8	1/2
PC-554NB	1/2	5/8

200 Series - 1/4” Female Connector Plugs

- Available in Zinc plated Steel and Brass
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature

Female Connector Plugs can be used with valved and non-valved socket connectors.

SPECIFICATIONS	
Material Type	Brass or Zinc Plated Steel
Flow Diameter	1/4
Hole Size	1/4
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER	HOLE SIZE
Material Type: Brass			
PC-250F	1/16	1/4	1/4
PC-251F	1/8	1/4	1/4
PC-252F	1/4	1/4	1/4
PC-253F	3/8	1/4	1/4
CMB-200*	1/8	-	1/4
CMB-200-NB*	1/8	-	1/4
Material Type: Zinc Plated Steel			
PC-251FZ	1/8	1/4	1/4
PC-252FZ	1/4	1/4	1/4
PC-253FZ	3/8	1/4	1/4

*Coupler body for connector plug

300 Series - 3/8” Female Connector Plugs

- Available in Zinc plated Steel and Brass
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature

Female Connector Plugs can be used with valved and non-valved socket connectors.

SPECIFICATIONS	
Material Type	Brass or Zinc Plated Steel
Hole Size	3/8
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER	HOLE SIZE
Material Type: Brass			
PC-351F	1/8	11/32	3/8
PC-352F	1/4	3/8	3/8
PC-352FBNB	1/4	3/8	3/8
PC-353F	3/8	3/8	3/8
PC-354F	1/2	3/8	3/8
CMB-300*	1/4	-	3/8
CMB-300-NB*	1/4	-	3/8

*Coupler body for connector plug

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300 Series - 3/8” Female Connector Plugs

- Available in Zinc plated Steel and Brass
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature

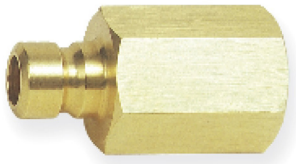
Female Connector Plugs can be used with valved and non-valved socket connectors.

SPECIFICATIONS	
Material Type	Brass or Zinc Plated Steel
Hole Size	3/8
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER	HOLE SIZE
Material Type: Brass			
CMB-300-3/8*	3/8	-	3/8
CMB-300-3/8-NB*	3/8	-	3/8
Material Type: Zinc Plated Steel			
PC-352FZ	1/4	3/8	3/8
PC-353FZ	3/8	3/8	3/8
PC-354FZ	1/2	3/8	3/8

*Coupler body for connector plug

500 Series - 1/2” Female Connector Plugs



- Solid brass construction
- Used with valved and non-valved socket connectors
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature

Female Connector Plugs can be used with valved and non-valved socket connectors. These plugs are only available in a solid brass construction.

SPECIFICATIONS	
Material Type	Brass
Hole Size	1/2
Unit of Measure	Inch

CATALOG NO.	PIPE THREAD SIZE	FLOW DIAMETER	HOLE SIZE
PC-552F	1/4	7/16	1/2
PC-553F	3/8	9/16	1/2
PC-554F	1/2	5/8	1/2
PC-556F	3/4	5/8	1/2
CMB-500*	1/2	-	1/2
CMB-500-NB*	1/2	-	1/2

*Coupler body for connector plug

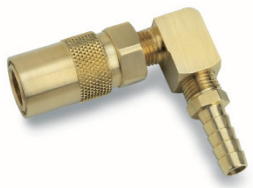
Socket Connectors Valved

- Provide reliable connections to extension or connection plugs
- Straight, 45° & 90° stems available
- Used with male or female extension plugs

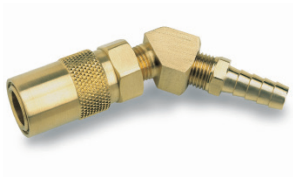
PCS Valved Socket Connectors have a valved design which stops coolant flow upon disconnecting. The all brass and stainless steel construction can with stand pressures up to 200 psi. These Socket Connectors are compatible with all mold connection systems.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

STRAIGHT STEM



90° STEM



45° STEM

CATALOG NO.		HOLE SIZE	FITS HOSE I.D.	USE WITH PLUG
STANDARD	PUSH-ON			
Stem Type: Straight Stem				
PS-204V	PS-204VP	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-205V		1/4	5/16	
PS-206V	PS-206VP	1/4	3/8	
PS-306V	PS-306VP	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-308V	PS-308VP	3/8	1/2	
Stem Type: 90° Stem				
PS-214V	PS-214VP	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-215V		1/4	5/16	
PS-216V	PS-216VP	1/4	3/8	
PS-316V	PS-316VP	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-318V	PS-318VP	3/8	1/2	
Stem Type: 45° Stem				
PS-224V	PS-224VP	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-225V		1/4	5/16	
PS-226V	PS-226VP	1/4	3/8	
PS-228V				
PS-326V	PS-326VP	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-328V	PS-328VP	3/8	1/2	

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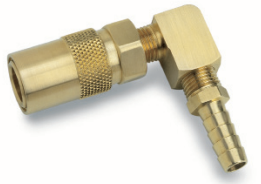
Socket Connectors Non-Valved

- Provide reliable connections to extension or connection plugs
- Straight, 45° & 90° stems available
- Used with male or female extension plugs
- Items with the “NB” suffix have a hex-shaped quick disconnect feature while standard fittings have a round quick disconnect feature

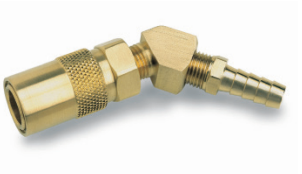
PCS Non-Valved Socket Connectors have a straight flow through, which allows for maximum coolant flow upon disconnecting. The all brass and stainless steel construction can with stand pressures up to 200 psi. These Socket Connectors are compatible with all mold connection systems.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

STRAIGHT STEM



90° STEM



45° STEM

CATALOG NO.		HOLE SIZE	FITS HOSE I.D.	USE WITH PLUG
STANDARD	PUSH-ON			
Stem Type: Straight Stem				
PS-204	PS-204P	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-204NB		1/4	1/4	PC-250NB, PC-251NB, PC-252NB, PC-253NB
PS-205	PS-205P	1/4	5/16	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-206	PS-206P	1/4	3/8	
PS-206NB		1/4	3/8	PC-250NB, PC-251NB, PC-252NB, PC-253NB
PS-306	PS-306P	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-306NB		3/8	3/8	PC-351NB, PC-352NB, PC-353NB, PC-354NB
PS-308	PS-308P	3/8	1/2	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-308NB		3/8	1/2	PC-351NB, PC-352NB, PC-353NB, PC-354NB
PS-504	PS-504P	1/2	1/2	PC-552, PC-552F, PC-553,PC-553F, PC-554, PC-554F,PC-556, PC-556F
PS-506	PS-506P	1/2	3/4	
PS-506NB		1/2	3/4	PC-552NB, PC-553NB, PC-554NB, PC-556NB

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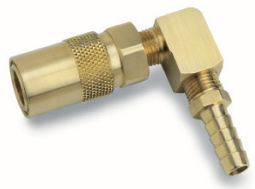
Socket Connectors Non-Valved

- Provide reliable connections to extension or connection plugs
- Straight, 45° & 90° stems available
- Used with male or female extension plugs

PCS Non-Valved Socket Connectors have a straight flow through, which allows for maximum coolant flow upon disconnecting. The all brass and stainless steel construction can with stand pressures up to 200 psi. These Socket Connectors are compatible with all mold connection systems.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

STRAIGHT STEM



90° STEM

45° STEM

CATALOG NO.		HOLE SIZE	FITS HOSE I.D.	USE WITH PLUG
STANDARD	PUSH-ON			
Stem Type: 90° Stem				
PS-214	PS-214P	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-215	PS-215P	5/16	5/16	
PS-216	PS-216P	3/8	3/8	
PS-216NB		3/8	3/8	PC-250NB, PC-251NB, PC-252NB, PC-253NB
PS-316	PS-316P	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-318	PS-318P	1/2	1/2	
PS-318NB		1/2	1/2	PC-351NB, PC-352NB, PC-353NB, PC-354NB
PS-514	PS-514P	1/2	1/2	PC-552, PC-552F, PC-553,PC-553F, PC-554, PC-554F,PC-556, PC-556F
PS-516	PS-516P	1/2	1/2	
Stem Type: 45° Stem				
PS-224	PS-224P	1/4	1/4	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-225		1/4	5/16	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-226	PS-226P	1/4	3/8	PC-250, PC-250F, PC-251,PC-251F, PC-252, PC-252F,PC-253, PC-253F
PS-326	PS-326P	3/8	3/8	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F
PS-328	PS-328P	3/8	1/2	PC-351, PC-351F, PC-352,PC-352F, PC-353, PC-353F,PC-354, PC-354F

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Connector Seals

- Silicone & Viton seals available
- Used with valved and non-valved socket connectors

Connector Seals are to be used with both valved and non-valved socket connectors. Viton and Silicone Connector Seals are available.

SPECIFICATIONS	
Material Type	Viton and Silicone
Unit of Measure	Inch

CATALOG NO.	USE WITH SHUT-OFF & FLOW-THRU TYPE
Material Type: Silicone	
PS-200-6	PS204-226, PS204-226V
PS-300-6	PS306-328, PS306V-328V
PS-500-6	PS504-506
Material Type: Viton	
CM-200Y	200 Series (1/4 Hole)
CM-300Y	300 Series (3/8 Hole)
CM-500Y	500 Series (1/2 Hole)

Safety Clips

- Reduces the potential of the accidental release of waterline socket connectors
- Color coded for hot and cold waterlines
- Fits Parker, DME, Foster & comparable waterline socket connectors

Safety Clips reduce the possibility of the accidental release of waterline socket connectors. These clips are color coded red or blue to designate hot and cold waterlines. PCS Safety Clips fit most standard waterline connectors.

SPECIFICATIONS	
Unit of Measure	Inch

CATALOG NO.	SERIES
Color: Blue	
SC200-B	200
SC300-B	300
SC500-B	500
Color: Red	
SC200-R	200
SC300-R	300
SC500-R	500

Threadless Plugs

- Withstand pressures up to 72psi
- Turning the hex adjustment screw expands the diameter of the Buna O-ring to seal rough or corroded holes
- Available in sizes to fit standard or oversize cooling channels
- Oversize plugs have a .020” larger knurl diameter
- Replacement Buna O-Rings sold in packages of ten

Threadless Plugs withstand pressures up to 72 psi. Included O-Ring helps to seal rough or corroded holes.

SPECIFICATIONS	
Unit of Measure	Inch

CATALOG NO.	NOMINAL PIPE SIZE	HEX SIZE	DRILL SIZE	OVERALL LENGTH
Material Type: Brass and Buna O-ring				
BTP-10	1/8	5/64	11/32	.50
BTP-20	1/4	1/8	7/16	.56
BTP-40	3/8	1/8	9/16	.62
BTP-60	1/2	1/8	11/16	.62
BTP-10-OS	1/8	5/64	23/64	.50
BTP-20-OS	1/4	1/8	29/64	.56
BTP-40-OS	3/8	1/8	37/64	.62
BTP-60-OS	1/2	1/8	45/64	.62
Material Type: Buna O-Ring Only				
BTP-10-R	1/8	—	—	—
BTP-20-R	1/4	—	—	—
BTP-40-R	1/2	—	—	—

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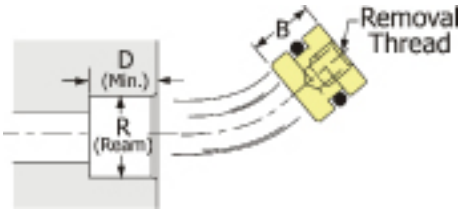
O-Ring Plugs

- Used when backed up by other mold inserts, holder block, or mold plates
- Requires less space than NPT pipe plugs
- Standard Buna o-ring provides seal to 210°
- Less interference in tight spaces

O-Ring Plugs are used when backed up by other mold inserts, holder block or mold plates. These plugs require less space than NPT pipe plugs which makes them great in tight spaces.

SPECIFICATIONS	
Unit of Measure	Inch
B Plug Overall Length Tolerance	+.000 / -.005
D Mating Pocket Depth Tolerance	+.005 / -.000
Material Type	Brass and Buna-N O-ring



CATALOG NO.	REAM SIZE	B PLUG OVERALL LENGTH	D MATING POCKET DEPTH	REMOVAL THREAD SIZE
OR-06	0.281	1/4	0.250	6-32
OR-12	0.375	5/16	0.312	10-32
OR-25	0.500	5/16	0.312	10-32
OR-38	0.625	7/16	0.437	1/4-20
OR-50	0.750	1/2	0.500	1/4-20
OR-75	1.000	5/8	0.625	3/8-16
OR-100	1.187	5/8	0.625	3/8-16

Pipe Plugs

- Sizes 1/16” - 3/8” packaged
- Standard plugs are flush type 7/8” taper

Pipe Plugs are used to plug cooling channels and are available in brass, steel and stainless steel construction. These plugs are flush type with a 7/8” taper.

SPECIFICATIONS	
Unit of Measure	Inch

CATALOG NO.	PIPE SIZE	THREADS PER INCH	LENGTH
Material Type: Brass			
WPB-05	1/16	27	0.250
WPB-10	1/8	27	0.250
WPB-20	1/4	18	0.406
WPB-40	3/8	18	0.406
WPB-60	1/2	14	0.531
WPB-100	3/4	14	0.531
WPB-140	1	11-1/2	0.656
WPB-160	1-1/4	11-1/2	0.656
WPB-180	1-1/2	11-1/2	0.656
Material Type: Steel			
WPS-05	1/16	27	0.250
WPS-10	1/8	27	0.250
WPS-20	1/4	18	0.406
WPS-40	3/8	18	0.406
WPS-60	1/2	14	0.531
WPS-100	3/4	14	0.531
WPS-140	1	11-1/2	0.656
WPS-160	1-1/4	11-1/2	0.656
WPS-180	1-1/2	11-1/2	0.656
Material Type: Stainless Steel			
SSP-05	1/16	27	0.250
SSP-10	1/8	27	0.250
SSP-20	1/4	18	0.406
SSP-40	3/8	18	0.406
SSP-60	1/2	14	0.531
SSP-100	3/4	14	0.531
SSP-140	1	11-1/2	0.656
SSP-160	1-1/4	11-1/2	0.656
SSP-180	1-1/2	11-1/2	0.656

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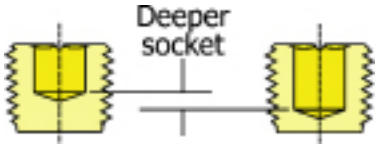
Heavy Duty Pipe Plug Fittings

- Extra deep socket is stronger
- Will not strip out
- Solid brass construction
- Supports: 1/16” - 3/4” pipe sizes

Heavy Duty Pipe Plugs are made of a solid brass construction and are used to plug cooling channels. An extra deep socket is incorporated to increase the plug’s strength and keep it from stripping out.

SPECIFICATIONS	
Unit of Measure	Inch



Extra Deep socket is stronger,
and will not strip out.

CATALOG NO.	PIPE SIZE	THREADS PER INCH	LENGTH
XTBF-05	1/16	27	0.312
XTBF-10	1/8	27	0.312
XTBF-20	1/4	18	0.440
XTBF-40	3/8	18	0.500
XTBF-60	1/2	14	0.630
XTBF-100	3/4	14	0.630

Diverter Plugs

- Diverter Plugs are solid brass
- Locking Screw included
- Used with PCS diverter rods
- Used to redirect water flow

Diverter Plugs are made of a solid brass construction. The locking screw is included with each plug. Diverter Plugs lock into position on a stainless steel diverter rod and are installed within the cooling channel.

