

Schlick Series 629 Smooth-Jet Nozzles Series 618-619 Pipe-Cleaning Nozzles



Applications:

- Cleaning equipment
- Ducting/pipe cleaning
- Etching and marking
- Paper cutting
- Ventilating equipment

Schlick smooth-jet nozzles

- Smooth-jet nozzles are designed to spray liquids in the form of a precise, smooth jet.
- They are highly suited to cleaning work that requires a smooth, sharp jet.
- Nozzle Model 629 consists of a single-component body with a guide cone and a long, cylindrical borehole with a screw-on orifice protector cap.
- Pipe-cleaning nozzles consist of a single-component body with a female screw fitting.
- They contain several smooth bores.
- Some of the nozzles are pulled through the pipe automatically by reaction.

Nozzle designs

Model 629 – Smooth-jet nozzle



Fig. 11001

Model 629 Form 7-1 – Smooth-jet nozzle

With pneumatic open/close control using control air. The nozzle needle closes the outlet abruptly when the control air is shut off. Especially suitable for etching, marking, cyclic spraying and above all for liquids under pressure where drips are to be avoided. Can be fitted with cleaning needles.

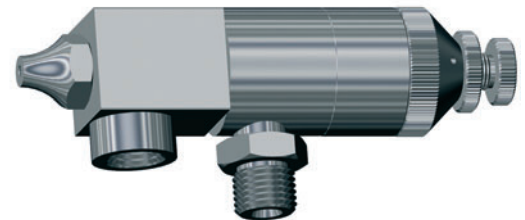


Fig. 11002

Model 629 Form 8 – Smooth-jet nozzle

With solenoid valve.
 Standard design: 220 V, 50 Hz, 100 % ED.
 Ambient temperature: max. 55 °C
 Enclosure protection IP 65.
 Cycling frequency: limited only by the changeover time.

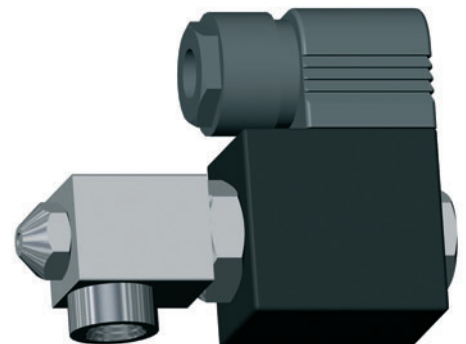


Fig. 11003

Materials

- | | | | |
|----------------------------------|------------|--------|---|
| - Brass | - Titanium | - PTFE | Custom products from other materials available on request |
| - Acid resistant stainless steel | - Tantalum | - PVC | |
| - Heat resistant stainless steel | - Ebonite | | |

Nozzle designs

Model 618 – Pipe-cleaning nozzle

Suitable for cleaning fully blocked pipes.

Water jet directed forwards.

The nozzle must be inserted with a steel lance or steel pipe. Depending on water pressure, external feed may be required. The number of orifices and direction of jet are optional. All nozzles can be supplied with a thread at the front for attaching a brush or a draw hook.

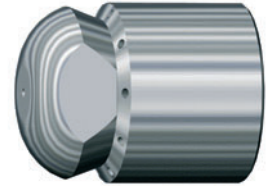


Fig. 11004

Model 619 – Pipe-cleaning nozzle

Suitable for cleaning pipes or sewage pipes.

Water jet directed backwards.

The nozzle is pulled through the pipe by the reaction to the jet.

Depending on water pressure, external feed may be required. The jet angle is can be optionally vertical or tangential between 30° and 90°.

The number and diameter of the orifices are selected according to the overall flow rate and the pump used.

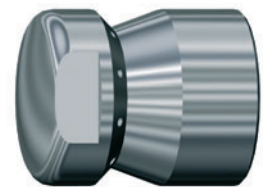


Fig. 11005

Model 619 K – Pipe-cleaning nozzle

With pointed nose

Otherwise as for Model 619

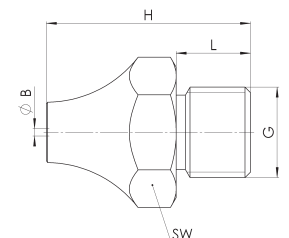


Fig. 11006

Dimensions

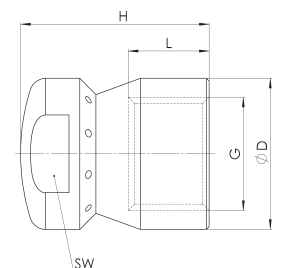
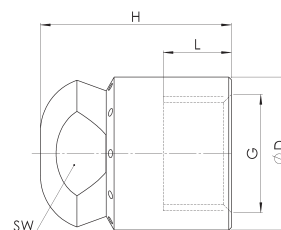
Model 629

