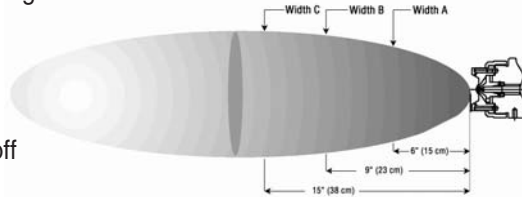


# SAM

## External Mix/Flat Fan or Narrow Round

### DESIGN FEATURES

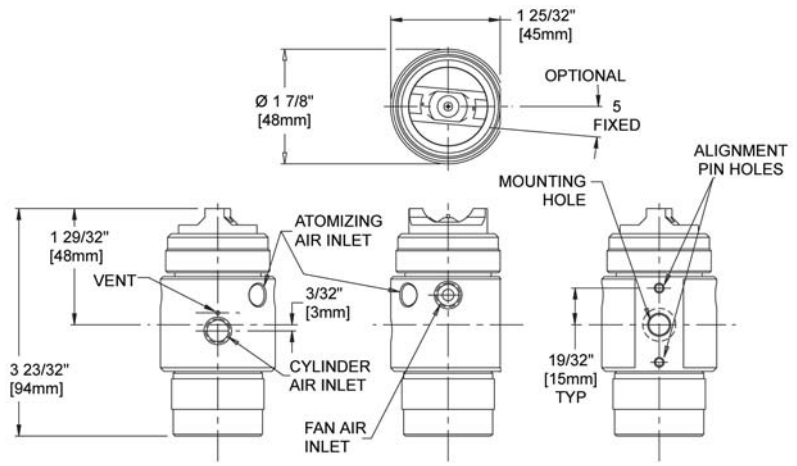
- Separate atomizing and fan air lines provide variable coverage and fine control of drop size without affecting liquid flow rates. Higher atomizing air pressure yields finer drop size; higher fan air pressure yields broader patterns
- External mix; allows spraying of viscous materials
- Liquid flow rates are independent of air
- Precise metering of the liquid flow rate
- Pneumatically controlled shut-off and clean-out built in



AIR ATOMIZING

### SAM Liquid Flow Rates

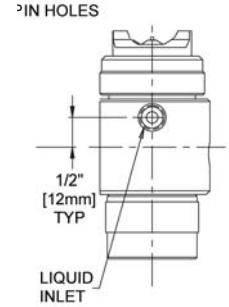
Pipe Size	Spray Set-up Number	Fluid Cap and Air Cap Number	Liquid Capacity GPH @ PSI				
			3 PSI	5 PSI	10 PSI	15 PSI	20 PSI
1/8"	SAM-01-02	FCS 01 & ACS 02	0.7	1.0	1.4	1.7	1.9
	SAM-02-02	FCS 02 & ACS 02	1.1	1.5	2.1	2.5	2.9
	SAM-03-02	FCS 03 & ACT 02	2.2	2.8	4.0	4.9	5.6
	SAM-04-03	FCS 04 & ACS 03	3.6	4.7	6.6	8.0	9.4
	SAM-05-03	FCS 05 & ACS 03	4.9	6.4	9.0	11.0	12.8
	SAM-06-04	FCS 06 & ACS 04	10.0	13.0	18.4	23	26
	SAM-07-05	FCS 07 & ACS 05	18.3	24	33	41	47



### SAM Air Flow Rates

Pipe Size	Spray Set-up Number	Fluid Cap and Air Cap Number	Atomizing Air Capacity SCFM @ PSI									
			10 PSI	15 PSI	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI	70 PSI	80 PSI	90 PSI
1/8"	SAM-01-02	FCS 01 & ACS 02	0.44	0.53	0.62	0.82	1.0	1.3	1.5	1.7	2.0	2.2
	SAM-02-02	FCS 02 & ACS 02										
	SAM-03-02	FCS 03 & ACS 02										
	SAM-04-03	FCS 04 & ACS 03	1.6	2.0	2.4	3.2	4.0	4.7	5.5	6.3	7.0	7.8
	SAM-05-03	FCS 05 & ACS 03	1.6	2.0	2.4	3.1	3.9	4.7	5.4	6.2	7.0	7.8
	SAM-06-04	FCS 06 & ACS 04										
	SAM-07-05	FCS 07 & ACS 05										

