

# NF

## Standard Fan Nozzle

### DESIGN FEATURES

- One-piece construction
- No internal parts
- Sizes for all applications
- Male connection

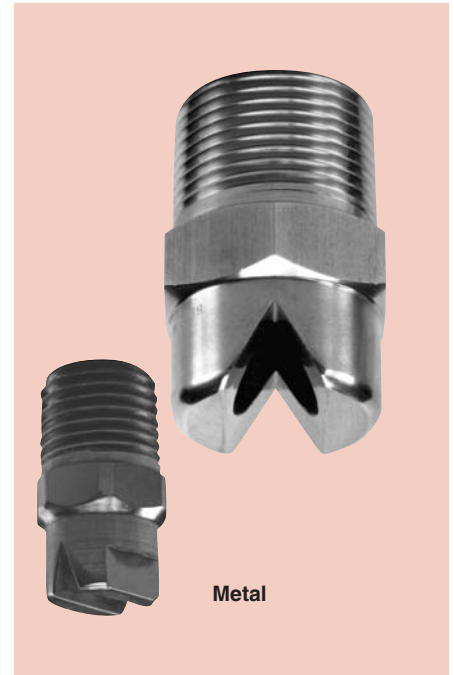
### SPRAY CHARACTERISTICS

- High impact
- Uniform distribution with tapered edges for overlapping sprays
- Extra-wide angles available

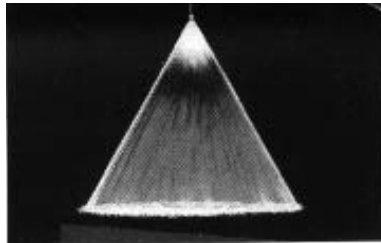
**Spray pattern:** Fan and Straight Jet

**Spray angles:** 0° to 120°

**Flow rates:** 0.103 to 1380 gpm

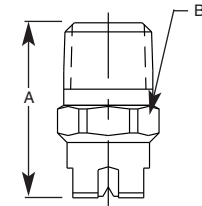


Metal



Fan 50°

Call BETE to verify spray angle performance at operating pressures above 70 psi.



3/8" - 2" Metal

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

### NF Flow Rates

Straight Jet: 0°; and Fan: 15°, 30°, 50°, 65°, 80°, 90°, 110°, and 120° Spray Angles, 1/8" to 2" Pipe Sizes