SPECIFICATIONS	
Unit of Measure	Inch
Diverter O.D. Tolerance	+.000 / -.005
Material Type	Brass

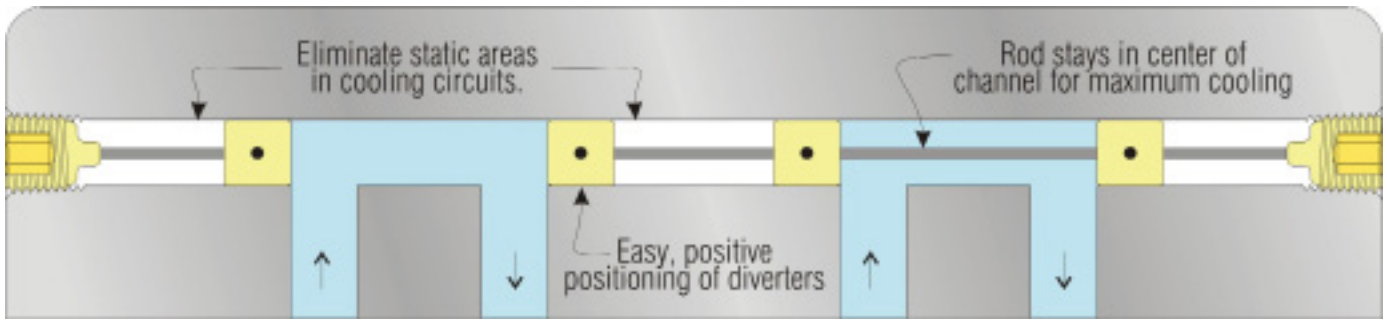
CATALOG NO.	FOR PIPE SIZE (NPT)	FITS ROD DIAMETER	DIVERTER O.D.	DIVERTER LENGTH
D-125	1/8	3/32	0.339	3/8
D-250	1/4	1/8	0.432	7/16
D-375	3/8	1/8	0.557	1/2
D-500	1/2	3/16	0.682	3/4
D-750	3/4	3/16	0.932	3/4

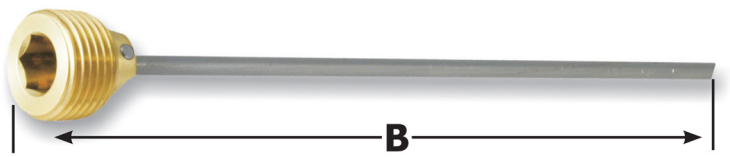
Diverter Rods

- Diverter rod is stainless steel
- Pipe plug pre-assembled
- Used with PCS diverter plugs
- Used to redirect water flow

Diverter Rods conveniently stay in the center of the cooling channel. This allows for maximum heat transfer in the cooling channel. Diverter Rods are made of stainless steel, inhibiting rust and corrosion.

SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Stainless Steel





CATALOG NO.	PLUG SIZE (NPT)	ROD DIAMETER	OVERALL LENGTH
DR-125	1/8	3/32	12
DR-250	1/4	1/8	18
DR-250 X 24	1/4	1/8	24
DR-250 X 36	1/4	1/8	36
DR-375	3/8	1/8	18
DR-500	1/2	3/16	24
DR-750	3/4	3/16	24

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Brass Waterline Rods

- Used to redirect water flow
- Used with brass waterline spacers

Brass Waterline Rods are used to redirect water flow. Rods are available in 18" lengths.

SPECIFICATIONS	
Material Type	Brass
Rod Diameter	1/8
Rod Length	18
Unit of Measure	Inch

CATALOG NO.	ROD DIAMETER	ROD LENGTH
BR-18	1/8	18

Brass Waterline Spacers

- Used to redirect water flow
- All spacers are longer than their diameter to avoid turning into intersecting waterlines
- Used with brass waterline rods

Brass Waterline Spacers are used to redirect water flow. To avoid turning into intersecting waterlines, all spacers are longer than their diameters.

SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Brass

CATALOG NO.	SPACER DIAMETER	SPACER LENGTH
BW-312	5/16	0.62
BW-437	7/16	0.62
BW-562	9/16	0.75
BW-687	11/16	0.87
BW-937	15/16	1.25

Piston Tubes

- Provides maximum cooling rates
- Hollow throughout Stainless Steel construction
- Lengths available up to 48”

Piston Tubes have a stainless steel construction which provides maximum cooling rates. These tubes are known for their high strength and reliable performance.

SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Stainless Steel

CATALOG NO.	PLUG SIZE (NPT)	TUBE O.D.	TUBE I.D.
Overall Length: 12”			
PT16-12	1/16	0.125	0.109
PT18-12	1/8	0.187	0.167
PT14-12	1/4	0.250	0.230
PT38-12	3/8	0.365	0.340
PT12-12	1/2	0.365	0.340
PT34-12	3/4	0.427	0.397
Overall Length: 24”			
PT16-24	1/16	0.125	0.109
PT18-24	1/8	0.187	0.167
PT14-24	1/4	0.250	0.230
PT38-24	3/8	0.365	0.340
PT12-24	1/2	0.365	0.340
PT34-24	3/4	0.427	0.397
Overall Length: 36”			
PT16-36	1/16	0.125	0.109
PT18-36	1/8	0.187	0.167
PT14-36	1/4	0.250	0.230
PT38-36	3/8	0.365	0.340
PT12-36	1/2	0.365	0.340
PT34-36	3/4	0.427	0.397
Overall Length: 48”			
PT16-48	1/16	0.125	0.109
PT18-48	1/8	0.187	0.167
PT14-48	1/4	0.250	0.230
PT38-48	3/8	0.365	0.340
PT12-48	1/2	0.365	0.340
PT34-48	3/4	0.427	0.397

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Cover Plugs

- Stops hose drainage during mold changes
- Conveniently snaps into socket connectors to stop coolant flow
- Plugs extra machine cooling manifold ports

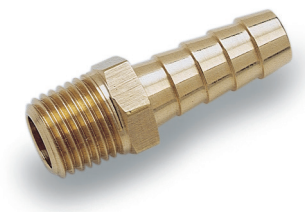
Cover Plugs stop coolant flow within hoses and flow-thru couplers. When couplers and seals are not in use, cover plugs help to keep them clean. These plugs prevent accidents by plugging unused hoses and manifold ports.

SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Brass

CATALOG NO.	FITS SOCKET SERIES
CP-200	200
CP-300	300
CP-500	500

Male Hose Barbs

- Solid Brass construction
- Works with all socket connectors
- Barb design retains hose



Male Hose Barbs are used to securely attach hose. The barb-like rings allow for an easy push-connection. Hose Clamps need to be used when attaching the rubber hose to the hose barb.

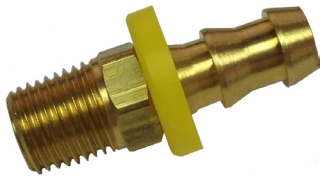
SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Brass

CATALOG NO.	HOSE I.D.	PIPE SIZE
B250-1	1/4	1/8
B250-2	1/4	1/4
B250-3	1/4	3/8
B312-1	5/16	1/8
B312-2	5/16	1/4
B375-1	3/8	1/8
B375-2	3/8	1/4
B375-3	3/8	3/8
B500-2	1/2	1/4
B500-3	1/2	3/8
B500-4	1/2	1/2
B700-4	3/4	1/2

Push-Lok Hose Barbs

- Solid Brass Construction
- Does not require the use of hose clamps

Push-Lok Hose Barbs are used to securely attach hose and do not require the use of hose clamps when used with Push-Lok hose.



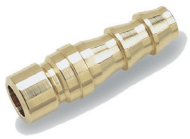
SPECIFICATIONS	
Unit of Measure	Inch

CATALOG NO.	HOSE I.D.	PIPE SIZE
PLM-04-02	1/4	1/8
PLM-04-04	1/4	1/4
PLM-06-02	3/8	1/8
PLM-06-04	3/8	1/4
PLM-06-06	3/8	3/8
PLM-06-08	3/8	1/2
PLM-08-06	1/2	3/8
PLM-08-08	1/2	1/2
PLM-12-08	3/4	1/2
PLM-12-12	3/4	3/4

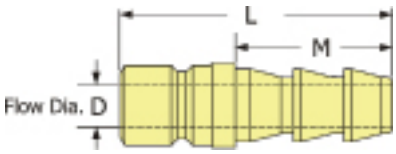
Combination Hose Inserts

- Eliminates multi-fittings
- Excellent for retaining hose

Constructed of solid brass, Combination Hose Inserts eliminate the need for multiple fittings and assembly. Combination Hose Inserts allow hoses to be linked together in series.



SPECIFICATIONS	
Unit of Measure	Inch
Material Type	Brass



CATALOG NO.	HOSE I.D.	D FLOW DIAMETER	M BARB AREA LENGTH	L OVERALL LENGTH	FITS SOCKET SERIES
CM2-250	1/4	3/16	7/8	1-3/8	200
CM2-312	5/16	1/4	7/8	1-3/8	200
CM2-375	3/8	1/4	1-1/16	1-9/16	200
CM3-375	3/8	9/32	1-1/16	1-13/16	300
CM3-500	1/2	11/32	1-1/16	1-13/16	300
CM5-500	1/2	13/32	1-1/16	2	500
CM5-750	3/4	9/16	1-1/2	2-1/2	500

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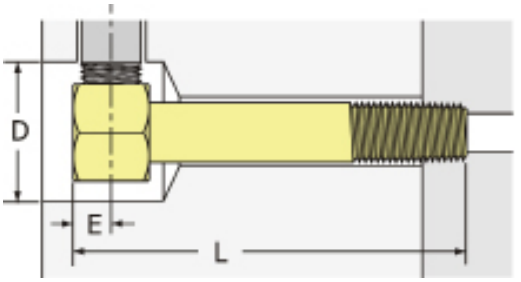
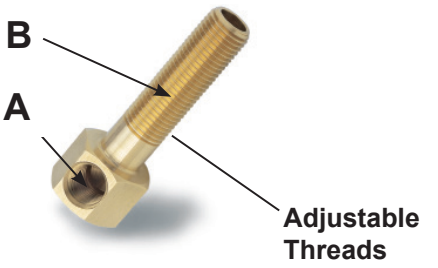
Standard Brass Extension Elbows

- One piece re-direction of mold cooling lines
- Socket wrench installation requires minimum turning clearance
- One piece construction insures complete removal

Brass Extension Elbows are a one piece re-direction for mold cooling lines. This design ensures positive alignment and allows for complete removal. Elbow lengths are easily adjusted with our patented pre-cut thread system.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch





CATALOG NO.	A PIPE SIZE	B PIPE SIZE	D WRENCH CLEARANCE	HEX SIZE	E	L OVERALL LENGTH							
						2-1/2	4	5-1/2	7	8-1/2	10	11-1/2	13
18B-	1/8	1/8	1-1/4	3/4	9/32	•	•	•	•	•	•	•	•
1814B-	1/8	1/4	1-1/4	3/4	9/32	•	•	•	•	•	•	•	•
14B-	1/4	1/4	1-3/8	7/8	11/32	•	•	•	•	•	•	•	•
1438B-	1/4	3/8	1-3/8	7/8	11/32	•	•	•	•	•			•
38B-	3/8	3/8	1-1/2	1	1/2	•	•	•	•	•	•	•	•
50B-	1/2	1/2	1-3/4	1-1/4	5/8	•	•	•	•	•	•	•	•

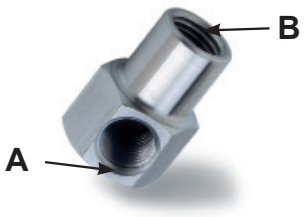
Add length to end of catalog number (i.e. 18B-2 1/2)

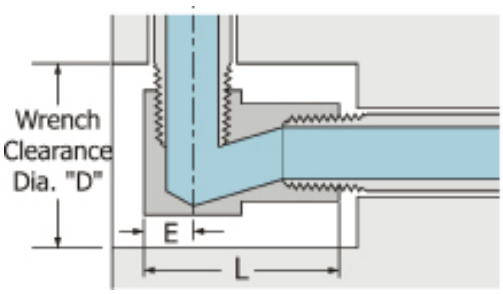
Standard Elbows, Zinc Plated

- For longer reach applications or where a steel pipe nipple assembly is required
- Exclusive angular connecting hole allows pipes to be torqued tight without choking off flow
- Easy socket wrench installation requires minimum turning clearance
- Zinc plated to resist rust and corrosion
- One piece construction insures complete removal

Zinc Elbows require minimal clearance for installation and removal. Full flow path allows connecting fittings to be torqued tight without restricting flow.

SPECIFICATIONS	
Material Type	Zinc Plated Steel
Unit of Measure	Inch





CATALOG NO.	A INPUT PIPE SIZE	B OUTPUT PIPE SIZE	L OVERALL LENGTH	E INPUT PIPE LOCATION	HEX SIZE	D WRENCH CLEARANCE
HS-0	1/16	1/16	13/16	7/32	9/16	1
HS-1	1/8	1/8	1	9/32	3/4	1-1/4
HS-2	1/8	1/4	1-1/4	9/32	3/4	1-1/4
HS-3	1/4	1/4	1-3/8	11/32	7/8	1-3/8
HS-4	1/4	3/8	1-3/8	11/32	7/8	1-3/8
HS-5	3/8	3/8	1-5/8	1/2	1	1-1/2
HS-6	1/2	1/2	1-7/8	9/16	1-1/4	1-7/8
HS-7	3/4	3/4	2-1/4	5/8	1-1/2	2-1/4

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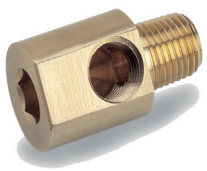
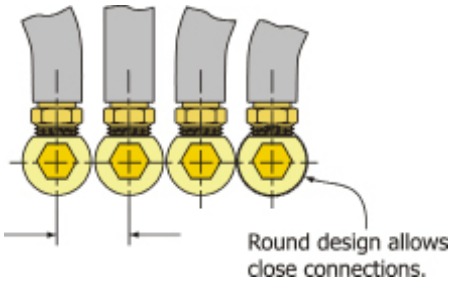
Hex Key Female to Male Street Elbows

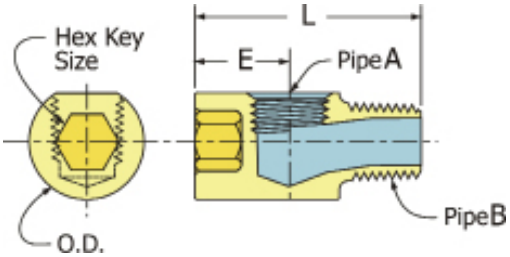
- Easy Hex Key installation
- Angular flow path allows connecting fittings to be torqued tight without choking off flow
- One piece construction insures complete removal



Hex Key Female to Male Street Elbows are made of a brass construction. Minimal clearance required for installation and removal. Full flow path allows connecting fittings to be torqued tight without restricting flow.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch



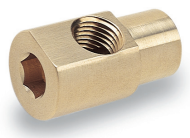


CATALOG NO.	A INPUT PIPE SIZE	B OUTPUT PIPE SIZE	L OVERALL LENGTH	E INPUT PIPE LOCATION	O.D.	HEX SIZE	MIN. CLEARANCE DIAMETER
KL-16	1/16	1/16	1.156	.531	.552	1/4	9/16
KL-1618	1/16	1/8	1.218	.531	.615	5/16	5/8
KL-18	1/8	1/8	1.312	.580	.615	5/16	5/8
KL-1814	1/8	1/4	1.500	.593	.860	3/8	7/8
KL-14	1/4	1/4	1.625	.660	.860	3/8	7/8
KL-1438	1/4	3/8	1.625	.712	.985	1/2	1
KL-38	3/8	3/8	1.750	.780	.985	1/2	1
KL-50	1/2	1/2	2.250	.940	1.235	1/2	1-1/4

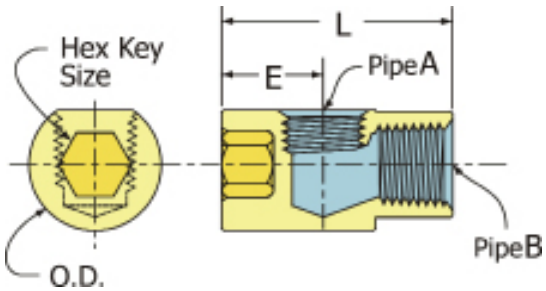
Hex Key Female to Female Street Elbows

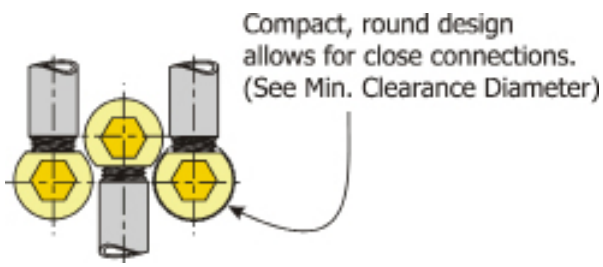
- Easy Hex Key installation
- Angular flow path allows connecting fittings to be torqued tight without choking off flow
- One piece construction insures complete removal

Hex Key Female to Female Street Elbows feature 300% more torque capacity than standard pipe plugs. The angular coolant path prevents fitting interference at assembly and guarantees full flow.



SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch





CATALOG NO.	A INPUT PIPE SIZE	B OUTPUT PIPE SIZE	L OVERALL LENGTH	E INPUT PIPE LOCATION	O.D.	HEX SIZE	MIN. CLEARANCE DIAMETER
HKL-16	1/16	1/16	1.125	.531	.552	1/4	9/16
HKL-18	1/8	1/8	1.250	.580	.615	5/16	5/8
HKL-1814	1/8	1/4	1.25	.580	.615	5/16	5/8
HKL-14	1/4	1/4	1.500	.660	.860	3/8	7/8
HKL-1438	1/4	3/8	1.5	.660	.860	3/8	7/8
HKL-1618	1/16	1/8	1.125	.531	.552	1/4	9/16
HKL-38	3/8	3/8	1.750	.780	.985	1/2	1
HKL-50	1/2	1/2	2.125	.940	1.235	1/2	1-1/4

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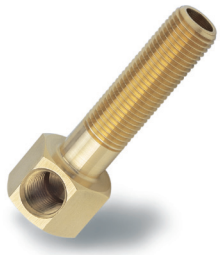
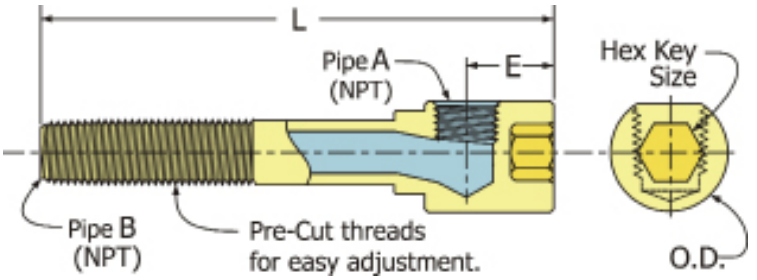
Hex Key Extension Elbows

- One piece re-direction of mold cooling lines
- Socket wrench installation requires minimum turning clearance
- One piece construction insures complete removal



Hex Key Extension Elbows are made of a brass construction. Minimal clearance required for installation and removal. Full flow path allows connecting fittings to be torqued tight without restricting flow.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch



CATALOG NO.	A PIPE SIZE	B MOLD NIPPLE SIZE	E	O.D. DIA.	HEX KEY SIZE	NOMINAL CLEARANCE DRILL	L OVERALL LENGTH							
							2-1/2	4	5-1/2	7	8-1/2	10	11-1/2	13
EKL16-	1/16	1/16	.531	.552	1/4	9/16	•	•	•	•	•	•	•	•
EKL1618-	1/16	1/16	.531	-	1/4	-		•		•				
EKL18-	1/8	1/8	.580	.615	5/16	5/8	•	•	•	•	•	•	•	•
EKL14-	1/4	1/4	.660	.860	3/8	7/8	•	•	•	•	•	•	•	•
EKL1438-	1/4	1/4	.660	-	3/8	-								•
EKL38-	3/8	3/8	.780	.985	1/2	1	•	•	•	•	•			•
EKL50-	1/2	1/2	.940	1.235	1/2	1-1/4	•	•	•	•	•	•	•	•

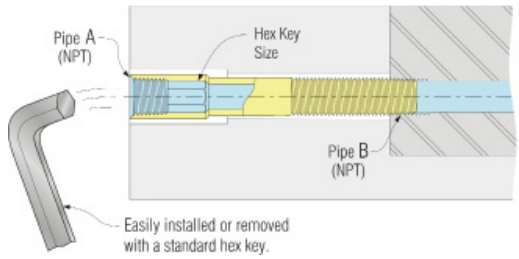
Add length to end of catalog number (i.e. EKL16-2 1/2)

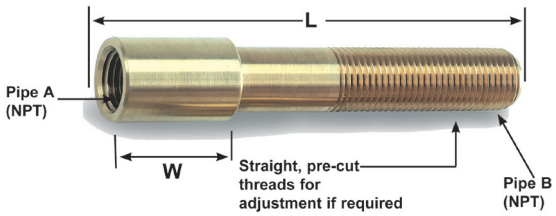
Hex Key Extension Pipes

- All brass construction
- Heavy Duty internal hex key for compact installation
- Extends the length of standard connector plugs
- Used with valved and non-valved socket connectors

Hex Key Extension Pipes have an all brass construction are available in a wide variety of lengths and threads. Length adjustments are made easy using our patented pre-cut thread system.

SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch





CATALOG NO.	A INPUT PIPE SIZE	B OUTPUT PIPE SIZE	W HEAD LENGTH	O.D.	HEX SIZE
L Overall Length: 2-1/2”					
EP14-2 1/2	1/4	1/4	1	11/16	3/8
EP18-2 1/2	1/8	1/8	3/4	1/2	1/4
EP38-2 1/2	3/8	3/8	1-1/4	13/16	1/2
EP50-2 1/2	1/2	1/2	1-1/2	1	9/16
L Overall Length: 4”					
EP14-4	1/4	1/4	1	11/16	3/8
EP18-4	1/8	1/8	3/4	1/2	1/4
EP38-4	3/8	3/8	1-1/4	13/16	1/2
EP50-4	1/2	1/2	1-1/2	1	9/16
L Overall Length: 5-1/2”					
EP14-5 1/2	1/4	1/4	1	11/16	3/8
EP18-5 1/2	1/8	1/8	3/4	1/2	1/4
EP38-5 1/2	3/8	3/8	1-1/4	13/16	1/2
EP50-5 1/2	1/2	1/2	1-1/2	1	9/16
L Overall Length: 7”					
EP14-7	1/4	1/4	1	11/16	3/8
EP18-7	1/8	1/8	3/4	1/2	1/4
EP38-7	3/8	3/8	1-1/4	13/16	1/2
EP50-7	1/2	1/2	1-1/2	1	9/16
L Overall Length: 8-1/2”					
EP14-8 1/2	1/4	1/4	1	11/16	3/8
EP18-8 1/2	1/8	1/8	3/4	1/2	1/4
EP38-8 1/2	3/8	3/8	1-1/4	13/16	1/2
EP50-8 1/2	1/2	1/2	1-1/2	1	9/16

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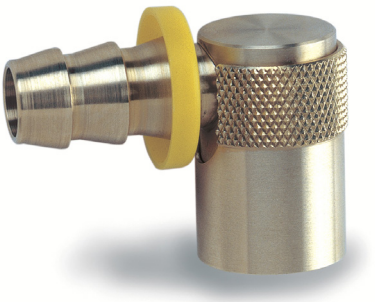
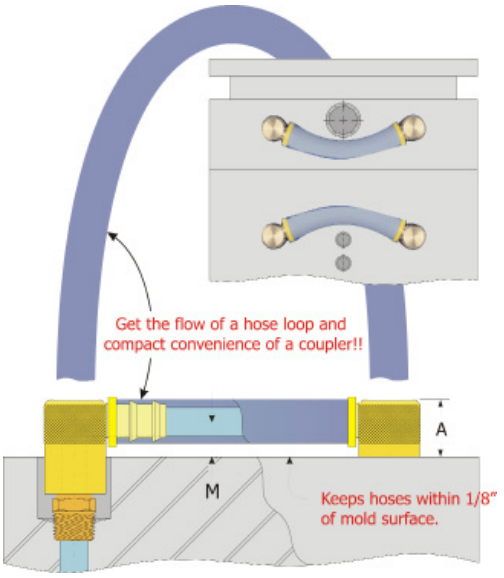
Socket Type Water Jumpers

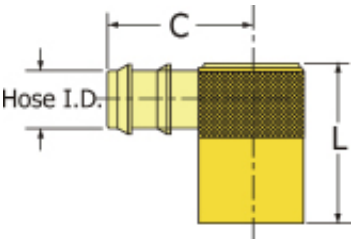


- Eliminates bulky hose loops
- Compact Design neatly and safely holds cooling lines close to the mold surface
- Stock only one part number for any hose size
- Compatible with all major mold connection systems
- Viton Seals provide for temps up to 400º
- All brass and stainless steel construction

Socket Type Water Jumpers have a compact design that neatly and safely holds cooling lines close to the mold surface. The coupler sleeve twists to lock, preventing accidental disconnect. These Water Jumpers are for use with Push-Lok hose and do not require any hose clamps.

SPECIFICATIONS	
Material Type	Brass and Stainless Steel
Unit of Measure	Inch





CATALOG NO.	PLUG SERIES	HOSE I.D.	L COUPLER LENGTH	C HOSE BARB LENGTH	M	A HEIGHT INSTALLED
WJ200-4	200	1/4	1	1-1/4	3/8	5/8
WJ200-5	200	5/16	1	1-1/4	3/8	5/8
WJ200-6	200	3/8	1	1-1/4	3/8	5/8
WJ300-6	300	3/8	1-7/16	1-9/16	1/2	7/8
WJ300-8	300	1/2	1-7/16	1-9/16	1/2	7/8
WJ500-12	500	3/4	2-1/8	2	7/8	1-3/8
WJ500-8	500	1/2	2-1/8	1-7/8	7/8	1-3/8

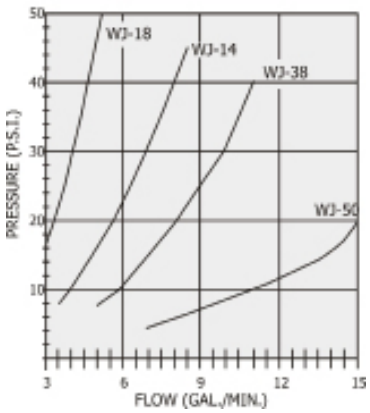
Swivel Type Water Jumpers

- Recessed to prevent damage or accidental disconnect
- Eliminate crimped hoses and setup errors
- Viton O-ring seals
- All brass construction
- Easy hex key installation

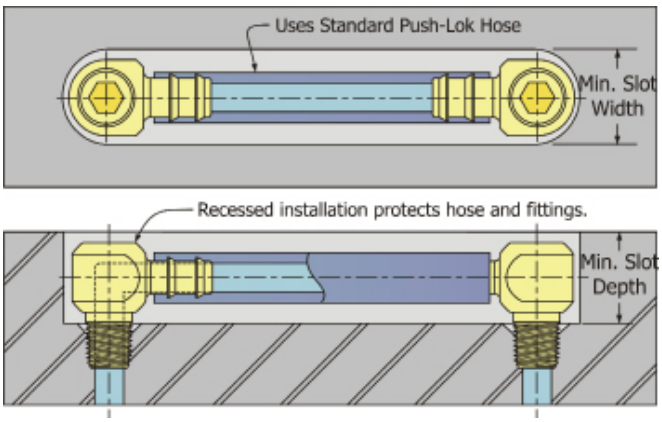
Swivel Type Water Jumpers have an all brass construction. The swivel body allows for installation where space is limited. These Water Jumpers are recessed to prevent accidental disconnect or damage and the adjustable thread allows for perfect positioning.

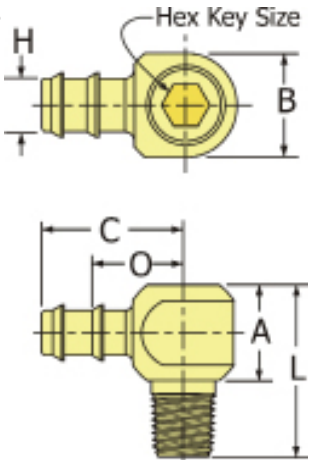
SPECIFICATIONS	
Material Type	Brass
Unit of Measure	Inch

Flow Data



Installation Guidelines for Swivel Water Jumpers





CATALOG NO.	PIPE SIZE (NPT)	HOSE I.D.	H HEX SIZE	L OVERALL LENGTH	A HEAD HEIGHT	B HEAD WIDTH	C HOSE BARB LENGTH	O DISTANCE TO FIRST BARB	INSTALLATION SLOT DEPTH	INSTALLATION SLOT WIDTH
WJ14-S	1/4	3/8	1/4	1-7/16	13/16	0.84	1-3/16	25/32	1-3/16	7/8
WJ18-S	1/8	5/16	3/16	1-3/16	11/16	0.66	1	5/8	1	11/16
WJ38-S	3/8	1/2	5/16	1-5/8	1	0.98	1-3/8	15/16	1-3/8	1
WJ50-S	1/2	3/4	3/8	2	1-1/8	1.235	1-1/2	1-1/8	1-9/16	1-1/4
WJ14-M	1/4	3/8	1/4	2-3/8	13/16	0.84	1-3/16	25/32	1-3/16	7/8
WJ18-M	1/8	5/16	3/16	2	11/16	0.66	1	5/8	1	11/16
WJ38-M	3/8	1/2	5/16	2-5/8	1	0.98	1-3/8	15/16	1-3/8	1
WJ50-M	1/2	3/4	3/8	3	1-1/8	1.235	1-1/2	1-1/8	1-9/16	1-1/4
WJ14-L	1/4	3/8	1/4	3-7/8	13/16	0.84	1-3/16	25/32	1-3/16	7/8
WJ18-L	1/8	5/16	3/16	3-1/2	11/16	0.66	1	5/8	1	11/16
WJ38-L	3/8	1/2	5/16	4-1/8	1	0.98	1-3/8	15/16	1-3/8	1
WJ50-L	1/2	3/4	3/8	4-1/2	1-1/8	1.235	1-1/2	1-1/8	1-9/16	1-1/4

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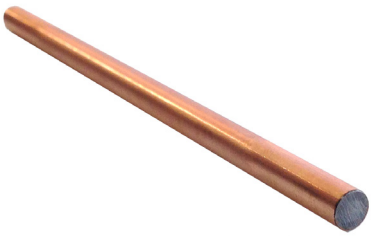
Cooling Pins - Standard



- High speed heat transfer device
- Uniform Cooling Improves Part Quality
- Maximizes heat transfer efficiency
- Designed to be installed with PCS' Heat Transfer Compound (Paste).
- Mating hole in core should be drilled .003" - .004" larger than actual O.D. of pin.

Cooling Pins are high speed heat transfer devices capable of conducting heat energy over 10,000 times faster than copper, thus cooling molds faster and reducing cycle time. Cooling Pins are used to heat or cool cores, slides and inserts in thermoset and thermoplastic molds. This isothermic device allows for optimal heat transfer rates within cores and slides.

SPECIFICATIONS	
Material Type	Heat Pipe
Unit of Measure	Inch

CATALOG NO.	DIA.		OVERALL LENGTH																
	INCH	DEC.	2	2-1/2	3	3-1/2	4	4-1/2	5	5-1/2	6	6-1/2	7	7-1/2	8	8-1/2	9	9-1/2	10
AT7-	3/32	.094	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT9-	1/8	.125	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT11-	5/32	.156	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT13-	3/16	.187	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT15-	7/32	.219	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT17-	1/4	.250	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT21-	5/16	.312	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT25-	3/8	.375	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT33-	1/2	.500	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AT37-	5/8	.625	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Add length to end of catalog number (i.e. AT7-2)

Cooling Pins - Heat Transfer Compound

- Used exclusively with Cooling Pins
- Maximizes heat tranfer efficiency

Heat Transfer Compound must be used with both inch and metric cooling pins. The compound increases thermal conductivity by filling in the air gaps present between the cooling pin and any components.

SPECIFICATIONS	
Material Type	Thermal Paste

CATALOG NO.	VOLUME
ATP-1	5 GR.
ATP-4	4 OZ.
ATP-8	8 OZ.
ATP-16	16 OZ.

What is a Cooling Pin?

A cooling pin is a high speed heat transfer device capable of conducting heat energy over 10,000 times faster than copper. It is made of a copper tube or chamber whose inner surface is lined with a copper wick structure (see below). The copper tube is sealed and the air is evacuated, creating a vacuum. When heat is applied to one end of the cooling pin by an external source, the internal working fluid dissipates as vapor. The resulting difference in pressure drives the vapor from the heated end to colder areas where it condenses and releases all the heat energy with a high degree of thermal uniformity.

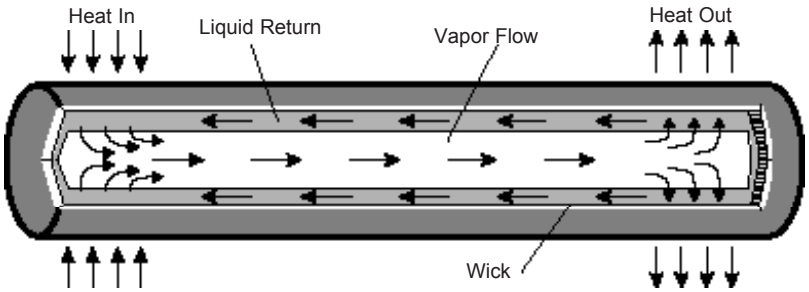
Applications

Cooling pins are used to heat or cool cores, slides, thin webs, and inserts in thermoset and thermoplastic molds. Because the cooling pin is an isothermal device, cores and slides in which they are incorporated are cooled more evenly than by cascades or baffles.

