

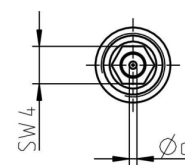
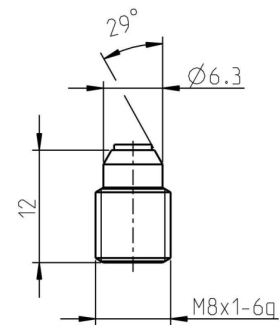
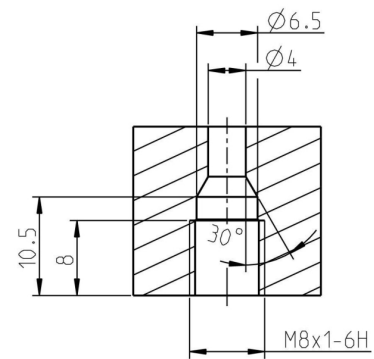
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 987

The high-performance sapphire screw-in nozzle type 987 is designed for surface processing. The nozzle is characterized above all by its service life, efficiency and quality. This nozzle has been designed primarily for spray bars and multiple placement. But of course it can also be used as a pointed nozzle. The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, which guarantees consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Concrete removal
- Vehicle and aircraft parts
- Municipal operations
- Surface treatment
- Offshore applications
- Cement and concrete industry

ART. NO. (1)31221._ _

Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 17

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31221.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31221.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31221.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31221.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31221.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31221.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31221.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31221.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
31221.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
31221.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
31221.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
31221.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
31221.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
31221.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
31221.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
31221.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
31221.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
31221.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
31221.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
31221.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
31221.1000	0208	1.00	6.752	10.620	12.952	14.894	18.097	20.740	23.025	25.054
31221.1100	0251	1.10	8.170	12.850	15.671	18.021	21.897	25.096	27.860	30.316

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31221.1200	0299	1.20	9.723	15.293	18.650	21.447	26.059	29.866	33.156	36.078
31221.1300	0351	1.30	11.411	17.947	21.888	25.170	30.584	35.051	38.912	42.342
31221.1400	0407	1.40	13.234	20.815	25.385	29.191	35.470	40.651	45.129	49.106
31221.1500	0467	1.50	15.192	23.895	29.141	33.510	40.718	46.666	51.806	56.372
31221.1600	0539	1.60	17.525	27.564	33.616	38.657	46.971	53.833	59.762	65.030
31221.1700	0608	1.70	19.784	31.118	37.950	43.640	53.026	60.772	67.466	73.412
31221.1800	0682	1.80	22.180	34.886	42.546	48.925	59.448	68.132	75.636	82.303
31221.1900	0760	1.90	24.713	38.870	47.404	54.512	66.237	75.913	84.274	91.702
31221.2000	0865	2.00	28.133	44.249	53.965	62.056	75.404	86.418	95.937	104.393
31221.2100	0979	2.10	31.844	50.086	61.083	70.242	85.349	97.817	108.591	118.162
31221.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
31221.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
31221.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
31221.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
31221.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
31221.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
31221.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
31221.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
31221.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction



When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

FAQ

1. What is the 987 sapphire screw-in nozzle used for?

The sapphire screw-in nozzle type 987 is specially designed for **surface treatment**. It is used in the following areas, among others:

- Concrete removal and renovation
- Processing of vehicle and aircraft parts
- Industrial cleaning
- Offshore applications
- Cement and concrete industry

Thanks to its design, it is particularly suitable for **spray bars and multiple fittings**, but can also be used as a **pointed nozzle**.

2. What are the advantages of the sapphire insert in the nozzle?

The sapphire insert is extremely **hard and wear-resistant**, giving the nozzle an exceptionally long service life. In addition, the production of the nozzle stone at mvt AG guarantees

- Consistently high quality
- Precise jet geometry
- Constant flow rates

Each nozzle stone is individually checked for **scratches, cracks and flow rate**.

3. What are the technical specifications of the 987 sapphire screw-in nozzle?

The most important technical data at a glance:

- **Max. Operating pressure:** 3000 bar
- **Max. Operating temperature:** 150 °C
- **Max. Tightening torque:** 17 Nm
- **Nozzle sizes:** 0.10 mm to 3.00 mm
- **Flow rate:** approx. 0.064 to 247.410 l/min (depending on pressure and nozzle size)
- **Article number range:** 31221._ _

This wide range enables use in a wide variety of high-pressure applications.

4. For which systems and applications is the nozzle suitable?

The 987 sapphire screw-in nozzle is ideal for:

- **Spray bar systems**
- **Multiple nozzle arrangements**
- **High-pressure cleaning systems**
- **Manual high-pressure lances (in compliance with safety regulations)**

Thanks to its compact design, it can be easily integrated into existing systems.

5. What safety regulations must be observed during use?

The following must be observed when using high-pressure spray guns and lances:

- The **recoil force must not exceed 250 N**
- A **body support** must be used from **150 N recoil force**

These specifications ensure safe operation and protect the user in high-pressure applications.

— Sapphire screw-in nozzles

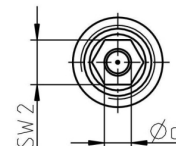
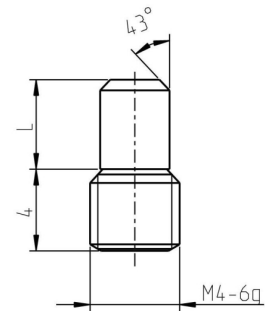
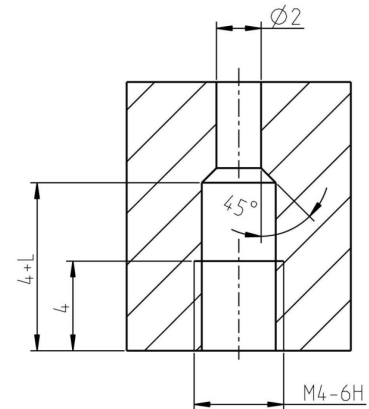
Sapphire screw-in nozzle 045

The Saphir screw-in nozzle type 045 can be used with the optional steel Inox seal up to an operating pressure of 3000 bar. With the brass seal, an operating pressure of 1500 bar is permitted. Our customers use this nozzle mainly on cleaning bars or spray bars, this nozzle finds its application in industrial cleaning. The sapphire and the nozzle body are manufactured and machined in-house. The nozzle is cone-sealing in conjunction with the seals and is characterized by its service life, efficiency and quality.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)

31216._ _

Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 2

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31215.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31215.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31215.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31215.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31215.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31215.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31215.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31215.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
31215.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
31215.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
31215.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
31215.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158
31215.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
31215.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997
31215.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
31215.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
31215.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
31215.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
31215.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
31215.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
31215.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Gasket available separately

ART. NO.	L (mm)	Material	Max. pressure (bar)
10008	5.00	Stainless steel	3000
10007	4.00	brass	1500
10006	2.00	brass	1500

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



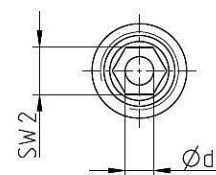
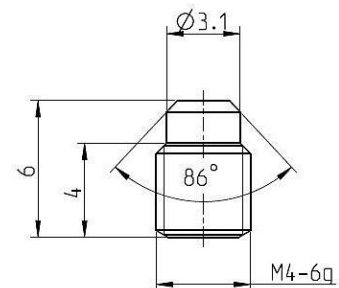
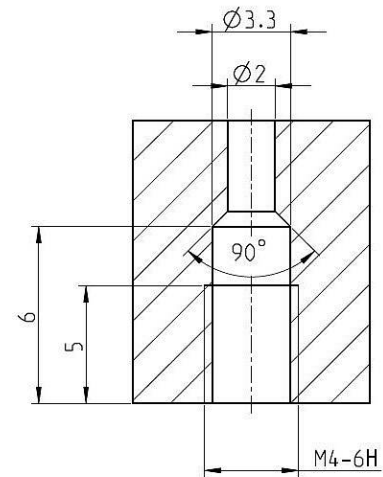
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 046

