

# SC

## Cast Metal Alloy

WHIRL

### DESIGN FEATURES

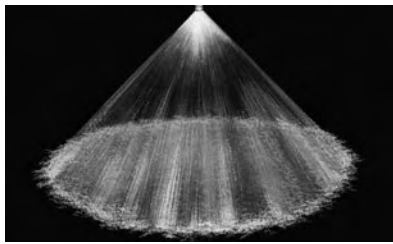
- Complete line of full cone nozzles made in cast metal alloys
- Internal removable vane
- Male and female connections
- Flanged connections available
- For plastic nozzles, see NC (pp. 30, 31), or MaxiPass (pp. 38, 39)

### SPRAY CHARACTERISTICS

- **Spray pattern:** Full Cone with uniform distribution. For square spray patterns, please contact BETE.
- **Spray angles:** 60°, 90°, and 120°
- **Flow rates:** 1.68 to 2150 gpm



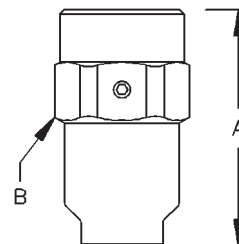
Male



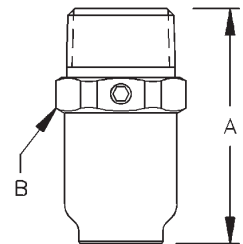
Full Cone 90°(M)



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

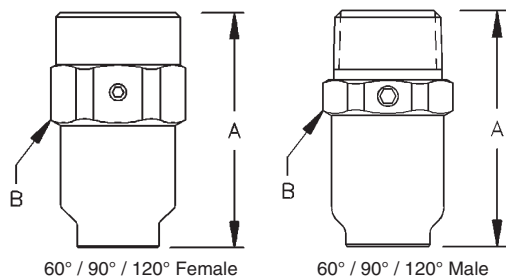
Male or Female Pipe Size	Nozzle Number	Available Spray Angles			K Factor	GALLONS PER MINUTE @ PSI								Approx. Orifice Dia. (in.)	Approx. Free Pass. Dia. (in.)	Male Dim. (in.)		Wt. (lbs.) Metal	
		60°	90°	120°		3 PSI	5 PSI	7 PSI	10 PSI	20 PSI	40 PSI	60 PSI	80 PSI			100 PSI	A		B
3/4	SC 2.5	60°	90°		1.00	1.68	2.13	2.50	2.96	4.09	5.67	6.86	7.86	8.72	0.19				
	SC 3	60°	90°	120°	1.20	2.01	2.56	3.00	3.55	4.91	6.81	8.23	9.43	10.5	0.20				
	SC 4	60°	90°	120°	1.60	2.69	3.41	4.00	4.73	6.55	9.07	11.0	12.6	14.0	0.28	0.19	2.00	1.22	0.3
	SC 6		90°	120°	2.40	4.03	5.12	6.00	7.10	9.83	13.6	16.5	18.9	20.9	0.30				
	SC 7		90°	120°	2.81	4.70	5.98	7.00	8.28	11.5	15.9	19.2	22.0	24.4	0.35				
1	SC 4.2	60°	90°		1.68	2.82	3.59	4.20	4.97	6.88	9.53	11.5	13.2	14.7	0.25	0.25			
	SC 7	60°	90°	120°	2.80	4.70	5.98	7.00	8.28	11.5	15.9	19.2	22.0	24.4	0.33	0.31			
	SC 8	60°	90°	120°	3.21	5.37	6.83	8.00	9.46	13.1	18.1	22.0	25.1	27.9	0.35	0.31			
	SC 9	60°	90°	120°	3.61	6.04	7.68	9.00	10.6	14.7	20.4	24.7	28.3	31.4	0.40	0.31	2.88	1.50	0.7
	SC 10	60°	90°	120°	4.01	6.72	8.54	10.0	11.8	16.4	22.7	27.4	31.4	34.9	0.42	0.31			
	SC 11	60°	90°	120°	4.41	7.39	9.39	11.0	13.0	18.0	25.0	30.2	34.6	38.4	0.44	0.31			
1 1/4	SC 12		90°	120°	4.81	8.06	10.2	12.0	14.2	19.7	27.2	32.9	37.7	41.9	0.46	0.31			
	SC 6	60°	90°		2.40	4.03	5.12	6.00	7.10	9.83	13.6	16.5	18.9	20.9	0.30	0.30			
	SC 10	60°	90°	120°	4.01	6.72	8.54	10.0	11.8	16.4	22.7	27.4	31.4	34.9	0.39	0.38			
	SC 12	60°	90°	120°	4.81	8.06	10.2	12.0	14.2	19.7	27.2	32.9	37.7	41.9	0.42	0.38			
	SC 14	60°	90°	120°	5.61	9.40	12.0	14.0	16.6	22.9	31.8	38.4	44.0	48.9	0.46	0.38	3.50	1.88	1.3
	SC 16	60°	90°	120°	6.41	10.7	13.7	16.0	18.9	26.2	36.3	43.9	50.3	55.8	0.48	0.38			
SC 17	60°	90°	120°	6.81	11.4	14.5	17.0	20.1	27.8	38.6	46.7	53.4	59.3	0.53	0.38				
SC 20		90°	120°	8.01	13.4	17.1	20.0	23.7	32.8	45.4	54.9	62.8	69.8	0.63	0.38				

$$\text{Flow Rate (GPM)} = K (\text{PSI})^{0.47}$$

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

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

TO ORDER: specify pipe size, connection type, nozzle number, spray angle, and material.



