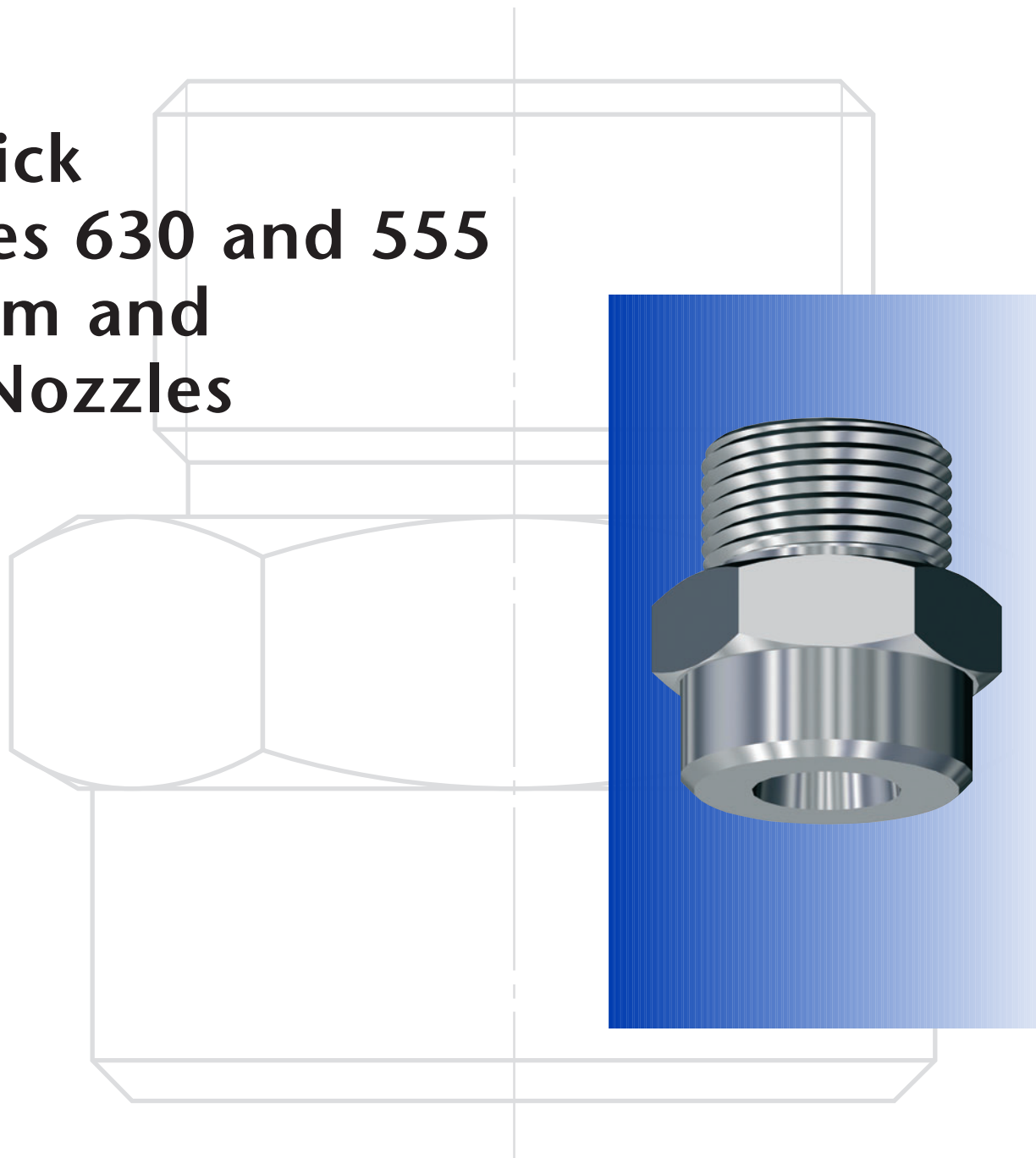


Schlick Series 630 and 555 Steam and Air Nozzles



Applications:

- Drying and moisturising of gaseous media in enclosed spaces and containers
- Low-noise heating

Schlick steam and air nozzles

- Laval nozzles are designed for spraying all media in a gaseous and vapour state.
- They can be used under critical and hypercritical pressure conditions.
- The nozzles are low noise.
- The atomising pattern is a circular full cone with a spray angle of approximately 30°.
- Laval nozzles are available with orifices from 0.8 – 20.0 mm in steps of 1/10 mm.
- The nozzles are identified by the nozzle diameter in 1/10 mm.

