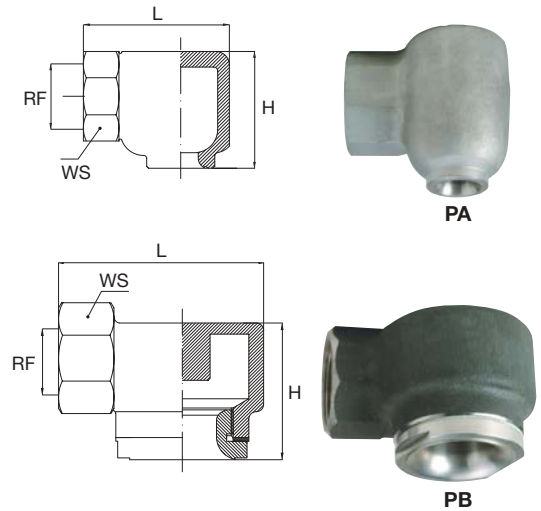


HOLLOW CONE NOZZLES

PA/PB

TANGENTIAL NOZZLES

PA type nozzles produce a hollow cone jet working on the tangential flow principle, with a nominal spray angle of 90° and form a ring shaped impact area. The nozzle has no internal vane and the centrifugal force inside the whirl chamber provides the energy to break up the liquid being sprayed. The narrowest section through the nozzle is normally the water inlet diameter for standard angle nozzles (shown as DE in the table below), and the outlet orifice for the wide angle nozzles (shown as DU) these nozzles offer a remarkable resistance to clogging and avoid costly downtime for dismantling and cleaning operations. Sizes up to 3/4" are made out of a drop-forged body, with an upper cover for nozzle cleaning. Sizes from 1" and bigger are machined from a one piece casting.



