

# SC

## Cast Metal Alloy

WHIRL

### DESIGN FEATURES

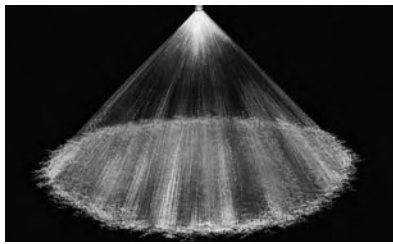
- Complete line of full cone nozzles made in cast metal alloys
- Internal removable vane
- Male and female connections
- Flanged connections available
- For plastic nozzles, see NC (pp. 30, 31), or MaxiPass (pp. 38, 39)

### 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



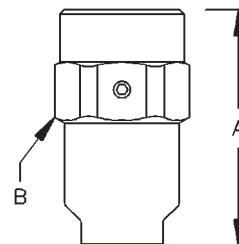
Male



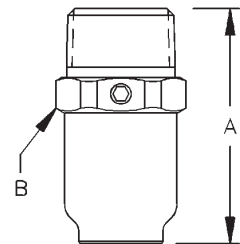
Full Cone 90°(M)



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

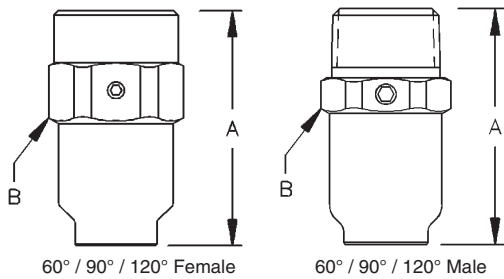
Male or Female Pipe Size	Nozzle Number	Available Spray Angles			K Factor	GALLONS PER MINUTE @ PSI								Approx. Orifice Dia. (in.)	Approx. Free Pass. Dia. (in.)	Male Dim. (in.)		Wt. (lbs.) Metal	
		60°	90°	120°		3 PSI	5 PSI	7 PSI	10 PSI	20 PSI	40 PSI	60 PSI	80 PSI			100 PSI	A		B
3/4	SC 2.5	60°	90°		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 for the name of your nearest BETE representative.  
CALL 413-772-0846

**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	2.22					
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.