



Nozzles and Accessories for Compressed Air



A wide range of
noise-reduced nozzles

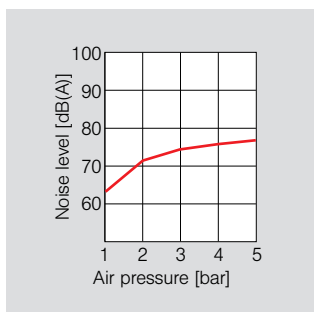
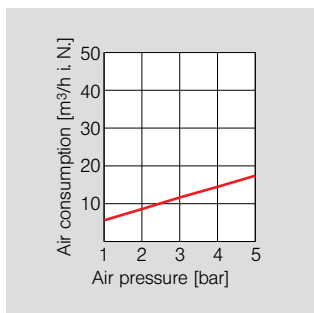
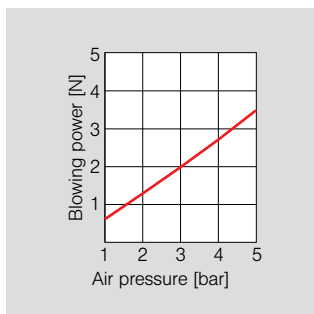


Compressed Air can Make the Process More Efficient

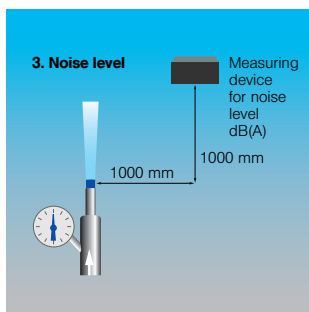
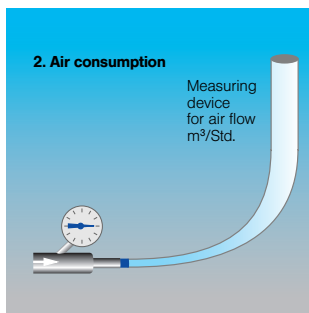
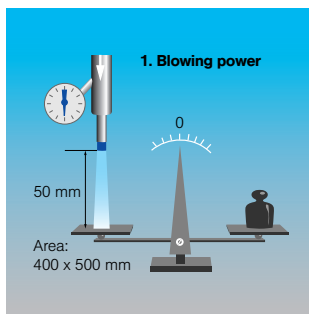
In many industries compressed air is a vital aid for drying, cooling and transporting, blowing-off and cleaning, loosening and mixing and assists thereby the economical realization of processes. The range of applications has not reached its limit. In all these applications two aspects should be taken into consideration: Generating compressed air requires money and the high-frequency noise, this occurs mainly at high pressures and by using single orifice nozzles and can damage hearing. Therefore it is necessary to use compressed air as economically as possible and to use modern technics of low noise.

Lechler has combined its total know-how of nozzle technology, the practical experience concerning applications and newest trends of research and has provided a special offer to this subject. Should it not be possible for you to find a solution for a special case within this wide range, please contact our specialists.

Example for measuring



Measuring method



Blowing power, air consumption and noise level are the three decisive criterions for the selection of air nozzles. In order to reach comparable values Lechler uses measuring methods, which are typical in the industry.

Modern Nozzle Technics for More Efficiency and Less Noise.

By the development of new **multiple spray nozzles** with specially formed nozzle orifices, the noise causing turbulences at the air exit have been considerably reduced; at the same time an improvement of the efficiency was reached by the nozzle construction. Thus it is possible to reduce the air pressure – and also the air consumption – but maintain a constant blowing power.

This positive effect was reached mainly by dividing the air stream into smaller air streams. Hereby the incoming compressed air is led evenly into air channels, which are favourably arranged with regard to streaming. The result is a particularly even and powerful total air stream.

The advantages for practical use are convincing:

More comfortable working conditions

by reducing the noise level by up to 12 dB.

- ▶ This corresponds to a reduction by a half of the noise for the human ear.