Materials B31 AISI 316 L Stainless steel  
T1 Brass

| Code             | RF<br>inch | DE<br>mm | DU<br>mm | Capacity at different pressure values (lpm) (bar) |      |      |      |      |      |      |      |      |     | Dimensions mm |     |  |
|------------------|------------|----------|----------|---|------|------|------|------|------|------|------|------|-----|---------------|-----|--|
|                  |            |          |          | 0.3   | 0.5  | 0.7  | 1.0  | 2.0  | 3.0  | 5.0  | 7.0  | 10   | H   | L             | WS  |  |
| 70° PAS 1170 xx  | 3/8        | 3.5      | 2.0      |   | 0.69 | 0.72 | 0.98 | 1.39 | 1.70 | 2.19 | 2.60 | 3.10 | 27  | 37            | 22  |  |
| 90° PAU 1390 xx  | 3/8        | 4.0      | 3.8      | 1.23  | 1.59 | 1.88 | 2.25 | 3.18 | 3.90 | 5.03 | 5.96 | 7.12 |     |               |     |  |
| PAU 1670 xx      | 1/2        | 5.6      | 5.2      | 2.12  | 2.74 | 3.24 | 3.87 | 5.47 | 6.70 | 8.65 | 10.2 | 12.2 | 38  | 46            | 27  |  |
| PAU 1850 xx      |            | 5.7      | 6.0      | 2.69  | 3.47 | 4.11 | 4.91 | 6.94 | 8.50 | 11.0 | 13.0 | 15.5 |     |               |     |  |
| PAU 2115 xx      |            | 6.6      | 6.9      | 3.64  | 4.69 | 5.56 | 6.64 | 9.39 | 11.5 | 14.8 | 17.6 | 21.0 |     |               |     |  |
| PAU 2220 xx      | 3/4        | 8.5      | 9.0      | 6.96  | 8.98 | 10.6 | 12.7 | 18.0 | 22.0 | 28.4 | 33.6 | 40.2 | 48  | 60            | 36  |  |
| PAU 2320 xx      |            | 9.5      | 11.5     | 10.1  | 13.1 | 15.5 | 18.5 | 26.1 | 32.0 | 41.3 | 48.9 | 58.4 |     |               |     |  |
| PAU 2420 xx      |            | 9.6      | 14.0     | 13.3  | 17.1 | 20.3 | 24.2 | 34.3 | 42.0 | 54.2 | 64.2 | 76.7 |     |               |     |  |
| PAU 2730 xx      | 1          | 20x10    | 13.7     | 23.1  | 29.8 | 35.3 | 42.1 | 59.6 | 73.0 | 94.2 | 112  | 133  | 60  | 75            | 46  |  |
| PAU 2970 xx      |            |          | 16.5     | 30.7  | 39.6 | 46.9 | 56.0 | 79.2 | 97.0 | 125  | 148  | 177  |     |               |     |  |
| PAU 3147 xx      | 1+1/2      | 32x16    | 19.5     | 46.5  | 60.0 | 71.0 | 84.9 | 120  | 147  | 190  | 225  | 268  | 90  | 93            | 60  |  |
| PAU 3194 xx      |            |          | 22.0     | 61.3  | 79.2 | 93.7 | 112  | 158  | 194  | 250  | 296  | 354  |     |               |     |  |
| PAU 3244 xx      | 2          | 35x20    | 26.5     | 77.2  | 99.6 | 118  | 141  | 199  | 244  | 315  | 373  | 445  | 127 | 117           | 80  |  |
| PAU 3294 xx      |            |          | 28.5     | 93.0  | 120  | 142  | 170  | 240  | 294  | 380  | 449  | 537  |     |               |     |  |
| PAU 3364 xx      | 2+1/2      | 40x40    | 29.5     | 115   | 149  | 176  | 210  | 297  | 364  | 470  | 556  | 665  | 156 | 140           | 100 |  |
| PAU 3490 xx      |            |          | 36.5     | 155   | 200  | 237  | 283  | 400  | 490  | 633  | 748  | 895  |     |               |     |  |
| PAU 3605 xx      |            |          | 45.0     | 191   | 247  | 292  | 349  | 494  | 605  | 781  | 924  | 1105 |     |               |     |  |
| 130° PBY 1390 xx | 3/8        | 3.5      | 4.5      |   | 1.59 | 1.88 | 2.25 | 3.18 | 3.90 | 5.03 | 5.96 | 7.12 | 27  | 37            | 22  |  |
| PBY 1850 xx      |            | 4.4      | 7.5      | 2.69  | 3.47 | 4.11 | 4.91 | 6.94 | 8.50 | 11.0 | 13.0 | 15.5 |     |               |     |  |
| PBY 1980 xx      | 1/2        | 4.0      | 12       | 3.10  | 4.00 | 4.73 | 5.66 | 8.00 | 9.80 | 12.7 | 15.0 | 17.9 | 35  | 46            | 27  |  |
| PBY 2128 xx      |            | 4.7      | 12       | 4.05  | 5.23 | 6.18 | 7.39 | 10.5 | 12.8 | 16.5 | 19.6 | 23.4 |     |               |     |  |
| PBY 2208 xx      |            | 6.5      | 12       | 6.58  | 8.49 | 10.0 | 12.0 | 17.0 | 20.8 | 26.9 | 31.6 | 38.0 |     |               |     |  |
| PBY 2220 xx      | 3/4        | 6.1      | 15       | 6.96  | 8.98 | 10.6 | 12.7 | 18.0 | 22.0 | 28.4 | 33.6 | 40.2 | 50  | 60            | 36  |  |
| PBY 2320 xx      |            | 6.5      | 19       | 10.1  | 13.1 | 15.5 | 18.5 | 26.1 | 32.0 | 41.3 | 48.9 | 58.4 |     |               |     |  |
| PBY 2420 xx      |            | 8.0      | 19       | 13.3  | 17.1 | 20.3 | 24.2 | 34.3 | 42.0 | 54.2 | 64.2 | 76.7 |     |               |     |  |
| PBY 2730 xx      | 1          | 13.4     | 26       | 23.1  | 29.8 | 35.3 | 42.1 | 59.6 | 73.0 | 94.2 | 112  | 133  | 60  | 93            | 47  |  |
| PBY 2970 xx      |            | 14.0     | 26       | 30.7  | 39.6 | 46.9 | 56.0 | 79.2 | 97.0 | 125  | 148  | 177  |     |               |     |  |
| PBY 3147 xx      | 1+1/2      | 15.0     | 37       | 46.5  | 60.0 | 71.0 | 84.9 | 120  | 147  | 190  | 225  | 268  | 75  | 111           | 60  |  |
| PBY 3194 xx      |            | 19.5     | 37       | 61.3  | 79.2 | 93.7 | 112  | 158  | 194  | 250  | 296  | 354  |     |               |     |  |
| PBY 3244 xx      | 2          | 22.0     | 45       | 77.2  | 99.6 | 118  | 141  | 199  | 244  | 315  | 373  | 445  | 91  | 140           | 75  |  |
| PBY 3294 xx      |            | 27.1     | 45       | 93.0  | 120  | 142  | 170  | 240  | 294  | 380  | 449  | 537  |     |               |     |  |
| PBY 3364 xx      | 2+1/2      | 25.5     | 64       | 115   | 149  | 176  | 210  | 297  | 364  | 470  | 556  | 665  | 128 | 193           | 90  |  |
| PBY 3490 xx      |            | 33.0     | 64       | 155   | 200  | 237  | 283  | 400  | 490  | 633  | 748  | 895  |     |               |     |  |
| PBY 3605 xx      |            | 38.0     | 64       | 191   | 247  | 292  | 349  | 494  | 605  | 781  | 924  | 1105 |     |               |     |  |
| PBY 3665 xx      |            | 43.0     | 64       | 210   | 271  | 321  | 384  | 543  | 665  | 858  | 1016 | 1214 |     |               |     |  |

| Material table | 3/8" | 1/2" | 3/4" | 1" | 1+1/2" | 2" | 2+1/2" |
|----------------|------|------|------|----|--------|----|--------|
| AISI 316L      |      |      |      | •  | •      | •  | •      |
| Brass          | •    | •    | •    | •  |        |    |        |