

SMARTFLOW[®] Aluminum Manifolds

General Description

Smartflow[®] aluminum manifolds are constructed from unique extruded material, precision machined, then anodized for corrosion protection. Many manifold sizes are stocked, however custom manifolds can be made to your specifications.

Standard red and blue colors denote supply and return for cooling water lines. 3/4", 1", and 1 1/2" manifolds are equipped with dovetail locking channels, pre-drilled mounting holes, and bolts for ease in pairing and installation. Each manifold with NPT threads includes one bronze end plug.

Features and Benefits

- ◆ **One-Piece Extruded Aluminum Construction** is lightweight with long-lasting durability.
- ◆ **Quality Anodizing** protects the manifolds from corrosion and signifies manifold function.
- ◆ **Different Port Size Options** provide connection flexibility.
- ◆ **Bronze End Plug** is included for customer convenience (NPT only).
- ◆ **Pre-Drilled Mounting Holes** make the manifolds ready to install.
- ◆ **3/4 thru 1-1/2 manifolds dovetail together** for ease in mounting.
- ◆ **Common Manifold Configurations Stocked** to provide quick delivery.

Specifications

MaterialAluminum (6000 Series)
Max. Pressure150 psi (10 bar)
Max. Temperature300°F (149°C)
AnodizingMil Spec Type II Class 2
Standard ColorsRed, Blue
Optional ColorsBlack, Green, Gold, Clear

Assembly

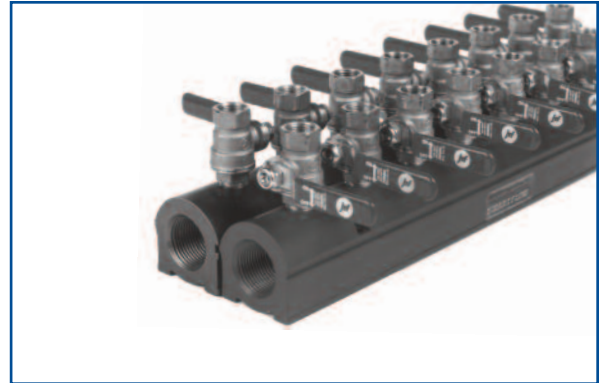
Smartflow[®] aluminum manifolds are the platform for control of cooling water lines in most types of industrial process cooling. Injection molding is one example and our particular area of expertise. Flowmeters, Flow Regulators, Ball Valves, Quick Disconnect Fittings and more can be added to the manifolds to improve functionality and process control. See page 12 for ordering information.

Custom Manifolds

Special port sizes and locations are possible with Smartflow aluminum manifolds. All fabrication is done from extruded material at our factory in Kansas City. Contact your distributor for price and delivery on custom manifolds.

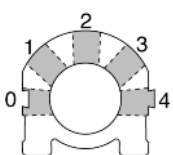
3D CAD Data is available on demand at
www.MANIFOLDBUILDER.com

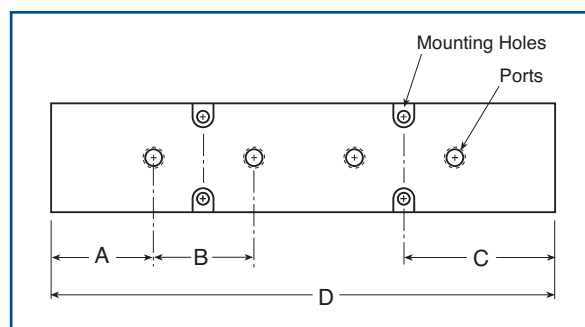
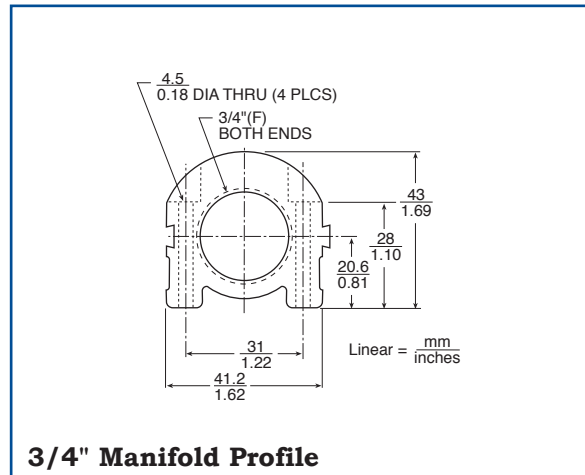
ManifoldBuilder