Lower energy costs

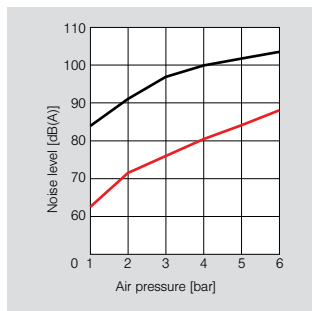
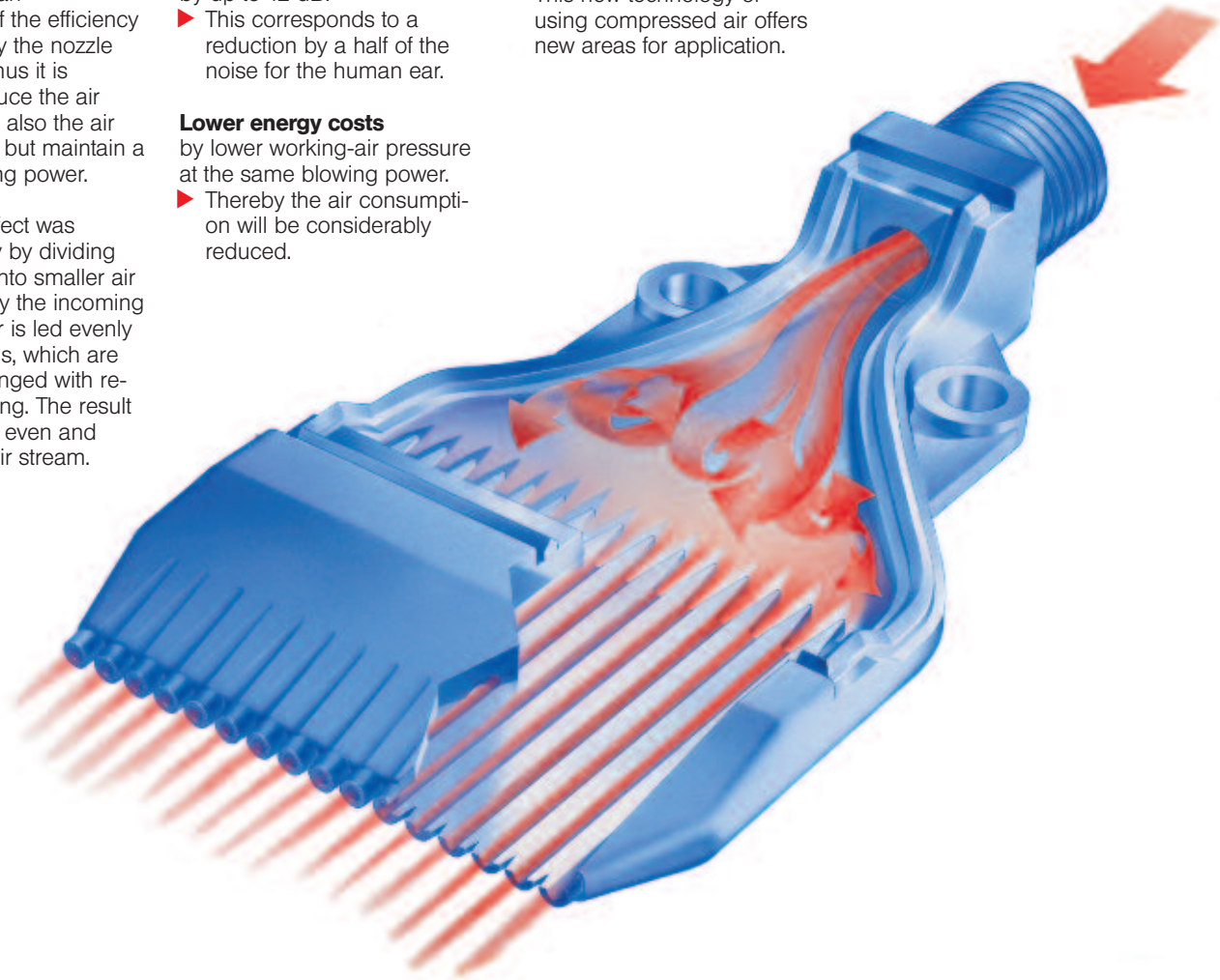
by lower working-air pressure at the same blowing power.