Installation

Cooling pins are designed to operate over the entire range of mold operating temperatures (33º F - 500º F). Use the information contained in the following chart for relevant hole dimensions.

Cooling pins are ideally applied when 50% of the overall length is cooled using a water manifold having a turbulent water flow. It is recognized that in many instances this condenser length is not appropriate but optimal results will occur as the 50% relationship is approached.



Conventional core cooling using a brass baffle.

NOMINAL O.D.	ACTUAL O.D.	PASTE SPEC HOLE DIA.
3/32	.093	.096
1/8	.124	.127
5/32	.154	.157
3/16	.186	.189
7/32	.216	.219
1/4	.249	.252
5/16	.311	.314
3/8	.374	.377
1/2	.499	.502
5/8	.624	.627
3/4	.748	.752

NOMINAL O.D.	ACTUAL O.D.	PASTE SPEC HOLE DIA.
3 mm	0.118	0.121
4 mm	0.156	0.159
5 mm	0.197	0.200
6 mm	0.235	0.238
8 mm	0.314	0.317
10 mm	0.390	0.394
12 mm	0.467	0.471
15 mm	0.585	0.589
16 mm	0.629	0.633
18 mm	0.704	0.708
20 mm	0.781	0.785
25 mm	0.978	0.982
30 mm	1.175	1.179

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Kool Flow Manifold™

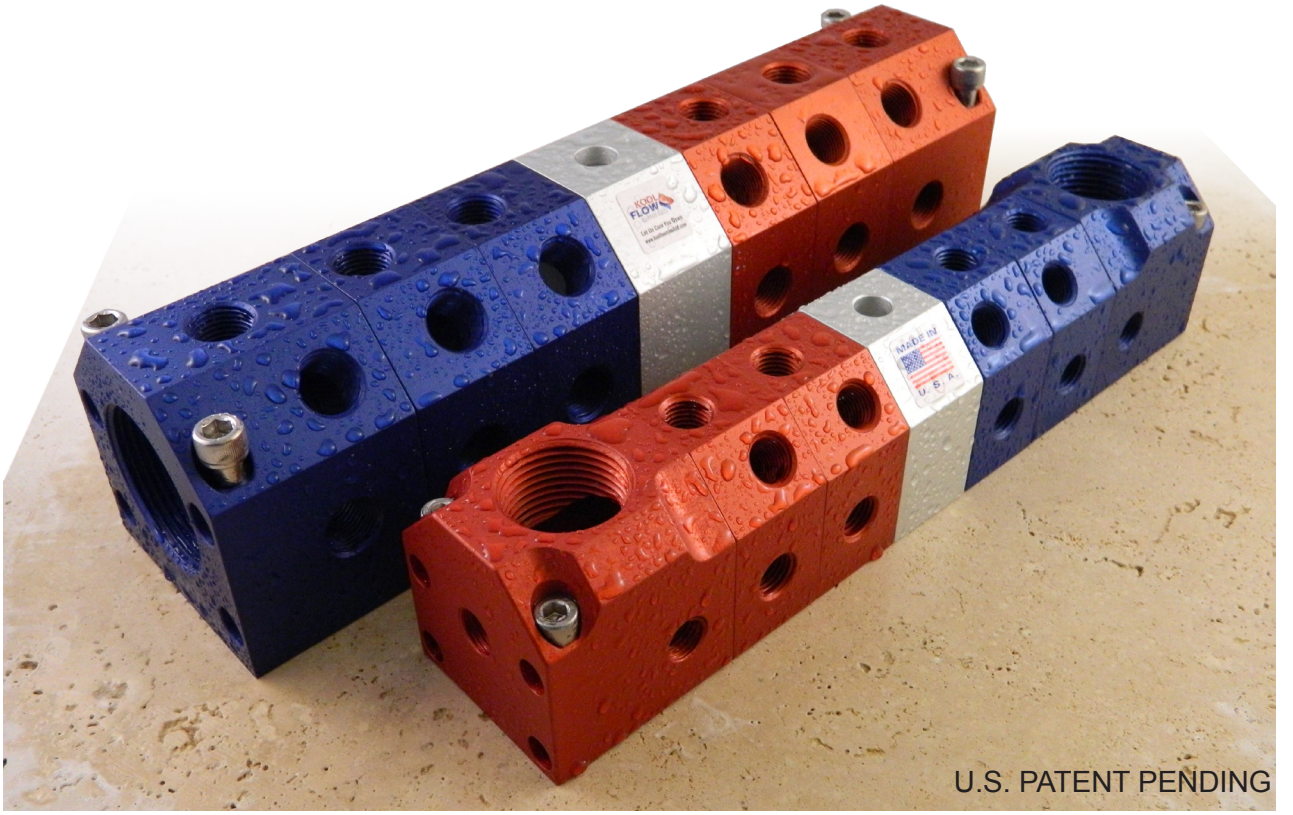
KOOL FLOW MANIFOLD

The FB Series water manifold is exactly what you expect from the industry's number one water manifold supplier. Designed with our exclusive FLEX BLOCK TECHNOLOGY features, the FB Series delivers superior design and flexibility to meet the most demanding applications. Nobody knows water manifolds like KOOL Flow Manifold and the FB Series Flex Block proves it.

QUICK SHIPMENT: Design principles allows manufacturing to have 24-hour shipping because we just assemble to order "vs" reacting to the order.

FLEXIBLE DESIGN: Four Patented modular block assemblies can be used for multiple application needs. Flex design reduces assembly time and allows modifications for the "OOPS" to change on the fly. O-ring seals protect against leaks between modular block assemblies.

e-KOOL CONFIGURATOR: Easily configure your water manifold system by visiting www.pcs-company.com. Receive an instant price and a downloadable CAD file.



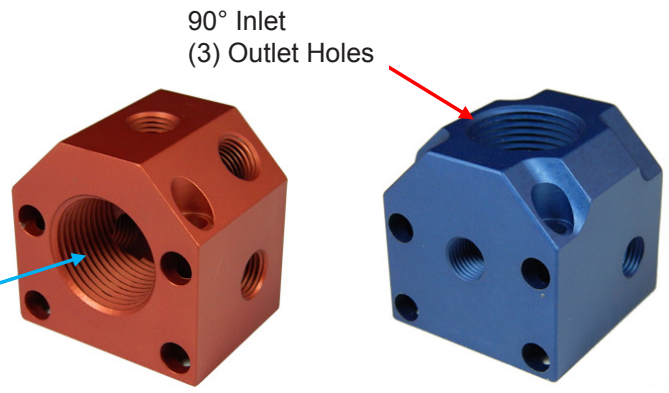
U.S. PATENT PENDING

Easily Choose the Product that suits your Application!

1. Select the **Inlet Size** (1” = FB2 , 1-1/4” or 1-1/2” = FB3, 2” = FB4)
2. Select the **Inlet Style** that best fits in your envelope (Straight or 90 Degree)
3. Determine the **Assembly Style** (Port-to-Blank or Port-to-Divide)
4. Determine how many total **Outlet Holes** your application needs.

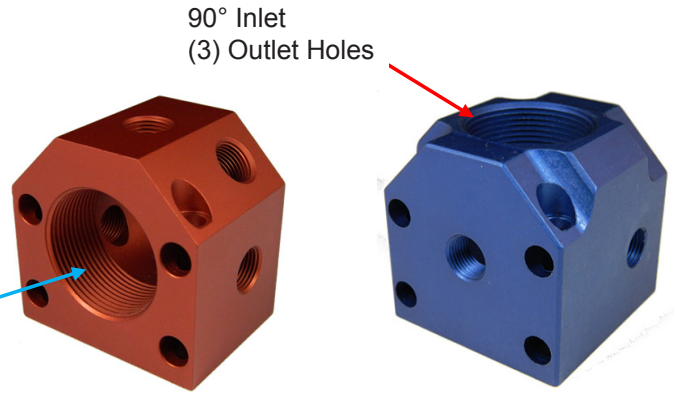
FB2 Series = 1” NPT Inlet

Block Size: 2.25” W x 2.25” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 1/4” SHCS
Inlet Hole: 1” NPT
Outlet Hole: 1/4” or 3/8”



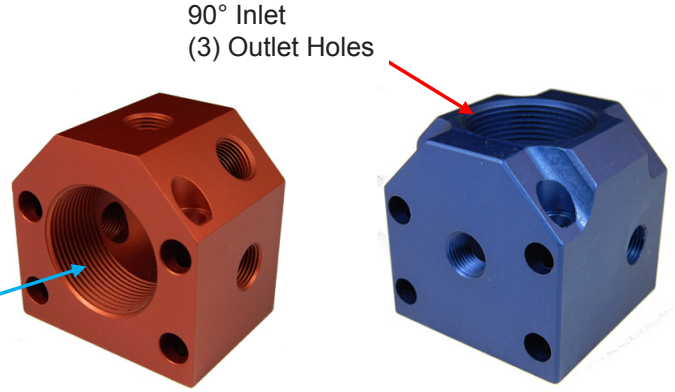
FB3 Series = 1-1/4” or 1-1/2” NPT Inlet

Block Size: 3.00” W x 3.00” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 5/16” SHCS
Inlet Hole: 1-1/4” or 1-1/2” NPT
Outlet Hole: 3/8” or 1/2”



FB4 Series = 2” NPT Inlet

Block Size: 3.50” W x 3.50” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 5/16” SHCS
Inlet Hole: 2” NPT
Outlet Hole: 3/4”



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FB Series Manifold

Select the Assembly Style:

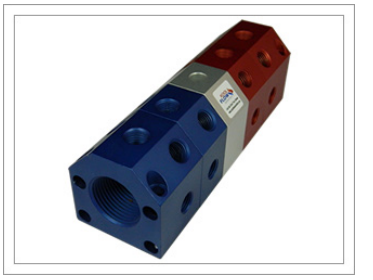
With a port-to-blank configuration you can eliminate the costly end plug and still mount the Hot & Cold in different locations.

Combine your cooling needs into one manifold. Separate Hot & Cold with a Mid-Block and mount in one easy location.

Port-to-Blank (PB)

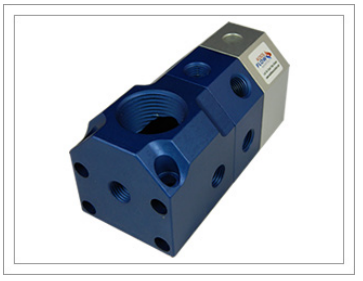
Color: Red/Silver or Blue/Silver
# of Inlets: One
# of Outlets: (25) Max.
# of Block: (6) Max.

Port-to-Divide (PD)



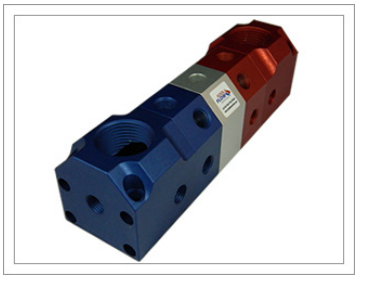
Color: Red/Silver/Blue
# of Inlets: One each End
# of Outlets: (50) Max.
# of Block: (11) Max.

90° Port-to-Blank (PB)



Color: Red/Silver or Blue/Silver
# of Inlets: One
# of Outlets: (23) Max.
# of Block: (6) Max.

90° Port-to-Divide (PD)



Color: Red/Silver/Blue
# of Inlets: One each End
# of Outlets: (46) Max.
# of Block: (11) Max.

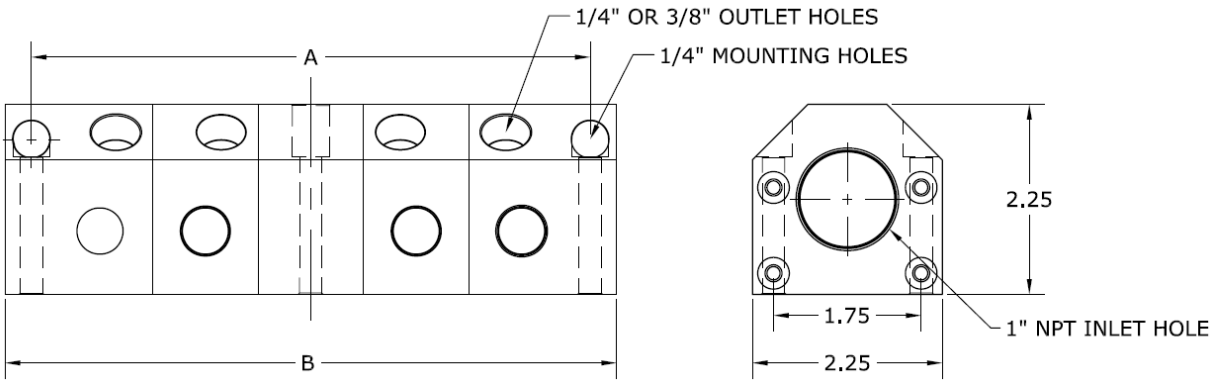
Note: 90 Degree Inlets reduce the overall package envelope even further. The expensive 90 degree brass fittings are also eliminated.

FB2 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Divide (PD)						
FB2-1-4-PD	1/4	5	5	2	4.13	4.75
FB2-2-4-PD	1/4	10	10	2	6.63	7.25
FB2-3-4-PD	1/4	15	15	2	9.13	9.75
FB2-4-4-PD	1/4	20	20	2	11.63	12.25
FB2-5-4-PD	1/4	25	25	2	14.13	14.75
FB2-1-6-PD	3/8	5	5	2	4.13	4.75
FB2-2-6-PD	3/8	10	10	2	6.63	7.25
FB2-3-6-PD	3/8	15	15	2	9.13	9.75
FB2-4-6-PD	3/8	20	20	2	11.63	12.25
FB2-5-6-PD	3/8	25	25	2	14.13	14.75

Continued on next page

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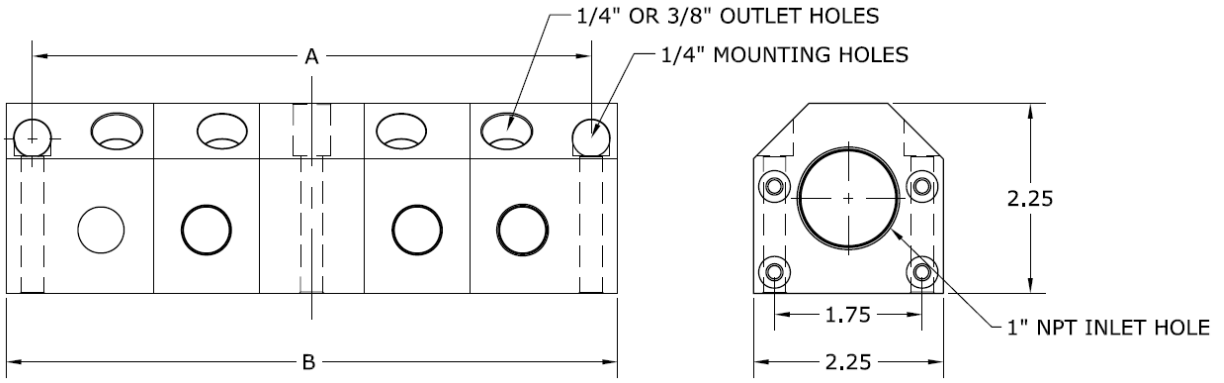
FB2 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
Unit of Measure	Inch



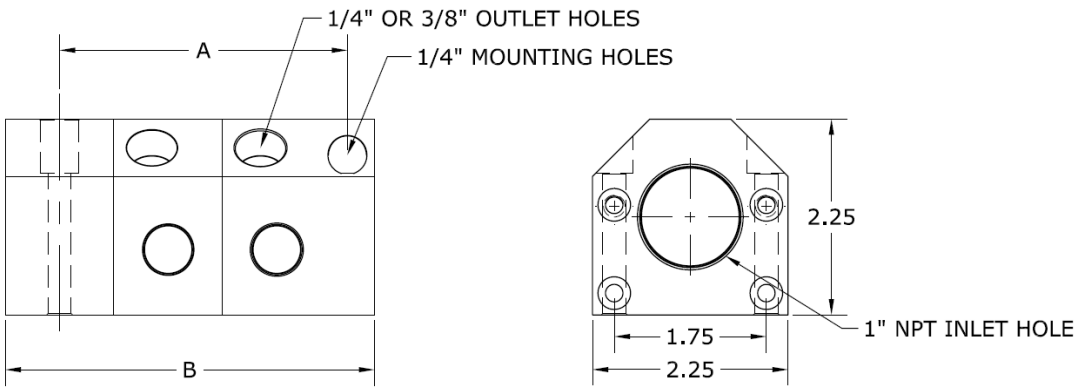
CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Divide (PD)						
FB290-1-4-PD	1/4	3	3	1	5.13	5.75
FB290-2-4-PD	1/4	8	8	2	7.63	8.25
FB290-3-4-PD	1/4	13	13	2	10.13	10.75
FB290-4-4-PD	1/4	18	18	2	12.63	13.25
FB290-5-4-PD	1/4	23	23	2	15.13	15.75
FB290-1-6-PD	3/8	3	3	2	5.13	5.75
FB290-2-6-PD	3/8	8	8	2	7.63	8.25
FB290-3-6-PD	3/8	13	13	2	10.13	10.75
FB290-4-6-PD	3/8	18	18	2	12.63	13.25

