# Sapphire nozzle 290





## **Properties and advantages**

- Long lifetime
- Constant jet quality
- Accurate cutting accuracy
- Narrow cutting width
- High cutting performance
- Swiss Quality

### **Applications**

Pure water: paper, cardboard, corrugated cardboard, wood, plastics, food, bakery

product, frozen foods, meat, fish, composite materials, vehicle parts such as carpets, door panels, shock absorbers, dashboards, instrument panels,

rear window shelves, etc.

Abrasive: metal, titanium, Aluminium, stone, marble, granite, ceramic, reinforced

concrete, cement, mineral wool, composite materials, vehicle and aircraft

parts, etc.

### **Description**

The sapphire nozzle type 290 can be used as a pure water cutting nozzle or as an abrasive cutting nozzle. The nozzle has a sealing angle of  $88^{\circ}$ .

#### Only while stocks last - prices and availability on request.

This product is compatible with the following brands or products:

• Type 20

R = Pure water jet cutting nozzles, aiming accuracy 100% tested

RX = Pure water jet cutting nozzles, aiming accuracy not tested

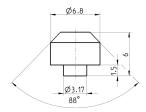
= Abrasive cutting nozzles, aiming accuracy 100% tested

AX = Abrasive cutting nozzles, aiming accuracy not tested

| ART. NO. (1) | ARTICLE    | DESCRIPTION |  |
|--------------|------------|-------------|--|
| 31036        | Pure water | R / RX      |  |
| 31037        | Abrasive   | A / AX      |  |

# Test of the aiming accuracy

- The distance from the nozzle to the target mark is 100 mm.
- The test pressure is 50 bar.
- Testing of the aiming accuracy is only carried out if requested by the customer.





| CHARACTERISTICS          | TYPE      |  |
|--------------------------|-----------|--|
| CHARACTERISTICS          | 290       |  |
| Operating pressure (bar) | max. 4000 |  |
| Operating temp. (°C)     | max. 150° |  |

# Performance

|          |              | PRESSURE IN PSI / BAR |              |              |              |
|----------|--------------|-----------------------|--------------|--------------|--------------|
| ART. NO. | NOZZLE ØD MM | psi<br>36250          | psi<br>43500 | psi<br>50750 | psi<br>58000 |
|          |              | bar<br>2500           | bar<br>3000  | bar<br>3500  | bar<br>4000  |
|          |              | FLOW RATE IN L/MIN    |              |              |              |
| 0080     | 0.08         | 0.129                 | 0.140        | 0.151        | 0.160        |
| 0100     | 0.10         | 0.201                 | 0.219        | 0.235        | 0.250        |
| 0125     | 0.125        | 0.315                 | 0.343        | 0.368        | 0.391        |
| 0150     | 0.15         | 0.453                 | 0.493        | 0.529        | 0.563        |
| 0175     | 0.175        | 0.617                 | 0.671        | 0.721        | 0.766        |
| 0200     | 0.20         | 0.806                 | 0.877        | 0.941        | 1.000        |
| 0250     | 0.25         | 1.259                 | 1.370        | 1.471        | 1.563        |
| 0275     | 0.275        | 1.524                 | 1.658        | 1.779        | 1.891        |
| 0300     | 0.30         | 1.813                 | 1.973        | 2.118        | 2.250        |
| 0350     | 0.35         | 2.468                 | 2.685        | 2.882        | 3.063        |
| 0400     | 0.40         | 3.223                 | 3.508        | 3.765        | 4.001        |
| 0450     | 0.45         | 4.080                 | 4.439        | 4.765        | 5.064        |
| 0500     | 0.50         | 5.037                 | 5.481        | 5.882        | 6.251        |
| 0550     | 0.55         | 6.094                 | 6.632        | 7.118        | 7.564        |
| 0600     | 0.60         | 7.253                 | 7.892        | 8.471        | 9.002        |
| 0650     | 0.65         | 8.512                 | 9.262        | 9.941        | 10.565       |
| 0700     | 0.70         | 9.872                 | 10.742       | 11.530       | 12.253       |
| 0750     | 0.75         | 11.333                | 12.331       | 13.236       | 14.066       |
| 0800     | 0.80         | 12.894                | 14.030       | 15.059       | 16.004       |
| 0850     | 0.85         | 14.556                | 15.839       | 17.000       | 18.067       |
| 0900     | 0.90         | 16.319                | 17.757       | 19.059       | 20.254       |
| 0950     | 0.95         | 18.182                | 19.785       | 21.236       | 22.568       |
| 1000     | 1.00         | 20.147                | 21.922       | 23.530       | 25.006       |

# Order example

| ART. NO. (1) | ART. NO. (2) | DESCRIPTION |              |
|--------------|--------------|-------------|--------------|
| 31036        | 0080         | R           | 31036.0080_R |

