

# ST

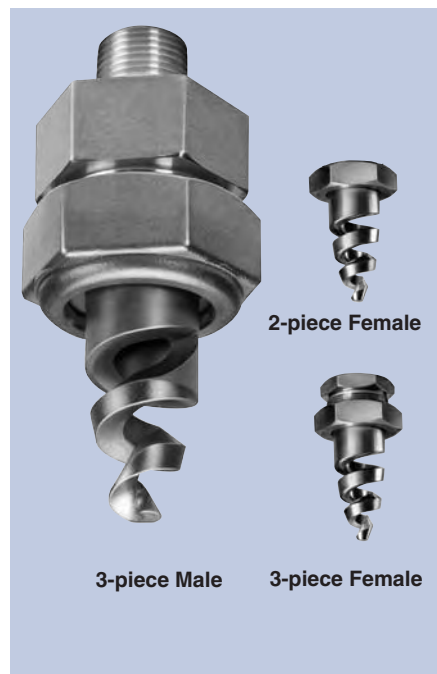
## Abrasion Resistant

### DESIGN FEATURES

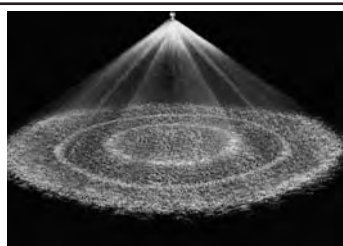
- Cobalt Alloy 6 or RBSC ceramic parts in high-wear areas
- High energy efficiency
- No internal parts
- Clog-resistant
- Male and female connections
- Flanged and special connections available as required

### SPRAY CHARACTERISTICS

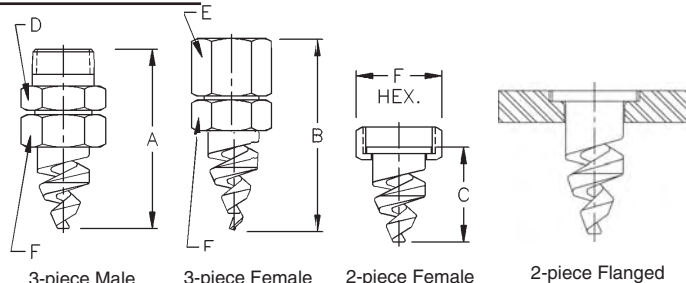
- Fine atomization
- Spray pattern:** Full Cone
- (Hollow Cone available by special order)
- Spray angles:** 90° and 120° standard
- Flow rates:** 0.5 to 3320 gpm
- (Higher flow rates available)



Full Cone 90° (FCN)



Full Cone 120° (FFC)



**Silicon carbide requests require review prior to quote/order acceptance. Please contact BETE for information.**

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

### ST Flow Rates and Dimensions

Full Cone, 90° (FCN or FFCN) and 120° (FC or FFC) Spray Angles, 1/4" to 4" Pipe Sizes