The Saphir screw-in nozzle type 046 can be used up to an operating pressure of 3000 bar. Our customers use this nozzle primarily on cleaning bars or spray bars, this nozzle is used in industrial cleaning or on marking removal machines. The sapphire and the nozzle body are manufactured and machined in-house. The nozzle is cone-sealing and has a sealing angle of 86°. The heart of the nozzle, the nozzle stone, is completely manufactured at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)

31274._ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)
max. 2

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi4350	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar300	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32074.0100	0002	0.10	0.064	0.078	0.122	0.141	0.171	0.196	0.217	0.237
32074.0125	0003	0.125	0.100	0.122	0.191	0.220	0.267	0.306	0.340	0.370
32074.0150	0004	0.15	0.143	0.175	0.275	0.316	0.385	0.441	0.489	0.532
32074.0175	0006	0.175	0.195	0.239	0.375	0.431	0.523	0.600	0.666	0.725
32074.0200	0008	0.20	0.255	0.312	0.489	0.563	0.684	0.784	0.870	0.946
32074.0250	0012	0.25	0.399	0.487	0.764	0.879	1.068	1.224	1.359	1.479
32074.0300	0018	0.30	0.574	0.702	1.101	1.266	1.538	1.763	1.957	2.130
32074.0350	0024	0.35	0.781	0.955	1.498	1.723	2.094	2.400	2.664	2.899
32074.0400	0031	0.40	1.020	1.247	1.957	2.251	2.735	3.134	3.479	3.786
32074.0450	0040	0.45	1.291	1.579	2.477	2.848	3.461	3.967	4.403	4.792
32074.0500	0049	0.50	1.594	1.949	3.058	3.517	4.273	4.897	5.436	5.916
32074.0550	0059	0.55	1.929	2.358	3.700	4.255	5.170	5.925	6.578	7.158
32074.0600	0071	0.60	2.296	2.807	4.404	5.064	6.153	7.052	7.828	8.518
32074.0650	0083	0.65	2.694	3.294	5.168	5.943	7.221	8.276	9.188	9.997

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi4350	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar300	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32074.0700	0096	0.70	3.125	3.820	5.994	6.892	8.375	9.598	10.655	11.595
32074.0750	0110	0.75	3.587	4.385	6.880	7.912	9.614	11.018	12.232	13.310
32074.0800	0125	0.80	4.081	4.990	7.828	9.002	10.939	12.536	13.917	15.144
32074.0850	0142	0.85	4.607	5.633	8.838	10.163	12.349	14.152	15.711	17.096
32074.0900	0159	0.90	5.165	6.315	9.908	11.394	13.844	15.866	17.614	19.166
32074.0950	0177	0.95	5.755	7.036	11.039	12.695	15.425	17.678	19.625	21.355
32074.1000	0196	1.00	6.377	7.796	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



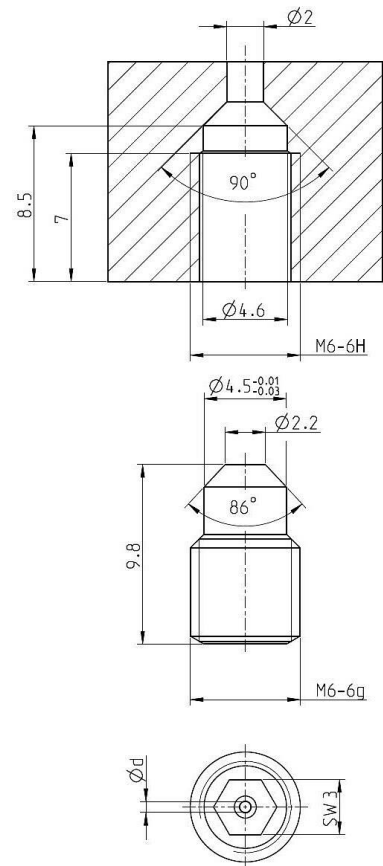
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 063

The Saphir screw-in nozzle type 063 can be used up to an operating pressure of 3000 bar. This nozzle is mainly used on cleaning bars or spray bars, and its field of application is often in industrial cleaning or on marking removal machines. The sapphire and the nozzle body are manufactured and machined in-house. The nozzle is cone-sealing and has a sealing angle of 86°. The heart of the nozzle, the nozzle stone, is completely manufactured at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)

33018._ _

Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 5

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
33018.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
33018.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
33018.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
33018.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
33018.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
33018.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
33018.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
33018.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
33018.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
33018.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
33018.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
33018.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158
33018.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
33018.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997
33018.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
33018.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
33018.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
33018.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
33018.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
33018.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
33018.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

	< 150 N
	< 250 N
	> 250 N

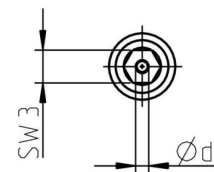
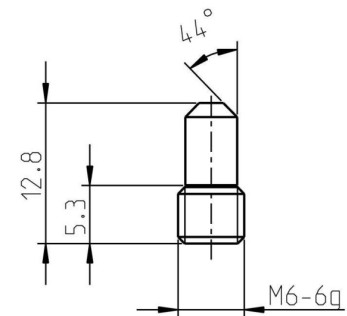
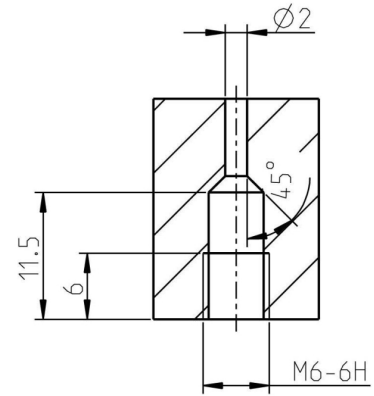
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 065

The Saphir screw-in nozzle type 065 can be used with the optional steel Inox seal up to an operating pressure of 3000 bar. With the brass seal, an operating pressure of 1500 bar is permitted. This nozzle is used in industrial cleaning or in the demarcation industry. The sapphire and the nozzle body are manufactured and machined in-house. The nozzle is cone-sealing in conjunction with the seals and has a sealing angle of 44°. The heart of the nozzle, the nozzle stone, is completely manufactured at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)

33018._ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)
max. 5

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31209.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31209.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31209.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31209.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31209.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31209.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31209.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31209.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
31209.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
31209.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
31209.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
31209.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158
31209.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
31209.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31209.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
31209.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
31209.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
31209.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
31209.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
31209.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
31209.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



Gasket available separately

Art. No.	Material	Max. pressure (bar)
10025	Stainless steel	3000
10024	brass	1500

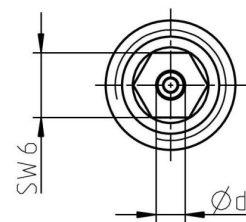
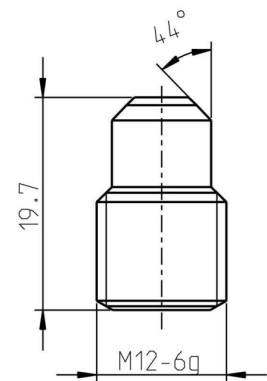
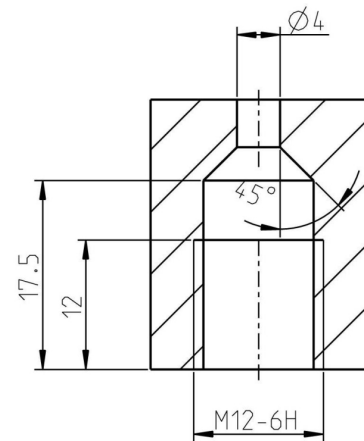
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 123

