



# Twin-fluid atomizing nozzles for gas treatment

## Series 76X



- Twin-fluid nozzle with external mixing for production of fine droplets
- Modular concept
- Wide range of combination options

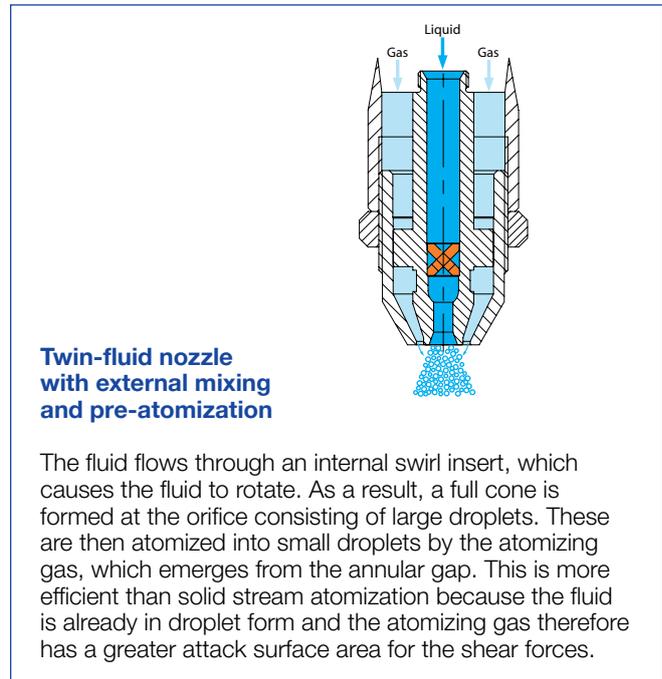
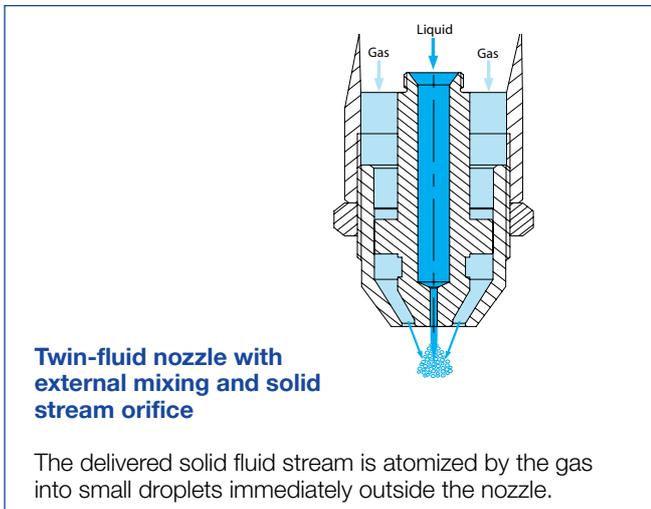
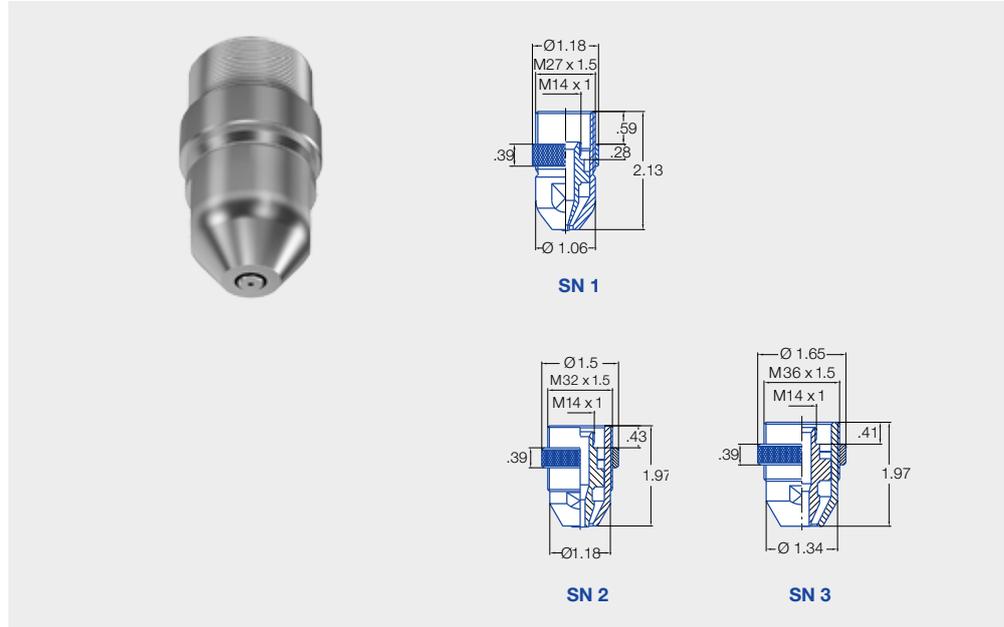
### Applications:

Gas treatment, combustion processes.

