

# SC

## Metal Alloy Line

### DESIGN FEATURES

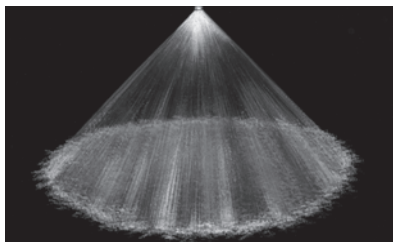
- Complete line of full cone nozzles made in cast metal alloys
- Internal removable vane available
- Male and female connections
- Flanged connections available
- For plastic nozzles, see NC (pp. 42, 43), or MaxiPass (pp.34)

### SPRAY CHARACTERISTICS

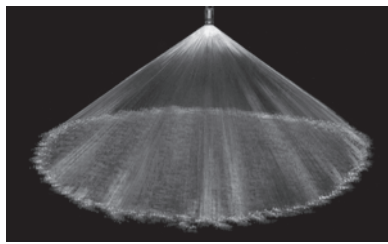
- **Spray pattern:** Full Cone with uniform distribution. For square spray patterns, please contact BETE.
- **Spray angles:** 60°, 90°, and 120°
- **Flow rates:** 6.25 to 8180 l/min



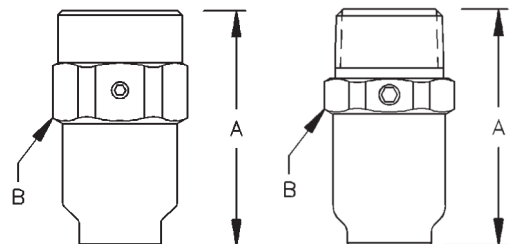
Male



Full Cone 90° (M)



Full Cone 120° (W)



60° / 90° / 120° Female

60° / 90° / 120° Male

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

### SC Flow Rates & Dimensions

Full Cone, Narrow 60° (N), Medium 90° (M) and Wide 120° (W) Spray Angles, 3/4" to 6" Pipe Sizes, BSP or NPT

Male or Female Pipe Size	Nozzle Number	Available Spray Angles			K Factor	LITERS PER MINUTE @ BAR							Approx. Orifice Dia. (mm)	Approx. Free Pass. Dia. (mm)	Dim. (mm)		Wt. (kg) Metal	
		60°	90°	120°		0.2 bar	0.3 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar			7 bar	A		B
3/4	SC 2.5	60°	90°		13.3	6.25	7.57	11.3	13.3	18.5	22.3	28.4	33.3	4.76		50.8	31.0	0.23
	SC 3	60°	90°	120°	16.0	7.50	9.08	13.5	16.0	22.1	26.8	34.1	39.9	5.16				
	SC 4	60°	90°	120°	21.3	10.0	12.1	18.0	21.3	29.5	35.7	45.4	53.2	7.14	4.83			
	SC 6		90°	120°	32.0	15.0	18.2	27.0	32.0	44.3	53.6	68.1	79.8	7.54				
	SC 7		90°	120°	37.3	17.5	21.2	31.6	37.3	51.7	62.5	79.5	93.1	8.89				
1	SC 4.2	60°	90°		22.4	10.5	12.7	18.9	22.4	31.0	37.5	47.7	55.9	6.35	6.35	73.2	38.1	0.36
	SC 7	60°	90°	120°	37.3	17.5	21.2	31.6	37.3	51.7	62.5	79.5	93.1	8.33	7.87			
	SC 8	60°	90°	120°	42.6	20.0	24.2	36.1	42.6	59.1	71.5	90.9	106	8.89	7.87			
	SC 9	60°	90°	120°	48.0	22.5	27.2	40.6	48.0	66.4	80.4	102	120	10.2	7.87			
	SC 10	60°	90°	120°	53.3	25.0	30.3	45.1	53.3	73.8	89.3	114	133	10.7	7.87			
	SC 11	60°	90°	120°	58.6	27.5	33.3	49.6	58.6	81.2	98.3	125	146	11.2	7.87			
1 1/4	SC 12		90°	120°	64.0	30.0	36.3	54.1	64.0	88.6	107	136	160	11.7	7.87	88.9	47.6	0.59
	SC 6	60°	90°		32.0	15.0	18.2	27.0	32.0	44.3	53.6	68.1	79.8	7.62	7.62			
	SC 10	60°	90°		53.3	25.0	30.3	45.1	53.3	73.8	89.3	114	133	9.92	9.65			
	SC 12	60°	90°	120°	64.0	30.0	36.3	54.1	64.0	88.6	107	136	160	10.7	9.65			
	SC 14	60°	90°	120°	74.6	35.0	42.4	63.1	74.6	103	125	159	186	11.7	9.65			
	SC 16	60°	90°	120°	85.3	40.0	48.4	72.1	85.3	118	143	182	213	12.3	9.65			
SC 17	60°	90°	120°	90.6	42.5	51.5	76.6	90.6	126	152	193	226	13.5	9.65				
	SC 20		90°	120°	107	50.0	60.5	90.1	107	148	179	227	266	15.9	9.65			

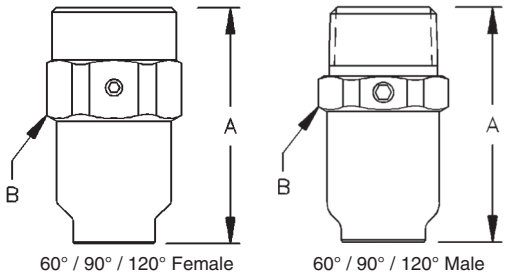
$$\text{Flow Rate (l/min)} = K (\text{bar})^{0.47}$$