- ▶ Thereby the air consumption will be considerably reduced.

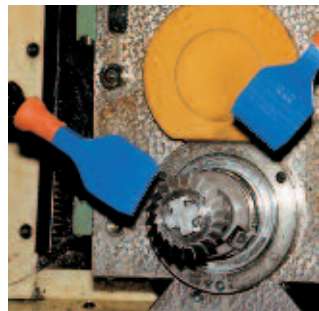
Higher capacity

by better blowing power from larger distances and by an evenly directed air stream.

- ▶ Thereby the efficiency will be considerably increased. This new technology of using compressed air offers new areas for application.



— Lechler multiple spray nozzle
— Conventional nozzle



The new Lechler compressed air nozzles have already proven successful in practice in many operations.



Whisperblast Multiple Spray Nozzles

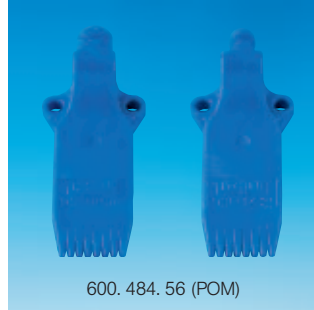
Low-noise flat jet nozzles

Standard versions
for universal applications

NEW:
Available in PP
for electroplating and
food industry (FDA-
conform)



600.130.56 (POM)



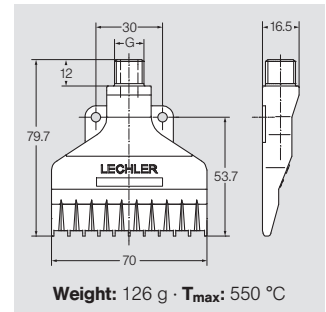
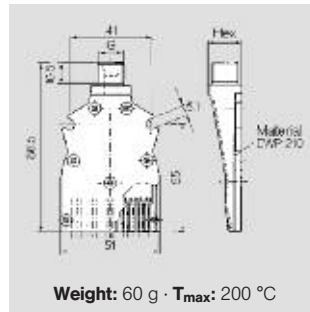
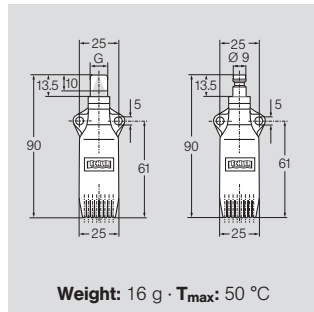
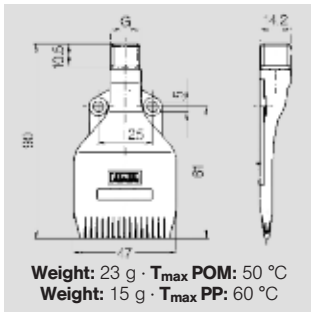
600.484.56 (POM)



600.283.42 (Aluminium)

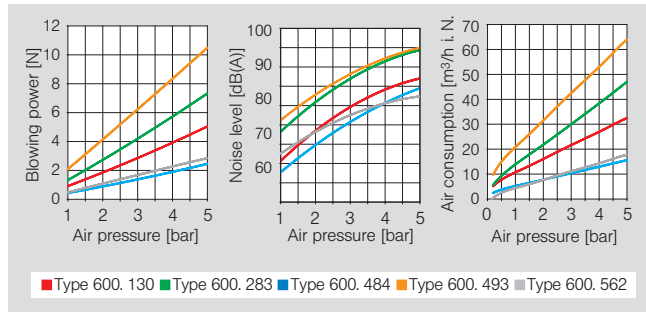


600.493.1Y (Stainless steel 316L)



Multiple spray flat jet nozzle series 600.130 / 600.484 / 600.283 / 600.493

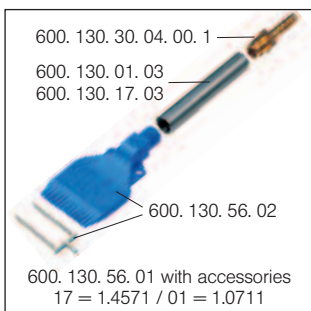
- Highly efficient air stream
- Reduced noise levels
- Low air consumption
- Standard nozzle with multiple applications
- Aluminium version for high mechanical/thermal stress



Compressed air is essential in today's engineering processes. Lechler have purposely developed the Whisperblast® range of products to **conserve energy, increase process efficiency, provide an investment in cost reduction, and improve the working environment.**

Applications:

Blowing-off, cleaning, drying, cooling, transporting.