FB2 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
No. of Inlets	1
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION B	DIMENSION A
Port-to-Blank (PB)						
FB2-1-4-B-PB	1/4	Blue	5	1	3	2.06
FB2-1-4-R-PB	1/4	Red	5	1	3	2.06
FB2-1-6-B-PB	3/8	Blue	5	1	3	2.06
FB2-1-6-R-PB	3/8	Red	5	1	3	2.06
FB2-2-4-B-PB	1/4	Blue	10	1	4.25	3.31
FB2-2-4-R-PB	1/4	Red	10	1	4.25	3.31
FB2-2-6-B-PB	3/8	Blue	10	1	4.25	3.31
FB2-2-6-R-PB	3/8	Red	10	1	4.25	3.31
FB2-3-4-B-PB	1/4	Blue	15	1	5.5	4.56

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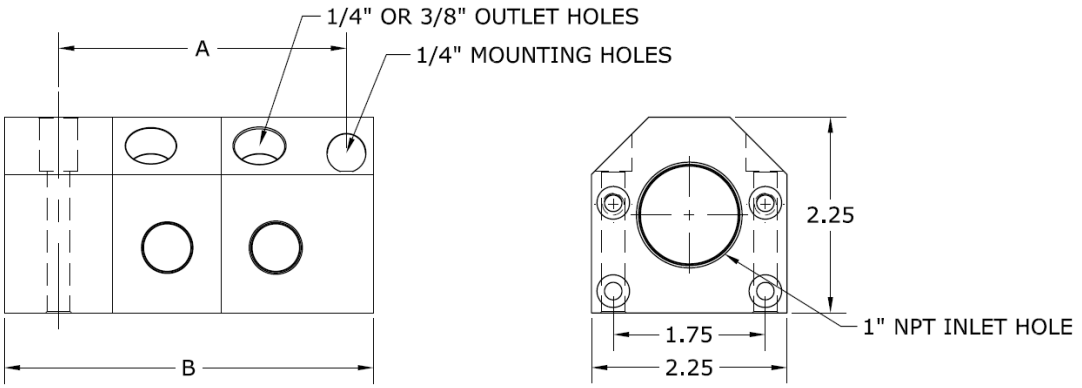
FB2 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
No. of Inlets	1
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION B	DIMENSION A
Port-to-Blank (PB)						
FB2-3-4-R-PB	1/4	Red	15	1	5.5	4.56
FB2-3-6-B-PB	3/8	Blue	15	1	5.5	4.56
FB2-3-6-R-PB	3/8	Red	15	1	5.5	4.56
FB2-4-4-B-PB	1/4	Blue	20	1	6.75	5.81
FB2-4-4-R-PB	1/4	Red	20	1	6.75	5.81
FB2-4-6-B-PB	3/8	Blue	20	1	6.75	5.81
FB2-4-6-R-PB	3/8	Red	20	1	6.75	5.81
FB2-5-4-B-PB	1/4	Blue	25	1	8	7.06
FB2-5-4-R-PB	1/4	Red	25	1	8	7.06
FB2-5-6-B-PB	3/8	Blue	25	1	8	7.06
FB2-5-6-R-PB	3/8	Red	25	1	8	7.06

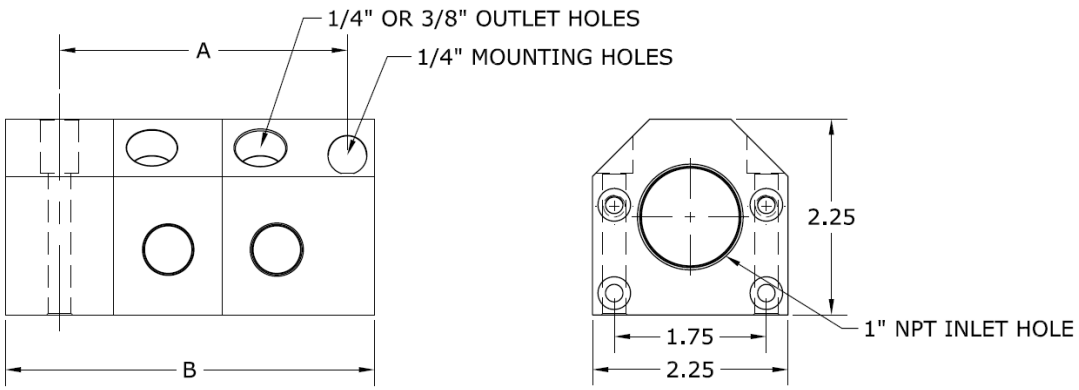
Continued on next page

FB2 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
No. of Inlets	1
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION B	DIMENSION A
90° Port-to-Blank (PB)						
FB290-1-4-B-PB	1/4	Blue	3	1	3.5	2.56
FB290-1-4-R-PB	1/4	Red	3	1	3.5	2.56
FB290-1-6-B-PB	3/8	Blue	3	1	3.5	2.56
FB290-2-4-R-PB	1/4	Red	8	1	4.75	3.81
FB290-2-6-B-PB	3/8	Blue	8	1	4.75	3.81
FB290-2-6-R-PB	3/8	Red	8	1	4.75	3.81
FB290-3-4-B-PB	1/4	Blue	13	1	6	5.06
FB290-3-4-R-PB	1/4	Red	13	1	6	5.06

Continued on next page

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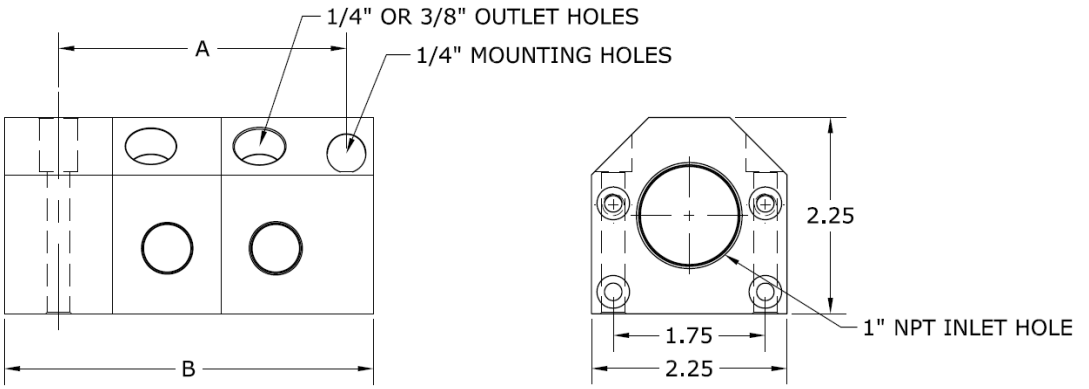
FB2 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included
- Manifolds are available for pH levels above 7.8

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB2 Series manifolds have a 1” inlet hole size with the option of either a 1/4” or 3/8” outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	2.25 x 2.25
Inlet Hole Size	1
Mounting Hole Size	1/4
No. of Inlets	1
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION B	DIMENSION A
90° Port-to-Blank (PB)						
FB290-3-6-B-PB	3/8	Blue	13	1	6	5.06
FB290-3-6-R-PB	3/8	Red	13	1	6	5.06
FB290-4-4-B-PB	1/4	Blue	18	1	7.25	6.31
FB290-4-4-R-PB	1/4	Red	18	1	7.25	6.31
FB290-4-6-B-PB	3/8	Blue	18	1	7.25	6.31
FB290-4-6-R-PB	3/8	Red	18	1	7.25	6.31
FB290-5-4-B-PB	1/4	Blue	23	1	8.5	7.56
FB290-5-4-R-PB	1/4	Red	23	1	8.5	7.56
FB290-5-6-B-PB	3/8	Blue	23	1	8.5	7.56
FB290-5-6-R-PB	3/8	Red	23	1	8.5	7.56
FB290-1-6-R-PB	3/8	Red	3	1	3.5	2.56
FB290-2-4-B-PB	1/4	Blue	8	1	4.75	3.81

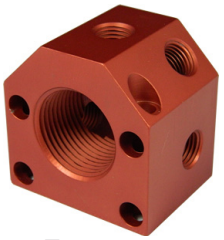
FB2 Series = 1” NPT Inlet

Block Size: 2.25” W x 2.25” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 1/4” SHCS
Inlet Hole: 1” NPT
Outlet Hole: 1/4” or 3/8”

Blocks Sold Individually:
- After Purchase Modifications
- Spare Parts Inventory
- Build your own Assemblies

First Block—Straight—(1” NPT Inlet)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-FB-1-4-R	1/4"	Red	5
FB2-FB-1-4-B	1/4"	Blue	5
FB2-FB-1-6-R	3/8"	Red	5
FB2-FB-1-6-B	3/8"	Blue	5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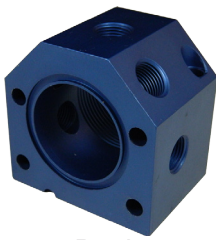
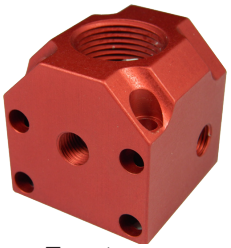

Back

First Block—90°—(1” NPT Inlet)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-FB90-1-4-R	1/4"	Red	3
FB2-FB90-1-4-B	1/4"	Blue	3
FB2-FB90-1-6-R	3/8"	Red	3
FB2-FB90-1-6-B	3/8"	Blue	3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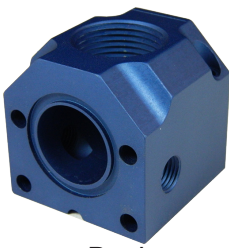
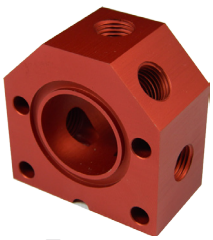

Back

Mod Block

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-MOD-4-R	1/4"	Red	5
FB2-MOD-4-B	1/4"	Blue	5
FB2-MOD-6-R	3/8"	Red	5
FB2-MOD-6-B	3/8"	Blue	5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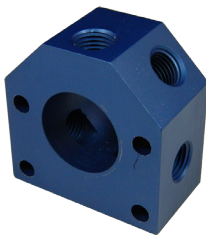
Back

Mid Block (or End Block)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-MIDB-1	n/a	Silver	0

*Used in both the PD and PB Configurations


Front


Back

Miscellaneous Hardware

CATALOG NO.	DESCRIPTION
FB2-OR-1	Viton O-Ring
FB2-TR-1	#10-32 Tie Rod (Single Block)
FB2-SHCS-05	#10-32 X 3/4” SS SHCS
FB2-SHCS-1	#10-32 x 1" SS SHCS
FB2-SHCS-2	#10-32 x 1-1/4" SS SHCS
FB2-SHCS-MNT	1/4"-20 x 2" SS SHCS

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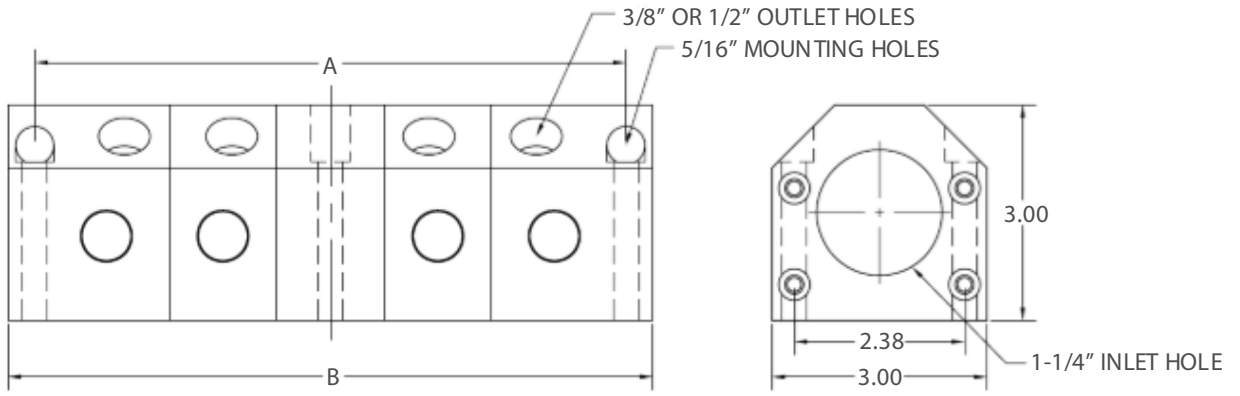
FB3 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Divide (PD)						
FB3-1-6-PD-1.25	3/8	5	5	2	5.25	6
FB3-2-6-PD-1.25	3/8	10	10	2	8.25	9
FB3-3-6-PD-1.25	3/8	15	15	2	11.25	12
FB3-4-6-PD-1.25	3/8	20	20	2	14.25	15
FB3-5-6-PD-1.25	3/8	25	25	2	17.25	18
FB3-1-8-PD-1.25	1/2	5	5	2	5.25	6
FB3-2-8-PD-1.25	1/2	10	10	2	8.25	9
FB3-3-8-PD-1.25	1/2	15	15	2	11.25	12
FB3-4-8-PD-1.25	1/2	20	20	2	14.25	15
FB3-5-8-PD-1.25	1/2	25	25	2	17.25	18

Continued on next page

FB3 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

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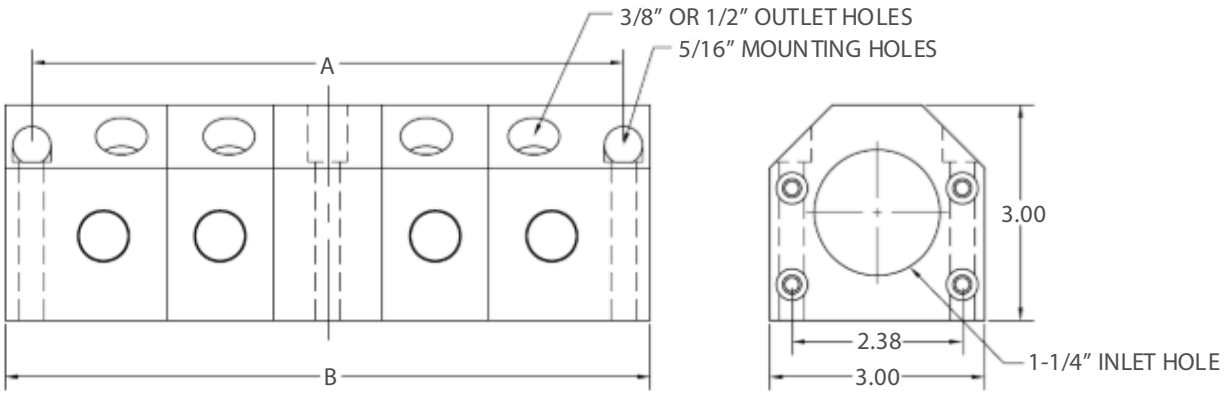
SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Divide (PD)						
FB390-1-6-PD-1.25	3/8	3	3	2	6.75	7.5
FB390-2-6-PD-1.25	3/8	8	8	2	9.75	10.5
FB390-3-6-PD-1.25	3/8	13	13	2	12.75	13.5
FB390-4-6-PD-1.25	3/8	18	18	2	15.75	16.5
FB390-5-6-PD-1.25	3/8	23	23	2	18.75	19.5
FB390-1-8-PD-1.25	1/2	3	3	2	6.75	7.5
FB390-2-8-PD-1.25	1/2	8	8	2	9.75	10.5
FB390-3-8-PD-1.25	1/2	13	13	2	12.75	13.5
FB390-4-8-PD-1.25	1/2	18	18	2	15.75	16.5
FB390-5-8-PD-1.25	1/2	23	23	2	18.75	19.5