Size	Connector G ISO 228	Total height H in mm	Thread length L in mm	Spanner size SW in mm	Orifice in mm
1	1/8	22	8	14	0.1 - 2.0
2	1/4	25	9	17	3.0 - 4.0
3	3/8	30	11	27	5.0 - 6.0
4	1/2	35	14	27	7.0 - 9.0
5	3/4	42	16	32	10.0 - 13.0
6	1	48	19	36	14.0 - 18.0
7	1 1/4	55	20	46	19.0 - 25.0



Model 618/619

Size	Connector G ISO 228	Total height H in mm	Thread length L in mm	Spanner size SW in mm	Diameter D in mm
0000	1/8	25	10	9	12
000	1/4	30	11	14	16
00	3/8	33	12	17	24
0	1/2	35	14	24	28
1	3/4	52	20	32	40



Performance specification

Model 629

Model/ Size	Connector G ISO 228	Orifice in mm	Test pressure Δp 3 bar		Test pressure Δp 6 bar		Test pressure Δp 8 bar		Test pressure Δp 10 bar		Test pressure Δp 15 bar		Test pressure Δp 20 bar		Test pressure Δp 30 bar		Test pressure Δp 50 bar			
			l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h
			629/1	1/8	0.5	0.30	0.02	0.40	0.02	0.46	0.03	0.51	0.03	0.63	0.04	0.72	0.04	0.88	0.05	1.14
0.8	0.70	0.04			1.00	0.06	1.15	0.07	1.29	0.08	1.58	0.09	1.83	0.11	2.24	0.13	2.90	0.17		
1.0	1.10	0.07			1.55	0.09	1.80	0.11	2.00	0.12	2.46	0.15	2.84	0.17	3.48	0.21	4.50	0.27		
1.2	1.60	0.10			2.26	0.14	2.60	0.16	2.92	0.17	3.58	0.22	4.12	0.28	5.05	0.30	6.50	0.39		
1.5	2.50	0.15			3.54	0.21	4.10	0.25	4.59	0.27	5.60	0.34	6.45	0.39	7.90	0.47	10.20	0.61		
1.8	3.60	0.22			5.10	0.31	5.85	0.35	6.65	0.40	8.00	0.48	9.30	0.56	11.40	0.68	14.70	0.88		
2.0	4.40	0.26			6.20	0.37	7.20	0.43	8.05	0.48	9.85	0.59	11.40	0.69	14.00	0.84	18.10	1.02		
2.5	6.90	0.41			9.75	0.58	11.30	0.68	12.60	0.76	15.40	0.92	17.80	1.07	21.80	1.31	28.00	1.69		
629/2	1/4	3.0	10.00	0.60	14.10	0.85	16.30	0.98	18.30	1.10	22.40	1.34	25.80	1.55	31.60	1.90	41.00	2.46		
		3.5	13.50	0.81	19.00	1.14	22.00	1.32	24.60	1.48	30.20	1.81	35.20	2.10	42.60	2.56	55.00	3.30		
		4.0	17.70	1.07	25.00	1.50	29.00	1.74	32.40	1.94	39.60	2.38	45.60	2.74	56.00	3.36	72.00	4.32		
		4.5	22.50	1.35	32.00	1.92	37.00	2.22	41.00	2.46	50.00	3.00	58.00	3.48	71.00	4.26	92.00	5.52		
629/3	3/8	5.0	27.70	1.66	39.00	2.34	45.00	2.70	51.00	3.06	62.00	3.72	71.00	4.26	88.00	5.28	114.00	6.84		
		5.5	33.50	2.01	47.00	2.82	55.00	3.30	61.00	3.66	75.00	4.50	86.00	5.20	106.00	6.36	137.00	8.22		
		6.0	40.00	2.40	56.00	3.36	65.00	3.90	73.00	4.38	90.00	5.40	103.00	6.18	123.00	7.38	158.00	9.48		
629/4	1/2	7.0	54.00	3.24	76.00	4.56	88.00	5.28	98.00	5.88	121.00	7.25	139.00	8.34	170.00	10.20	220.00	13.20		
		8.0	71.00	4.26	100.00	6.00	116.00	6.96	129.00	7.74	158.00	9.48	183.00	11.00	224.00	13.40	290.00	17.40		
		9.0	90.00	5.40	127.00	7.72	147.00	8.82	165.00	9.90	201.00	12.10	232.00	13.90	285.00	17.10	368.00	22.10		
629/5	3/4	10.0	111.00	6.66	156.00	9.36	180.00	10.80	200.00	12.00	246.00	14.80	282.00	16.90	348.00	20.90	450.00	27.00		
		11.0	134.00	8.04	190.00	11.40	220.00	13.20	245.00	14.70	300.00	18.00	346.00	20.80	425.00	25.50	550.00	33.00		
		12.0	159.00	9.54	225.00	13.50	260.00	15.60	290.00	17.40	355.00	21.30	410.00	24.60	500.00	30.00	650.00	39.00		
		13.0	187.00	11.20	264.00	15.80	305.00	18.30	340.00	20.40	418.00	25.10	480.00	28.80	590.00	35.40	760.00	45.60		