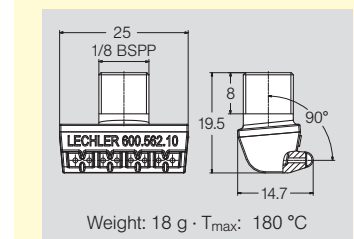


Type	Material no.				Code			
	42	S2	56	1Y	AC	BC	HG	00
600.130	-	○	○	-	AC	BC	-	-
600.130 with cover strip	-	-	○	-	02	-	-	-
600.130 with cover strip, Hose barbe (D = 8 mm) and Extension tube (L = 85 mm)	-	-	○	-	01	-	-	-
600.484	-	-	○	-	AC	BC	HG	00
600.283	○	-	-	-	AC	BC	-	-
600.493	-	-	-	○	AC	BC	-	-

Example for ordering: Type 600.130 + Material 56 + Code AC = Ordering no. 600.130.56.AC



600.562.1Y.10 (Stainless steel 316 L)



Air nozzle
Ord.-No: 600.562.1Y.10.00.0
Material: Stainless steel 316L

- Compact form
- Exceptionally suitable for narrow fitting conditions

Nozzle row see page 12





Whisperblast Multiple Spray Nozzles

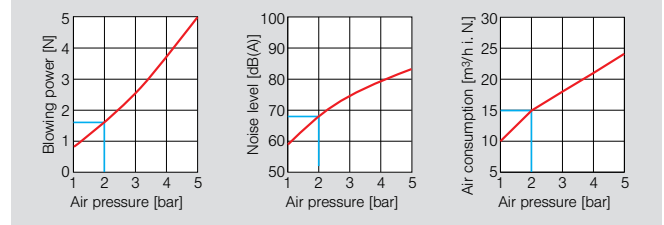
Low-noise flat jet nozzles

**Special versions
for special applications**

Mini-flat jet nozzle type 600.382.35.AE

■ Exceptionally low air consumption

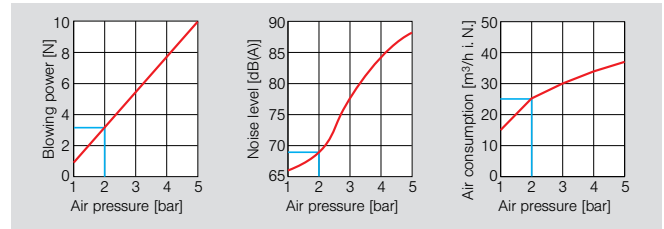
Weight: 35 g · **T_{max}:** 90°C
V_{Air}: 15 m³/h at 2 bar
Connection: 3/8 BSPP



Intensive-flat jet nozzle type 600.383.35.AE

■ Exceptionally high blowing power

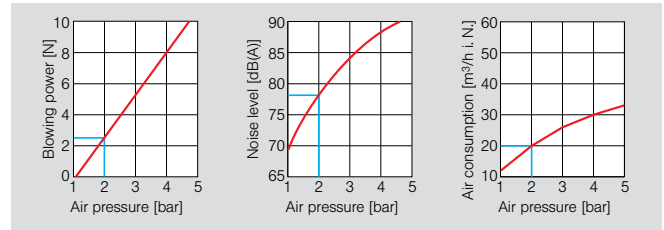
Weight: 36 g · **T_{max}:** 90°C
V_{Air}: 25 m³/h at 2 bar
Connection: 3/8 BSPP