The Saphir screw-in nozzle type 123 can be used up to an operating pressure of 3000 bar. This nozzle is used as a pointed nozzle on hand lances or on spray bar multiple tools, and is often used in industrial cleaning or concrete refurbishment. The sapphire and the nozzle body are manufactured and machined in-house. The nozzle is cone-sealing and has a sealing angle of 44°. The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)

31243._ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)
max. 30

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31243.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31243.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31243.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31243.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31243.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31243.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31243.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31243.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
31243.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
31243.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
31243.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
31243.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
31243.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
31243.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31243.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
31243.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
31243.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
31243.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
31243.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
31243.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
31243.1000	0213	1.00	6.939	10.915	13.311	15.307	18.600	21.317	23.664	25.750
31243.1100	0258	1.10	8.397	13.207	16.107	18.522	22.505	25.793	28.634	31.158
31243.1200	0307	1.20	9.993	15.717	19.168	22.042	26.783	30.696	34.077	37.080
31243.1300	0361	1.30	11.728	18.446	22.496	25.869	31.433	36.025	39.993	43.518
31243.1400	0418	1.40	13.601	21.393	26.090	30.002	36.455	41.780	46.382	50.470
31243.1500	0480	1.50	15.614	24.558	29.950	34.441	41.849	47.962	53.245	57.938
31243.1600	0546	1.60	17.765	27.942	34.077	39.187	47.615	54.570	60.581	65.920
31243.1700	0617	1.70	20.055	31.544	38.470	44.238	53.753	61.605	68.390	74.418
31243.1800	0692	1.80	22.484	35.364	43.129	49.596	60.263	69.066	76.673	83.431
31243.1900	0771	1.90	25.051	39.402	48.054	55.259	67.144	76.953	85.428	92.958
31243.2000	0854	2.00	27.758	43.659	53.245	61.229	74.398	85.266	94.658	103.001
31243.2100	0941	2.10	30.603	48.134	58.703	67.505	82.024	94.006	104.360	113.558
31243.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
31243.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
31243.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
31243.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
31243.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
31243.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
31243.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
31243.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
31243.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

	< 150 N
	< 250 N
	> 250 N

— Sapphire screw-in nozzles

Sapphire screw-in nozzle 131

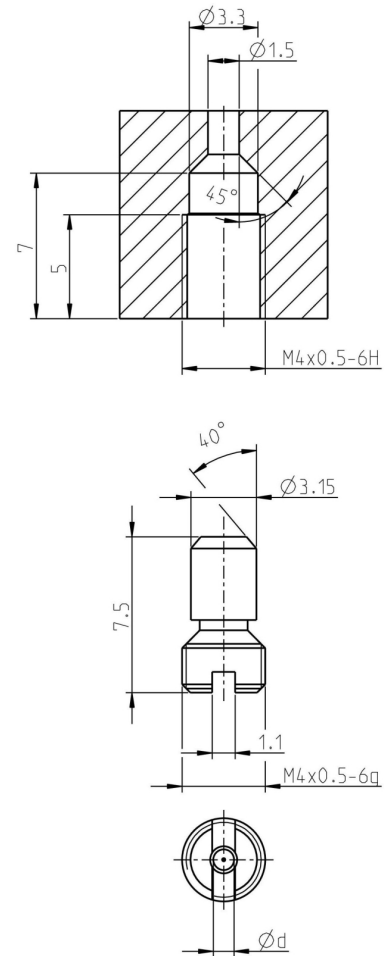
The high-performance sapphire screw-in nozzle type 131 is designed for surface processing. The nozzle is characterized above all by its long service life, efficiency and quality. This nozzle was designed for customer-specific applications up to an operating pressure of 3000 bar. The heart of the nozzle, the nozzle stone, is completely manufactured at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

This product is compatible with the following brands or products:

- Form 66

Features and advantages

- Long service life
- Constant jet quality
- Highly focused water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Automotive and aviation industry
- Construction industry
- Mining
- Iron, steel and metal industry
- Glass, porcelain and ceramics industry
- Wood industry
- Municipal enterprises
- Agriculture
- Security and bulletproof glass
- Shipbuilding

ART. NO. (1)

31189._ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31189.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31189.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31189.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31189.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31189.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31189.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31189.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31189.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
31189.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
31189.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
31189.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
31189.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31189.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
31189.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997
31189.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
31189.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
31189.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
31189.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
31189.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
31189.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
31189.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



— Sapphire screw-in nozzles

Sapphire screw-in nozzle 250-M10

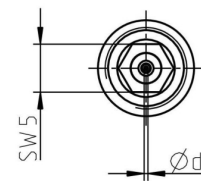
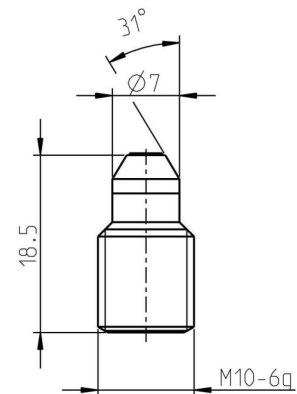
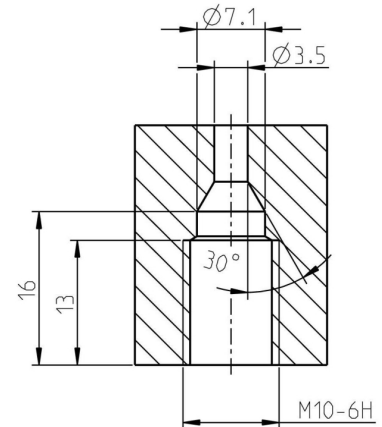
The high-performance sapphire screw-in nozzle type 250 consists of two parts and is actually the predecessor of our popular M10 type 965 nozzle. The nozzle is used for surface processing and is characterized above all by its service life, efficiency and quality. The difference to the type 965 is the cone angle of 31° . The heart of the nozzle, the nozzle stone, is completely manufactured at myt AG, which guarantees consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

This product is compatible with the following brands or products:

- Type U

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Automotive and aviation industry
- Construction industry
- mining
- Chemical industry
- Iron, steel and metal industry
- Energy industry
- Beverage industry
- Glass, porcelain and ceramics industry
- Wood industry
- Municipal enterprises
- Agriculture industry
- Machine and apparatus construction
- Offshore applications
- Shipbuilding
- Transportation companies

ART. NO. (1)

31076._ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)
max. 25

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31076.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31076.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31076.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31076.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31076.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31076.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31076.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31076.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
31076.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31076.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
31076.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
31076.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158
31076.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
31076.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997
31076.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
31076.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
31076.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
31076.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
31076.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
31076.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
31076.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



Seal and mounting screw available separately

POS	ART. NO.	ARTICLE	DIMENSION
	10099	Stainless steel	M10-6g

— Sapphire screw-in nozzles

Sapphire screw-in nozzle 280-M12

The three-part Saphir screw-in nozzle type 280-M12 is designed for surface treatment. The nozzle is characterized above all by its long service life, efficiency and quality. This nozzle was designed for customer-specific applications up to an operating pressure of 3000 bar. The seal and the mounting screw are available separately for this nozzle.