Model/ Size	Connector G ISO 228	Orifice in mm	1 bar (ü)	2 bar (ü)	3 bar (ü)	4 bar (ü)	5 bar (ü)	6 bar (ü)	7 bar (ü)	8 bar (ü)
			Normal m³/h	Normal m³/h	Normal m³/h	Normal m³/h	Normal m³/h	Normal m³/h	Normal m³/h	Normal m³/h
629/1	1/8	0.5	0.27	0.40	0.54	0.67	0.81	0.94	1.08	1.20
		0.8	0.69	1.04	1.38	1.72	2.07	2.42	2.76	3.10
		1.0	1.07	1.61	2.15	2.68	3.22	3.75	4.30	4.80
		1.2	1.55	2.33	3.10	3.88	4.65	5.40	6.20	7.00
		1.5	2.40	3.60	4.75	5.95	7.15	8.35	9.51	10.70
		1.8	3.50	5.25	7.00	8.70	10.40	12.20	14.00	15.70
		2.0	4.30	6.45	8.60	10.70	12.90	15.00	17.20	19.40
		2.5	6.70	10.00	13.40	16.80	20.00	23.50	26.80	30.50
629/2	1/4	3.0	9.70	14.60	19.40	24.30	29.00	34.00	39.00	43.50
		3.5	13.20	19.80	26.50	33.00	39.60	46.30	52.00	59.00
		4.0	17.20	25.80	34.50	43.00	51.70	60.00	68.50	77.00
		4.5	21.70	32.50	43.50	54.00	65.00	76.00	87.00	97.00
629/3	3/8	5.0	26.80	40.00	53.00	67.00	80.00	94.00	108.00	122.00
		5.5	32.50	49.00	65.00	81.00	97.00	114.00	130.00	146.00
		6.0	38.50	58.00	77.00	96.00	115.00	135.00	155.00	174.00
629/4	1/2	7.0	52.50	79.00	105.00	131.00	158.00	184.00	210.00	236.00
		8.0	69.00	103.00	138.00	172.00	206.00	242.00	276.00	310.00
		9.0	87.00	130.00	174.00	217.00	262.00	305.00	348.00	390.00

Flow rates for larger nozzles and saturated steam available on request.

