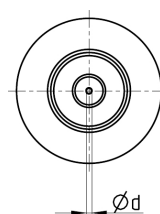
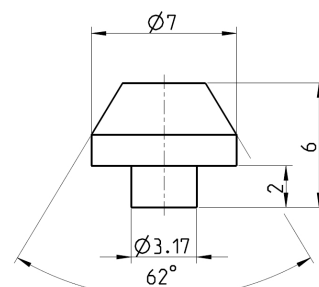


Sapphire nozzle 256

The sapphire nozzle type 256 can be used as a pure water cutting nozzle or as an abrasive cutting nozzle. It is characterized by its short neck and sealing angle of 62°.



Features and advantages

- Long service life
- Constant beam 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

A = Abrasive cutting nozzles, target accuracy 100% tested
AX = Abrasive cutting nozzles, target accuracy not tested

EXECUTION	ARTICLE	DESCRIPTION
Pure water	31076._ _	R / RX
Abrasive	31077._ _	A / AX

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. NR.	DÜSEN Ød mm	Bezeichnung	DRUCK in psi / bar			
			psi36250	psi43500	psi50750	psi58000
			bar2500	bar3000	bar3500	bar4000
			DURCHFLUSSMENGE in l/min			
31076.0080_R	0.08	R	0.129	0.140	0.151	0.160
31076.0080_RX	0.08	RX	0.129	0.140	0.151	0.160
31076.0100_R	0.10	R	0.201	0.219	0.235	0.250
31076.0100_RX	0.10	RX	0.201	0.219	0.235	0.250
31076.0125_R	0.125	R	0.315	0.343	0.368	0.391
31076.0125_RX	0.125	RX	0.315	0.343	0.368	0.391
31076.0150_R	0.15	R	0.453	0.493	0.529	0.563
31076.0150_RX	0.15	RX	0.453	0.493	0.529	0.563
31076.0175_R	0.175	R	0.617	0.671	0.721	0.766
31076.0175_RX	0.175	RX	0.617	0.671	0.721	0.766
31076.0200_R	0.20	R	0.806	0.877	0.941	1.000
31076.0200_RX	0.20	RX	0.806	0.877	0.941	1.000
31076.0250_R	0.25	R	1.259	1.370	1.471	1.563
31076.0250_RX	0.25	RX	1.259	1.370	1.471	1.563
31076.0275_R	0.275	R	1.524	1.658	1.779	1.891
31076.0275_RX	0.275	RX	1.524	1.658	1.779	1.891
31076.0300_R	0.30	R	1.813	1.973	2.118	2.250
31076.0300_RX	0.30	RX	1.813	1.973	2.118	2.250
31076.0350_R	0.35	R	2.468	2.685	2.882	3.063
31076.0350_RX	0.35	RX	2.468	2.685	2.882	3.063
31076.0400_R	0.40	R	3.223	3.508	3.765	4.001
31076.0400_RX	0.40	RX	3.223	3.508	3.765	4.001
31076.0450_R	0.45	R	4.080	4.439	4.765	5.064
31076.0450_RX	0.45	RX	4.080	4.439	4.765	5.064