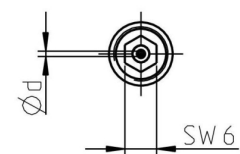
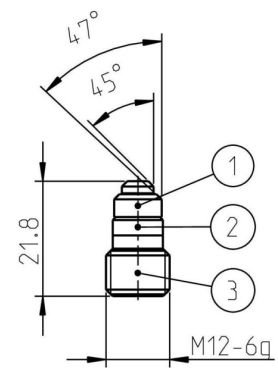
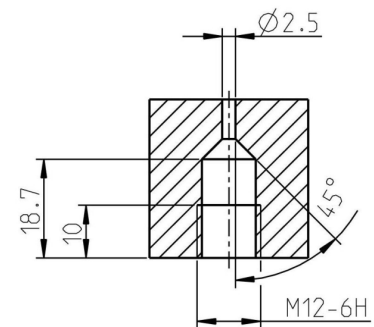
The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

This product is compatible with the following brands or products:

- Type F
- Shape 10

Features and advantages

- Long service life
- Constant jet quality
- Highly focused water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Automotive and aviation industry
- Construction industry
- mining
- Chemical industry
- Iron, steel and metal industry
- Energy industry
- Beverage industry
- Glass, porcelain and ceramics industry
- Wood industry
- Municipal enterprises
- Agriculture industry
- Machinery and apparatus engineering
- Food industry

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)

max. 25

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi10875	psi14500	psi21750	psi29000	psi36250	psi43500
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31040.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31040.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31040.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31040.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31040.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31040.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31040.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31040.0350	0024	0.35	0.781	1.229	1.498	1.723	2.094	2.400	2.664	2.899
31040.0400	0031	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
31040.0450	0040	0.45	1.291	2.031	2.477	2.848	3.461	3.967	4.403	4.792
31040.0500	0049	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
31040.0550	0059	0.55	1.929	3.034	3.700	4.255	5.170	5.925	6.578	7.158
31040.0600	0071	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31040.0650	0083	0.65	2.694	4.238	5.168	5.943	7.221	8.276	9.188	9.997
31040.0700	0096	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
31040.0750	0110	0.75	3.587	5.642	6.880	7.912	9.614	11.018	12.232	13.310
31040.0800	0125	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
31040.0850	0142	0.85	4.607	7.247	8.838	10.163	12.349	14.152	15.711	17.096
31040.0900	0159	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
31040.0950	0177	0.95	5.755	9.052	11.039	12.695	15.425	17.678	19.625	21.355
31040.1000	0196	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

	< 150 N
	< 250 N
	> 250 N

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

Seal and mounting screw available separately

POS.	ART. NO.	ARTICLE	DIMENSION
1	10052	Gasket	D=9x6.8
3	10067	Mounting screw	M12-6g

— Sapphire screw-in nozzles

Sapphire screw-in nozzle 964

The high-performance sapphire screw-in nozzle type 964 is primarily used by our customers for surface treatment. This model was designed as a pointed nozzle for hand lance operation, or as an insert for a rotary nozzle for paint stripping on ships, or also as an insert for multiple tools. Experience has shown that this nozzle achieves 10% more output due to the jet stabilizers used. The nozzle is characterized above all by its service life, efficiency and quality and can be used up to an operating pressure of 3000 bar.

The nozzle body consists of a one-piece construction with rolled thread and formed/forged hexagon socket. Thanks to this manufacturing process, our nozzle bodies have higher strength reserves compared to one-piece/chip-formed parts. The nozzle neck is manufactured very precisely and has perfect concentricity with the sealing edge. The 29° sealing edge has no rounding or double angles and has a greater wall thickness than conventional nozzles. Therefore, there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

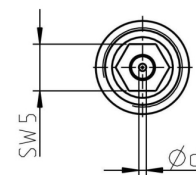
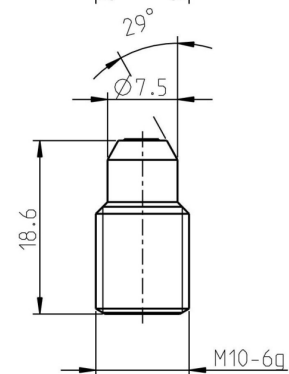
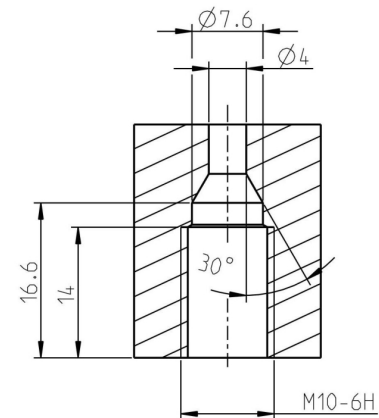
This nozzle was subjected to a burst and pressure test by an accredited testing laboratory STS 0052 in accordance with harmonized standard EN 12162+A1:2009 and withstood a 30-minute load of 3930 bar.

This product is compatible with the following brands or products:

- Style 9
- Form 21L

Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.



- Construction industry
- Concrete removal
- Mining
- Machine and apparatus construction
- Surface treatment
- Offshore applications
- shipbuilding
- Paint removal
- Industrial cleaning
- Spray bars

ART. NO. (1)32175. _ _

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)

max. 25

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32175.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
32175.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
32175.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
32175.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
32175.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
32175.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
32175.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
32175.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
32175.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
32175.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
32175.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
32175.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
32175.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32175.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
32175.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
32175.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
32175.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
32175.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
32175.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
32175.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
32175.1000	0213	1.00	6.939	10.915	13.311	15.307	18.600	21.317	23.664	25.750
32175.1100	0258	1.10	8.397	13.207	16.107	18.522	22.505	25.793	28.634	31.158
32175.1200	0307	1.20	9.993	15.717	19.168	22.042	26.783	30.696	34.077	37.080
32175.1300	0361	1.30	11.728	18.446	22.496	25.869	31.433	36.025	39.993	43.518
32175.1400	0418	1.40	13.601	21.393	26.090	30.002	36.455	41.780	46.382	50.470
32175.1500	0480	1.50	15.614	24.558	29.950	34.441	41.849	47.962	53.245	57.938
32175.1600	0546	1.60	17.765	27.942	34.077	39.187	47.615	54.570	60.581	65.920
32175.1700	0617	1.70	20.055	31.544	38.470	44.238	53.753	61.605	68.390	74.418
32175.1800	0692	1.80	22.484	35.364	43.129	49.596	60.263	69.066	76.673	83.431
32175.1900	0771	1.90	25.051	39.402	48.054	55.259	67.144	76.953	85.428	92.958
32175.2000	0854	2.00	27.758	43.659	53.245	61.229	74.398	85.266	94.658	103.001
32175.2100	0941	2.10	30.603	48.134	58.703	67.505	82.024	94.006	104.360	113.558
32175.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
32175.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

< 150 N

< 250 N

> 250 N

— Sapphire screw-in nozzles

Sapphire screw-in nozzle 965

The high-performance sapphire nozzle type 965 M10 is still the most popular nozzle for surface treatment. This model was designed as a pointed nozzle for hand lance operation, or as an insert for a rotary nozzle for paint stripping on ships, or as an insert for multiple tools. The nozzle is characterized above all by its service life, efficiency and quality and can be used up to an operating pressure of 3000 bar.

The nozzle body consists of a one-piece construction with rolled thread and formed/forged hexagon socket. Thanks to this manufacturing process, our nozzle bodies have higher strength reserves compared to one-piece/chip-formed parts.