SMARTFLOW® 3/4" Aluminum Manifolds

Model Number (manifold only, see page 12 to add port valves, quick connects and flowmeters)

	6SA	-	8	-	3	-	2	-	Y	
Supply Threads	6SA NPT British Parallel British Taper								Y Red Z Blue	Color
Number of Ports			4 to 16							Port Locations
Port Sizes										<ul style="list-style-type: none"> 0 Left Side 1 Left 45° 2 Center 3 Right 45° 4 Right Side
										



Stocked 3/4" Manifolds										
Number of Ports	1/4" Ports A = 38.1mm/1.5", B = 38.1mm/1.5" C = 57.2mm/2.25"					3/8" Ports A = 38.1mm/1.5", B = 50.8mm/2.0" C = 63.5mm/2.5"				
	model number	length (D) mm	in.	weight each kg	lbs.	model number	length (D) mm	in.	weight each kg	lbs.
4	6SA- 4-2-2	190	7.5	0.5	1.1	6SA- 4-3-2	229	9	0.6	1.4
6	6SA- 6-2-2	267	10.5	0.7	1.6	6SA- 6-3-2	330	13	0.9	2.0
8	6SA- 8-2-2	343	13.5	0.9	2.0	6SA- 8-3-2	432	17	1.2	2.6

Contact your distributor for custom manifolds.

Design and specifications are subject to change without notice. See page 19 for manifold testing and use.

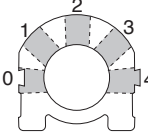
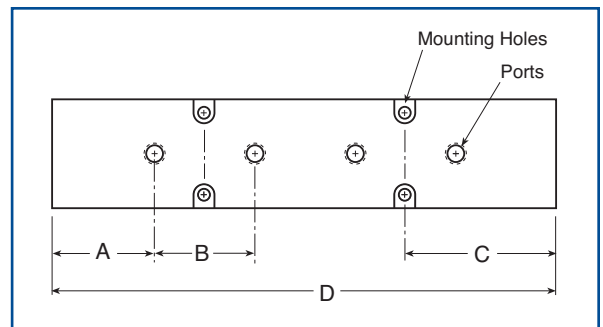
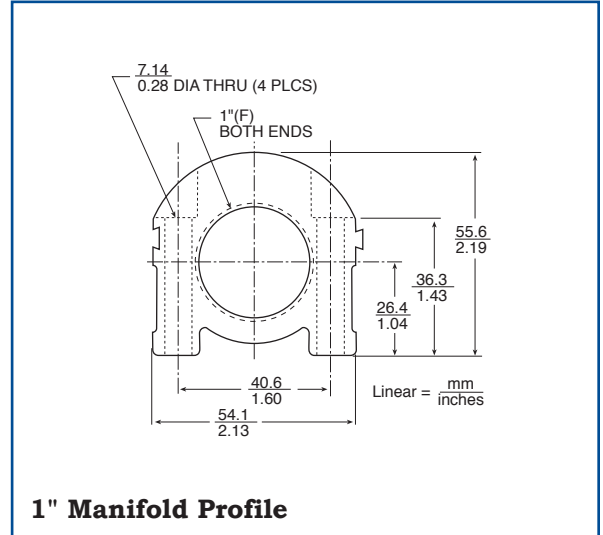
Galvanic corrosion may occur in anodized aluminum components when installed in electrical connection with more noble metals such as copper. Use appropriate installation practices.

