



THE
SPRAY NOZZLE
PEOPLE

SAM

External Mix
Flat Fan or
Narrow Round



AIR ATOMISING

DESIGN FEATURES

- ✓ Separate atomising and fan air lines provide variable coverage and fine control of drop size without affecting liquid flow rates. Higher atomising air pressure yields finer drop size; higher fan air pressure yields broader patterns
- ✓ Pneumatically-controlled shut-off and clean-out built in

SPRAY CHARACTERISTICS

- ✓ External mix; allows spraying of viscous materials
- ✓ Liquid flow rates are independent of air
- ✓ Precise metering of the liquid flow rate
- ✓ Removable plug provided for liquid



The SAM nozzle represents a new level of spray control. With three air inlets, the on/off cycle, atomisation level and spray pattern width can all be varied independently. This gives a huge degree of control for precision spraying systems. Applications include:

Precision Coating
Drum Coating
Fluidised Bed Coating
Wurster Coating
And more.

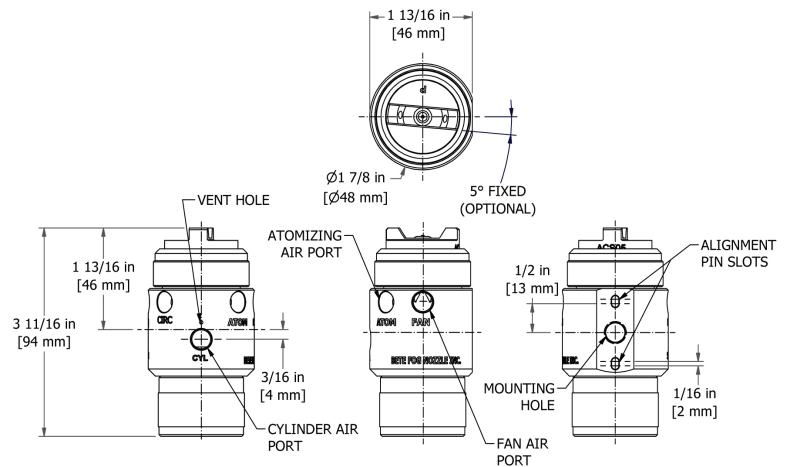
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The Go-to People for spray nozzle solutions

SAM Liquid Flow Rates

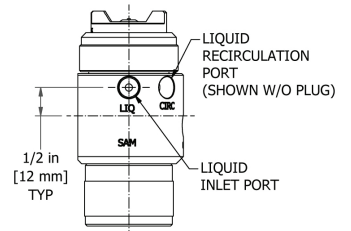
Spray Set-Up Number	Fluid Cap and Air Cap No.	Liquid Capacity l/hr @ bar					
		0.2 bar	0.3 bar	0.5 bar	0.7 bar	1 bar	1.5 bar
SAM-01-01	FCS01 & ACS02	2.7	3.3	4.3	5.1	6.2	7.6
SAM-02-02	FCC02 & ACS02	4.5	5.5	7.2	8.5	10.2	12.5
SAM-03-03	FCS03 & ACS03	8.8	10.8	14	16.6	19.9	24
SAM-04-03	FCS03 & ACS02	13.5	16.5	21	25	30	37
SAM-05-03	FCS05 & ACS03	17.2	21	27	32	38	46
SAM-06-04	FCS06 & ACS04	37	46	60	72	86	107
SAM-07-05	FCS07 & ACS05	59	74	97	116	140	174



SAM Air Flow Rates

Standard Materials: 303 Stainless Steel, Blue-guard® gasket, Viton® o-rings

Spray Set-Up Number	Fluid Cap and Air Cap No.	Atomising Air Capacity Nm3/hr @ bar								
		0.7 bar	1 bar	1.5 bar	2 bar	2.5 bar	3 bar	4 bar	5 bar	6 bar
SAM-01-01	FCS01 & ACS02									
SAM-02-02	FCC02 & ACS02	0.8	1	1.3	1.6	1.9	2.2	2.8	3.3	3.9
SAM-03-03	FCS03 & ACS03									
SAM-04-03	FCS04 & ACS03									
SAM-05-03	FCS05 & ACS03	2.8	3.3	4.1	5	5.8	6.7	8.3	10	11.7
SAM-06-04	FCS06 & ACS04	3.5	4.1	5.1	6.2	7.2	8.2	10.2	12.3	14.3
SAM-07-05	FCS07 & ACS05	4.5	5.3	6.7	8	9.3	10.6	13.3	15.9	18.5