The nozzle neck is manufactured very precisely and has perfect concentricity with the sealing edge. The 29° sealing edge has no rounding or double angles and has a greater wall thickness than conventional nozzles. Therefore, there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

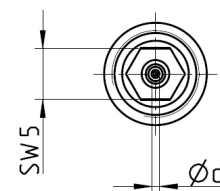
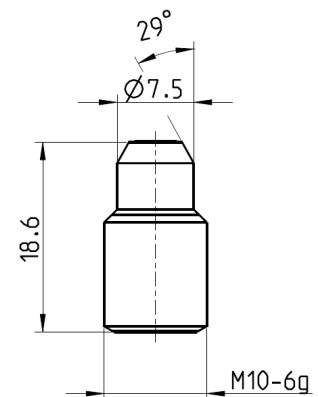
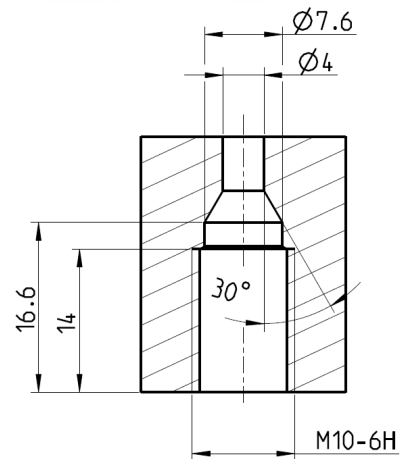
This nozzle was subjected to a burst and pressure test by an accredited testing laboratory STS 0052 in accordance with harmonized standard EN 12162+A1:2009. It withstood a 30-minute load of 3930 bar.

This nozzle is also available in ceramic and is compatible with the following brands or products:

- Type P
- Shape 21
- Series 3261

Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.



- Automotive and aviation industry
- Construction industry
- Mining
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Food industry
- Offshore applications
- Shipbuilding
- Cement and concrete industry
- Concrete removal
- Surface treatment
- Paint removal
- Spray bar

ART. NO. (1)32176. __

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)

max. 25

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
32176.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
32176.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
32176.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
32176.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
32176.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
32176.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
32176.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
32176.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
32176.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
32176.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
32176.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
32176.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
32176.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
32176.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
32176.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
32176.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
32176.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
32176.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
32176.1000	0208	1.00	6.752	10.620	12.952	14.894	18.097	20.740	23.025	25.054
32176.1100	0251	1.10	8.170	12.850	15.671	18.021	21.897	25.096	27.860	30.316
32176.1200	0299	1.20	9.723	15.293	18.650	21.447	26.059	29.866	33.156	36.078
32176.1300	0351	1.30	11.411	17.947	21.888	25.170	30.584	35.051	38.912	42.342
32176.1400	0407	1.40	13.234	20.815	25.385	29.191	35.470	40.651	45.129	49.106
32176.1500	0467	1.50	15.192	23.895	29.141	33.510	40.718	46.666	51.806	56.372
32176.1600	0539	1.60	17.525	27.564	33.616	38.657	46.971	53.833	59.762	65.030
32176.1700	0608	1.70	19.784	31.118	37.950	43.640	53.026	60.772	67.466	73.412
32176.1800	0682	1.80	22.180	34.886	42.546	48.925	59.448	68.132	75.636	82.303
32176.1900	0760	1.90	24.713	38.870	47.404	54.512	66.237	75.913	84.274	91.702
32176.2000	0865	2.00	28.133	44.249	53.965	62.056	75.404	86.418	95.937	104.393
32176.2100	0979	2.10	31.844	50.086	61.083	70.242	85.349	97.817	108.591	118.162
32176.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
32176.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
32176.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
32176.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
32176.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
32176.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
32176.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
32176.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



— Sapphire screw-in nozzles

Sapphire screw-in nozzle 965T

The high-performance sapphire nozzle type 965 M10 is still the most popular nozzle for surface treatment. This model was designed as a pointed nozzle for hand lance operation, or as an insert for a rotary nozzle for paint stripping on ships, or as an insert for multiple tools. The nozzle is characterized above all by its service life, efficiency and quality and can be used up to an operating pressure of 3000 bar.

The nozzle body consists of a one-piece construction with rolled thread and formed/forged hexagon socket. Thanks to this manufacturing process, our nozzle bodies have higher strength reserves compared to one-piece/chip-formed parts.

The nozzle neck is manufactured very precisely and has perfect concentricity with the sealing edge. The 29° sealing edge has no rounding or double angles and has a greater wall thickness than conventional nozzles. Therefore, there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

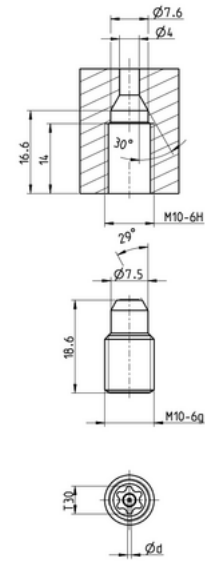
This nozzle was subjected to a burst and pressure test by an accredited testing laboratory STS 0052 in accordance with harmonized standard EN 12162+A1:2009. It withstood a 30-minute load of 3930 bar.

This nozzle is also available in ceramic and is compatible with the following brands or products:

- Type P
- Shape 21
- Series 3261

Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.



- Automotive and aviation industry
- Construction industry
- Mining
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Food industry
- Offshore applications
- Shipbuilding
- Cement and concrete industry
- Concrete removal
- Surface treatment
- Paint removal
- Spray bar

ART. NO. (1)32176. __

Specifications



Operating pressure (bar)
max.

3000



Operating temperature (°C)
max.

150



Tightening torque (Nm)

max. 25

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
32176.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
32176.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
32176.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
32176.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
32176.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
32176.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
32176.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
32176.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
32176.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
32176.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
32176.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
32176.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
32176.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
32176.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
32176.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
32176.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
32176.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
32176.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
32176.1000	0208	1.00	6.752	10.620	12.952	14.894	18.097	20.740	23.025	25.054
32176.1100	0251	1.10	8.170	12.850	15.671	18.021	21.897	25.096	27.860	30.316
32176.1200	0299	1.20	9.723	15.293	18.650	21.447	26.059	29.866	33.156	36.078
32176.1300	0351	1.30	11.411	17.947	21.888	25.170	30.584	35.051	38.912	42.342
32176.1400	0407	1.40	13.234	20.815	25.385	29.191	35.470	40.651	45.129	49.106
32176.1500	0467	1.50	15.192	23.895	29.141	33.510	40.718	46.666	51.806	56.372
32176.1600	0539	1.60	17.525	27.564	33.616	38.657	46.971	53.833	59.762	65.030
32176.1700	0608	1.70	19.784	31.118	37.950	43.640	53.026	60.772	67.466	73.412
32176.1800	0682	1.80	22.180	34.886	42.546	48.925	59.448	68.132	75.636	82.303
32176.1900	0760	1.90	24.713	38.870	47.404	54.512	66.237	75.913	84.274	91.702
32176.2000	0865	2.00	28.133	44.249	53.965	62.056	75.404	86.418	95.937	104.393
32176.2100	0979	2.10	31.844	50.086	61.083	70.242	85.349	97.817	108.591	118.162
32176.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
32176.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
32176.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
32176.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
32176.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
32176.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
32176.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
32176.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
32176.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



— Sapphire screw-in nozzles

Sapphire screw-in nozzle 971

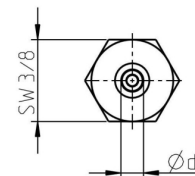
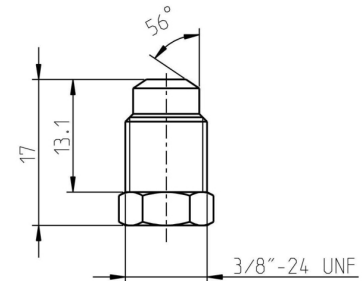
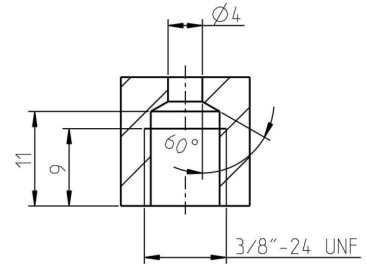
The Saphir screw-in nozzle type 971 was designed to be used as a pointed nozzle for hand lances, as an insert for rotary nozzles or for multiple tools. **The nozzle is characterized above all by the 10-15% increase in performance thanks to the jet stabilizer,** and can be used up to an operating pressure of 3000 bar.

