

# Whirl jet nozzle

## WSD-FR 2500

Whirl jet nozzles type WSD-FR 2500 have, in addition to the radial-radiating nozzles for tube cleaning, front-directed nozzles with which the nozzles clean their way through the pipe effectively. Due to the repulsive force of the emerging high-pressure water, the nozzle rotor rotates several thousand revolutions. The whirl jet nozzles are available in many diameters for adaptation to different pipe diameters.



### Special benefits

- Robust design and easy rotor exchange
- For use with lances or hoses (see additional information)

### Additional information

- The use of whirl jet nozzles WSD-FR with hoses is only permitted in conjunction with a suitable forward feeding unit (see accessories)
- In vertical cleaning applications the nozzle must only be used from bottom to top

### Technical data

|                    |                |
|--------------------|----------------|
| Operating pressure | max. 2.500 bar |
|--------------------|----------------|

### Variants whirl jet nozzle

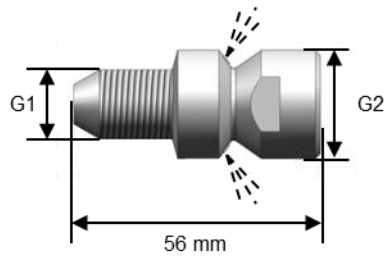
| Type     | Ø D [mm] | Length L [mm] | Thread G [mm]  | Nozzle-Ø F [mm] | Nozzle-Ø R [mm] | Material-Number |
|----------|----------|---------------|----------------|-----------------|-----------------|-----------------|
| WSD-FR18 | 18       | 73            | 3/8"-24 UNF-LH | 2x 0,3          | 2x 0,3          | 9.914-716.0     |
|          |          |               |                | 2x 0,3          | 2x 0,35         | 9.914-717.0     |

### Performance chart whirl jet nozzle

| Type  | Nozzle R* [mm] | Nozzle F* [mm] | Operating pressure [bar] |      |      |      |      |      |      |      |      |      |      |
|-------|----------------|----------------|--------------------------|------|------|------|------|------|------|------|------|------|------|
|       |                |                | 1500                     | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 |
|       |                |                | Flow rate [l/min]        |      |      |      |      |      |      |      |      |      |      |
| FR 18 | 2x 0,3         | 2x 0,3         | 14                       | 15   | 16   | 17   | 17   | 18   | 19   | 19   | 20   | 20   | 21   |
|       | 2x 0,3         | 2x 0,35        | 16                       | 17   | 18   | 19   | 19   | 20   | 20   | 21   | 21   | 22   | 23   |

\* F = front-directed nozzles; R = radial nozzles

## Accessories



### Forward feed unit

| Type   | for      | Threads<br>G1 – G2 [mm]           | Nozzle-Ø<br>[mm] | Material-<br>Number |
|--------|----------|-----------------------------------|------------------|---------------------|
| VSE 18 | WSD-FR18 | a3/8"-24 UNF-LH – i3/8"-24 UNF-LH | 2x 0,3           | 9.914-718.0         |

### Performance chart forward feed unit

| Type   | Nozzle-Ø<br>[mm] | Operating pressure [bar] |      |      |      |      |      |      |      |      |      |      |   |
|--------|------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|---|
|        |                  | 1500                     | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 |   |
|        |                  | Flow rate [l/min]        |      |      |      |      |      |      |      |      |      |      |   |
| VSE 18 | 2x 0,3           | 4                        | 4    | 4    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 6 |