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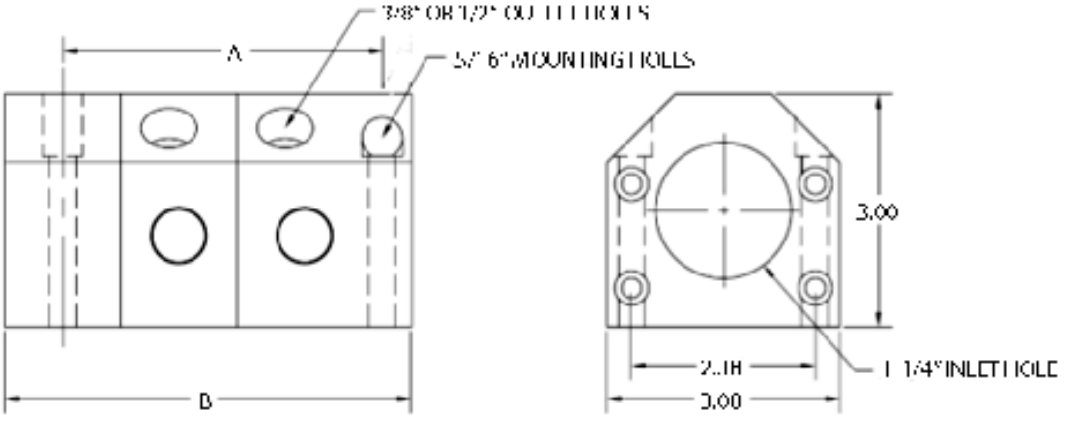
FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Blank (PB)						
FB3-1-6-B-PB-1.25	3/8	Blue	5	1	2.63	3.75
FB3-2-6-B-PB-1.25	3/8	Blue	10	1	4.13	5.25
FB3-3-6-B-PB-1.25	3/8	Blue	15	1	5.63	6.75
FB3-4-6-B-PB-1.25	3/8	Blue	20	1	7.13	8.25
FB3-5-6-B-PB-1.25	3/8	Blue	25	1	8.63	9.75
FB3-1-6-R-PB-1.25	3/8	Red	5	1	2.63	3.75
FB3-2-6-R-PB-1.25	3/8	Red	10	1	4.13	5.25
FB3-3-6-R-PB-1.25	3/8	Red	15	1	5.63	6.75
FB3-4-6-R-PB-1.25	3/8	Red	20	1	7.13	8.25
FB3-5-6-R-PB-1.25	3/8	Red	25	1	8.63	9.75
FB3-1-8-B-PB-1.25	1/2	Blue	5	1	2.63	3.75
FB3-2-8-B-PB-1.25	1/2	Blue	10	1	4.13	5.25
FB3-3-8-B-PB-1.25	1/2	Blue	15	1	5.63	6.75

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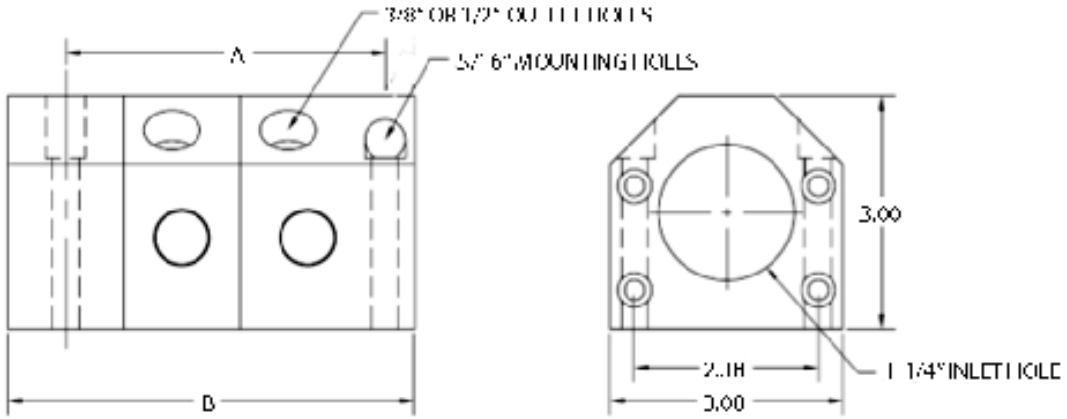
FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Blank (PB)						
FB3-4-8-B-PB-1.25	1/2	Blue	20	1	7.13	8.25
FB3-5-8-B-PB-1.25	1/2	Blue	25	1	8.63	9.75
FB3-1-8-R-PB-1.25	1/2	Red	5	1	2.63	3.75
FB3-2-8-R-PB-1.25	1/2	Red	10	1	4.13	5.63
FB3-3-8-R-PB-1.25	1/2	Red	15	1	5.63	6.75
FB3-4-8-R-PB-1.25	1/2	Red	20	1	7.13	8.25
FB3-5-8-R-PB-1.25	1/2	Red	25	1	8.63	9.75

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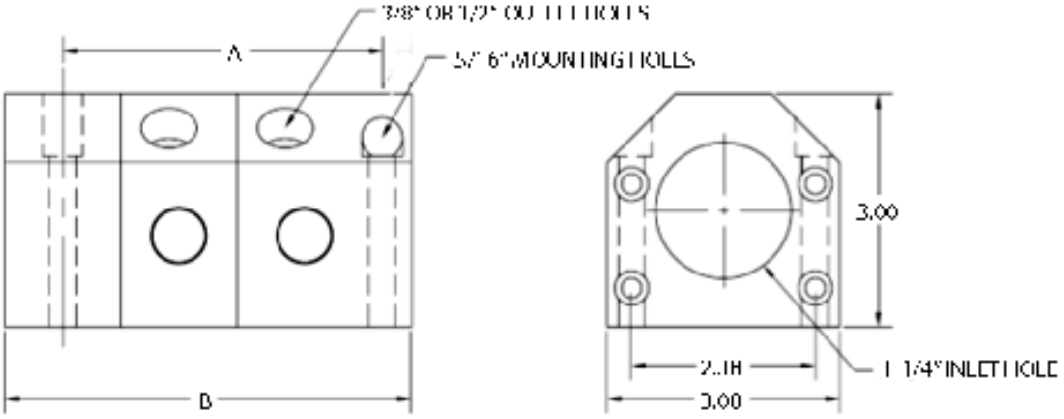
FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Blank (PB)						
FB390-1-6-B-PB-1.25	3/8	Blue	3	1	3.38	4.5
FB390-2-6-B-PB-1.25	3/8	Blue	8	1	4.88	6
FB390-3-6-B-PB-1.25	3/8	Blue	13	1	6.38	7.5
FB390-4-6-B-PB-1.25	3/8	Blue	18	1	7.88	9
FB390-5-6-B-PB-1.25	3/8	Blue	23	1	9.38	10.5
FB390-1-6-R-PB-1.25	3/8	Red	3	1	3.38	4.5
FB390-2-6-R-PB-1.25	3/8	Red	8	1	4.88	6
FB390-3-6-R-PB-1.25	3/8	Red	13	1	6.38	7.5
FB390-4-6-R-PB-1.25	3/8	Red	18	1	7.88	9
FB390-5-6-R-PB-1.25	3/8	Red	23	1	9.38	10.5
FB390-1-8-B-PB-1.25	1/2	Blue	3	1	3.38	4.5
FB390-2-8-B-PB-1.25	1/2	Blue	8	1	4.88	6
FB390-3-8-B-PB-1.25	1/2	Blue	13	1	6.38	7.5

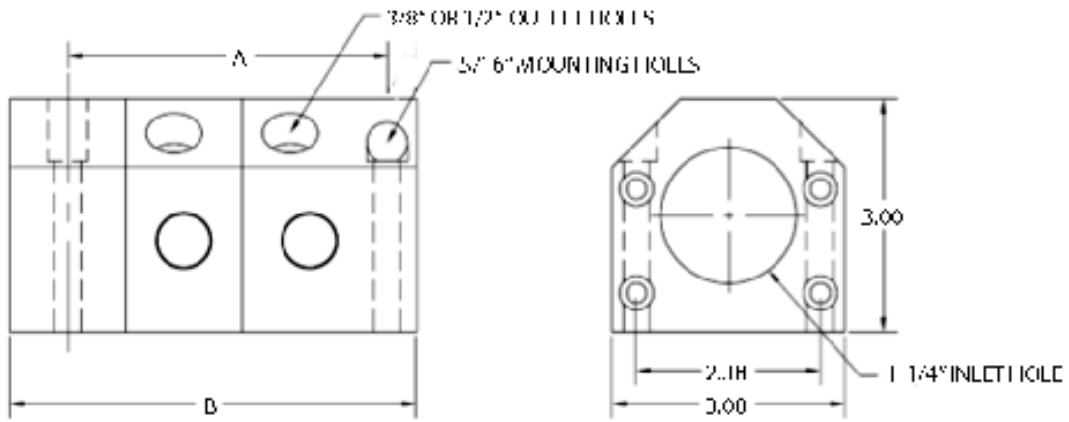
Continued on next page

FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Blank (PB)						
FB390-4-8-B-PB-1.25	1/2	Blue	18	1	7.88	9
FB390-5-8-B-PB-1.25	1/2	Blue	23	1	9.38	10.5
FB390-1-8-R-PB-1.25	1/2	Red	3	2	3.38	4.5
FB390-2-8-R-PB-1.25	1/2	Red	8	1	4.88	6
FB390-3-8-R-PB-1.25	1/2	Red	13	1	6.38	7.5
FB390-4-8-R-PB-1.25	1/2	Red	18	1	7.88	9
FB390-5-8-R-PB-1.25	1/2	Red	23	1	9.38	10.5

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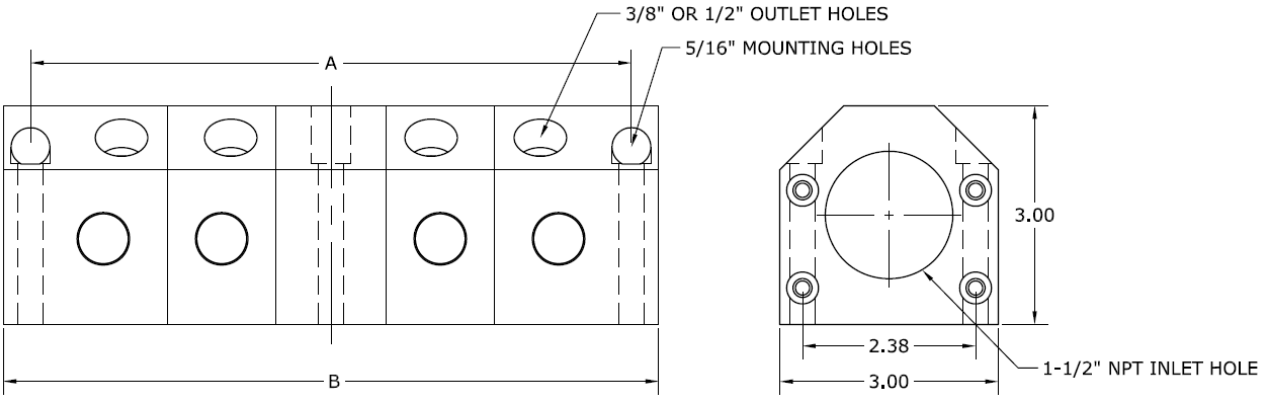
FB3 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Divide (PD)						
FB3-1-6-PD-1.5	3/8	5	5	2	5.25	6
FB3-2-6-PD-1.5	3/8	10	10	2	8.25	9
FB3-3-6-PD-1.5	3/8	15	15	2	11.25	12
FB3-4-6-PD-1.5	3/8	20	20	2	14.25	15
FB3-5-6-PD-1.5	3/8	25	25	2	17.25	18
FB3-1-8-PD-1.5	1/2	5	5	2	5.25	6
FB3-2-8-PD-1.5	1/2	10	10	2	8.25	9
FB3-3-8-PD-1.5	1/2	15	15	2	11.25	12
FB3-4-8-PD-1.5	1/2	20	20	2	14.25	15
FB3-5-8-PD-1.5	1/2	25	25	2	17.25	18

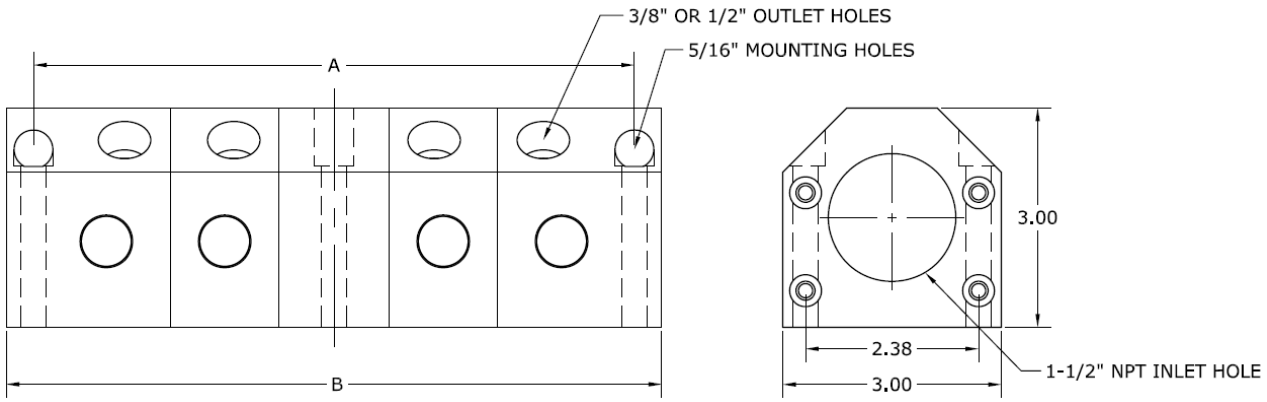
Continued on next page

FB3 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Divide (PD)						
FB390-1-6-PD-1.5	3/8	3	3	2	6.75	7.5
FB390-2-6-PD-1.5	3/8	8	8	2	9.75	10.5
FB390-3-6-PD-1.5	3/8	13	13	2	12.75	13.5
FB390-4-6-PD-1.5	3/8	18	18	2	15.75	16.5
FB390-5-6-PD-1.5	3/8	23	23	1	18.75	19.5
FB390-1-8-PD-1.5	1/2	3	3	2	6.75	7.5
FB390-2-8-PD-1.5	1/2	8	8	2	9.75	10.5
FB390-3-8-PD-1.5	1/2	13	13	2	12.75	13.5
FB390-4-8-PD-1.5	1/2	18	18	2	15.75	16.5
FB390-5-8-PD-1.5	1/2	23	23	2	18.75	19.5

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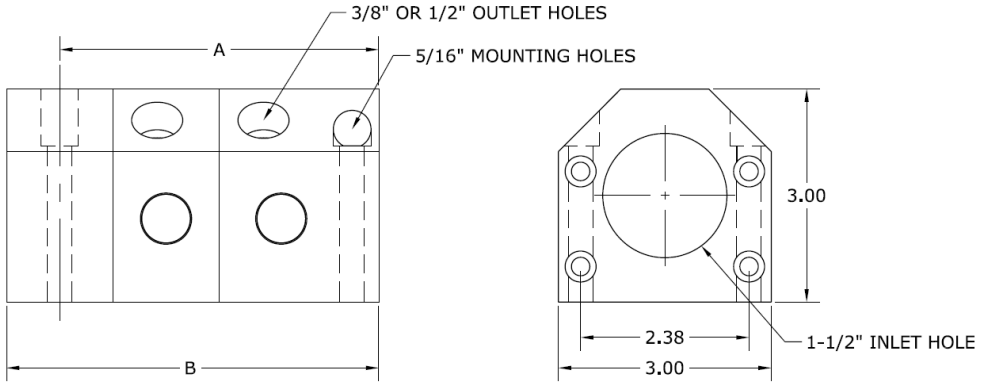
FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Blank (PB)						
FB3-1-6-B-PB-1.5	3/8	Blue	5	1	2.63	3.75
FB3-2-6-B-PB-1.5	3/8	Blue	10	1	4.13	5.25
FB3-3-6-B-PB-1.5	3/8	Blue	15	1	5.63	6.75
FB3-4-6-B-PB-1.5	3/8	Blue	20	1	7.13	8.25
FB3-5-6-B-PB-1.5	3/8	Blue	25	1	8.63	9.75
FB3-1-6-R-PB-1.5	3/8	Red	5	1	2.63	3.75
FB3-2-6-R-PB-1.5	3/8	Red	10	1	4.13	5.25
FB3-3-6-R-PB-1.5	3/8	Red	15	1	5.63	6.75
FB3-4-6-R-PB-1.5	3/8	Red	20	1	7.13	8.25
FB3-5-6-R-PB-1.5	3/8	Red	25	1	8.63	9.75
FB3-1-8-B-PB-1.5	1/2	Blue	5	1	2.63	3.75
FB3-2-8-B-PB-1.5	1/2	Blue	10	1	4.13	5.25
FB3-3-8-B-PB-1.5	1/2	Blue	15	1	5.63	6.75