The nozzle neck is very precisely manufactured and has a perfect concentricity with the sealing edge. The 56° sealing edge has no rounding or double angles and has a greater wall thickness than conventional nozzles. Therefore, there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow rate

This product is compatible with the following brands or products:

- Series 3546/3024
- OS6™
- UHP-X



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Automotive and aviation industry
- Construction industry
- Mining
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Food industry
- Offshore applications
- Shipbuilding
- Cement and concrete industry
- Concrete removal
- Surface treatment
- Paint removal
- Spray bar

ART. NO. (1)33163. _ _

Features and benefits

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality

Specifications

									
Operating pressure (bar) max.		Operating temperature (°C) max.		Tightening torque (Nm) max. 40					
3000		150							
PRESSURE in psi / bar									
ART. NO.	NOZZLES Ød mm	psi2900	psi7250	psi10875	psi14500	psi21750	psi29000	psi36250	psi43500
		bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
FLOW RATE in l/min									
33163.0100	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
33163.0125	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
33163.0150	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
33163.0175	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
33163.0200	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
33163.0225	0.225	0.323	0.508	0.619	0.712	0.865	0.992	1.101	1.198
33163.0250	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479

ART. NO.	NOZZLES Ød mm	PRESSURE in psi / bar							
		psi2900	psi7250	psi10875	psi14500	psi21750	psi29000	psi36250	psi43500
		bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
		FLOW RATE in l/min							
33163.0275	0.275	0.482	0.759	0.925	1.064	1.293	1.481	1.645	1.789
33163.0300	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
33163.0350	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
33163.0400	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
33163.0450	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
33163.0500	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
33163.0550	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
33163.0600	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
33163.0650	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
33163.0700	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
33163.0750	0.75	3.745	5.891	7.184	8.261	10.038	11.504	12.772	13.897
33163.0800	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
33163.0850	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
33163.0900	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
33163.0950	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
33163.1000	1.00	6.939	10.915	13.311	15.307	18.600	21.317	23.664	25.750
33163.1100	1.10	8.397	13.207	16.107	18.522	22.505	25.793	28.634	31.158
33163.1200	1.20	9.993	15.717	19.168	22.042	26.783	30.696	34.077	37.080
33163.1300	1.30	11.728	18.446	22.496	25.869	31.433	36.025	39.993	43.518
33163.1400	1.40	13.601	21.393	26.090	30.002	36.455	41.780	46.382	50.470
33163.1500	1.50	15.614	24.558	29.950	34.441	41.849	47.962	53.245	57.938
33163.1600	1.60	17.765	27.942	34.077	39.187	47.615	54.570	60.581	65.920
33163.1700	1.70	20.055	31.544	38.470	44.238	53.753	61.605	68.390	74.418
33163.1800	1.80	22.484	35.364	43.129	49.596	60.263	69.066	76.673	83.431
33163.1900	1.90	25.051	39.402	48.054	55.259	67.144	76.953	85.428	92.958
33163.2000	2.00	27.758	43.659	53.245	61.229	74.398	85.266	94.658	103.001
33163.2100	2.10	30.603	48.134	58.703	67.505	82.024	94.006	104.360	113.558
33163.2200	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052

ART. NO.	NOZZLES Ød mm	PRESSURE in psi / bar							
		psi2900	psi7250	psi10875	psi14500	psi21750	psi29000	psi36250	psi43500
		bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
		FLOW RATE in l/min							
33163.2300	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



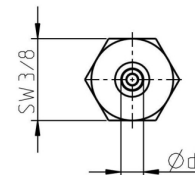
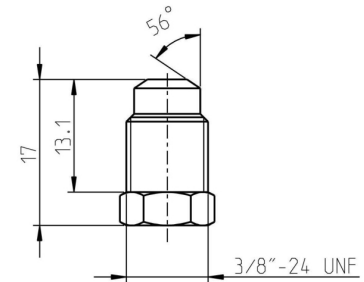
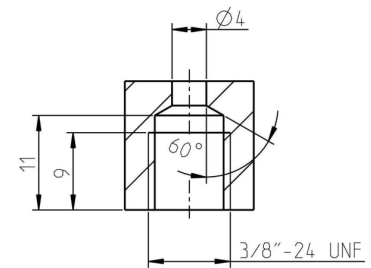
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 972

The Saphir screw-in nozzle type 972 was designed to be used as a pointed nozzle for hand lance operation, as an insert for rotary nozzles or for multiple tools. The nozzle is characterized above all by its service life, efficiency and quality and can be used up to an operating pressure of 3000 bar.

The nozzle neck is very precisely manufactured and has a perfect concentricity with the sealing edge. The 56° sealing edge has no rounding or double angles and has a greater wall thickness than conventional nozzles. Therefore, there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, thus ensuring consistent and high quality. All nozzle stones are checked for scratches, cracks and flow rate



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Automotive and aviation industry
- Construction industry
- Mining
- Iron, steel and metal industry
- Mechanical and apparatus engineering
- Food industry
- Offshore applications
- Shipbuilding
- Cement and concrete industry
- Concrete removal
- Surface treatment
- Paint removal
- Spray bar

ART. NO. (1)31223._ _

Features and benefits

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality

Specifications

										
Operating pressure (bar)			Operating temperature (°C)			Tightening torque (Nm)				
max.			max.			max. 40				
3000			150							
PRESSURE in psi / bar										
ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
FLOW RATE in l/min										
31223.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31223.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31223.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31223.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31223.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31223.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31223.0300	0018	0.30								

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
			0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31223.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
31223.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
31223.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
31223.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
31223.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
31223.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
31223.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
31223.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
31223.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
31223.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
31223.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
31223.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
31223.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
31223.1000	0213	1.00	6.939	10.915	13.311	15.307	18.600	21.317	23.664	25.750
31223.1100	0258	1.10	8.397	13.207	16.107	18.522	22.505	25.793	28.634	31.158
31223.1200	0307	1.20	9.993	15.717	19.168	22.042	26.783	30.696	34.077	37.080
31223.1300	0361	1.30	11.728	18.446	22.496	25.869	31.433	36.025	39.993	43.518
31223.1400	0418	1.40	13.601	21.393	26.090	30.002	36.455	41.780	46.382	50.470
31223.1500	0480	1.50	15.614	24.558	29.950	34.441	41.849	47.962	53.245	57.938
31223.1600	0546	1.60	17.765	27.942	34.077	39.187	47.615	54.570	60.581	65.920
31223.1700	0617	1.70	20.055	31.544	38.470	44.238	53.753	61.605	68.390	74.418
31223.1800	0692	1.80	22.484	35.364	43.129	49.596	60.263	69.066	76.673	83.431
31223.1900	0771	1.90	25.051	39.402	48.054	55.259	67.144	76.953	85.428	92.958
31223.2000	0854	2.00	27.758	43.659	53.245	61.229	74.398	85.266	94.658	103.001
31223.2100	0941	2.10	30.603	48.134	58.703	67.505	82.024	94.006	104.360	113.558
31223.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
31223.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31223.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
31223.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
31223.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
31223.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
31223.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
31223.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
31223.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!