| Male Pipe Size                | Nozzle Number | K Factor | GALLONS PER MINUTE @ PSI |        |        |        |        |        |        |        |         |         |         |         | Equiv. Orifice Dia. (in.) |
|-------------------------------|---------------|----------|--------------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------------------------|
|                               |               |          | 5 PSI                    | 10 PSI | 15 PSI | 20 PSI | 30 PSI | 40 PSI | 60 PSI | 80 PSI | 100 PSI | 150 PSI | 200 PSI | 400 PSI |                           |
| 1/8<br>or<br>1/4              | NF01          | 0.0158   | 0.03                     | 0.05   | 0.06   | 0.07   | 0.09   | 0.10   | 0.12   | 0.14   | 0.16    | 0.19    | 0.22    | 0.32    | 0.026                     |
|                               | NF015         | 0.0237   | 0.05                     | 0.08   | 0.09   | 0.11   | 0.13   | 0.15   | 0.18   | 0.21   | 0.24    | 0.29    | 0.34    | 0.47    | 0.031                     |
|                               | NF02          | 0.0316   | 0.07                     | 0.10   | 0.12   | 0.14   | 0.17   | 0.20   | 0.25   | 0.28   | 0.32    | 0.39    | 0.45    | 0.63    | 0.036                     |
|                               | NF025         | 0.0395   | 0.09                     | 0.13   | 0.15   | 0.18   | 0.22   | 0.25   | 0.31   | 0.35   | 0.40    | 0.48    | 0.56    | 0.79    | 0.040                     |
|                               | NF03          | 0.0474   | 0.11                     | 0.15   | 0.18   | 0.21   | 0.26   | 0.30   | 0.37   | 0.42   | 0.47    | 0.58    | 0.67    | 0.95    | 0.043                     |
|                               | NF04          | 0.0632   | 0.14                     | 0.20   | 0.25   | 0.28   | 0.35   | 0.40   | 0.49   | 0.57   | 0.63    | 0.78    | 0.89    | 1.25    | 0.052                     |
|                               | NF05          | 0.0791   | 0.18                     | 0.25   | 0.31   | 0.35   | 0.43   | 0.50   | 0.61   | 0.71   | 0.79    | 0.97    | 1.12    | 1.58    | 0.057                     |
|                               | NF06          | 0.0949   | 0.21                     | 0.30   | 0.37   | 0.42   | 0.52   | 0.60   | 0.74   | 0.85   | 0.95    | 1.16    | 1.34    | 1.90    | 0.062                     |
| NF08                          | 0.126         | 0.28     | 0.40                     | 0.49   | 0.57   | 0.69   | 0.80   | 0.98   | 1.13   | 1.26   | 1.55    | 1.79    | 2.53    | 0.072   |                           |
| 1/8<br>or<br>1/4<br>or<br>3/8 | NF10          | 0.158    | 0.35                     | 0.50   | 0.61   | 0.71   | 0.87   | 1.00   | 1.22   | 1.41   | 1.58    | 1.94    | 2.24    | 3.16    | 0.080                     |
|                               | NF15          | 0.237    | 0.53                     | 0.75   | 0.92   | 1.06   | 1.30   | 1.50   | 1.84   | 2.12   | 2.37    | 2.90    | 3.35    | 4.74    | 0.094                     |
|                               | NF20          | 0.316    | 0.71                     | 1.00   | 1.22   | 1.41   | 1.73   | 2.00   | 2.45   | 2.83   | 3.16    | 3.87    | 4.47    | 6.32    | 0.109                     |
|                               | NF30          | 0.474    | 1.06                     | 1.50   | 1.84   | 2.12   | 2.60   | 3.00   | 3.67   | 4.24   | 4.74    | 5.81    | 6.71    | 9.49    | 0.141                     |
| NF40                          | 0.632         | 1.41     | 2.00                     | 2.45   | 2.83   | 3.46   | 4.00   | 4.90   | 5.66   | 6.32   | 7.75    | 8.94    | 12.6    | 0.156   |                           |
| 1/4<br>or<br>3/8              | NF50          | 0.791    | 1.77                     | 2.50   | 3.06   | 3.54   | 4.33   | 5.00   | 6.12   | 7.07   | 7.91    | 9.68    | 11.2    | 15.8    | 0.172                     |
|                               | NF60          | 0.949    | 2.12                     | 3.00   | 3.67   | 4.24   | 5.20   | 6.00   | 7.35   | 8.49   | 9.49    | 11.6    | 13.4    | 19.0    | 0.186                     |
|                               | NF70          | 1.11     | 2.47                     | 3.50   | 4.29   | 4.95   | 6.06   | 7.00   | 8.57   | 9.90   | 11.1    | 13.6    | 15.6    | 22.1    | 0.203                     |