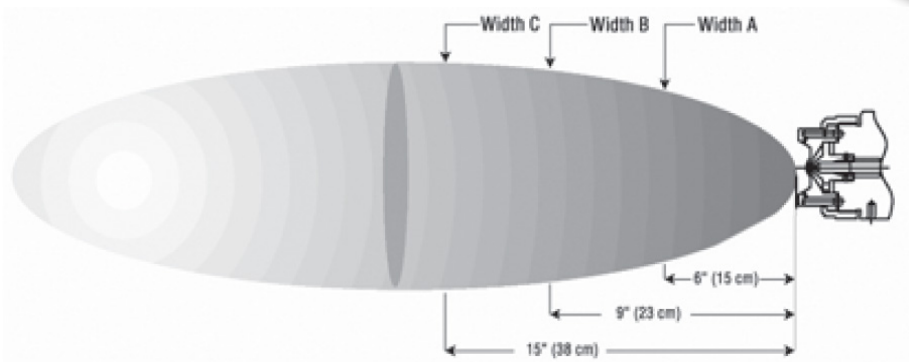


Note: Spray set-ups consist of fluid and air caps. Set-ups are interchangeable but each uses a different needle size.

Spray Set-Up Number	Fluid Cap and Air Cap No.	Fan Air Capacity Nm3/hr @ bar								
		0.7 bar	1 bar	1.5 bar	2 bar	2.5 bar	3 bar	4 bar	5 bar	6 bar
SAM-01-01	FCS01 & ACS02									
SAM-02-02	FCC02 & ACS02	2.7	3.2	4.1	4.9	5.8	6.6	8.3	10	11.8
SAM-03-03	FCS03 & ACS03									
SAM-04-03	FCS04 & ACS03									
SAM-05-03	FCS05 & ACS03	5	6.1	7.8	9.6	11.3	13.1	16.6	20	24
SAM-06-04	FCS06 & ACS04	5.7	6.9	9	11.2	13.3	15.4	19.6	24	28
SAM-07-05	FCS07 & ACS05	5.9	7.2	9.3	11.4	13.6	15.7	20	24	29

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

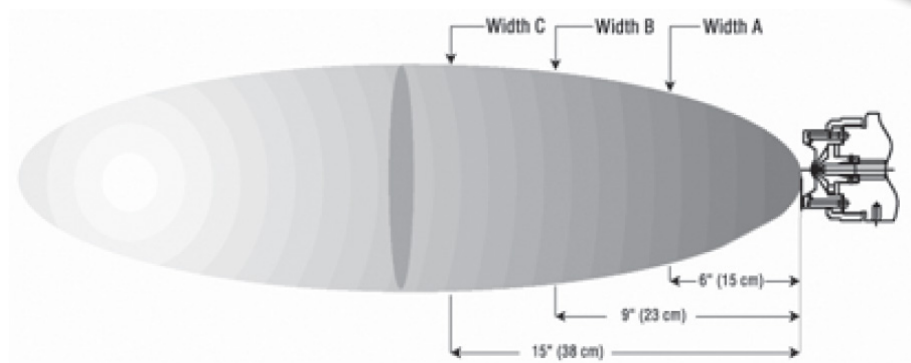
Replacement air caps include replacement Blue-Guard gaskets.