SMARTFLOW[®] 1" Aluminum Manifolds

Model Number (manifold only, see page 12 to add port valves, quick connects and flowmeters)

8SA - 16 - 2 - 2 - Y

Supply Threads	8SA 8BSA 8TSA	Color	Y Red Z Blue
NPT British Parallel British Taper			
Number of Ports	4 to 16	Port Locations	0 Left Side 1 Left 45° 2 Center 3 Right 45° 4 Right Side
Port Sizes	1/4"NPT 1/4"BSPP 1/4"BSPT 3/8"NPT 3/8"BSPP 3/8"BSPT 1/2"NPT 1/2"BSPP 1/2"BSPT	2 2B 2T 3 3B 3T 4 4B 4T	

Stocked 1" Manifolds										
Number of Ports	1/4" Ports A = 38.1mm/1.5", B = 38.1mm/1.5" C = 57.2mm/2.25"					3/8" Ports A = 38.1mm/1.5", B = 50.8mm/2.0" C = 63.5mm/2.5"				
	model number	length (D)		weight each		model number	length (D)		weight each	
		mm	in.	kg	lbs.		mm	in.	kg	lbs.
4	8SA- 4-2-2	190	7.5	0.9	2.0	8SA- 4-3-2	229	9	1.1	2.4
6	8SA- 6-2-2	267	10.5	1.3	2.8	8SA- 6-3-2	330	13	1.6	3.5
8	8SA- 8-2-2	343	13.5	1.6	3.6	8SA- 8-3-2	432	17	2.1	4.6
10	8SA-10-2-2	419	16.5	2.0	4.5	8SA-10-3-2	533	21	2.6	5.7
12	8SA-12-2-2	495	19.5	2.4	5.3	8SA-12-3-2	635	25	3.1	6.8
16	8SA-16-2-2	648	25.5	3.1	6.9	8SA-16-3-2	838	33	4.0	8.9

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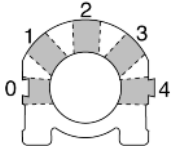
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SMARTFLOW® 1-1/2" Aluminum Manifolds

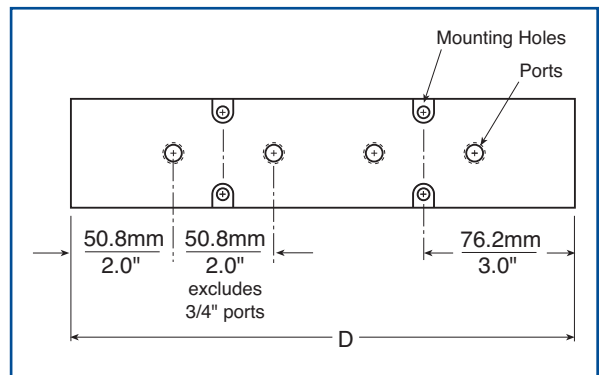
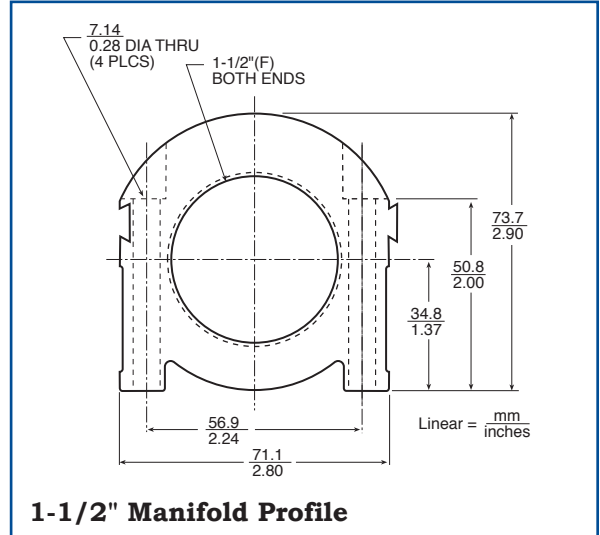
Model Number (manifold only, see page 12 to add port valves, quick connects and flowmeters)

12SA - 16 - 4 - 2 - Y

Supply Threads	12SA NPT	16	4	2	Y	Color
	12BSA British Parallel					Red
	12TSA British Taper					Blue
Number of Ports		4 to 16				
Port Locations			0	1	2	3
			Left Side	Left 45°	Center	Right 45°
			4			
			Right Side			
Port Sizes			3	3B	3T	
			3/8"NPT	3/8"BSPP	3/8"BSPT	
			4	4B	4T	
			1/2"NPT	1/2"BSPP	1/2"BSPT	
			6	6B	6T	
			*3/4"NPT	*3/4"BSPP	*3/4"BSPT	



