

# N

## Fire Protection

### DESIGN FEATURES

- Simplicity of design
- One-piece/no internal parts
- Clog-resistant
- Three standard pipe sizes—1/2", 1" and 1-1/2"
- Male connection
- Factory Mutual and U.S. Coast Guard approved models

### SPRAY CHARACTERISTICS

- Two spray cones: an outer, wide angle cone and a narrower inner cone combine to give full cone effect

**Spray pattern:** Full Cone

**Spray angles:** 90° and 120° standard

**Flow rates:** 9.67 to 1720 l/min



Nozzle with optional protective cover

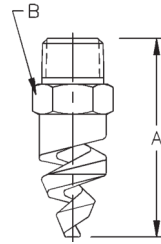
Use of blow-off covers requires a pressure of 25 PSI or higher



Full Cone 90°



Full Cone 120° (W)



N3-N5W: U.S. Coast Guard approved

TF24-150° also available in Factory Mutual approved model (see page 20)



N6 nozzles protect a propane storage tank from fire and explosion.

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

### N Flow Rates and Dimensions

Full Cone, Medium 90° and Wide 120° (W) Spray Angles, 1/2" to 1 1/2" Pipe Sizes, BSP or NPT

Male Pipe Size	Nozzle Number	K Factor	LITERS PER MINUTE @ BAR								Approx. (mm)		Approximate Dimensions (mm)		Wt. (g) Metal
			0.5 bar	0.7 bar	1 bar	2 bar	3 bar	5 bar	10 bar	20 bar	Orifice Dia.	Free Pass. Dia.	A	B	
1/2	N1	13.7	9.67	11.4	13.7	19.3	23.7	30.6	43.2	61.1	4.73	3.18	63.5	22.4	85
	N2	24.2	17.1	20.2	24.2	34.2	41.8	54.0	76.4	108	6.73	3.18			
	N3	37.6	26.6	31.5	37.6	53.2	65.1	84.1	119	168	8.71	3.18			
	N4	54.9	38.8	46.0	54.9	77.7	95.1	123	174	246	10.9	4.76			
	N5	75.2	53.2	62.9	75.2	106	130	168	238	336	13.5	4.76			
	N6	95.7	67.7	80.1	95.7	135	166	214	303	428	14.3	4.76			
1	N6	95.7	67.7	80.1	95.7	135	166	214	303	428	15.2	4.76	92.2	35.1	241
	N7	153	108	128	153	216	264	341	483	683	19.6	6.35			
1 1/2	N8	216	153	181	216	306	375	484	685	968	23.6	6.35	111	50.8	765
	N9	294	208	246	294	416	509	657	930	1320	27.7	7.94			
	N10	385	272	322	385	545	667	861	1220	1720	32.8	7.94			

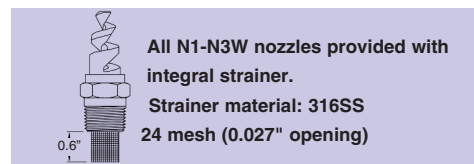
$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

**Standard Nozzle Materials: Brass and 316 Stainless Steel**

Available in nickel aluminum bronze and titanium, plus other materials available on request.

**Standard Cover Materials: Brass for brass nozzles, 304 Stainless Steel for other nozzle materials**

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



All N1-N3W nozzles provided with integral strainer.  
Strainer material: 316SS  
24 mesh (0.027" opening)

SPECIAL PURPOSE

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