|                               | NF80          | 1.26     | 2.83                     | 4.00   | 4.90   | 5.66   | 6.93   | 8.00   | 9.80   | 11.3   | 12.6    | 15.5    | 17.9    | 25.3    | 0.219                     |
| 3/8<br>or<br>1/2              | NF90          | 1.42     | 3.18                     | 4.50   | 5.51   | 6.36   | 7.79   | 9.00   | 11.0   | 12.7   | 14.2    | 17.4    | 20.1    | 28.5    | 0.234                     |
|                               | NF100         | 1.58     | 3.54                     | 5.00   | 6.12   | 7.07   | 8.66   | 10.0   | 12.2   | 14.1   | 15.8    | 19.4    | 22.4    | 31.6    | 0.250                     |
|                               | NF120         | 1.90     | 4.24                     | 6.00   | 7.35   | 8.49   | 10.4   | 12.0   | 14.7   | 17.0   | 19.0    | 23.2    | 26.8    | 37.9    | 0.266                     |
|                               | NF150         | 2.37     | 5.30                     | 7.50   | 9.19   | 10.6   | 13.0   | 15.0   | 18.4   | 21.2   | 23.7    | 29.0    | 33.5    | 47.4    | 0.297                     |
| NF200                         | 3.16          | 7.07     | 10.0                     | 12.2   | 14.1   | 17.3   | 20.0   | 24.5   | 28.3   | 31.6   | 38.7    | 44.7    | 63.2    | 0.344   |                           |
| 3/4                           | NF300         | 4.74     | 10.6                     | 15.0   | 18.4   | 21.2   | 26.0   | 30.0   | 36.7   | 42.4   | 47.4    | 58.1    | 67.1    | 94.9    | 0.422                     |
|                               | NF400         | 6.32     | 14.1                     | 20.0   | 24.5   | 28.3   | 34.6   | 40.0   | 49.0   | 56.6   | 63.2    | 77.5    | 89.4    | 126     | 0.500                     |
| 1                             | NF400         | 6.32     | 14.1                     | 20.0   | 24.5   | 28.3   | 34.6   | 40.0   | 49.0   | 56.6   | 63.2    | 77.5    | 89.4    | 126     | 0.500                     |
|                               | NF750         | 11.9     | 26.5                     | 37.5   | 45.9   | 53.0   | 64.9   | 75.0   | 92.0   | 106    | 119     | 145     | 168     | 237     | 0.688                     |
| 1 1/4                         | NF800         | 12.6     | 28.3                     | 40.0   | 49.0   | 56.6   | 69.3   | 80.0   | 98.0   | 113    | 126     | 155     | 179     | 253     | 0.719                     |
|                               | NF1150        | 18.2     | 40.7                     | 57.5   | 70.4   | 81.3   | 100    | 115    | 141    | 163    | 182     | 223     | 257     | 364     | 0.859                     |
| 1 1/2                         | NF1500        | 23.7     | 53.0                     | 75.0   | 91.9   | 106    | 130    | 150    | 184    | 212    | 237     | 290     | 335     | 474     | 0.969                     |
| 2                             | NF2250        | 35.6     | 79.5                     | 113    | 138    | 160    | 195    | 225    | 276    | 318    | 356     | 436     | 500     | 715     | 1.19                      |

### NF Dimensions

| Pipe Size | Dim. for Metal Only (in.) |      | Wt. (oz.) |       |
|-----------|---------------------------|------|-----------|-------|
|           | A                         | B    | Metal     | Plas. |
| 1/8       | 0.88                      | 0.44 | 1.00      | 0.25  |
| 1/4       | 1.06                      | 0.56 | 1.50      | 0.38  |
| 3/8       | 1.25                      | 0.69 | 2.00      | 0.50  |
| 1/2       | 1.50                      | 0.88 | 3.00      | 1.00  |
| 3/4       | 1.75                      | 1.13 | 6.00      | 1.50  |
| 1         | 2.19                      | 1.38 | 8.00      | 2.00  |
| 1 1/4     | 2.50                      | 1.75 | 12.0      | 3.00  |
| 1 1/2     | 3.00                      | 2.00 | 20.0      | 5.00  |
| 2         | 3.50                      | 2.50 | 56.0      | 10.0  |

Flow Rate (GPM) =  $K \sqrt{PSI}$  Standard Materials: Brass, 303 Stainless Steel, 316 Stainless Steel, PVC and PTFE (PTFE not available in nozzle numbers NF025 and under).

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