Pipe Size	Spray Set-up Number	Fluid Cap and Air Cap Number	Fan Air Capacity SCFM @ PSI									
			10 PSI	15 PSI	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI	70 PSI	80 PSI	90 PSI
1/8"	SAM-01-02	FCS 01 & ACS 02	2.2	2.7	3.3	4.4	5.5	6.6	7.6	8.6	9.6	10.6
	SAM-02-02	FCS 02 & ACS 02										
	SAM-03-02	FCS 03 & ACS 02										
	SAM-04-03	FCS 04 & ACS 03	3.5	4.4	5.4	7.2	8.9	10.6	12.3	14.0	15.5	17.2
	SAM-05-03	FCS 05 & ACS 03	3.9	4.9	6.0	8.1	10.2	12.3	14.3	16.3	18.2	20
	SAM-06-04	FCS 06 & ACS 04										
	SAM-07-05	FCS 07 & ACS 05										



**Note:** Spray set-ups consist of fluid and air caps. Set-ups are interchangeable but each uses a different needle size.

**Air-Operated Clean-out/Shut-off.** Removal of air pressure to the cylinder causes a spring-loaded poppet valve actuator to shut off liquid flow and includes a clean-out needle.

Replacement air caps include replacement Blue-Gard® gaskets.

TO ORDER: specify pipe size, body style, spray set-up #, hardware and mounting assemblies, and material.

Standard Materials: 303 Stainless Steel, Blue-gard® gasket, Viton® O-rings

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

Dimensions are approximate. Check with BETE for critical dimension applications.