Model 618/619

Model	Orifice in mm	Test pressure Δp 30 bar		Test pressure Δp 50 bar		Test pressure Δp 80 bar		Test pressure Δp 100 bar		Test pressure Δp 120 bar		Test pressure Δp 150 bar		Test pressure Δp 200 bar		Test pressure Δp 300 bar		Test pressure Δp 400 bar	
		l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h	l/min	m³/h
618	1.0	2.36	0.14	3.06	0.18	3.88	0.23	4.33	0.26	4.75	0.29	5.30	0.32	6.12	0.37	7.50	0.45	8.60	0.52
	1.1	2.88	0.17	3.72	0.22	4.70	0.28	5.25	0.32	5.75	0.34	6.40	0.38	7.40	0.44	9.10	0.55	11.70	0.70
	1.2	3.44	0.21	4.45	0.27	5.65	0.34	6.30	0.38	6.90	0.41	7.70	0.46	8.90	0.53	10.90	0.65	14.00	0.84
	1.3	4.02	0.24	5.20	0.31	6.60	0.40	7.35	0.44	8.05	0.48	9.00	0.54	10.30	0.62	12.70	0.76	16.40	0.98
	1.4	4.68	0.28	6.05	0.36	7.65	0.46	8.55	0.51	9.30	0.56	10.50	0.63	12.10	0.73	14.80	0.89	19.00	1.14
	1.5	5.39	0.32	6.95	0.42	8.70	0.52	9.80	0.59	10.70	0.64	12.00	0.72	13.90	0.83	17.00	1.02	22.00	1.32
	1.6	6.12	0.37	7.90	0.47	10.00	0.60	11.20	0.67	12.20	0.73	13.70	0.82	15.80	0.95	19.30	1.16	25.00	1.50
	1.7	6.90	0.41	8.90	0.53	11.20	0.67	12.60	0.76	13.80	0.82	15.40	0.92	17.80	1.07	21.80	1.31	28.20	1.69
	1.8	7.75	0.47	10.00	0.60	12.70	0.76	14.20	0.85	15.50	0.93	17.30	1.04	20.00	1.20	24.50	1.47	32.00	1.92
	1.9	8.90	0.53	11.50	0.69	14.50	0.87	16.30	0.98	17.80	1.07	19.90	1.19	23.00	1.38	28.50	1.71	36.80	2.21
619	2.0	9.45	0.57	12.20	0.73	15.40	0.92	17.20	1.03	18.90	1.13	21.10	1.27	24.40	1.46	29.80	1.79	38.00	2.31
	2.2	11.50	0.69	14.90	0.89	18.80	1.13	21.00	1.26	23.00	1.38	25.60	1.54	29.80	1.79	36.50	2.19	47.00	2.82
	2.5	14.90	0.89	19.20	1.15	24.30	1.46	27.20	1.63	29.80	1.79	33.20	1.99	38.30	2.30	47.00	2.82	60.50	3.63
	2.8	18.60	1.12	24.00	1.44	30.40	1.82	34.00	2.04	37.20	2.23	41.50	2.49	48.00	2.88	58.50	3.51	76.00	4.56
	3.0	21.40	1.28	27.70	1.66	35.00	2.10	39.20	2.35	43.00	2.58	48.00	2.88	55.40	3.32	67.80	4.07	87.50	5.25

Flow rates valid for one orifice.

Custom versions

Model 629 S3 – Smooth-jet nozzle

Short length
With O-ring seal
Nozzle 0.5 – 1.5 mm



Fig. 11007

Model 629 S21 – Smooth-jet nozzle

With ball and socket joint
Can be swivelled



Fig. 11008

Model 629 S63 – Smooth-jet nozzle

With heater jacket



Fig. 11009

Custom designs/specialities

Model 629 Form 7-1 S 65 – Smooth-jet nozzle

With high pressure seal, shaft, cleaning needle and flange

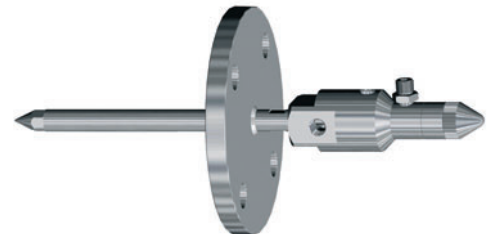


Fig. 11010

Model 629 Form 7-1 S 59 – Smooth-jet nozzle

With shaft and screw fitting to DIN 11887



Fig. 11011

Service spectrum

Pilot test laboratory

Before any new spray nozzles are used we subject them to comprehensive trials in our own test laboratory – if need be to your operational parameters. During these tests, we precisely determine droplet size, velocities and flow densities with our modern DUAL PDA laser-measuring equipment.



Test nozzles

Schlick spray nozzles are world renowned for highest precision. We can offer you the best and most lasting solution to your requirements. And, if you want, we can supply you with test nozzles in advance – just contact us.

Engineering

Take advantage of our comprehensive expertise – from design to installation – the conception of new products or

the optimisation of existing plant. We would be glad to help you improve the success of your operation.

Repair service

As well as competent advice and its inception, you can profit from an efficient after-sales service that guarantees long-term supply of all products. We carry out both repair and conversion of Schlick spray nozzles, and in emergency, we can supply spare parts quickly and reliably.

Onsite service

If required we will investigate and develop an optimal solution to suit individual requirements onsite. We will advise you and give you support during installation and initial start-up of the plant. A further plus is the help available from our worldwide technical field service network.

Custom products

As one of the leading spray nozzle manufacturers in Europe, we can offer both high quality standard solutions and are in the position of developing customised products for individual tasks as fast as possible, even for small production runs.



Documentation to the customer's requirements

Reliability and quality are the basis for successful cooperation with our international customers. This applies both to our products and to our service. If you wish, we will supply you with all necessary documentation such as technical handbooks for the nozzles (drawings, flow diagrams, installation and operating instructions) together with factory and material specifications.



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All specifications are subject to change (flow rates/dimensions).

The performance/flow rate specifications quoted are descriptive or product identities and can vary by up to ± 5 percent on delivery.