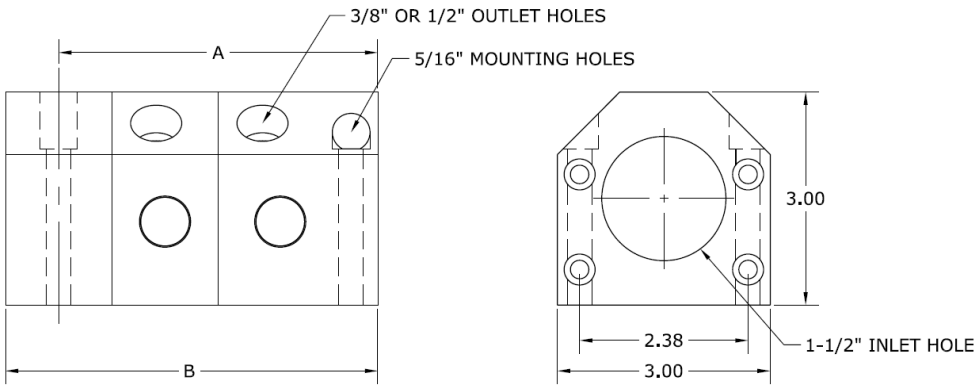
Continued on next page

FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Blank (PB)						
FB3-4-8-B-PB-1.5	1/2	Blue	20	1	7.13	8.25
FB3-5-8-B-PB-1.5	1/2	Blue	25	1	8.63	9.75
FB3-1-8-R-PB-1.5	1/2	Red	5	1	2.63	3.75
FB3-2-8-R-PB-1.5	1/2	Red	10	1	4.13	5.25
FB3-3-8-R-PB-1.5	1/2	Red	15	1	5.63	6.75
FB3-4-8-R-PB-1.5	1/2	Red	20	1	7.13	8.25
FB3-5-8-R-PB-1.5	1/2	Red	25	1	8.63	9.75

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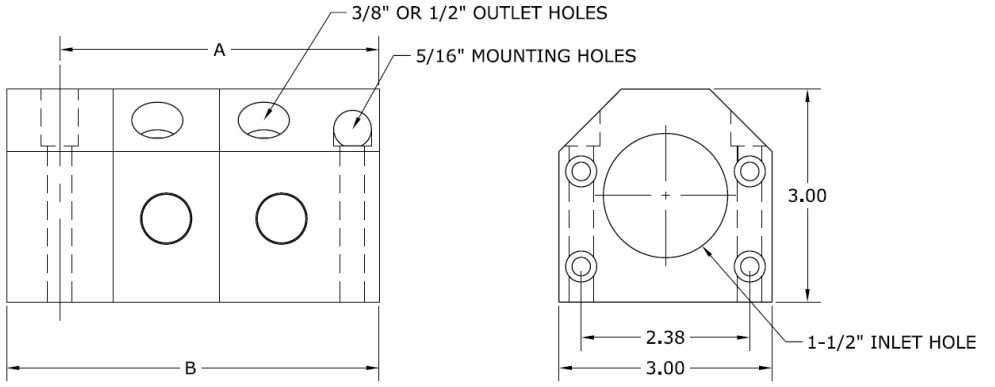
FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Blank (PB)						
FB390-1-6-B-PB-1.5	3/8	Blue	3	1	3.38	4.5
FB390-2-6-B-PB-1.5	3/8	Blue	8	1	4.88	6
FB390-3-6-B-PB-1.5	3/8	Blue	13	1	6.38	7.5
FB390-4-6-B-PB-1.5	3/8	Blue	18	1	7.88	9
FB390-5-6-B-PB-1.5	3/8	Blue	23	1	9.38	10.5
FB390-1-6-R-PB-1.5	3/8	Red	3	1	3.38	4.5
FB390-2-6-R-PB-1.5	3/8	Red	8	1	4.88	6
FB390-3-6-R-PB-1.5	3/8	Red	13	1	6.38	7.5
FB390-4-6-R-PB-1.5	3/8	Red	18	1	7.88	9
FB390-5-6-R-PB-1.5	3/8	Red	23	1	9.38	10.5
FB390-1-8-B-PB-1.5	1/2	Blue	3	1	3.38	4.5
FB390-2-8-B-PB-1.5	1/2	Blue	8	1	4.88	6
FB390-3-8-B-PB-1.5	1/2	Blue	13	1	6.38	7.5

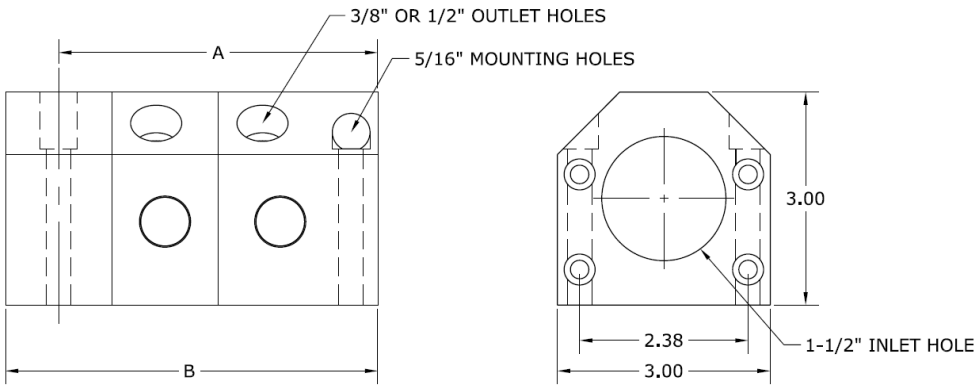
Continued on next page

FB3 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB3 Series manifolds have an option for a 1-1/4" or 1-1/2" inlet hole size along with the option of either a 3/8" or 1/2" outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.00 x 3.00
Mounting Hole Size	5/16
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90° Port-to-Blank (PB)						
FB390-4-8-B-PB-1.5	1/2	Blue	18	1	7.88	9
FB390-5-8-B-PB-1.5	1/2	Blue	23	1	9.38	10.5
FB390-1-8-R-PB-1.5	1/2	Red	3	2	3.38	4.5
FB390-2-8-R-PB-1.5	1/2	Red	8	1	4.88	6
FB390-3-8-R-PB-1.5	1/2	Red	13	1	6.38	7.5
FB390-4-8-R-PB-1.5	1/2	Red	18	1	7.88	9
FB390-5-8-R-PB-1.5	1/2	Red	23	1	9.38	10.5

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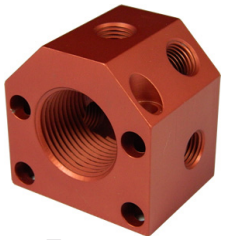
FB3 Individual Components

FB3 Series = 1-1/4” &1-1/2” NPT Inlet

Block Size: 3.00” W x 3.00” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 5/16” SHCS
Inlet Hole: 1-1/4” or 1-1/2” NPT
Outlet Hole: 3/8” or 1/2”

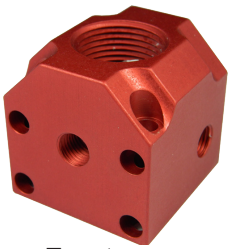
Blocks Sold Individually:
- After Purchase Modifications
- Spare Parts Inventory
- Build your own Assemblies


Front


Back

First Block—Straight

CATALOG NO.	INLET SIZE	OUTLET SIZE	BLOCK COLOR	NO. OF OUTLETS
FB3-FB-1.25-6-R	1-1/4”	3/8"	Red	5
FB3-FB-1.25-6-B	1-1/4”	3/8"	Blue	5
FB3-FB-1.25-8-R	1-1/4”	1/2"	Red	5
FB3-FB-1.25-8-B	1-1/4”	1/2"	Blue	5
FB3-FB-1.5-6-R	1-1/2”	3/8"	Red	5
FB3-FB-1.5-6-B	1-1/2”	3/8"	Blue	5
FB3-FB-1.5-8-R	1-1/2”	1/2"	Red	5
FB3-FB-1.5-8-B	1-1/2”	1/2"	Blue	5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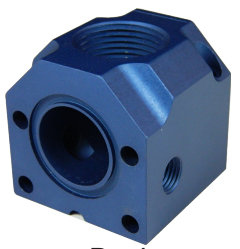
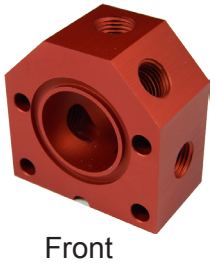

Back

First Block—90°—(1” NPT Inlet)

CATALOG NO.	INLET SIZE	OUTLET SIZE	BLOCK COLOR	NO. OF OUTLETS
FB3-FB90-1.25-6-R	1-1/4”	3/8"	Red	3
FB3-FB90-1.25-6-B	1-1/4”	3/8"	Blue	3
FB3-FB90-1.25-8-R	1-1/4”	1/2"	Red	3
FB3-FB90-1.25-8-B	1-1/4”	1/2"	Blue	3
FB3-FB90-1.5-6-R	1-1/2”	3/8"	Red	3
FB3-FB90-1.5-6-B	1-1/2”	3/8"	Blue	3
FB3-FB90-1.5-8-R	1-1/2”	1/2"	Red	3
FB3-FB90-1.5-8-B	1-1/2”	1/2"	Blue	3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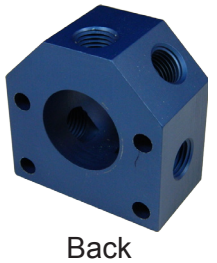
Back

Mod Block

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB3-MOD-6-R	3/8"	Red	5
FB3-MOD-6-B	3/8"	Blue	5
FB3-MOD-8-R	1/2"	Red	5
FB3-MOD-8-B	1/2"	Blue	5

Continued on next page

FB3 Individual Components

FB3 Series = 1-1/4” &1-1/2” NPT Inlet

Block Size: 3.00” W x 3.00” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 5/16” SHCS
Inlet Hole: 1-1/4” or 1-1/2” NPT
Outlet Hole: 3/8” or 1/2”

Blocks Sold Individually:
- After Purchase Modifications
- Spare Parts Inventory
- Build your own Assemblies

Front

Back

Mid Block (or End Block)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-MIDB-1	n/a	Silver	0

*Used in both the PD and PB Configurations

Miscellaneous Hardware

CATALOG NO.	DESCRIPTION
FB2-OR-1	Viton O-Ring
FB2-TR-1	#10-32 Tie Rod (Single Block)
FB2-SHCS-05	#10-32 X 3/4” SS SHCS
FB2-SHCS-1	#10-32 x 1" SS SHCS
FB2-SHCS-2	#10-32 x 1-1/4" SS SHCS
FB2-SHCS-MNT	1/4"-20 x 2" SS SHCS

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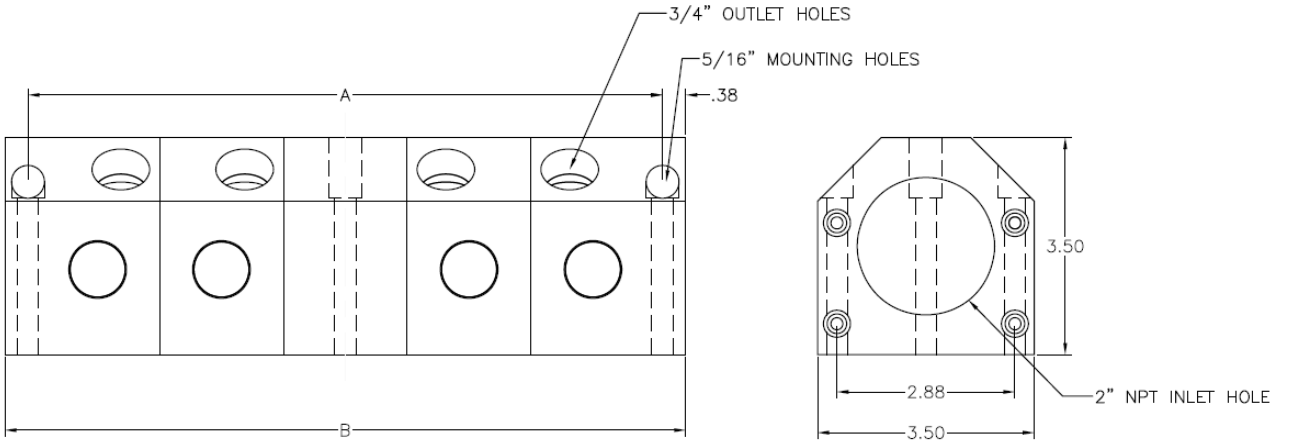
FB4 Port-to-Divide Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB4 Series manifolds have a 2" inlet hole size and a ¾"outlet hole size. The Port to Divide Assembly combines your cooling needs into one manifold. Separate hot and cold with a mid block and mount in one easy location.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.50 x 3.50
Inlet Hole Size	2
Mounting Hole Size	5/16
No. of Inlets	2
Outlet Hole Size	3/4
Unit of Measure	Inch



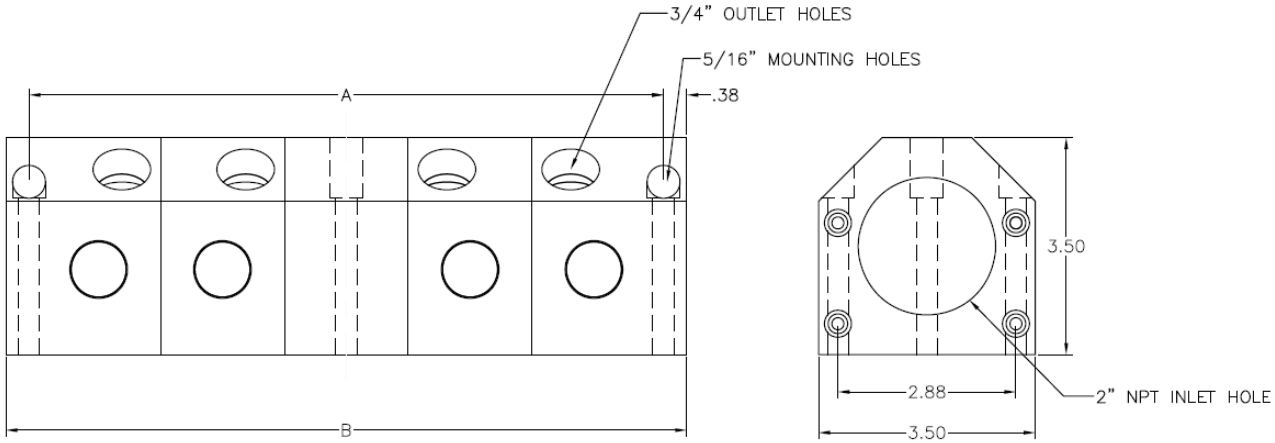
CATALOG NO.	OUTLET HOLE SIZE	NO. OF RED OUTLETS	NO. OF BLUE OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Divide (PD)						
FB4-1-10-PD	3/4	5	5	2	6.25	7
FB4-2-10-PD	3/4	10	10	2	10.25	11
FB4-3-10-PD	3/4	15	15	2	14.25	15
FB4-4-10-PD	3/4	20	20	2	18.25	19
FB4-5-10-PD	3/4	25	25	2	22.25	23
90° Port-to-Divide (PD)						
FB490-1-10-PD	3/4	3	3	2	6.75	7.5
FB490-2-10-PD	3/4	8	8	2	9.75	10.5
FB490-3-10-PD	3/4	13	13	2	12.75	13.5
FB490-4-10-PD	3/4	18	18	2	15.75	16.5
FB490-5-10-PD	3/4	23	23	2	18.75	19.5

FB4 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB4 Series manifolds have a 2" inlet hole size and a ¾"outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.50 x 3.50
Inlet Hole Size	2
Mounting Hole Size	5/16
No. of Inlets	1
Outlet Hole Size	3/4
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
Port-to-Blank (PB)						
FB4-1-10-B-PB	3/4	Blue	5	1	3.13	4.5
FB4-2-10-B-PB	3/4	Blue	10	1	5.13	6.5
FB4-3-10-B-PB	3/4	Blue	15	1	7.13	8.5
FB4-4-10-B-PB	3/4	Blue	20	1	9.13	10.5
FB4-5-10-B-PB	3/4	Blue	25	1	11.13	12.5
FB4-1-10-R-PB	3/4	Red	5	1	3.13	4.5
FB4-2-10-R-PB	3/4	Red	10	1	5.13	6.5
FB4-3-10-R-PB	3/4	Red	15	1	7.13	8.5
FB4-4-10-R-PB	3/4	Red	20	1	9.13	10.5
FB4-5-10-R-PB	3/4	Red	25	1	11.13	12.5

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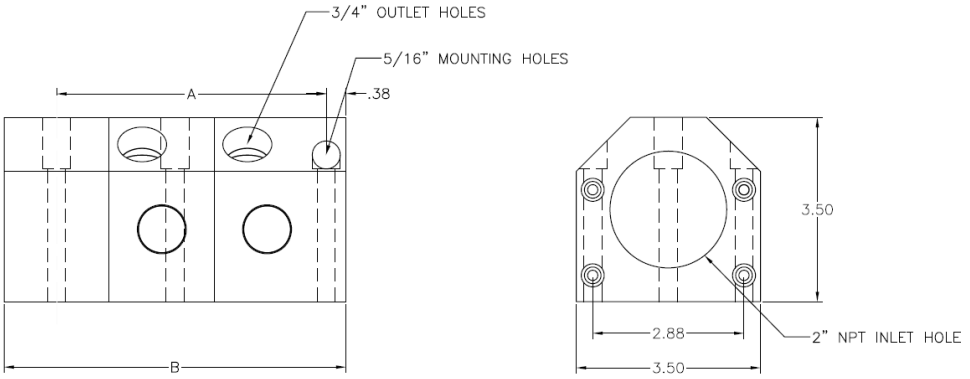
FB4 Port-to-Blank Assemblies

- Modular construction
- 6061-T6 Aluminum Material
- Anodized for corrosion protection
- Pre-drilled mounting holes
- Viton O-Rings and Tie Rods included

The modular design of the Kool Flow Manifold™ allows for changes to be made at any time according to your needs. FB4 Series manifolds have a 2” inlet hole size and a ¾”outlet hole size. The Port to Blank Assembly eliminates the costly end plug, allowing the hot and cold manifolds to be mounted in different locations.