3-piece Male or Female Pipe Size	** 2-piece Female Pipe Size	Nozzle Number	K Factor	GALLONS PER MINUTE @ PSI												Approx. (in) Free Orifice Dia. Pass. Dia.		Approximate Dimensions (in.)						Wt. (lbs.) Male
				5 PSI	10 PSI	15 PSI	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI	80 PSI	100 PSI	200 PSI	400 PSI	A	B	C	D	E	F			
1/4		ST6	0.221	0.495	0.700	0.857	0.990	1.21	1.40	1.57	1.71	1.98	2.21	3.13	4.43	0.09	0.09	2.56	2.56	0.69	0.69	0.81	0.19	
		ST8	0.411	0.919	1.30	1.59	1.84	2.25	2.60	2.91	3.18	3.68	4.11	5.81	8.22	0.13	0.13	2.56	2.56	0.69	0.69	0.81		
		ST10	0.632	1.41	2.00	2.45	2.83	3.46	4.00	4.47	4.90	5.66	6.32	8.94	12.6	0.16	0.13	2.56	2.56	0.69	0.69	0.81		
3/8		ST12	0.949	2.12	3.00	3.67	4.24	5.20	6.00	6.71	7.35	8.49	9.49	13.4	19.0	0.19	0.13	2.94	2.94	0.94	0.94	1.13	0.31	
		ST14	1.28	2.86	4.05	4.96	5.73	7.01	8.10	9.06	9.92	11.5	12.8	18.1	25.6	0.22	0.13	2.88	2.88	0.94	0.94	1.13		
		ST16	1.68	3.75	5.30	6.49	7.50	9.18	10.6	11.9	13.0	15.0	16.8	23.7	33.5	0.25	0.13	3.00	3.00	0.94	0.94	1.13		
		ST20	2.61	5.83	8.25	10.1	11.7	14.3	16.5	18.4	20.2	23.3	26.1	36.9	52.2	0.31	0.13	2.88	2.88	0.94	0.94	1.13		
3/4		ST24	3.81	8.52	12.1	14.8	17.0	20.9	24.1	26.9	29.5	34.1	38.1	53.9	76.2	0.38	0.19	3.56	3.56	1.38	1.38	1.50	0.62	
		ST28	5.22	11.7	16.5	20.2	23.3	28.6	33.0	36.9	40.4	46.7	52.2	73.8	104	0.44	0.19	3.53	3.53	1.38	1.38	1.50		
		ST32	6.64	14.8	21.0	25.7	29.7	36.4	42.0	47.0	51.4	59.4	66.4	93.9	133	0.50	0.19	3.50	3.50	1.38	1.38	1.50		
1		ST40	10.6	23.7	33.5	41.0	47.4	58.0	67.0	74.9	82.1	94.8	106	150	212	0.63	0.25	4.50	4.50	1.88	1.75	2.00	1.25	
		ST48	15.0	33.6	47.5	58.2	67.2	82.3	95.0	106	116	134	150	212	300	0.75	0.25	4.50	4.50	1.88	1.75	2.00		
1 1/2		ST56	20.4	45.6	64.5	79.0	91.2	112	129	144	158	182	204	288	408	0.88	0.31	5.75	5.75	1.94	2.13	2.19	1.75	
		ST64	26.7	59.8	84.5	103	120	146	169	189	207	239	267	378	534	1.00	0.31	5.75	5.75	1.94	2.13	2.19		
		ST72	30.4	67.9	96.0	118	136	166	192	215	235	272	304	429	607	1.12	0.31	5.75	5.75	1.94	2.13	2.19		
2	2 1/2 3	ST88	44.3	99.0	140	171	198	242	280	313	343	396	443	626	885	1.37	0.44	7.63	6.31	4.56	3.00	3.50	3.50	5.00
		ST96 <sup>1</sup>	55.9	125	177	216	250	306	354	395	433	500	559	791	1120	1.50	0.44	9.00	7.38	5.63	3.63	4.00	4.00	7.00
3	3	ST112 <sup>1</sup>	81.0	181	256	314	362	443	512	572	627	724	810	1150	1620	1.75	0.56	10.3	6.84	3.63	4.00	4.00	9.00	
		ST128 <sup>1</sup>	107	239	339	414	480	588	679	759	831	960	1070	1510	2150	2.00	0.56	10.7	7.28	3.63	4.00	4.00		
4	4	ST160 <sup>1</sup>	166	371	525	643	742	909	1050	1170	1290	1480	1660	2350	3320	2.50	0.63	11.9	8.25	4.56	5.00	5.00	14.0	

Flow Rate (GPM) = K √PSI <sup>1</sup> Three turn nozzles \*\*Parallel threads only

**Standard Materials: Base and Caps - 316 Stainless Steel; Tip - Cobalt Alloy 6 or RBSC Ceramic. (RBSC not available on nozzle numbers ST6 thru ST32).**

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