Other nozzles that can be used for gaseous or vapour flow:

Flat-jet nozzles	Series 650-655, 700	Technical information 09/01
Smooth-jet nozzles	Series 629	Technical information 11/01
Spring biased nozzles	Series 631 and D10.555	Technical information 10/01

Nozzle designs

Model 630 – Air nozzle

Laval Form



Fig. 13001

Model 555 – Air nozzle

With adjustable ring gap allowing variable flow rates at the same pressure

Wide cone of approx. 140°



Fig. 13002

Custom versions

Model 630 K – Air nozzle

Laval Form

With front end thread for screwing into walls

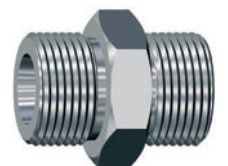


Fig. 13003

Model 630 S1 – Air nozzle

Laval Form

With hollow bore for welding onto pipes, etc.



Fig. 13004

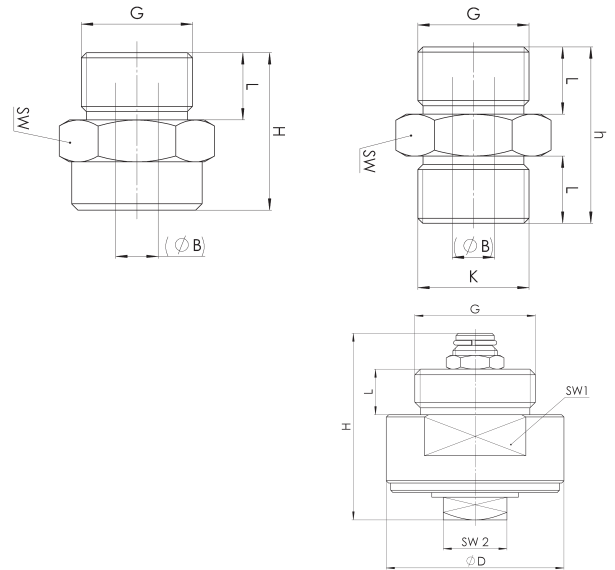
Materials

- | | | |
|----------------------------------|--------|---|
| - Brass | - PVC | Custom products from other materials available on request |
| - Acid resistant stainless steel | - PVDF | |
| - Heat resistant stainless steel | | |

Dimensions

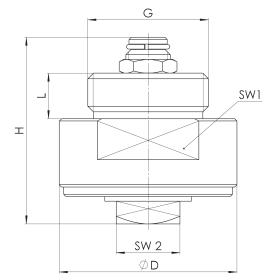
Model 630 – Laval nozzle

Size	1	2	3	4	5	6	7
Connector ISO 228 G	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2
Thread length L	9.0	11.0	14.0	16.0	19.0	20.0	21.0
Total height H	16.5	23.0	28.5	37.5	45.0	51.5	55.0
Total height h	22.5	29.0	38.0	42.0	52.0		
Spanner width SW	17.0	22.0	27.0	32.0	41.0	50.0	55.0
Max. orifice B	3.0	5.0	9.0	12.0	16.0	19.0	25.0
End thread (630 K) ISO 228	1/4	3/8	1/2	1	1 1/4	1 1/2	2



Model 555 – Air nozzle

Size	1	2	3
Connector ISO 228 G	1/2	3/4	1
Thread length L	10	10	10
Total height H	32	36	42
Spanner width 1 SW 1	27	32	41
Spanner width 2 SW 2	14	14	17
Diameter D	35	40	50



Performance specification

Flow rates refer to compressed air (at 20 °C, density 1.2 kg/m³) or to saturated steam.
Flow rates for gases of other densities change correspondingly.