Compact-flat jet nozzle type 600.386.01.AE

■ Exceptionally short form for narrow positions

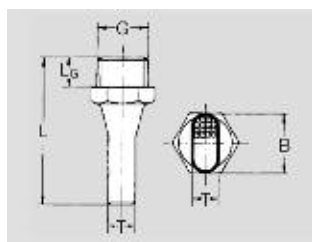
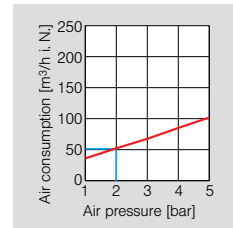
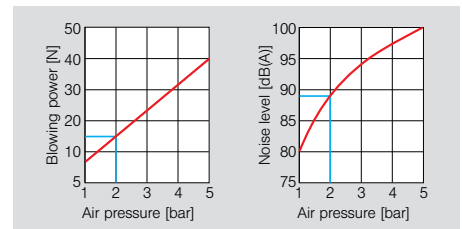
Weight: 38 g · **T_{max}:** 90°C
V_{Air}: 20 m³/h at 2 bar
Connection: 3/8 BSPP



Maxi-flat jet nozzle type 600.385.35.AL

■ Suitable for low-noise blowing of big air quantities

Weight: 155 g · **T_{max}:** 90°C
V_{Air}: 51 m³/h at 2 bar
Connection: 3/4 BSPP



Ordering no.	Material	G BSPP	L [mm]	L _G [mm]	B [mm]	T [mm]
600.382.35.AE	Brass nickel plated/PVC	3/8	100	10	21.5	4.5
600.383.35.AE	Brass nickel plated/PVC	3/8	100	10	21.0	6.0
600.386.01.AE	Steel/PVC	3/8	50	10	16.5	8.5
600.385.35.AL	Brass nickel plated/PVC	3/4	120	-	43.0	9.0



Whisperblast Multiple Spray Nozzles

Low-noise round jet nozzles

Multiple round jet nozzle series 600.326

- Powerful, focused impinging air stream
- Low noise level
- Low air consumption
- Standard nozzle with big varieties of application
- Mainly suitable in connection with an usual hand held air gun

Applications:

Precise blowing-off, drying and cooling.

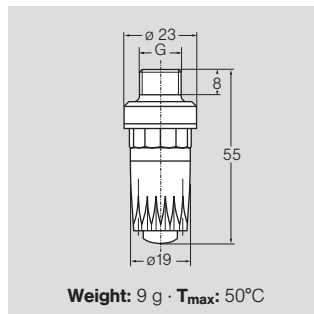
Zinc-version is not for use with steam or in steam atmosphere.



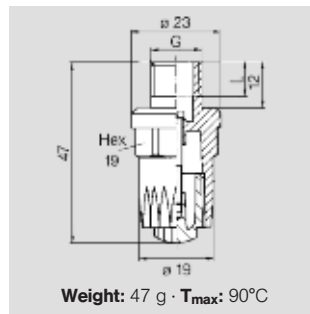
600.326.5K (ABS)



600.326.3W (Zinc)



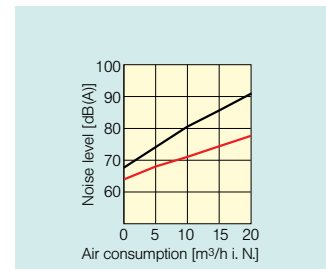
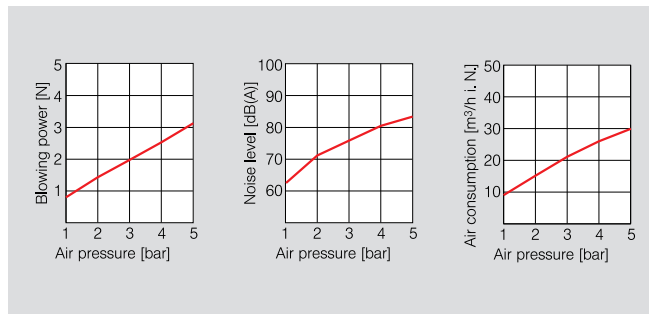
Weight: 9 g · T_{max}: 50°C



Weight: 47 g · T_{max}: 90°C



Type 600.326.5K.HG
in connection with typical compressed air gun



— Lechler 600.326
— Single orifice nozzle

Reduction of the noise level of up to 12 dB (A) in comparison to single orifice nozzles