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



WHIRL

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

**SC Flow Rates & Dimensions**

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

Male or Female Pipe Size	Nozzle Number	Available Spray Angles			K Factor	GALLONS PER MINUTE @ PSI										Approx. Free Pass.		Dim. (in.)		Wt. (lbs.) Metal
		60°	90°	120°		3 PSI	5 PSI	7 PSI	10 PSI	20 PSI	40 PSI	60 PSI	80 PSI	100 PSI	Orifice Dia. (in.)	Pass. Dia. (in.)	A	B		
1 1/2	SC 10	60°	90°		4.01	6.72	8.54	10.0	11.8	16.4	22.7	27.4	31.4	34.9	0.39	0.38	3.88	2.19	1.8	
	SC 16	60°	90°	120°	6.41	10.7	13.7	16.0	18.9	26.2	36.3	43.9	50.3	55.8	0.53	0.38				
	SC 20	60°	90°	120°	8.01	13.4	17.1	20.0	23.7	32.8	45.4	54.9	62.8	69.8	0.56	0.41				
	SC 24	60°	90°	120°	9.62	16.1	20.5	24.0	28.4	39.3	54.4	65.9	75.4	83.8	0.63	0.41				
	SC 29		90°	120°	11.6	19.5	24.8	29.0	34.3	47.5	65.8	79.6	91.1	101	0.69	0.41				
	SC 30		90°	120°	12.0	20.1	25.6	30.0	35.5	49.1	68.1	82.3	94.3	105	0.75	0.41				
2	SC 17	60°	90°		6.81	11.4	14.5	17.0	20.1	27.8	38.6	46.7	53.4	59.3	0.48	0.48	5.12	2.75	3.3	
	SC 30	60°	90°	120°	12.0	20.1	25.6	30.0	35.5	49.1	68.1	82.3	94.3	105	0.64	0.56				
	SC 35	60°	90°	120°	14.0	23.5	29.9	35.0	41.4	57.3	79.4	96.1	110	122	0.72	0.56				
	SC 40	60°	90°	120°	16.0	26.9	34.1	40.0	47.3	65.5	90.7	110	126	140	0.78	0.56				
	SC 47	60°	90°	120°	18.8	31.6	40.1	47.0	55.6	77.0	107	129	148	164	0.97	0.56				
	SC 50	60°	90°	120°	20.0	33.6	42.7	50.0	59.1	81.9	113	137	157	174	1.10	0.56				
2 1/2	SC 25	60°	90°		10.0	16.8	21.3	25.0	29.6	40.9	56.7	68.6	78.6	87.2	0.61	0.61	6.28	3.25	6.5	
	SC 50	60°	90°		20.0	33.6	42.7	50.0	59.1	81.9	113	137	157	174	0.87	0.75				
	SC 60	60°	90°	120°	24.0	40.3	51.2	60.0	71.0	98.3	136	165	189	209	0.96	0.75				
	SC 70	60°	90°	120°	28.1	47.0	59.8	70.0	82.8	115	159	192	220	244	1.07	0.75				
	SC 80	60°	90°	120°	32.1	53.7	68.3	80.0	94.6	131	181	220	251	279	1.15	0.75				
	SC 90		90°	120°	36.1	60.4	76.8	90.0	106	147	204	247	283	314	1.27	0.75				
3	SC 42	60°	90°		16.8	28.2	35.9	42.0	49.7	68.8	95.3	115	132	147	0.75	0.75	7.16	3.75	9.4	
	SC 58	60°	90°		23.2	38.9	49.5	58.0	68.6	95.0	131.6	159	182	202	0.90	0.90				
	SC 80	60°	90°	120°	32.1	53.7	68.3	80.0	94.6	131	181	220	251	279	1.10	1.00				
	SC 90	60°	90°	120°	36.1	60.4	76.8	90.0	106	147	204	247	283	314	1.20	1.00				
	SC 95	60°	90°	120°	38.1	63.8	81.1	95.0	112	156	216	261	299	332	1.13	1.00				
	SC 100	60°	90°	120°	40.1	67.2	85.4	100	118	164	227	274	314	349	1.34	1.00				
	SC 117	60°	90°	120°	46.9	78.6	99.9	117	138	192	265	321	368	408	1.42	1.00				
	SC 120	60°	90°	120°	48.1	80.6	102	120	142	197	272	329	377	419	1.5	1.00				
	SC 135		90°	120°	54.1	90.7	115	135	160	221	306	371	424	471	1.64	1.00				
4	SC 125	60°	90°		50.1	83.9	107	125	148	205	284	343	393	436	1.35		8.64	4.75	15.8	
	SC 130	60°	90°		52.1	87.3	111	130	154	213	295	357	409	454	1.38					
	SC 160	60°	90°		64.1	107	137	160	189	262	363	439	503	558	1.60					
	SC 180	60°	90°	120°	72.1	121	154	180	213	295	408	494	566	628	1.72	1.33				
	SC 188	60°	90°	120°	75.3	126	161	188	222	308	427	516	591	656	1.69					
	SC 200	60°	90°	120°	80.1	134	171	200	237	328	454	549	628	698	1.88					
	SC 210	60°	90°	120°	84.1	141	179	210	248	344	476	576	660	733	2.03					
	SC 250		90°	120°	100	168	213	250	296	409	567	686	786	872	2.25					
6	SC 350	60°	90°	120°	140	235	299	350	414	573	794	961	1100	1220	2.60	1.38	*	*	*	
	SC 480		90°	120°	192	322	410	480	568	786	1090	1320	1510	1680	2.80	1.69	*	*	*	
	SC 615		90°	120°	246	413	525	615	727	1010	1400	1690	1930	2150	3.00	1.69	*	*	*	

Flow Rate (GPM) = K (PSI)<sup>0.47</sup> \* Dimensions vary with spray angle ordered, please call for dimensions

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

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