— Sapphire screw-in nozzles

Sapphire screw-in nozzle 976

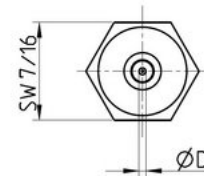
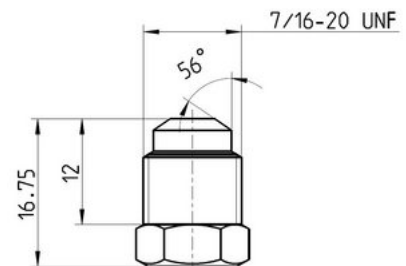
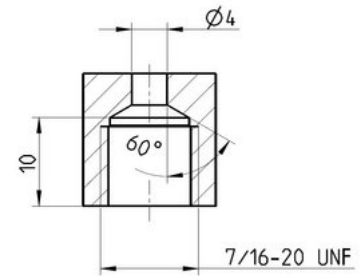
The high-performance sapphire screw-in nozzle type 976 is designed for surface processing. The nozzle is characterized above all by its service life, efficiency and quality. This nozzle was designed for the Barracuda® rotary nozzle from Stoneage. The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, which guarantees consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

This product is compatible with the following brands or products:

- OS7™

Features and benefits

- Long service life
- Constant jet quality
- Highly focused water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Mining
- Concrete removal
- Surface treatment
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)33150._ _

Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 40

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
33150.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
33150.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
33150.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
33150.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
33150.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
33150.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
33150.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
33150.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
33150.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
33150.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
33150.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
33150.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
33150.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
33150.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
33150.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
33150.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
33150.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
33150.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
33150.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
33150.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
33150.1000	0213	1.00	6.939	10.915	13.311	15.307	18.600	21.317	23.664	25.750
33150.1100	0258	1.10	8.397	13.207	16.107	18.522	22.505	25.793	28.634	31.158

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
33150.1200	0307	1.20	9.993	15.717	19.168	22.042	26.783	30.696	34.077	37.080
33150.1300	0361	1.30	11.728	18.446	22.496	25.869	31.433	36.025	39.993	43.518
33150.1400	0418	1.40	13.601	21.393	26.090	30.002	36.455	41.780	46.382	50.470
33150.1500	0480	1.50	15.614	24.558	29.950	34.441	41.849	47.962	53.245	57.938
33150.1600	0546	1.60	17.765	27.942	34.077	39.187	47.615	54.570	60.581	65.920
33150.1700	0617	1.70	20.055	31.544	38.470	44.238	53.753	61.605	68.390	74.418
33150.1800	0692	1.80	22.484	35.364	43.129	49.596	60.263	69.066	76.673	83.431
33150.1900	0771	1.90	25.051	39.402	48.054	55.259	67.144	76.953	85.428	92.958
33150.2000	0854	2.00	27.758	43.659	53.245	61.229	74.398	85.266	94.658	103.001
33150.2100	0941	2.10	30.603	48.134	58.703	67.505	82.024	94.006	104.360	113.558
33150.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
33150.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
33150.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
33150.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
33150.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
33150.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
33150.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
33150.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
33150.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction



When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

— Sapphire screw-in nozzles

Sapphire screw-in nozzle 977

The high-performance sapphire screw-in nozzle type 977 is designed for surface processing. The nozzle is characterized above all by its service life, efficiency and quality. This nozzle was designed for the Barracuda® rotary nozzle from Stoneage. The heart of the nozzle, the nozzle stone, is manufactured entirely at mvt AG, which guarantees consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

This product is compatible with the following brands or products:

- OS4™

Features and benefits

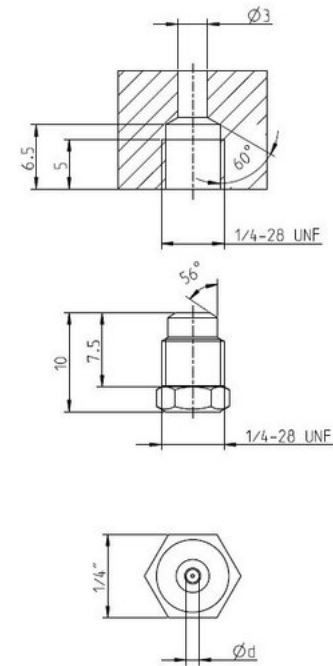
- Long service life
- Constant jet quality
- Highly focused water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality

Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Construction industry
- Mining
- Concrete removal
- Surface treatment
- Cement and concrete industry
- Industrial cleaning
- Spray bars

ART. NO. (1)33224._ _



Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 40

ART. NO.	NOZZLES Ød mm	PRESSURE in psi / bar							
		psi2900	psi7250	psi10875	psi14500	psi21750	psi29000	psi36250	psi43500
		bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
		FLOW RATE in l/min							
33224.0100	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
33224.0200	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
33224.0300	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
33224.0400	0.40	1.020	1.605	1.957	2.251	2.735	3.134	3.479	3.786
33224.0500	0.50	1.594	2.507	3.058	3.517	4.273	4.897	5.436	5.916
33224.0600	0.60	2.296	3.611	4.404	5.064	6.153	7.052	7.828	8.518
33224.0700	0.70	3.125	4.915	5.994	6.892	8.375	9.598	10.655	11.595
33224.0800	0.80	4.081	6.419	7.828	9.002	10.939	12.536	13.917	15.144
33224.0900	0.90	5.165	8.124	9.908	11.394	13.844	15.866	17.614	19.166
33224.1000	1.00	6.377	10.030	12.232	14.066	17.091	19.588	21.746	23.662

Instruction

When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

< 150 N
< 250 N
> 250 N

FAQ

1. What is the 977 sapphire screw-in nozzle used for?

The sapphire screw-in nozzle type 977 has been specially developed for **surface treatment and high-pressure cleaning**. Typical areas of application are

- Construction industry and mining
- Concrete removal and surface treatment
- Cement and concrete industry

- Industrial cleaning
- Use in spray bar systems

It is particularly suitable for applications where **high precision and material removal** are required.

2. Which systems is the nozzle compatible with?

The nozzle is specially designed for use with:

- **Barracuda® rotary nozzles from StoneAge**
- compatible with **OS4™ systems**

This means it is optimally matched to rotating high-pressure systems and ensures **efficient power transmission and even processing**.

3. What are the advantages of using sapphire?

The integrated sapphire insert ensures:

- **Very long service life** even at extreme pressures
- **Constant blasting quality** over long periods of use
- **High wear resistance**
- Precise and consistent nozzle opening

In addition, all nozzle stones are **individually tested** at mvt AG (for scratches, cracks and flow), which guarantees the highest quality.

4. What are the technical specifications of the 977 sapphire screw-in nozzle?

The most important technical data:

- **Max. operating pressure:** 3000 bar
- **Max. Operating temperature:** 150 °C
- **Max. Tightening torque:** 40 Nm
- **Nozzle sizes:** 0.10 mm to 1.00 mm
- **Flow rate:** approx. 0.064 to 23.662 l/min
- **Article number range:** 33224._ _

These parameters allow a precise design depending on the application and performance requirements.

5. What safety regulations must be observed?

The following safety guidelines apply when using high-pressure nozzles:

- The **recoil force must not exceed 250 N**
- **A body support is required** from a recoil force of **150 N**

These guidelines are particularly important when using **high-pressure spray guns and lances** in order to ensure the safety of the operating personnel.