Standard Materials: Brass, Carbon Steel, and 316 Stainless Steel

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



**FULL CONE**



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

**SC Flow Rates & Dimensions**  
*Full Cone, Narrow 60° (N), Medium 90° (M) and Wide 120° (W) Spray Angles, 3/4" to 6" Pipe Sizes, BSP or NPT*

Male or Female Pipe Size	Nozzle Number	Available Spray Angles			K Factor	LITERS PER MINUTE @ BAR							Approx. Free Pass.		Dim. (mm)		Wt. (kg) Metal	
		60°	90°	120°		0.2 bar	0.3 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	7 bar	Orifice Dia. (mm)	Pass. Dia. (mm)	A		B
1 1/2	SC 10	60°	90°		53.3	25.0	30.3	45.1	53.3	73.8	89.3	114	133	9.92	9.65	98.6	55.6	0.82
	SC 16	60°	90°	120°	85.3	40.0	48.4	72.1	85.3	118	143	182	213	13.5	9.65			
	SC 20	60°	90°	120°	107	50.0	60.5	90.1	107	148	179	227	266	14.3	10.4			
	SC 24	60°	90°	120°	128	60.0	72.6	108	128	177	214	273	319	15.9	10.4			
	SC 29		90°	120°	155	72.5	87.8	131	155	214	259	329	386	17.5	10.4			
	SC 30		90°	120°	160	75.0	90.8	135	160	221	268	341	399	19.1	10.4			
2	SC 17	60°	90°		90.6	42.5	51.5	76.6	90.6	126	152	193	226	12.3	12.2	130	69.9	1.50
	SC 30	60°	90°	120°	160	75.0	90.8	135	160	221	268	341	399	16.3	14.2			
	SC 35	60°	90°	120°	187	87.6	106	158	187	258	313	397	466	18.3	14.2			
	SC 40	60°	90°	120°	213	100	121	180	213	295	357	454	532	19.8	14.2			
	SC 47	60°	90°	120°	251	118	142	212	251	347	420	534	625	24.6	14.2			
	SC 50	60°	90°	120°	266	125	151	225	266	369	447	568	665	27.9	14.2			
	SC 60		90°	120°	320	150	182	270	320	443	536	681	798	29.0	19.1			
2 1/2	SC 25	60°	90°		133	62.5	75.7	113	133	185	223	284	333	15.5	15.5	160	82.6	2.95
	SC 50	60°	90°		266	125	151	225	266	369	447	568	665	22.1	19.1			
	SC 60	60°	90°	120°	320	150	182	270	320	443	536	681	798	24.4	19.1			
	SC 70	60°	90°	120°	373	175	212	316	373	517	625	795	931	27.2	19.1			
	SC 80	60°	90°	120°	426	200	242	361	426	591	715	909	1060	29.2	19.1			
	SC 90		90°	120°	480	225	272	406	480	664	804	1020	1200	32.3	19.1			
3	SC 42	60°	90°		224	105	127	189	224	310	375	477	559	19.1	19.1	182	95.3	4.26
	SC 58	60°	90°		309	145	176	261	309	428	518	659	772	22.9	22.9			
	SC 80	60°	90°	120°	426	200	242	361	426	591	715	909	1060	27.9	25.4			
	SC 90	60°	90°	120°	480	225	272	406	480	664	804	1020	1200	30.6	25.4			
	SC 95	60°	90°	120°	506	238	288	428	506	701	849	1080	1260	28.6	25.4			
	SC 100	60°	90°	120°	533	250	303	451	533	738	893	1140	1330	34.1	25.4			
	SC 117	60°	90°	120°	624	293	354	527	624	864	1050	1330	1560	36.1	25.4			
	SC 120	60°	90°	120°	640	300	363	541	640	886	1070	1360	1600	38.1	25.4			
	SC 135		90°	120°	720	338	409	608	720	997	1210	1530	1800	41.7	25.4			
4	SC 125	60°	90°		666	313	378	563	666	923	1120	1420	1660	34.3		219	121	7.17
	SC 130	60°	90°		693	325	393	586	693	960	1160	1480	1730	35.1				
	SC 160	60°	90°		853	400	484	721	853	1180	1430	1820	2130	40.6				
	SC 180	60°	90°	120°	959	450	545	811	959	1330	1610	2040	2390	43.7	33.8			
	SC 188	60°	90°	120°	1000	470	569	847	1000	1390	1680	2140	2500	42.9				
	SC 200	60°	90°	120°	1070	500	605	901	1070	1480	1790	2270	2660	47.6				
	SC 210	60°	90°	120°	1120	525	636	947	1120	1550	1880	2390	2790	51.6				
	SC 250		90°	120°	1330	625	757	1130	1330	1850	2230	2840	3330	57.0				
6	SC 350	60°	90°	120°	1860	876	1060	1580	1860	2580	3130	3980	4660	66.0	35.1	*	*	*
	SC 480		90°	120°	2560	1200	1450	2160	2560	3540	4290	5450	6390	71.1	42.9	*	*	*
	SC 615		90°	120°	3280	1540	1860	2770	3280	4540	5490	6980	8180	76.2	42.9	*	*	*

Flow Rate ( $l/min$ ) =  $K (bar)^{0.47}$  \* Dimensions vary with spray angle ordered, please call for dimensions and weights

**Standard Materials: Brass, Carbon Steel, and 316 Stainless Steel**

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

CALL 413-772-0846  
Call for the name of your nearest BETE representative.