

# SPN

## High Impact/Narrow Fan Spray

### DESIGN FEATURES

- One-piece/heavy construction
- Straight-through orifice minimizes clogging
- Machined from bar stock to exacting standards
- Male connection

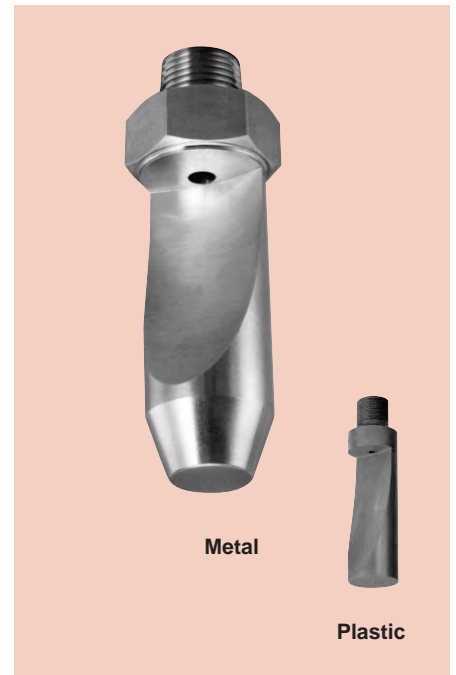
### SPRAY CHARACTERISTICS

- Yields highest impact, narrow flat spray with least atomization
- Spoon-shaped deflector surface efficiently forms a hard-driving spray

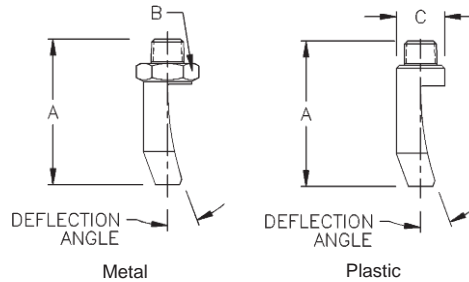
**Spray pattern:** Fan

**Spray angles:** 15°, 25°, 35°, 40°, 50°

**Flow rates:** 0.50 to 44.7 gpm



Fan 50°



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

### SPN Flow Rates and Dimensions

Fan, 15°, 25°, 35°, 40° and 50° Spray Angles, 1/8" to 3/4" Pipe Sizes

Male Pipe Size	Nozzle Number	Available Spray Angles	K Factor	GALLONS PER MINUTE @ PSI										Approx. Orifice Dia. (in.)	Deflection Angle @ Spray Angle					Dimensions (inches) Metals Only			Wt (oz) Metal
				10 PSI	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI	80 PSI	100 PSI	200 PSI	15°		25°	35°	40°	50°	A	B	C		
1/8	SPN 04	35°	0.063	0.20	0.28	0.35	0.40	0.45	0.49	0.56	0.63	0.89	0.049	15°					0.70	0.50	0.56	0.50	
		15° 35° 50°	0.158	0.50	0.71	0.87	1.00	1.12	1.21	1.40	1.58	2.20	0.078	5°	35°	55°	2.00	0.88	0.75	2.50			
		15° 35° 50°	0.316	1.00	1.41	1.73	2.00	2.24	2.50	2.80	3.16	4.50	0.109	5°	35°	45°							
		15° 35° 50°	0.395	1.30	1.80	2.20	2.50	2.80	3.10	3.50	3.95	5.60	0.120	50°									
25°	0.633	2.00	2.83	3.50	4.00	4.47	4.90	5.66	6.33	8.90	0.152	20°			45°								
3/8	SPN 20	35°	0.316	1.00	1.41	1.73	2.00	2.24	2.40	2.83	3.16	4.50	0.109	30°					3.00	1.12	1.00	8.00	
		15° 35° 50°	0.395	1.25	1.77	2.17	2.50	2.80	3.06	3.54	3.95	5.59	0.120	5°	28°	45°							
		15° 35° 50°	0.474	1.50	2.12	2.60	3.00	3.35	3.67	4.24	4.74	6.71	0.125	5°	28°								
		15° 35° 40° 50°	0.633	2.00	2.83	3.46	4.00	4.47	4.90	5.66	6.33	9.00	0.152	5°	35°	35° 50°							
		15° 35° 40° 50°	0.791	2.50	3.54	4.33	5.00	5.59	6.12	7.07	7.91	11.2	0.171	5°	23°	33°							
		15° 35° 40° 50°	0.949	3.00	4.24	5.20	6.00	6.71	7.35	8.49	9.49	13.4	0.187	5°	20°	33° 35°							
		15° 35° 40° 50°	1.11	3.50	4.95	6.06	7.00	7.83	8.57	9.90	11.1	15.7	0.199	29°									
		15° 35° 40° 50°	1.26	4.00	5.66	6.93	8.00	8.90	9.80	11.3	12.6	17.9	0.209	5°	25°	26° 35°							
		15° 35° 40° 50°	1.42	4.50	6.36	7.80	9.00	10.1	11.0	12.7	14.2	20.1	0.218	28°									
		15° 35° 40° 50°	1.58	5.00	7.10	8.60	10.0	11.2	12.2	14.1	15.8	22.3	0.234	5°	25°	28° 40°							
		15° 35° 50°	1.90	6.00	8.49	10.4	12.0	13.4	14.7	17.0	19.0	26.8	0.265	5°	25°	40°							
		15° 35° 50°	1.98	6.25	8.84	10.8	12.5	14.0	15.3	17.7	19.8	28.0	0.272	38°									
		15° 35° 50°	2.53	8.00	11.3	13.9	16.0	17.9	19.6	23.0	25.3	35.8	0.312	25°			37°						
		15° 35° 50°	3.16	10.0	14.2	17.0	20.0	22.4	24.0	28.0	31.6	44.7	0.328	32°									
1/2	SPN 60	15° 35°	0.949	3.00	4.24	5.20	6.00	6.71	7.35	8.49	9.49	13.4	0.187	5°	27°	4.50	1.38	1.25	19.0				
		15° 35° 50°	1.26	4.00	5.66	6.93	8.00	8.14	9.80	11.3	12.6	17.9	0.209	5°	25°								
		15° 35° 50°	1.58	5.00	7.10	8.60	10.0	11.2	12.2	14.1	15.8	22.4	0.234	5°	19°								
		15° 35° 50°	2.21	7.00	10.0	12.0	14.0	15.7	17.0	20.0	22.1	32.0	0.296	5°	25°					40°			
		15° 35° 50°	2.53	8.00	11.3	13.9	16.0	17.9	19.5	22.5	25.2	35.5	0.312	5°	25°					40°			
3/4	SPN 160	35°	2.53	8.00	11.3	13.9	16.0	17.9	19.6	22.6	25.3	35.8	0.312	23°			4.88	1.75	1.69	30.0			
		15° 35°	3.16	10.0	14.2	17.0	20.0	22.4	24.0	28.0	31.6	44.7	0.328	5°	22°								

Flow Rate (GPM) =  $K\sqrt{PSI}$

Standard Materials: Brass, 303 Stainless Steel, 316 Stainless Steel, PVC and PTFE.

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