

Sapphire nozzle 965



Properties and advantages

- Long lifetime
- Constant jet quality
- High-power and focused water jet
- Needle jet with high energy density
- Easy to install and disassemble
- Swiss Quality

Applications

- Automobile and aircraft industry
- Construction industry
- Mining
- Iron, steel and metal industries
- Mechanical and apparatus engineering
- Food industry
- Offshore deployment
- Shipbuilding
- Cement and concrete industry
- Concrete demolition
- Surface treatment
- Paint removal
- Spray bars

Description

The high performance sapphire nozzle type 965 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, and also as an insert for spray-bars. 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. This manufacturing process gives our nozzle bodies higher strength reserves compared to one-piece/clamping parts.

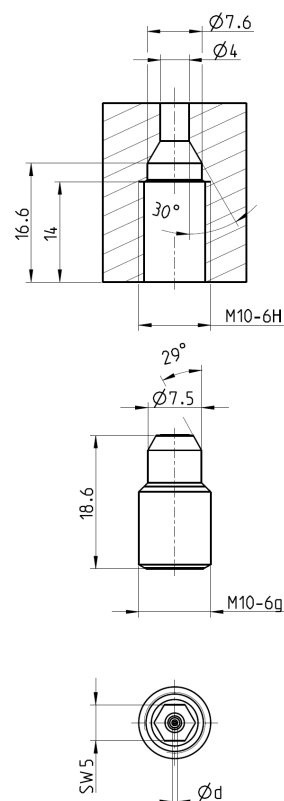
The nozzle neck is manufactured very precisely and has a perfect concentricity with the sealing edge. The 29° sealing edge has no roundings or double angles and a greater wall thickness than conventional nozzles. Therefore there can be no deformation of the nozzle body at the sealing edge.

The heart of the nozzle, is the sapphire that is completely manufactured by mvt AG, thus ensuring uniform and high quality. All nozzle stones are checked for scratches, cracks and flow.

This nozzle has been subjected to a burst and pressure test by an accredited testing laboratory STS 0052 according to harmonized standard EN 12162+A1:2009. And withstood the 30 minute load of 3930 bar.

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

- Type P
- Form 21
- Series 3261



CHARACTERISTICS	TYPE
	965
Operating pressure (bar)	max. 3000
Operating temp. (°C)	max. 150°
Tightening torque (Nm)	max. 25

ART. NO. (1)

32176._ _

Performance

ART. NO.	NOZZLE SIZE IN US GAL/MIN AT 40 PSI	NOZZLE ØD MM	PRESSURE IN PSI / BAR							
			psi 2900	psi 7250	psi 10875	psi 14500	psi 21750	psi 29000	psi 36250	psi 43500
			bar 200	bar 500	bar 750	bar 1000	bar 1500	bar 2000	bar 2500	bar 3000
			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
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
32176.3000	2051	3.00	66.675	104.871	127.896	147.074	178.707	204.812	227.370	247.410

Instructions

When manually operating high pressure guns and lances the repulsive force on the axis should not exceed 250N! If the repulsive force exceeds 150N, a support / body armour is required!

	< 150 N
	< 250 N
	> 250 N