### Material:

Seawater-resistant stainless steels or stainless steels adapted to the combustion process.

- Solid stream nozzles for high-viscosity suspensions and fluids
- Nozzles with pre-atomization for high atomization efficiency



### Overview of nozzle sizes

| Nozzle/series        |                      | Size | Reference air pressure dp [psi] | Air flow rate [SCFM] |
|----------------------|----------------------|------|---------------------------------|----------------------|
| Solid stream orifice | with pre-atomization |      |                                 |                      |
| 760.XX0.1Y           | 761.XX6              | SN 1 | 60                              | 15                   |
| 762.XX0.1Y           | 763.XX6              | SN 1 | 60                              | 27                   |
| 764.XX0.1Y           | 765.XX6              | SN 2 | 60                              | 65                   |
| —                    | 767.XX6              | SN 3 | 60                              | 75                   |
| 766.XX0.1Y           | —                    | SN 3 | 60                              | 106                  |



# Twin-fluid atomizing nozzles for lance mounting Series 76X



## Twin-fluid nozzle with external mixing and solid stream orifice

| No. | Ordering no.<br><br>Type | Flow rate |                   |      |      |      |      | Atomizing air |         |    |     |     |     | Outside diameter of lance D [in] |      |
|-----|--------------------------|-----------|-------------------|------|------|------|------|---------------|---------|----|-----|-----|-----|----------------------------------|------|
|     |                          | B [in]    | Flow Rate gal/min |      |      |      |      | Size          | SCFM    |    |     |     |     |                                  |      |
|     |                          |           | p [psi]           |      |      |      |      |               | p [psi] |    |     |     |     |                                  |      |
|     |                          |           | 15                | 10   | 7    | 4    | 1    | 15            | 30      | 45 | 60  | 75  | 90  |                                  |      |
| 1   | <b>760.050</b>           | 0.02      | 0.07              | 0.04 | 0.03 | 0.02 | 0.01 | SN 1          | 7       | 11 | 15  | 18  | 22  | 26                               | 1.18 |
|     | <b>760.100</b>           | 0.04      | 0.18              | 0.15 | 0.12 | 0.10 | 0.06 |               |         |    |     |     |     |                                  |      |
|     | <b>760.150</b>           | 0.06      | 3.96              | 0.33 | 0.28 | 0.22 | 0.12 |               |         |    |     |     |     |                                  |      |
|     | <b>760.200</b>           | 0.08      | 0.70              | 0.59 | 0.50 | 0.39 | 0.22 |               |         |    |     |     |     |                                  |      |
|     | <b>760.250</b>           | 0.10      | 1.10              | 0.92 | 0.78 | 0.60 | 0.35 |               |         |    |     |     |     |                                  |      |
|     | <b>760.300</b>           | 0.12      | 1.58              | 1.33 | 1.12 | 0.87 | 0.50 |               |         |    |     |     |     |                                  |      |
| 2   | <b>762.150</b>           | 0.06      | 0.40              | 0.33 | 0.28 | 0.22 | 0.12 | SN 1          | 14      | 21 | 27  | 34  | 41  | 47                               | 1.18 |
|     | <b>762.200</b>           | 0.08      | 0.70              | 0.59 | 0.50 | 0.39 | 0.22 |               |         |    |     |     |     |                                  |      |
|     | <b>762.250</b>           | 0.10      | 1.10              | 0.92 | 0.78 | 0.60 | 0.35 |               |         |    |     |     |     |                                  |      |
|     | <b>762.300</b>           | 0.12      | 1.58              | 1.33 | 1.12 | 0.87 | 0.50 |               |         |    |     |     |     |                                  |      |
|     | <b>762.320</b>           | 0.13      | 1.80              | 1.51 | 1.27 | 0.99 | 0.57 |               |         |    |     |     |     |                                  |      |
| 3   | <b>764.300</b>           | 0.12      | 1.58              | 1.33 | 1.12 | 0.87 | 0.50 | SN 2          | 32      | 49 | 65  | 81  | 97  | 113                              | 1.50 |
|     | <b>764.500</b>           | 0.20      | 4.40              | 3.68 | 3.11 | 2.41 | 1.39 |               |         |    |     |     |     |                                  |      |
| 4   | <b>766.300</b>           | 0.12      | 1.58              | 1.33 | 1.12 | 0.87 | 0.50 | SN 3          | 53      | 79 | 106 | 132 | 159 | 185                              | 1.65 |
|     | <b>766.500</b>           | 0.20      | 4.40              | 3.68 | 3.11 | 2.41 | 1.39 |               |         |    |     |     |     |                                  |      |