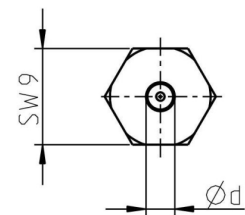
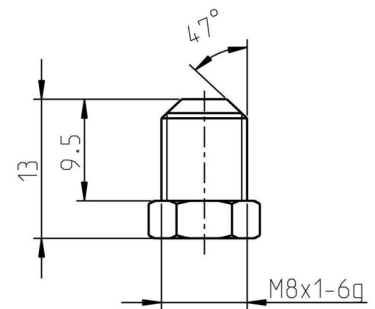
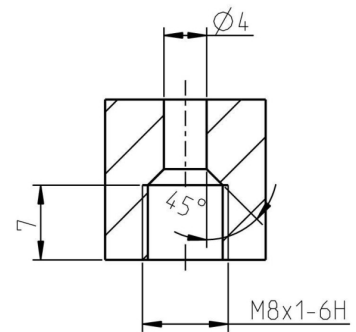
— Sapphire screw-in nozzles

Sapphire screw-in nozzle 982

The high-performance sapphire screw-in nozzle type 982 is designed for surface processing. The nozzle is characterized above all by its service life, efficiency and quality. This nozzle has been designed primarily for spray bars and multiple placement. The heart of the nozzle, the nozzle stone, is completely manufactured at myt AG, which guarantees consistent and high quality. All nozzle stones are checked for scratches, cracks and flow.

Features and advantages

- Long service life
- Constant jet quality
- Highly concentrated water jet
- Point jet with high energy density
- Easy installation and removal
- Swiss quality



Applications

MVT AG is a Swiss supplier of high-quality and precise components and systems for the industrial sector.

- Vehicle and aircraft parts
- Municipal enterprises
- Surface treatment
- Cement and concrete industry

ART. NO. (1)31222. _ _

Specifications



**Operating pressure (bar)
max.**

3000



**Operating temperature (°C)
max.**

150



Tightening torque (Nm)

max. 20

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31222.0100	0002	0.10	0.064	0.100	0.122	0.141	0.171	0.196	0.217	0.237
31222.0125	0003	0.125	0.100	0.157	0.191	0.220	0.267	0.306	0.340	0.370
31222.0150	0004	0.15	0.143	0.226	0.275	0.316	0.385	0.441	0.489	0.532
31222.0175	0006	0.175	0.195	0.307	0.375	0.431	0.523	0.600	0.666	0.725
31222.0200	0008	0.20	0.255	0.401	0.489	0.563	0.684	0.784	0.870	0.946
31222.0250	0012	0.25	0.399	0.627	0.764	0.879	1.068	1.224	1.359	1.479
31222.0300	0018	0.30	0.574	0.903	1.101	1.266	1.538	1.763	1.957	2.130
31222.0350	0025	0.35	0.804	1.265	1.542	1.774	2.155	2.470	2.742	2.984
31222.0400	0032	0.40	1.050	1.652	2.015	2.317	2.815	3.226	3.582	3.897
31222.0450	0041	0.45	1.329	2.091	2.550	2.932	3.563	4.083	4.533	4.933
31222.0500	0050	0.50	1.641	2.581	3.148	3.620	4.399	5.041	5.596	6.090
31222.0550	0061	0.55	1.986	3.123	3.809	4.380	5.322	6.100	6.772	7.368
31222.0600	0073	0.60	2.363	3.717	4.533	5.213	6.334	7.259	8.059	8.769
31222.0650	0085	0.65	2.773	4.362	5.320	6.118	7.434	8.519	9.458	10.291
31222.0700	0099	0.70	3.217	5.059	6.170	7.095	8.621	9.881	10.969	11.936
31222.0750	0114	0.75	3.692	5.808	7.083	8.145	9.897	11.342	12.592	13.702
31222.0800	0131	0.80	4.261	6.702	8.174	9.399	11.421	13.090	14.531	15.812
31222.0850	0148	0.85	4.810	7.566	9.228	10.611	12.893	14.777	16.404	17.850
31222.0900	0166	0.90	5.393	8.483	10.345	11.896	14.455	16.566	18.391	20.012
31222.0950	0187	0.95	6.094	9.584	11.689	13.441	16.332	18.718	20.780	22.611
31222.1000	0208	1.00	6.752	10.620	12.952	14.894	18.097	20.740	23.025	25.054
31222.1100	0251	1.10	8.170	12.850	15.671	18.021	21.897	25.096	27.860	30.316

ART. NO.	NOZZLE SIZE in US Gal/ min at 40 psi	NOZZLE S Ød mm	PRESSURE in psi / bar							
			psi2900	psi7250	psi1087 5	psi1450 0	psi2175 0	psi2900 0	psi3625 0	psi4350 0
			bar200	bar500	bar750	bar1000	bar1500	bar2000	bar2500	bar3000
			FLOW RATE in l/min							
31222.1200	0299	1.20	9.723	15.293	18.650	21.447	26.059	29.866	33.156	36.078
31222.1300	0351	1.30	11.411	17.947	21.888	25.170	30.584	35.051	38.912	42.342
31222.1400	0407	1.40	13.234	20.815	25.385	29.191	35.470	40.651	45.129	49.106
31222.1500	0467	1.50	15.192	23.895	29.141	33.510	40.718	46.666	51.806	56.372
31222.1600	0539	1.60	17.525	27.564	33.616	38.657	46.971	53.833	59.762	65.030
31222.1700	0608	1.70	19.784	31.118	37.950	43.640	53.026	60.772	67.466	73.412
31222.1800	0682	1.80	22.180	34.886	42.546	48.925	59.448	68.132	75.636	82.303
31222.1900	0760	1.90	24.713	38.870	47.404	54.512	66.237	75.913	84.274	91.702
31222.2000	0865	2.00	28.133	44.249	53.965	62.056	75.404	86.418	95.937	104.393
31222.2100	0979	2.10	31.844	50.086	61.083	70.242	85.349	97.817	108.591	118.162
31222.2200	1103	2.20	35.856	56.397	68.780	79.093	96.104	110.143	122.274	133.052
31222.2300	1205	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
31222.2400	1313	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
31222.2500	1424	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
31222.2600	1540	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
31222.2700	1661	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
31222.2800	1786	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
31222.2900	1917	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
31222.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instruction



When using high-pressure spray guns and lances manually, the recoil force to be absorbed in the longitudinal axis of the spraying device must not exceed 250N! If the recoil force exceeds 150N, a body support must be used!

FAQ

1. What is the 982 sapphire screw-in nozzle used for?

The sapphire screw-in nozzle type 982 has been specially developed for **precise surface processing**. Typical areas of application are

- Processing of vehicle and aircraft parts
- Industrial cleaning
- Applications in municipal services
- Cement and concrete industry

It is particularly suitable for **spray bars and multiple spray bars**, enabling efficient and uniform processing of large areas.

2. What advantages does the sapphire insert of the nozzle offer?

The sapphire insert ensures **extremely high wear resistance and a long service life**. This ensures that the nozzle opening remains permanently precise and guaranteed:

- Constant jet quality
- Consistent flow rates
- High process reliability

In addition, all nozzle stones are **individually checked** at mvt AG (**for scratches, cracks and flow rate**), which ensures consistently high quality.

3. What are the technical specifications of the 982 sapphire screw-in nozzle?

The most important technical data at a glance:

- **Max. Operating pressure:** 3000 bar
- **Max. Operating temperature:** 150 °C
- **Max. Tightening torque:** 20 Nm
- **Nozzle sizes:** 0.10 mm to 3.00 mm
- **Flow rate:** approx. 0.064 to 247.410 l/min (depending on pressure and nozzle size)
- **Article number range:** 31222._ _

This wide selection enables optimum adaptation to a wide range of applications.

4. For which systems is the 982 sapphire screw-in nozzle suitable?

The nozzle was specially developed for use in:

- **Spray bar systems**
- **Multiple nozzle arrangements**
- **Industrial high-pressure systems**

developed.

Thanks to its compact design and precise manufacturing, it can be easily integrated into existing systems and ensures uniform surface treatment.

5. What safety regulations must be observed during use?

The following safety requirements apply when used in manual high-pressure systems:

- The **recoil force must not exceed 250 N**
- **A body support is required** from a recoil force of **150 N**

These guidelines help to ensure the safety of operating personnel in high-pressure applications.