

# NCJ

## Hollow Cone/Narrow Angle Injector

### DESIGN FEATURES

- Narrow spray angles
- High velocity
- Male and female connections
- Flanged connections available
- Available in plastic and metal alloys

### SPRAY CHARACTERISTICS

- Spray is coarse and extremely hard-driving

**Spray pattern:** Hollow Cone

**Spray angles:** 15°, 20° and 30°

**Flow rates:** 7.1 to 1220 gpm  
(Special flow rates available)



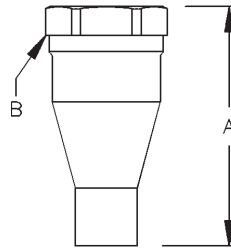
Metal



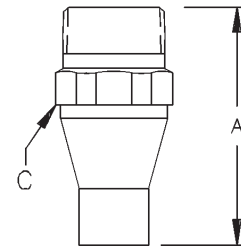
Hollow Cone 15°

Hollow Cone 20°

Hollow Cone 30°



Female



Male

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

### NCJ Flow Rates and Dimensions

Hollow Cone, 15°, 20° and 30° Spray Angles, 3/4" to 6" Pipe Sizes

Male or Female Pipe Size	Nozzle Number	K Factor	GALLONS PER MINUTE @ PSI							Approx. Orifice Dia. (in.)	Dimensions for Metal Only (in.)			Wt. (lbs.)	
			10 PSI	20 PSI	30 PSI	40 PSI	60 PSI	80 PSI	100 PSI		A	B	C	PVC	Metal
3/4	NC 0706J	2.40	7.10	9.83	11.9	13.6	16.5	18.9	20.9	0.30	3.25	1.38	1.12	0.09	0.75
1	NC 1012J	4.81	14.2	19.7	23.8	27.2	32.9	37.7	41.9	0.41	3.50	1.75	1.38	0.12	1.00
1 1/4	NC 1218J	7.21	21.3	29.5	35.7	40.8	49.4	56.6	62.8	0.48	4.00	2.00	1.75	0.25	1.25
1 1/2	NC 1526J	10.4	30.7	42.6	51.5	59.0	71.4	81.7	90.7	0.60	5.00	2.50	2.00	0.44	2.25
2	NC 2048J	19.2	56.8	78.6	95.1	109	132	151	168	0.80	6.00	3.00	2.50	0.82	2.50
2 1/2	NC 2572J	28.8	85.1	118	143	163	198	226	251	0.97	7.00	3.25	3.00	1.37	5.75
3	NC 30105J	42.1	124	172	208	238	288	330	366	1.16	8.00	3.84	3.50	1.87	6.25
4	NC 40190J	76.1	225	311	377	431	522	597	663	1.60	9.88	5.00	4.50	4.50	15.0
6	NC 60350J	140	414	573	694	794	961	1100	1220	2.13	13.5	7.19	6.62	6.12	35.0

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

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

**NOTE for PTFE nozzles:** if operating temperature is to exceed 300°F, or the operating pressure is to exceed the values listed in the table above, please contact BETE Applications Engineering for assistance.

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