▶ **Reduction of noise up to 60 %.**

Ordering no.		Thread connection G
Type	Code	
600.326.5K (Material: ABS)	BA	1/8 NPT
	BC	1/4 NPT
	AC	1/4 BSPP
	HG	M 12 x 1,25
600.326.3W (Material: Zinc)	AC	1/4 BSPP
	HG	M 12 x 1,25



Example for ordering: Type 600.326.5K + Code AC = Ordering no. 600.326.5K.AC



Whisperblast Multiple Spray Nozzles

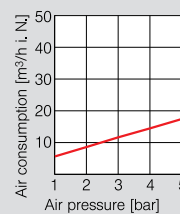
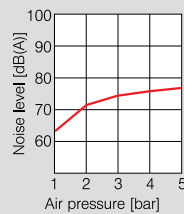
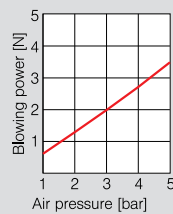
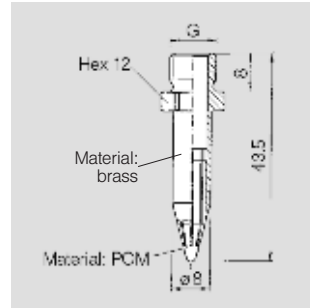
Low-noise round jet nozzles

Mini-multiple round jet nozzles series 600.388

- Particularly high blowing
- Compact form
- Mainly suitable for positions where access is limited and also for blowing-out blind holes

Material: Brass/POM

Weight: 12 g · T_{max}: 50°C



Ordering no.		Thread connection G
Type	Code	
600.388.30 (Material: Brass/POM)	AA	1/8 BSPP
	HG	M 12 x 1,25

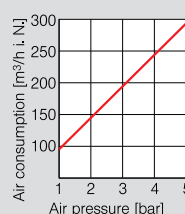
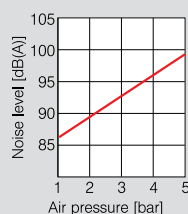
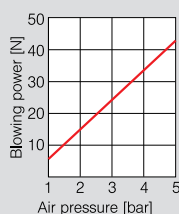
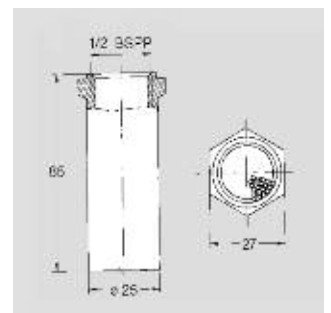
Example for ordering: Type 600.388.30 + Code AA = Ordering no. 600.388.30.AA