SAM Coverage Chart

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

Spray Set Up No	Fluid Cap & Air Cap No.	Bar air	Bar liquid	Spray Dimensions with Varied Fan Air Pressure (mm)											
				0 Bar			0.7 Bar			2.5 Bar			4 Bar		
				A	B	C	A	B	C	A	B	C	A	B	C
SAM-01-02	FCS 01 & ACS 02	0.7	0.2	50	80	100	180	230	250	150	200	280	150	200	280
			0.7	60	90	110	180	250	300	180	200	280	180	200	300
			1.5	50	80	100	200	300	360	230	280	360	200	250	330
		2	0.2	50	80	110	130	150	180	200	250	360	200	280	360
			0.7	50	60	130	150	180	250	200	250	330	200	250	300
			1.5	50	80	100	180	230	330	250	300	380	240	290	370
		2.5	0.2	60	90	150	130	150	200	200	250	360	230	280	360
			0.7	50	80	130	150	180	250	230	280	360	230	280	330
			1.5	50	80	110	180	200	300	250	300	360	250	300	380
		4	0.2	60	90	150	100	130	150	200	280	330	230	280	360
			0.7	50	80	130	110	130	180	200	250	360	230	300	380
			1.5	50	80	110	130	180	230	230	300	410	250	330	430
SAM-02-02	FCS 02 & ACS 02	0.7	0.2	50	80	100	200	250	300	160	220	280	150	230	300
			0.7	60	90	110	200	300	380	230	360	460	180	250	330
			1.5	50	80	100	200	300	380				200	250	330
		2	0.2	50	80	110	140	180	200	200	250	360	200	280	360
			0.7	50	80	130	180	230	300	250	300	360	230	250	330
			1.5	50	80	100	180	250	300	330	410	460	240	290	370
		2.5	0.2	60	90	150	130	180	230	200	250	360	230	280	360
			0.7	50	80	130	180	200	160	240	300	360	230	300	380
			1.5	50	80	110	160	230	320	290	380	430	280	360	460
		4	0.2	60	90	150	110	140	180	200	270	330	230	280	360
			0.7	60	100	140	130	150	220	230	280	360	250	300	380
			1.5	50	80	110	140	190	240	250	360	460	280	360	460
SAM-03-02	FCS 03 & ACS 02	0.7	0.2	50	80	130	230	300	380	180	230	280	180	230	300
			0.7	50	60	100	300	380	530	300	510	580			
			1.5				250	300	410						
		2	0.2	60	80	110	150	200	230	200	250	330	200	250	330
			0.7	50	80	130	200	280	380	280	330	330	250	280	330
			1.5	50	60	100	200	300	360	410	510	560			
		2.5	0.2	60	90	130	130	180	250	200	250	330	200	280	330
			0.7	50	80	130	180	200	280	280	330	380	250	300	330
			1.5	50	80	130	180	230	370	330	460	530	300	430	530
		4	0.2	60	90	140	130	150	200	200	250	330	200	250	330
			0.7	60	90	140	150	180	240	250	330	410	280	330	380
			1.5	50	80	110	150	200	250	300	460	560	330	460	530



