

Sapphire nozzle 971



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
- Concrete demolition
- Mechanical and apparatus engineering
- Surface treatment
- Offshore deployment
- Cement and concrete industry
- Surface cleaning
- Industrial cleaning
- Spray bars

Description

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

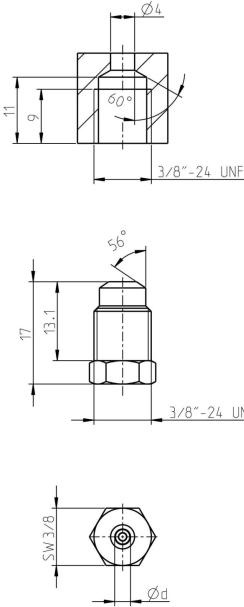
The nozzle neck is manufactured very precisely and has a perfect concentricity with the sealing edge. The sealing edge 56° has no roundings or double angles and a greater wall thickness compared to conventional nozzles. Therefore there can be no deformation of the nozzle body at the sealing edge.

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

This product is compatible with the following brands or products:

- Series 3546/3024
- OS6™
- UHP-X

ART. NO. (1)
33163. _ _



CHARACTERISTICS	TYPE
	971
Operating pressure (bar)	max. 3000
Operating temp. (°C)	max. 150°
Tightening torque (Nm)	max. 40

Performance

ART. NO.	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							
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
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
33163.2300	2.30	39.190	61.641	75.175	86.447	105.040	120.384	133.643	145.422
33163.2400	2.40	42.672	67.117	81.854	94.127	114.372	131.080	145.517	158.343
33163.2500	2.50	46.302	72.827	88.817	102.135	124.102	142.230	157.896	171.813
33163.2600	2.60	50.080	78.770	96.064	110.469	134.228	153.836	170.780	185.833
33163.2700	2.70	54.007	84.945	103.596	119.130	144.752	165.898	184.170	200.402
33163.2800	2.80	58.081	91.354	111.412	128.118	155.673	178.414	198.064	215.522
33163.2900	2.90	62.304	97.996	119.512	137.432	166.991	191.385	212.465	231.191
33163.3000	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