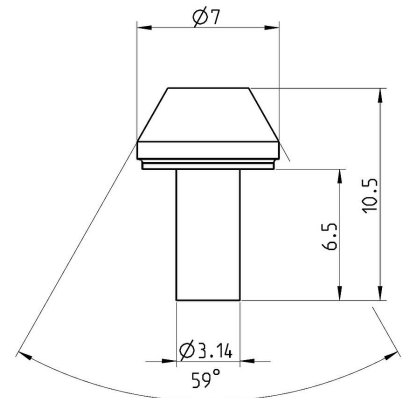


Sapphire nozzle 277

The sapphire nozzle type 277 can be used as a pure water or abrasive cutting nozzle. The nozzle has a sealing angle of 59°.

Features and advantages

- Long service life
- Constant jet quality
- Precise cutting accuracy
- Small cutting width
- High cutting performance
- Swiss Quality



Applications

Clean water: Paper, cardboard, corrugated cardboard, wood, plastics, food, baked goods, frozen food, meat, fish, composite materials, vehicle parts such as carpets, door panels, bumpers, dashboards, instrument panels, parcel shelves, etc.

Abrasive: Metal, titanium, aluminum, stone, marble, granite, ceramics, reinforced concrete, plaster, rock wool, laminated, safety and bulletproof glass, wood, plastics, composite materials, vehicle and aircraft parts, etc.

R = Pure water cutting nozzles, accuracy 100% tested RX = Pure water cutting nozzles, accuracy not tested

EXECUTION	ARTICLE	DESCRIPTION
Pure water	35029._ _	R / RX

Examination

- The distance between the nozzle and the target mark is 100 mm.
- The test pressure is 50 bar.
- The 100% test is carried out at the customer's request.

Specifications



**Operating pressure (bar)
max.**

4000



**Operating temperature (°C)
max.**

150

ART. NO.	NOZZLES Ød mm	Designation	PRESSURE in psi / bar			
			psi36250	psi43500	psi50750	psi58000
			bar2500	bar3000	bar3500	bar4000
			FLOW RATE in l/min			
35029.0080_R	0.08	R	0.129	0.140	0.151	0.160
35029.0080_RX	0.08	RX	0.129	0.140	0.151	0.160
35029.0100_R	0.10	R	0.201	0.219	0.235	0.250
35029.0100_RX	0.10	RX	0.201	0.219	0.235	0.250
35029.0125_R	0.125	R	0.315	0.343	0.368	0.391
35029.0125_RX	0.125	RX	0.315	0.343	0.368	0.391
35029.0150_R	0.15	R	0.453	0.493	0.529	0.563
35029.0150_RX	0.15	RX	0.453	0.493	0.529	0.563
35029.0175_R	0.175	R	0.617	0.671	0.721	0.766
35029.0175_RX	0.175	RX	0.617	0.671	0.721	0.766
35029.0200_R	0.20	R	0.806	0.877	0.941	1.000
35029.0200_RX	0.20	RX	0.806	0.877	0.941	1.000
35029.0250_R	0.25	R	1.259	1.370	1.471	1.563
35029.0250_RX	0.25	RX	1.259	1.370	1.471	1.563
35029.0275_R	0.275	R	1.524	1.658	1.779	1.891
35029.0275_RX	0.275	RX	1.524	1.658	1.779	1.891
35029.0300_R	0.30	R	1.813	1.973	2.118	2.250
35029.0300_RX	0.30	RX	1.813	1.973	2.118	2.250
35029.0350_R	0.35	R	2.468	2.685	2.882	3.063
35029.0350_RX	0.35	RX	2.468	2.685	2.882	3.063
35029.0400_R	0.40	R	3.223	3.508	3.765	4.001
35029.0400_RX	0.40	RX	3.223	3.508	3.765	4.001
35029.0450_R	0.45	R	4.080	4.439	4.765	5.064
35029.0450_RX	0.45	RX	4.080	4.439	4.765	5.064

ART. NO.	NOZZLES Ød mm	Designation	PRESSURE in psi / bar			
			psi36250	psi43500	psi50750	psi58000
			bar2500	bar3000	bar3500	bar4000
FLOW RATE in l/min						
35029.0500_R	0.50	R	5.037	5.481	5.882	6.251
35029.0500_RX	0.50	RX	5.037	5.481	5.882	6.251
35029.0550_R	0.55	R	6.094	6.632	7.118	7.564
35029.0550_RX	0.55	RX	6.094	6.632	7.118	7.564
35029.0600_R	0.60	R	7.253	7.892	8.471	9.002
35029.0600_RX	0.60	RX	7.253	7.892	8.471	9.002
35029.0650_R	0.65	R	8.512	9.262	9.941	10.565
35029.0650_RX	0.65	RX	8.512	9.262	9.941	10.565
35029.0700_R	0.70	R	9.872	10.742	11.530	12.253
35029.0700_RX	0.70	RX	9.872	10.742	11.530	12.253
35029.0750_R	0.75	R	11.333	12.331	13.236	14.066
35029.0750_RX	0.75	RX	11.333	12.331	13.236	14.066
35029.0800_R	0.80	R	12.894	14.030	15.059	16.004
35029.0800_RX	0.80	RX	12.894	14.030	15.059	16.004
35029.0850_R	0.85	R	14.556	15.839	17.000	18.067
35029.0850_RX	0.85	RX	14.556	15.839	17.000	18.067
35029.0900_R	0.90	R	16.319	17.757	19.059	20.254
35029.0900_RX	0.90	RX	16.319	17.757	19.059	20.254
35029.0950_R	0.95	R	18.182	19.785	21.236	22.568
35029.0950_RX	0.95	RX	18.182	19.785	21.236	22.568
35029.1000_R	1.00	R	20.147	21.922	23.530	25.006
35029.1000_RX	1.00	RX	20.147	21.922	23.530	25.006

FAQ

1. Can the sapphire nozzle type 277 be used for abrasive cutting?

The type 277 is primarily designed as a pure water cutting nozzle (R / RX). Other nozzle types are available for abrasive applications.

2. What is the significance of the sealing angle of 59°?

The sealing angle of 59° ensures a reliable seal and stable jet guidance, which contributes to consistent cutting results.

3. Which materials is the Type 277 particularly suitable for?

The nozzle is ideal for pure water applications such as paper, cardboard, plastics, food and various composite materials and vehicle components.

4. What is the difference between R and RX versions?

- **R:** Accuracy 100% tested
- **RX:** Accuracy not testedThe choice depends on the quality requirements of the application.

5. What advantages does the Type 277 offer in use?

It impresses with a long service life, consistent beam quality, high cutting accuracy and a narrow cutting width - ideal for precise cutting processes.