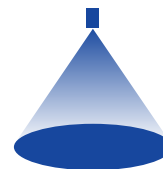


# Axial-flow full cone nozzles Series 405



## Features:

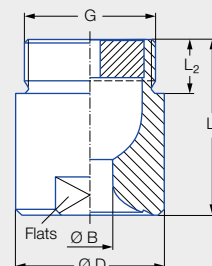
- Extremely uniform liquid distribution

## Applications:

- Surface spraying
- Chemical process engineering
- Cleaning and washing processes
- Water treatment



Series 405



| Connection | G         | Dimensions [in] |                |      |            | Weight [lb] (brass) |
|------------|-----------|-----------------|----------------|------|------------|---------------------|
|            |           | L <sub>1</sub>  | L <sub>2</sub> | Ø D  | Flats (mm) |                     |
| BP         | 1 1/4 NPT | 1.97            | 0.75           | 1.93 | 41         | 1.1                 |
| BR         | 1 1/2 NPT | 2.36            | 0.75           | 2.32 | 50         | 2.0                 |
| BV         | 2 NPT     | 3.07            | 0.94           | 2.68 | 60         | 3.5                 |

| Spray angle | Ordering number |          |    |            |           |       | Bore diameter B [in] | Narrow free cross sections Ø [in] | V̇ water [gal/min] |       |       |       |                       |       |        |             | Spray diameter D [in]<br>(at p = 30 psi) |                      |
|-------------|-----------------|----------|----|------------|-----------|-------|----------------------|-----------------------------------|--------------------|-------|-------|-------|-----------------------|-------|--------|-------------|------------------------------------------|----------------------|
|             | Type            | Mat. no. |    | Connection |           |       |                      |                                   | p [psi]            |       |       |       |                       |       |        |             |                                          |                      |
|             |                 | 1Y       | 30 | 1 1/4 NPT  | 1 1/2 NPT | 2 NPT |                      |                                   | 5                  | 10    | 20    | 30    | Liters per min. 2 bar | 40    | 60     | H = 20 [in] | H = 40 [in]                              |                      |
|             |                 |          |    |            |           |       |                      |                                   |                    |       |       |       |                       |       |        |             |                                          | Stainless steel 316L |
| 60°         | 405.204         | ●        | ●  | BP         |           |       | 0.44                 | 0.23                              | 13.08              | 17.25 | 22.76 | 26.77 | 100                   | 30.04 | 35.33  | 24          | 45                                       |                      |
|             | 405.284         | ●        | ●  |            | BR        |       | 0.56                 | 0.28                              | 20.92              | 27.60 | 36.42 | 42.84 | 160                   | 48.06 | 56.53  | 25          | 48                                       |                      |
|             | 405.324         | ●        | ●  |            |           | BV    | 0.65                 | 0.30                              | 26.15              | 34.05 | 45.53 | 53.55 | 200                   | 60.08 | 70.66  | 26          | 49                                       |                      |
|             | 405.364         | ●        | ●  |            |           | BV    | 0.72                 | 0.33                              | 32.69              | 43.13 | 56.91 | 66.94 | 250                   | 75.10 | 88.32  | 26          | 49                                       |                      |
|             | 405.404         | ●        |    |            |           | BV    | 0.79                 | 0.28                              | 41.19              | 54.35 | 71.71 | 84.34 | 315                   | 94.62 | 111.29 | 26          | 49                                       |                      |
| 90°         | 405.206         | ●        | ●  | BP         |           |       | 0.47                 | 0.20                              | 13.08              | 17.25 | 22.76 | 26.77 | 100                   | 30.04 | 35.33  | 44          | 83                                       |                      |
|             | 405.286         | ●        | ●  |            | BR        |       | 0.60                 | 0.24                              | 20.92              | 27.60 | 36.42 | 42.84 | 160                   | 48.06 | 56.53  | 44          | 83                                       |                      |
|             | 405.326         | ●        |    |            |           | BV    | 0.68                 | 0.30                              | 26.15              | 34.05 | 45.53 | 53.55 | 200                   | 60.08 | 70.66  | 44          | 83                                       |                      |
|             | 405.366         | ●        |    |            |           | BV    | 0.77                 | 0.34                              | 32.69              | 43.13 | 56.91 | 66.94 | 250                   | 75.10 | 88.32  | 44          | 83                                       |                      |
|             | 405.406         | ●        | ●  |            |           | BV    | 0.87                 | 0.37                              | 41.19              | 54.35 | 71.71 | 84.34 | 315                   | 94.62 | 111.29 | 44          | 83                                       |                      |
| 120°        | 405.208         | ●        | ●  | BP         |           |       | 0.50                 | 0.20                              | 13.08              | 17.25 | 22.76 | 26.77 | 100                   | 30.04 | 35.33  | 73          | 120                                      |                      |
|             | 405.288         | ●        | ●  |            | BR        |       | 0.63                 | 0.26                              | 20.92              | 27.60 | 36.42 | 42.84 | 160                   | 48.06 | 56.53  | 75          | 124                                      |                      |
|             | 405.328         | ●        |    |            |           | BV    | 0.70                 | 0.31                              | 26.15              | 34.05 | 45.53 | 53.55 | 200                   | 60.08 | 70.66  | 75          | 126                                      |                      |
|             | 405.368         | ●        | ●  |            |           | BV    | 0.79                 | 0.35                              | 32.69              | 43.13 | 56.91 | 66.94 | 250                   | 75.10 | 88.32  | 75          | 126                                      |                      |
|             | 405.408         | ●        | ●  |            |           | BV    | 0.88                 | 0.36                              | 41.19              | 54.35 | 71.71 | 84.34 | 315                   | 94.62 | 111.29 | 75          | 126                                      |                      |

Also available in BSPP metric thread.

Conversion formula for this series:  $\dot{V}_2 = \dot{V}_1 \cdot \left(\frac{p_2}{p_1}\right)^{0.4}$   
 (≤ 10 bar)

Ordering Type + Material no. + Connection = Ordering no.  
 example: 405.204 + 1Y + BP = 405.204.1Y.BP



Assembly accessories can be found in Chapter 12 "Accessories".