SAM Coverage Chart

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

Spray Set Up No	Fluid Cap & Air Cap No.	Bar air	Bar liquid	Spray Dimensions with Varied Fan Air Pressure (mm)											
				0 Bar			0.7 Bar			2.5 Bar			4 Bar		
				A	B	C	A	B	C	A	B	C	A	B	C
SAM-05-03	FCS 05 & ACS 03	0.7	0.2	80	100	150	230	300	460						
			0.7				200	280	380	610	740	890			
			1.5				230	300	380	530	710				
		2	0.2	60	90	150	100	150	200	300	380	480	300	380	480
			0.7	60	90	130	110	150	200	360	460	580	430	560	630
			1.5	50	80	130	110	150	230	380	480	690	460	580	690
		2.5	0.2	60	90	150	90	130	180	250	330	430	300	360	460
			0.7	60	90	140	100	150	200	300	410	510	380	460	560
			1.5	60	90	140	90	130	230	330	430	560	410	510	610
		4	0.2	60	90	150	60	100	180	230	280	360	250	300	430
			0.7	60	90	140	80	100	150	250	330	410	330	410	510
			1.5	60	90	140	80	100	150	230	330	430	300	430	580
SAM-06-04	FCS 06 & ACS 04	0.7	0.2	80	100	130	180	250	330						
			0.7							530	660	840			
			1.5							430	560	760	560	690	860
		2	0.2	80	100	130	100	150	200	300	360	530	380	480	560
			0.7	60	90	130	100	150	220	330	410	560	410	530	580
			1.5							280	410	530	460	460	610
		2.5	0.2	80	100	140	40	130	180	250	300	430	300	430	530
			0.7	60	90	130	100	130	180	280	360	510	360	460	640
			1.5	60	90	130	80	130	200	230	330	430	330	460	660
		4	0.2	80	100	150	80	100	150	200	250	330	250	330	460
			0.7	80	100	130	90	110	180	230	300	410	300	410	530
			1.5	80	90	130	80	100	140	200	250	380	300	410	530
SAM-07-05	FCS 07 & ACS 05	0.7	0.2	80	100	130	200	280	380						
			0.7							530	690	890			
			1.5							480	610	840			
		2	0.2	80	100	130	130	160	230	330	460	580			
			0.7				150	180	250	330	430	560	430	630	690
			1.5							360	430	610	460	560	740
		2.5	0.2	80	100	140	140	150	230	280	380	480	430	610	760
			0.7	80	90	130	110	180	190	300	380	510	410	510	740
			1.5							300	360	530	360	480	690
		4	0.2	80	100	150	100	150	200	230	300	410	360	430	530
			0.7	80	100	160	130	160	190	250	330	430	330	430	580
			1.5	60	80	130	90	110	150	180	360	380	310	410	610

Ask our technical sales engineers about additional products and services to optimise your spraying process.

Spray Calibration Solutions

Easy-to-use, fast measurement solutions to ensure accurate nozzle installation and maintenance, reduce water wastage and identify nozzle wear.



Spray Pattern & Droplet Distribution



Nozzle Flow Calibrators



Nozzle Cleaning Kit

Complete Spray Bars

Tailored nozzle selections and spray bar designs that integrate seamlessly with your new or existing setup.

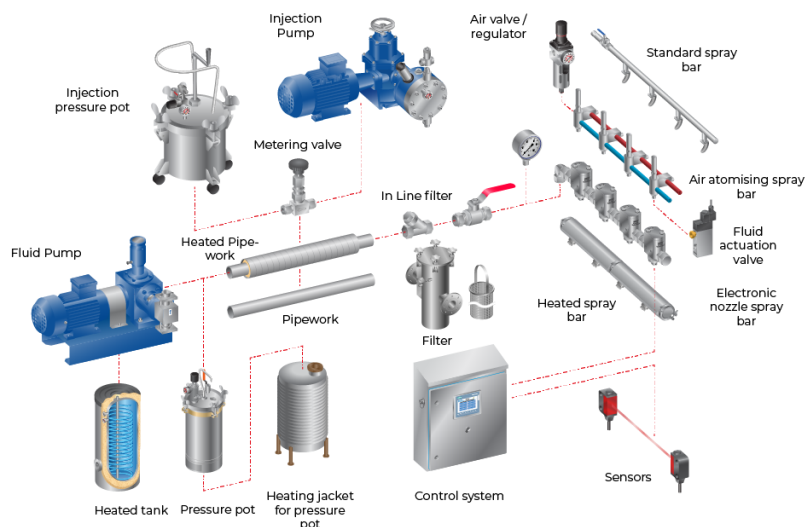
- ✓ Expert nozzle selection and placement
- ✓ Efficient spray coverage
- ✓ Fast turnaround time
- ✓ Reduced design burden
- ✓ High-quality spray bars



Complete Custom Spraying Systems

Complete spraying systems built around your goals and application.

- ✓ Tailored upstream components supplied individually or as part of complete system
- ✓ Custom pipework, pumps, tanks, sensors, valves, heating, control panels and more
- ✓ Seamless integration with existing processes
- ✓ Built to budget and ROI targets
- ✓ End-to-end support: design, install, maintain



THE GO-TO PEOPLE FOR SUCCESSFUL SPRAY ENGINEERING