ART. NR.	DÜSEN Ød mm	Bezeichnung	DRUCK in psi / bar			
			psi36250	psi43500	psi50750	psi58000
			bar2500	bar3000	bar3500	bar4000
			DURCHFLUSSMENGE in l/min			
31076.0500_R	0.50	R	5.037	5.481	5.882	6.251
31076.0500_RX	0.50	RX	5.037	5.481	5.882	6.251
31076.0550_R	0.55	R	6.094	6.632	7.118	7.564
31076.0550_RX	0.55	RX	6.094	6.632	7.118	7.564
31076.0600_R	0.60	R	7.253	7.892	8.471	9.002
31076.0600_RX	0.60	RX	7.253	7.892	8.471	9.002
31076.0650_R	0.65	R	8.512	9.262	9.941	10.565
31076.0650_RX	0.65	RX	8.512	9.262	9.941	10.565
31076.0700_R	0.70	R	9.872	10.742	11.530	12.253
31076.0700_RX	0.70	RX	9.872	10.742	11.530	12.253
31076.0750_R	0.75	R	11.333	12.331	13.236	14.066
31076.0750_RX	0.75	RX	11.333	12.331	13.236	14.066
31076.0800_R	0.80	R	12.894	14.030	15.059	16.004
31076.0800_RX	0.80	RX	12.894	14.030	15.059	16.004
31076.0850_R	0.85	R	14.556	15.839	17.000	18.067
31076.0850_RX	0.85	RX	14.556	15.839	17.000	18.067
31076.0900_R	0.90	R	16.319	17.757	19.059	20.254
31076.0900_RX	0.90	RX	16.319	17.757	19.059	20.254
31076.0950_R	0.95	R	18.182	19.785	21.236	22.568
31076.0950_RX	0.95	RX	18.182	19.785	21.236	22.568
31076.1000_R	1.00	R	20.147	21.922	23.530	25.006
31076.1000_RX	1.00	RX	20.147	21.922	23.530	25.006
31077.0080_A	0.08	A	0.129	0.140	0.151	0.160
31077.0080_AX	0.08	AX	0.129	0.140	0.151	0.160
31077.0100_A	0.10	A	0.201	0.219	0.235	0.250
31077.0100_AX	0.10	AX	0.201	0.219	0.235	0.250
31077.0125_A	0.125	A	0.315	0.343	0.368	0.391
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31077.0150_A	0.15	A	0.453	0.493	0.529	0.563
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31077.0200_AX	0.20	AX	0.806	0.877	0.941	1.000
31077.0250_A	0.25	A	1.259	1.370	1.471	1.563
31077.0250_AX	0.25	AX	1.259	1.370	1.471	1.563
31077.0275_A	0.275	A	1.524	1.658	1.779	1.891
31077.0275_AX	0.275	AX	1.524	1.658	1.779	1.891
31077.0300_A	0.30	A	1.813	1.973	2.118	2.250
31077.0300_AX	0.30	AX	1.813	1.973	2.118	2.250
31077.0350_A	0.35	A	2.468	2.685	2.882	3.063
31077.0350_AX	0.35	AX	2.468	2.685	2.882	3.063
31077.0400_A	0.40	A	3.223	3.508	3.765	4.001
31077.0400_AX	0.40	AX	3.223	3.508	3.765	4.001
31077.0450_A	0.45	A	4.080	4.439	4.765	5.064
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31077.0500_AX	0.50	AX	5.037	5.481	5.882	6.251
31077.0550_A	0.55	A	6.094	6.632	7.118	7.564
31077.0550_AX	0.55	AX	6.094	6.632	7.118	7.564
31077.0600_A	0.60	A	7.253	7.892	8.471	9.002
31077.0600_AX	0.60	AX	7.253	7.892	8.471	9.002
31077.0650_A	0.65	A	8.512	9.262	9.941	10.565
31077.0650_AX	0.65	AX	8.512	9.262	9.941	10.565
31077.0700_A	0.70	A	9.872	10.742	11.530	12.253
31077.0700_AX	0.70	AX	9.872	10.742	11.530	12.253
31077.0750_A	0.75	A	11.333	12.331	13.236	14.066
31077.0750_AX	0.75	AX	11.333	12.331	13.236	14.066
31077.0800_A	0.80	A	12.894	14.030	15.059	16.004
31077.0800_AX	0.80	AX	12.894	14.030	15.059	16.004

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31077.0900_A	0.90	A	16.319	17.757	19.059	20.254
31077.0900_AX	0.90	AX	16.319	17.757	19.059	20.254
31077.0950_A	0.95	A	18.182	19.785	21.236	22.568
31077.0950_AX	0.95	AX	18.182	19.785	21.236	22.568
31077.1000_A	1.00	A	20.147	21.922	23.530	25.006
31077.1000_AX	1.00	AX	20.147	21.922	23.530	25.006

FAQ

1. What applications is the sapphire nozzle 256 suitable for?

The sapphire nozzle 256 is suitable for both pure water and abrasive cutting applications. It covers a broad spectrum - from soft materials such as paper, food and plastics to hard materials such as metal, stone or ceramic.

2. What are the design features of the Sapphire nozzle 256?

The nozzle has a short neck ("low mass" design) and a sealing angle of 62°. This design enables compact integration, reduced mass and precise jet guidance.

3. Which variants (R, RX, A, AX) are available?

The nozzle is available in four variants:

- **R / A:** 100 % tested accuracy (pure water or abrasive)
- **RX / AX:** Accuracy not tested, but more economical alternative for less critical applications

4. What operating conditions are possible?

The sapphire nozzle 256 is designed for operating pressures of up to 4000 bar and temperatures of up to 150 °C, making it ideal for demanding industrial cutting processes.

5. What advantages does the sapphire nozzle 256 offer in use?

It impresses with its long service life, consistent beam quality, high cutting precision and narrow cutting width. This ensures high efficiency and consistent quality in the cutting process.