SPECIFICATIONS	
Material Type	Anodized Aluminum
Block Size	3.50 x 3.50
Inlet Hole Size	2
Mounting Hole Size	5/16
No. of Inlets	1
Outlet Hole Size	3/4
Unit of Measure	Inch



CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS	NO. OF INLETS	DIMENSION A	DIMENSION B
90°Port-to-Blank (PB)						
FB490-1-10-B-PB	3/4	Blue	3	1	4.13	5.5
FB490-2-10-B-PB	3/4	Blue	8	1	6.13	7.5
FB490-3-10-B-PB	3/4	Blue	13	1	8.13	9.5
FB490-4-10-B-PB	3/4	Blue	18	1	10.13	11.5
FB490-5-10-B-PB	3/4	Blue	23	1	12.13	13.5
FB490-1-10-R-PB	3/4	Red	3	1	4.13	5.5
FB490-2-10-R-PB	3/4	Red	8	1	6.13	7.5
FB490-3-10-R-PB	3/4	Red	13	1	8.13	9.5
FB490-4-10-R-PB	3/4	Red	18	1	10.13	11.5
FB490-5-10-R-PB	3/4	Red	23	1	12.13	13.5

FB4 Individual Components

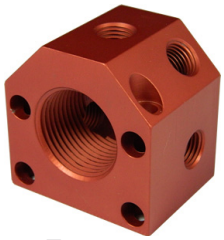
FB4 Series = 2” NPT Inlet

Block Size: 3.50” W x 3.50” H
Material: 6061-T6 Alum Manifold Bar Stock
Finish: Anodized
Mounting Hole Size: 5/16” SHCS
Inlet Hole: 2” NPT
Outlet Hole: 3/4”

Blocks Sold Individually:
- After Purchase Modifications
- Spare Parts Inventory
- Build your own Assemblies

First Block—Straight—(2” NPT Inlet)

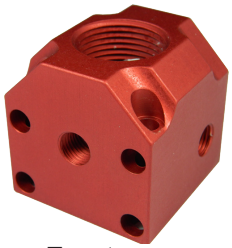
CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB4-FB-2-10-R	3/4"	Red	5
FB4-FB-2-10-B	3/4"	Blue	5

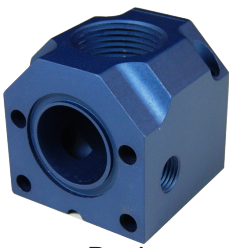

Front


Back

First Block—90°—(2” NPT Inlet)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB4-FB90-2-10-R	3/4"	Red	3
FB4-FB90-2-10-B	3/4"	Blue	3

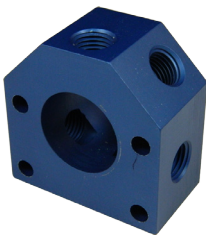

Front


Back

Mod Block

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB4-MOD-10-R	3/4"	Red	5
FB4-MOD-10-B	3/4"	Blue	5


Front


Back

Mid Block (or End Block)

CATALOG NO.	OUTLET HOLE SIZE	BLOCK COLOR	NO. OF OUTLETS
FB2-MIDB-1	n/a	Silver	0

*Used in both the PD and PB Configurations


Front


Back

Miscellaneous Hardware

CATALOG NO.	DESCRIPTION
FB4-OR-1	Viton O-Ring
FB4-TR-1	M6-1.0 Tie Rod (Single Block)
FB4-SHCS-1	M6-1.0 x 25mm SS SHCS
FB4-SHCS-2	M6-1.0 x 30mm SS SHCS
FB4-SHCS-3	M6-1.0 x 40mm SS SHCS
FB4-SHCS-4	M6-1.0 x 45mm SS SHCS
FB4-SHCS-MNT	5/16” x 3" SS SHCS

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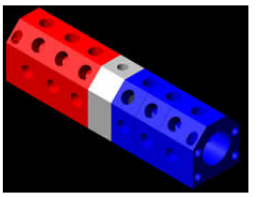
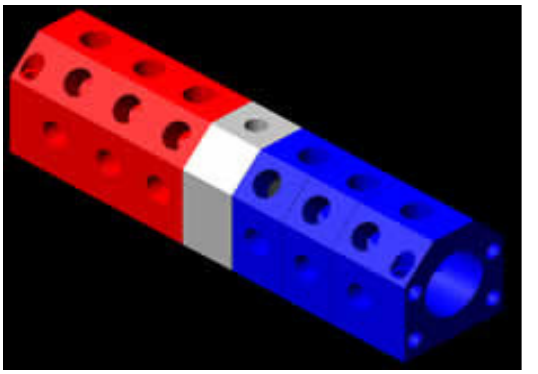
Visit our Online e-KOOL Configurator!

Configure an Assembly Part Number

Style:	Divided
Inlet:	1 1/2"
90 Degree Inlet:	No
Npt Out:	1/2"
Stations:	3
Color:	

Part Number: FB3-3-8-PD
Price: $231.75
CAD File(s): FB3-3-8-PD.zip

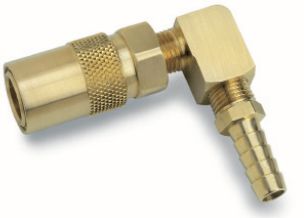


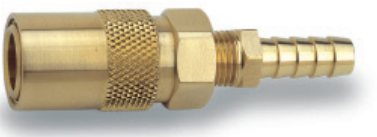


From Configurator to CAD in a Few Clicks...

Don’t forget to order accessories!

- Pipe Plugs
- Pressure Plugs
- Connector Plugs
- Extension Plugs
- Socket Connectors
- Self-Grip Hose
- Hose Clamps
- Teflon Tape





SWAP® VALVE
Quickly Purge Cooling Water using Shop Air

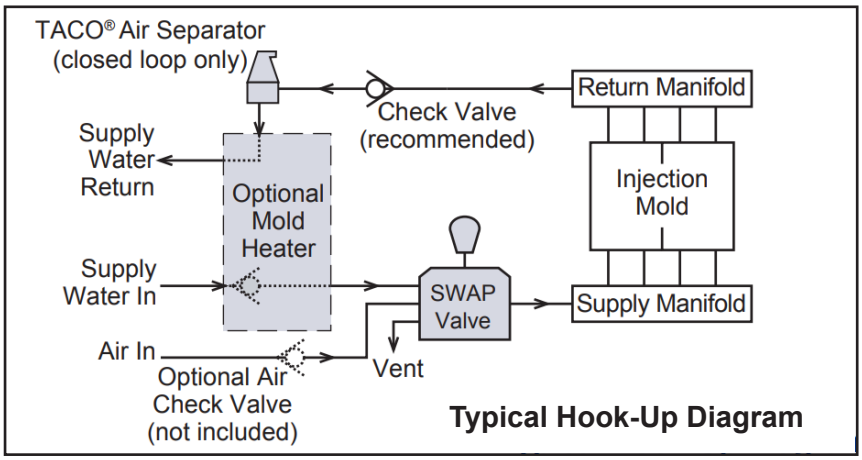
- The SWAP® Valve is well-suited for cooling water Supply lines up to 2-inch
- Available in 2 materials: 1 & 2 inch sizes in Anodized Aluminum or 1-inch size Molded Body with Glass-Filled Nylon outer Plates & Stainless Steel Disc
- Typical mounting is on press or safety door frame
- Installation of an air separator in the return line of a closed loop cooling system is recommended

The Smartflow® SWAP® Valve supplies cooling water to the mold during processing. Secondly, it supplies air to purge the water from the mold, cooling lines, Supply and Return manifolds before tool change. It also provides a manual vent to release built-up air pressure within the cooling water loop after purging. A check valve should be installed in the return line downstream from the Return manifold to prevent backflow to the mold.

Tubing may be connected to the manual vent-drain port so after the purge cycle any residual water can be released into a container or drain.

An optional spring-loaded, locking pin is available for molders who require two-hand operation. This prevents accidental valve handle movement.

Benefits:
- **Implements SMED** by dramatically reducing toolchange time.
- **Identifies Supply Lines** by noting which manifoldis connected to the SWAP Valve.
- **Full Port Design** provides maximum cooling water flow with minimum pressure drop.
- **Prevents Slip Hazard** by keeping shop floors dry.
- **Prepares Injection Mold** for preventive maintenance and storage.
- **Optional Positive Locking Pin** prevents accidental valve handle movement.



Typical Hook-Up Diagram

Application

The SWAP® valve is well-suited for cooling water Supply lines up to 2-inch NPT. It is permissible to adapt 3/4", 1-1/4" and 1-1/2" line sizes providing adequate cooling water flow can be achieved. Typical mounting is on press or safety door frame. Mounting on any suitable surface, such as a platen, mold or manifold stand is acceptable.

Installation of an air separator in the return line of a closed loop cooling system is recommended. See the typical Hook-Up Diagram (above) for location.

For Normal Processing	Select WATER. Cooling Water is available to the Supply manifold. Purge Air is blocked.
to Evacuate Cooling Water	Select PURGE. Purge Air is available to the Supply manifold. Cooling Water is blocked
To Bleed Trapped Pressure and Drain Residual Water	Select VENT Press Manual Vent-Drain Valve. Purge Air is blocked. Cooling Water is blocked.

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SWAP® VALVE Molded Body, Stainless Disc (1” Only)

- The SWAP valve is well-suited for cooling water Supply lines up to 2-inch
- Available in 2 materials: 1 & 2 inch sizes in Anodized Aluminum or 1-inch size Molded Body with Glass-Filled Nylon outer Plates & Stainless Steel Disc
- Typical mounting is on press or safety door frame
- Installation of an air separator in the return line of a closed loop cooling system is recommended

SPECIFICATIONS	
Maximum Operating Temperature	250°F (121°C)
Maximum Pressure	150psi (10.3bar)
Normal Working Air Pressure	80 to 100psi
Pressure Drop Across Purge Valve	1psi at 50gpm
Material	Body- Glass-filled Nylon, Valve Disc- Stainless Steel, O-Rings- EPDM, Check Valve- Brass

CATALOG NO.	DESCRIPTION	LOCKING PIN	THREAD SIZE	WEIGHT
SPV8-A-M	SWAP® Valve Model with Check Valve	No	1”NPT	2.5kg (5.5lbs)
SPV8-L-M		Yes		

SWAP® VALVE Aluminum Body & Disc, (1” or 2” models)

- The SWAP valve is well-suited for cooling water Supply lines up to 2-inch
- Available in 2 materials: 1 & 2 inch sizes in Anodized Aluminum or 1-inch size Molded Body with Glass-Filled Nylon outer Plates & Stainless Steel Disc
- Typical mounting is on press or safety door frame
- Installation of an air separator in the return line of a closed loop cooling system is recommended

SPECIFICATIONS	
Maximum Operating Temperature	250°F (121°C)
Maximum Pressure	150psi (10.3bar)
Normal Working Air Pressure	80 to 100psi
Pressure Drop Across Purge Valve	1psi at 50gpm
Material	Body & Valve Disc- Aluminum (PTFE Impregnated) Hard Anodize Coating, O-Rings- EPDM, Check Valve- Brass

CATALOG NO.	DESCRIPTION	LOCKING PIN	THREAD SIZE	WEIGHT
SPV8-A-A	SWAP® Valve Model with Check Valve	No	1”NPT	2.5kg (5.5lbs)
SPV8-L-A		Yes		
SPV16-A-A		No	2”NPT	2.7kg (6lbs)
SPV16-L-A		Yes		

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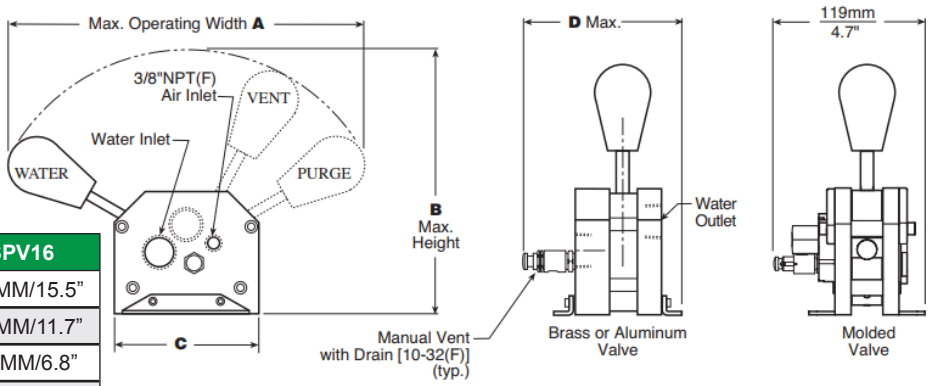
SWAP® VALVE, All Models Maximum Dimensions



DIMENSION	SPV8	SPV16
A	299MM/11.75”	395MM/15.5”
B	221MM/8.7”	297MM/11.7”
C	119MM/4.7”	173MM/6.8”
D	130MM/5.1”	160MM/6.3”

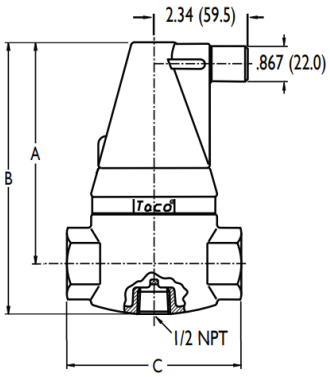
SWAP® VALVE Accessories, All Models

CATALOG NO.	DESCRIPTION
DN-16-A	Dielectric Fitting 2”NPT
DN-8-A	Dielectric Fitting 1”NPT
PVCV-100-A	Brass Check Valve 1”NPT
PVCV-200-A	Brass Check Valve 2”NPT
PVCV-3-A	Air Check Valve 3/8”NPT

TACO® 4900 Series Air Separators

TACO 4900 Series Air Separators are designed for the complete elimination of air from closed loop water circulating systems. Small air bubbles and micro-bubbles adhere to surfaces on pall rings in the water path and join together to form larger air bubbles. The combined bubbles travel up through the water and into the conical air chamber to be released by the vent at the top. Recommended for use with SMARTFLOW® SWAP® Valve in a closed loop cooling water system.

SPECIFICATIONS	
Maximum Operating Temperature	240°F (115°C)
Maximum Operating Pressure	150psi (10bar)
Media	Water or Water/Glycol
Minimum Operating Temperature	25°F (-4°C)
Max. Velocity	5 ft/sec
Material	Housing- Brass, Pall Ring & Venting Unit- Stainless Steel



CATALOG NO.	A	B	C	CONNECTION SIZES	WEIGHT
49-100	5-1/2” (139mm)	6-3/4” (171mm)	4-3/8” (111mm)	1” NPT	2 kg (4.5lbs.)
49-200	6-5/8” (169mm)	8-7/16” (214mm)	5-3/16”	2” NPT	2.7kg (6.0lbs.)