*76.2mm/3" port center spacing



Stocked 1-1/2" Manifolds					
Number of Ports	1/2" Ports				
	model number	length (D)		weight each	
		mm	in.	kg	lbs.
4	12SA- 4-4-2	254	10	2.0	4.4
6	12SA- 6-4-2	356	14	2.8	6.2
8	12SA- 8-4-2	457	18	3.6	7.9
10	12SA-10-4-2	559	22	4.4	9.7
12	12SA-12-4-2	660	26	5.1	11.4
16	12SA-16-4-2	864	34	6.7	15.0

Contact your distributor for custom manifolds.

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Galvanic corrosion may occur in anodized aluminum components when installed in electrical connection with more noble metals such as copper. Use appropriate installation practices.

SMARTFLOW[®] 2" Aluminum Manifolds

Model Number (manifold only, see page 12 to add port valves, quick connects and flowmeters)

16SA - 16 - 4 - 2 - Y

Supply Threads

NPT **16SA**

British Parallel **16BSA**

British Taper **16TSA**

Color

Y Red

Z Blue

Port Sizes

4 1/2" NPT

4B 1/2" BSPP

4T 1/2" BSPT

6 *3/4" NPT

6B *3/4" BSPP

6T *3/4" BSPT

8 *1" NPT

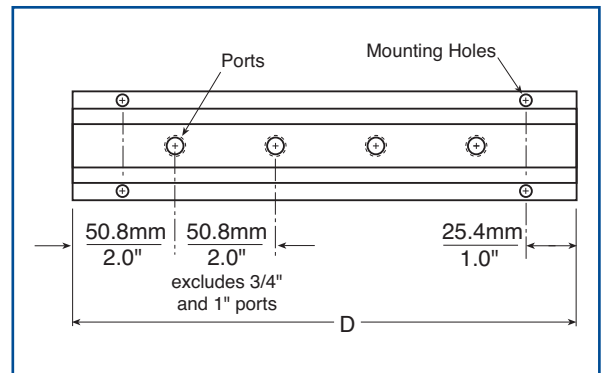
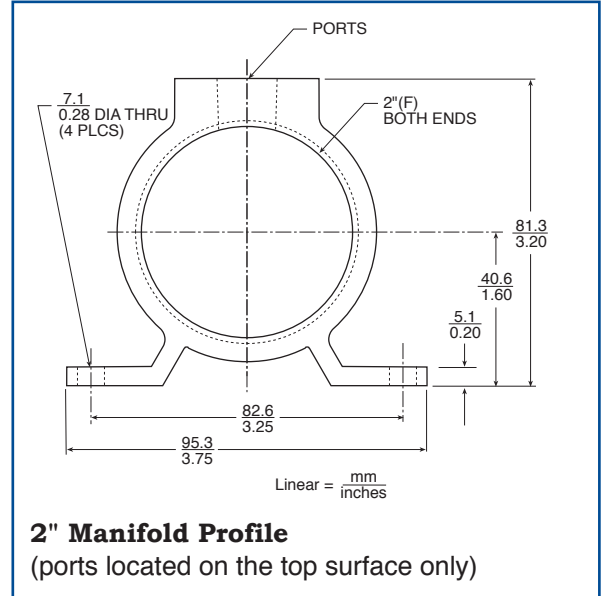
8B *1" BSPP

8T *1" BSPT

Total Number of Ports

4 to 16

*76.2mm/3" port center spacing



Stocked 2" Manifolds					
Number of Ports	1/2" Ports				
	model number	length (D)		weight each	
		mm	in.	kg	lbs.
4	16SA- 4-4-2	254	10	1.3	2.9
6	16SA- 6-4-2	356	14	1.8	4.1
8	16SA- 8-4-2	457	18	2.4	5.2
12	16SA-12-4-2	660	26	3.4	7.5
16	16SA-16-4-2	864	34	4.5	9.9

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