Model 630

Saturated steam flow rate in kg/h

Size	Orifice in mm	Pressure in bar (ü)							
		1	2	3	4	5	6	7	8
1	0.8	0.54	0.81	1.08	1.35	1.62	1.89	2.16	2.43
	1.0	0.84	1.26	1.68	2.10	2.55	2.95	3.36	3.78
	1.5	1.90	2.85	3.80	4.75	5.70	6.65	7.60	8.55
	2.0	3.36	5.05	6.72	8.40	10.10	11.80	13.50	15.20
	2.5	5.28	7.90	10.60	13.20	15.80	18.50	21.20	23.70
	3.0	7.60	11.40	15.20	19.00	22.80	26.60	30.40	34.20
2	3.5	10.30	15.50	20.60	25.70	30.90	36.00	41.20	46.40
	4.0	13.50	20.30	27.00	33.70	40.50	47.00	54.00	61.00
	4.5	17.10	25.60	34.20	42.70	51.30	60.00	68.50	77.00
	5.0	21.00	31.50	42.00	52.50	63.00	73.50	84.00	94.50
	6.0	30.40	45.60	60.80	76.00	91.00	106.00	121.00	137.00
3	7.0	41.30	62.00	83.00	104.00	124.00	145.00	168.00	186.00
	8.0	54.00	81.00	108.00	135.00	162.00	189.00	216.00	243.00
	9.0	68.00	102.00	136.00	170.00	204.00	238.00	272.00	306.00
4	10.0	84.00	126.00	168.00	210.00	255.00	295.00	336.00	378.00
	11.0	102.00	153.00	204.00	255.00	306.00	358.00	408.00	460.00
	12.0	121.00	182.00	242.00	303.00	364.00	424.00	485.00	545.00
	13.0	143.00	215.00	286.00	358.00	430.00	500.00	572.00	642.00
5	14.0	165.00	247.00	330.00	414.00	495.00	579.00	660.00	743.00
	15.0	190.00	285.00	380.00	475.00	570.00	665.00	760.00	855.00
	16.0	216.00	324.00	432.00	540.00	648.00	755.00	865.00	970.00

Compressed air flow rate in Normal m³/h at 20 °C

Size	Orifice in mm	Pressure in bar (ü)							
		1	2	3	4	5	6	7	8
1	0.8	0.69	1.03	1.38	1.72	2.07	2.42	2.76	3.10
	1.0	1.07	1.61	2.14	2.67	3.22	3.75	4.30	4.85
	1.5	2.42	3.64	4.85	6.05	7.25	8.50	9.70	10.90
	2.0	4.30	6.54	8.60	10.70	12.90	15.20	17.20	19.90
	2.5	6.72	10.10	13.50	16.80	20.20	23.60	27.00	30.30
	3.0	9.70	14.50	19.40	24.20	29.20	34.00	38.30	43.60
2	3.5	13.20	19.80	26.40	33.00	39.60	46.30	53.00	59.30
	4.0	17.20	25.80	34.50	43.00	51.70	60.20	69.00	77.50
	4.5	21.70	32.50	43.50	54.20	65.00	76.00	86.00	97.00
	5.0	26.80	40.20	53.50	63.50	80.20	94.00	107.00	121.00
	6.0	32.50	48.70	65.00	81.00	97.00	114.00	130.00	146.00
3	7.0	52.80	79.00	105.00	132.00	159.00	185.00	212.00	237.00
	8.0	69.00	103.20	138.00	172.00	207.00	242.00	276.00	310.00
	9.0	87.00	130.00	174.00	217.00	261.00	305.00	348.00	392.00
4	10.0	107.00	161.00	214.00	267.00	322.00	375.00	430.00	485.00
	11.0	130.00	195.00	260.00	325.00	390.00	455.00	520.00	585.00
	12.0	155.00	233.00	310.00	388.00	465.00	542.00	620.00	700.00
	13.0	182.00	273.00	365.00	455.00	545.00	638.00	728.00	820.00
5	14.0	212.00	317.00	425.00	530.00	635.00	740.00	850.00	955.00
	15.0	242.00	364.00	485.00	605.00	725.00	850.00	970.00	1090.00
	16.0	276.00	415.00	550.00	690.00	825.00	965.00	1100.00	1240.00

Model 555

Saturated steam flow rate in kg/h

Size	Connector ISO 228	1 bar (ü)		2 bar (ü)		3 bar (ü)		4 bar (ü)	
		min	max	min	max	min	max	min	max
1	1/2	25	76	37	115	50	152	62	190
2	3/4	42	125	63	187	85	250	105	310
3	1	75	230	112	345	150	460	188	575

Compressed air flow rate in Normal m³/h at 20 °C

Size	Connector ISO 228	1 bar (ü)		2 bar (ü)		3 bar (ü)		4 bar (ü)	
		min	max	min	max	min	max	min	max
1	1/2	33	97	50	145	66	195	82	245
2	3/4	54	154	80	230	110	310	135	385
3	1	95	290	143	435	190	580	240	720

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.



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.



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