B = bore diameter

Materials on request

## Twin-fluid nozzle with external mixing and pre-atomization

| No. | Ordering no.<br><br>Type | B [in] | E [in] | Flow rate                      |        |        |        |        |        | Atomizing air |         |    |    |    |     | Outside diameter of lance D [in] |      |
|-----|--------------------------|--------|--------|--------------------------------|--------|--------|--------|--------|--------|---------------|---------|----|----|----|-----|----------------------------------|------|
|     |                          |        |        | Flow Rate (Gallons Per Minute) |        |        |        |        |        | Size          | SCFM    |    |    |    |     |                                  |      |
|     |                          |        |        | 15 psi                         | 30 psi | 45 psi | 60 psi | 75 psi | 90 psi |               | p [psi] |    |    |    |     |                                  |      |
|     |                          |        |        | 15                             | 30     | 45     | 60     | 75     | 90     | 15            | 30      | 45 | 60 | 75 | 90  |                                  |      |
| 1   | <b>761.446.1Y.00</b>     | 0.05   | 0.04   | 0.25                           | 0.33   | 0.39   | 0.44   | 0.48   | 0.51   | SN 1          | 7       | 11 | 15 | 18 | 22  | 26                               | 1.18 |
|     | <b>761.486.1Y.00</b>     | 0.06   | 0.05   | 0.32                           | 0.42   | 0.50   | 0.56   | 0.61   | 0.66   |               |         |    |    |    |     |                                  |      |
|     | <b>761.506.1Y.00</b>     | 0.06   | 0.05   | 0.36                           | 0.48   | 0.56   | 0.63   | 0.69   | 0.74   |               |         |    |    |    |     |                                  |      |
|     | <b>761.526.1Y.00</b>     | 0.06   | 0.05   | 0.40                           | 0.53   | 0.62   | 0.70   | 0.76   | 0.82   |               |         |    |    |    |     |                                  |      |
|     | <b>761.566.1Y.00</b>     | 0.07   | 0.05   | 0.50                           | 0.66   | 0.78   | 0.87   | 0.95   | 1.02   |               |         |    |    |    |     |                                  |      |
|     | <b>761.606.1Y.00</b>     | 0.08   | 0.06   | 0.63                           | 0.83   | 0.98   | 1.10   | 1.20   | 1.29   |               |         |    |    |    |     |                                  |      |
| 2   | <b>763.446.1Y.00</b>     | 0.05   | 0.04   | 0.25                           | 0.33   | 0.39   | 0.44   | 0.48   | 0.51   | SN 1          | 14      | 21 | 27 | 34 | 41  | 47                               | 1.18 |
|     | <b>763.486.1Y.00</b>     | 0.06   | 0.05   | 0.32                           | 0.42   | 0.50   | 0.56   | 0.61   | 0.66   |               |         |    |    |    |     |                                  |      |
|     | <b>763.506.1Y.00</b>     | 0.06   | 0.05   | 0.36                           | 0.48   | 0.56   | 0.63   | 0.69   | 0.74   |               |         |    |    |    |     |                                  |      |
|     | <b>763.526.1Y.00</b>     | 0.06   | 0.05   | 0.40                           | 0.53   | 0.62   | 0.70   | 0.76   | 0.82   |               |         |    |    |    |     |                                  |      |
|     | <b>763.566.1Y.00</b>     | 0.07   | 0.05   | 0.50                           | 0.66   | 0.78   | 0.87   | 0.95   | 1.02   |               |         |    |    |    |     |                                  |      |
|     | <b>763.606.1Y.00</b>     | 0.08   | 0.06   | 0.63                           | 0.83   | 0.98   | 1.10   | 1.20   | 1.29   |               |         |    |    |    |     |                                  |      |
| 3   | <b>765.486.1Y.00</b>     | 0.06   | 0.05   | 0.32                           | 0.42   | 0.50   | 0.56   | 0.61   | 0.66   | SN 2          | 32      | 49 | 65 | 82 | 97  | 113                              | 1.5  |
|     | <b>765.646.1Y.00</b>     | 0.09   | 0.07   | 0.80                           | 1.06   | 1.24   | 1.39   | 1.52   | 1.64   |               |         |    |    |    |     |                                  |      |
|     | <b>765.746.1Y.00</b>     | 0.13   | 0.07   | 1.42                           | 1.88   | 2.21   | 2.48   | 2.71   | 2.91   |               |         |    |    |    |     |                                  |      |
| 4   | <b>767.646.1Y.00</b>     | 0.09   | 0.07   | 0.80                           | 1.06   | 2.49   | 1.39   | 1.52   | 1.64   | SN 3          | 38      | 57 | 75 | 94 | 113 | 132                              | 1.65 |
|     | <b>767.766.1Y.00</b>     | 0.13   | 0.09   | 1.60                           | 2.11   | 1.24   | 2.79   | 3.05   | 3.28   |               |         |    |    |    |     |                                  |      |
|     | <b>767.846.1Y.00</b>     | 0.16   | 0.13   | 2.49                           | 3.30   | 3.88   | 4.36   | 4.76   | 5.12   |               |         |    |    |    |     |                                  |      |

B = bore diameter · E = narrowest free cross section

Materials on request