**SAM Coverage Chart**

Variable Spray, Pressure Fed, Flat Fan or \*Narrow Round Spray Pattern

Pipe Size	Spray Set-up Number	Fluid Cap and Air Cap Number	Spray Dimensions with Varied Fan Air Pressure																																												
			PSI air	PSI liquid	0° PSI			10 PSI			40 PSI			60 PSI																																	
					A in.	B in.	C in.	A in.	B in.	C in.	A in.	B in.	C in.	A in.	B in.	C in.																															
1/8	SAM-01-02	FCS 01 & ACS 02	10	3	2	3	4	7	9	10	6	8	11	6	8	11	10	10	2.5	3.5	4.5	7.5	10	12	7	8	11	7	8	12	20	2	3	4	8	12	14	9	11	14	8	10	13				
			30	3	2	3	4.5	5	6	7	8	10	14	8	11	14	10	2	2.5	3	5	6	7.5	10	8	10	13	8	10	12	20	2	3	4	7	9	13	10	12	15	9.5	11.5	14.5				
			40	3	2.5	3.5	6	5	6	8	8	10	14	9	11	14	10	2	3	5	6	7	10	9	11	14	9	11	13	20	2	3	4.5	7	8	12	10	12	14	10	12	15					
			60	3	2.5	3.5	6	4	5	6	8	11	13	9	11	14	10	2	3	5	4.5	5	7	8	10	14	9	12	15	20	2	3	4.5	5	7	9	9	12	16	10	13	17					
			SAM-02-02	FCS 02 & ACS 02	10	3	2	3	4	8	10	12	6.5	8.5	11	6	9	12	10	10	2.5	3.5	4.5	8	12	15	9	14	18	7	10	13	20	2	3	4	8	12	15	8	10	13					
					30	3	2	3	4.5	5.5	7	8	8	10	14	8	11	14	10	2	3	5	7	9	12	10	12	14	9	10	13	20	2	3	4	7	10	12	13	16	18	9.5	11.5	14.5			
					40	3	2.5	3.5	6	5	7	9	8	10	14	9	11	14	10	2	3	5	7	8	6.5	9.5	12	14	9	12	15	20	2	3	4.5	6.5	9	12.5	11.5	15	17	11	14	18			
					60	3	2.5	3.5	6	4.5	5.5	7	8	10.5	13	9	11	14	10	2.5	4	5.5	5	6	8.5	9	11	14	10	12	15	20	2	3	4.5	5.5	7.5	9.5	10	14	18	11	14	18			
					SAM-03-02	FCS 03 & ACS 02	10	3	2	3	5	9	12	15	7	9	11	7	9	12	10	10	2	2.5	4	12	15	21	12	20	23	7	9	12	20	2	3	4	10	12	16	8	10	13			
							30	3	2.5	3	4.5	6	8	9	8	10	13	8	10	13	10	2	3	5	8	11	15	11	13	13	10	11	13	20	2	2.5	4	8	12	14	16	20	22				
							40	3	2.5	3.5	5	5	7	10	8	10	13	8	11	13	10	2	3	5	7	8	11	11	13	15	10	12	13	20	2	3	5	7	9	13.5	13	18	21	12	17	21	
							60	3	2.5	3.5	5.5	5	6	8	8	10	13	8	10	13	10	2.5	3.5	5.5	6	7	9.5	10	13	16	11	13	15	20	2	3	4.5	6	8	10	12	18	22	13	18	21	
	SAM-04-03	FCS 04 & ACS 03					10	3	2.5	3.5	5	9	13	17							10	10	2	3	4.5	10	14	17							20	2	3	4.5	9	13	17	18	24	29			
							30	3	2.5	3	5	4	5	7	11	15	18	12	15	18	10	2.5	3.5	5	5	7	9	13	17	22	18	21	26	20	2.5	3.5	5.5	5	6	9	13	20	24	17	22	27	
							40	3	2.5	3	5	3.5	4.5	6.5	9	12	14	11	13	18	10	2.5	3.5	5	4	5.5	8	11	15	21	16	20	25	20	2.5	3.5	5	4	5.5	8	11	15	21	16	20	25	
							60	3	2.5	3.5	5	3	4	6	8	10	13	10	12	17	10	2.5	3.5	4.5	3	4	6	8	11	14	11	15	18	20	2.5	3.5	4.5	3	4.5	7	10	12	16	12	17	22	
			SAM-05-03	FCS 05 & ACS 03			10	3	3	4	6	9	12	18							10	10	3	4	6	8	11	15	24	29	35				20	3	4	6	9	12	15	21	28				
							30	3	2.5	3.5	6	4	6	8	12	15	19	12	15	19	10	2.5	3.5	5	4.5	6	8	14	18	23	17	22	25	20	2	3	5	4.5	6	9	15	19	27	18	23	27	
							40	3	2.5	3.5	6	3.5	5	7	10	13	17	12	14	18	10	2.5	3.5	5.5	4	6	8	12	16	20	15	18	22	20	2.5	3.5	5.5	3.5	5	9	13	17	22	16	20	24	
							60	3	2.5	3.5	6	2.5	4	7	9	11	14	10	12	17	10	2.5	3.5	5.5	3	4	6	10	13	16	13	16	20	20	2.5	3.5	5.5	3	4	6	9	13	17	12	17	23	
					SAM-06-04	FCS 06 & ACS 04	10	3	3	4	5	7	10	13							10	10	3	4	5	7	10	13	21	26	33				20	3	4	5	7	10	13	17	22	30	22	27	34
							30	3	3	4	5	4	6	8	12	14	21	15	19	22	10	2.5	3.5	5	4	6	8.5	13	16	22	16	21	23	20	3	4	5	4	6	11	16	21	28	18	24		
							40	3	3	4	5.5	3.5	5	7	10	12	17	12	17	21	10	2.5	3.5	5	3	5	8	9	13	17	13	18	26	20	3	4	5.5	3	5	8	9	13	17	13	18	26	
							60	3	3	4	6	3	4	6	8	10	13	10	13	18	10	3	4	5	3.5	4.5	7	9	12	16	12	16	21	20	3	3.5	5	3	4	5.5	8	10	15	12	16	21	
	SAM-07-05	FCS 07 & ACS 05					10	3	3	4	5	8	11	15							10	10	3	4	5	8	11	15	21	27	35				20	3	4	5	8	11	15	19	24	33			
							30	3	3	4	5	5	6	9	13	18	23	17	25	27	10	3	4	5	6	6.5	7	10	13	17	22	17	25	27	20	3	4	5	6	7	10	14	17	24	18	22	29
							40	3	3	4	5.5	5.5	6	9	11	15	19	17	24	30	10	3	4	5.5	4.5	7	7.5	12	15	20	16	20	29	20	3	4	5.5	4.5	7	7.5	12	15	20	16	20	29	
							60	3	3	4	6	4	6	8	9	12	16	14	19	27	10	3	4	6	4	6	8	9	12	16	14	17	21	20	3	4	6	4	6	8	9	12	16	14	17	21	

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.