

# NCK

## Full Cone/Narrow Angle Injector

### DESIGN FEATURES

- Narrow spray angles
- High velocity
- Male and female connections
- Flanged connections available

### SPRAY CHARACTERISTICS

- Coarse and extremely hard-driving spray with even distribution

**Spray pattern:** Full Cone

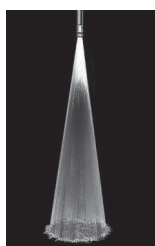
**Spray angles:** 15°, 20°, and 30°

**Flow rates:** 23.1 to 4660 L/min

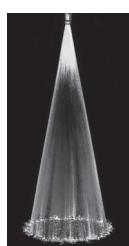
(Special flow rates available)



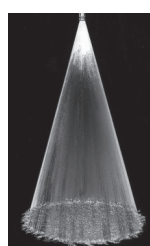
FULL CONE



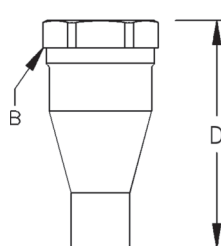
Full Cone 15°



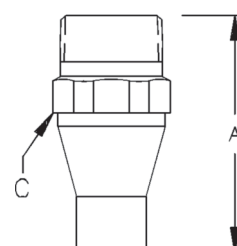
Full Cone 20°



Full Cone 30°



Female



Male

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

### NCK Flow Rates and Dimensions

Full Cone, 15°, 20°, and 30° Spray Angles, 3/4" to 6" Pipe Sizes, BSP or NPT

| Male or Female Pipe Size | Nozzle Number | K Factor | LITERS PER MINUTE @ BAR |         |       |         |       |       |       |       | Approx. Orifice Dia. (mm) | Dimensions for Metal Only (mm) |      |      |      | Wt. (kg) |       |
|--------------------------|---------------|----------|-------------------------|---------|-------|---------|-------|-------|-------|-------|---------------------------|--------------------------------|------|------|------|----------|-------|
|                          |               |          | 0.5 bar                 | 0.7 bar | 1 bar | 1.5 bar | 2 bar | 3 bar | 5 bar | 7 bar |                           | A                              | B    | C    | D    | PVC      | Metal |
| 3/4                      | NC 0706K      | 32.0     | 23.1                    | 27.0    | 32.0  | 38.7    | 44.3  | 53.6  | 68.1  | 79.8  | 7.52                      | 82.6                           | 34.9 | 28.4 | 82.6 | 0.04     | 0.34  |
| 1                        | NC 1012K      | 64.0     | 46.2                    | 54.1    | 64.0  | 77.4    | 88.6  | 107   | 136   | 160   | 10.3                      | 88.9                           | 44.5 | 35.1 | 88.9 | 0.06     | 0.45  |
| 1 1/4                    | NC 1218K      | 95.9     | 69.3                    | 81.1    | 95.9  | 116     | 133   | 161   | 204   | 239   | 12.3                      | 102                            | 50.8 | 44.5 | 102  | 0.11     | 0.57  |
| 1 1/2                    | NC 1526K      | 139      | 100                     | 117     | 139   | 168     | 192   | 232   | 295   | 346   | 15.1                      | 127                            | 63.5 | 50.8 | 127  | 0.20     | 1.02  |
| 2                        | NC 2048K      | 256      | 185                     | 216     | 256   | 310     | 354   | 429   | 545   | 638   | 20.2                      | 152                            | 76.2 | 63.5 | 152  | 0.37     | 1.13  |
| 2 1/2                    | NC 2572K      | 384      | 277                     | 325     | 384   | 464     | 532   | 643   | 818   | 958   | 24.6                      | 178                            | 82.6 | 76.2 | 194  | 0.62     | 2.61  |
| 3                        | NC 30105K     | 560      | 404                     | 473     | 560   | 677     | 775   | 938   | 1190  | 1400  | 29.5                      | 203                            | 97.5 | 88.9 | 203  | 0.85     | 2.84  |
| 4                        | NC 40190K     | 1010     | 731                     | 856     | 1013  | 1220    | 1400  | 1697  | 2160  | 2530  | 40.5                      | 251                            | 127  | 114  | 278  | 2.04     | 6.80  |
| 6                        | NC 60350K     | 1860     | 1380                    | 1580    | 1860  | 2260    | 2580  | 3126  | 3980  | 4660  | 54.0                      | 343                            | 181  | 168  | 381  | 2.78     | 15.9  |

$$\text{Flow Rate (L/min)} = K (\text{bar})^{0.47}$$

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

**NOTE for PTFE nozzles:** if operating temperature is to exceed 150 °C 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.