Maxi-multiple round jet nozzle type 600.387.35.AH

- Particularly high blowing power, even for long distances

Material: Brass/PVC

Weight: 100 g · T_{max}: 90°C



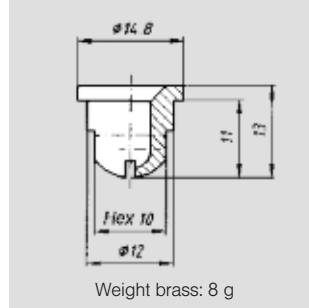


Compressed Air Nozzles for Special Applications

Flat jet slot nozzles

Flat jet slot nozzle for air and saturated steam series 679

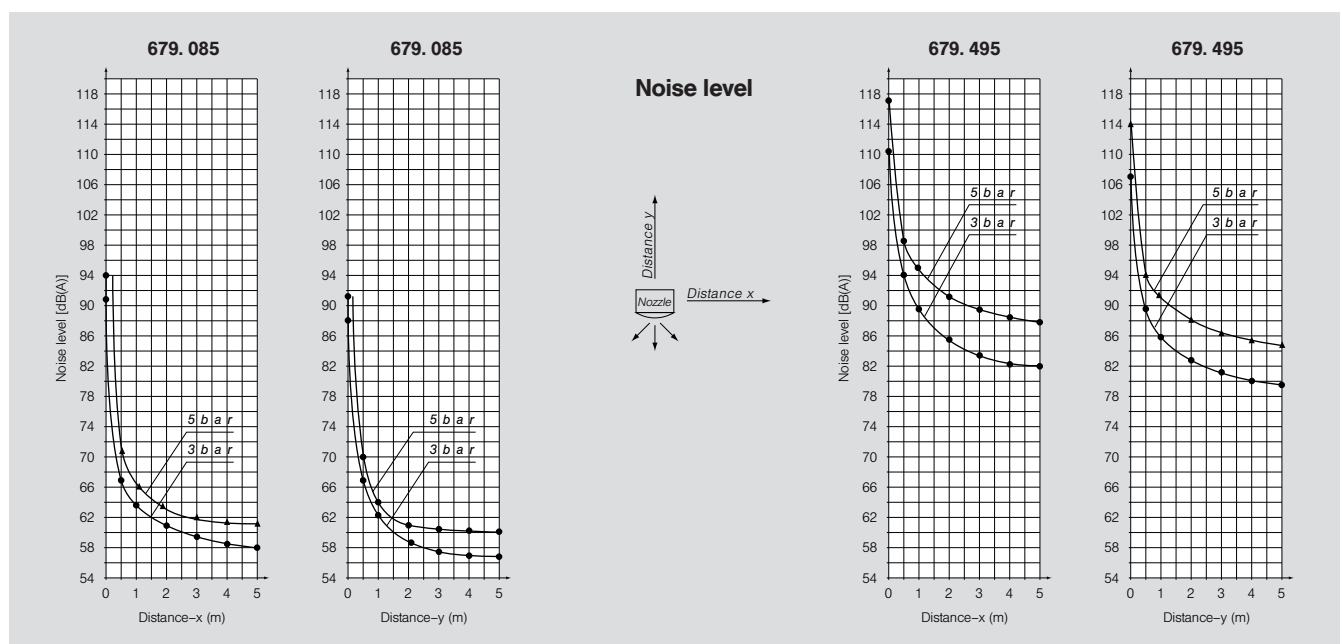
- Wide, strong air stream
- Easy, adjustable mounting
- Easy, spray adjustment



Ordering no.		A Ø [mm]	V̇n Air [m³/h i. N.]				Ṁ Saturated steam [kg/h]				
Type	Mat. no.		p [bar]				p [bar]				
	17	30	0.5	2.0	5.0	10.0	0.5	2.0	5.0	10.0	
679. 037	-	○	1.2	1.50	3.00	6.00	11.00	1.20	2.30	4.60	8.30
679. 085	○	○	1.3	2.00	4.00	8.00	14.70	1.60	3.10	6.10	11.10
679. 117	○	○	1.5	2.10	4.20	8.40	15.40	1.70	3.30	6.50	11.70
679. 165	○	○	1.8	2.60	5.10	10.30	18.80	2.00	4.10	8.00	14.30
679. 255	○	○	2.1	3.60	7.30	14.50	26.60	2.80	5.70	11.20	20.20
679. 365	○	○	2.8	6.30	12.70	25.40	46.50	5.00	10.00	19.60	35.30
679. 415	○	○	3.6	10.20	20.30	40.70	74.60	8.00	16.00	31.40	56.70
679. 495	○	○	4.3	15.60	31.10	62.20	114.00	12.40	24.80	48.50	87.60

A = equivalent bore diameter

Example	Type	+	Material no.	=	Ordering no.
for ordering:	679. 037	+	30	=	679. 037. 30



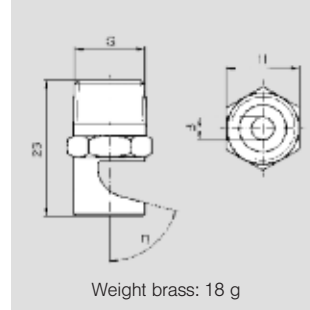


Compressed Air Nozzles for Special Applications

Flat jet tongue type nozzles / Multiple solid jet nozzles

Flat jet tongue type nozzle for air and saturated steam series 686

- Air stream on an extremely wide area
- Suitable for short blowing distances



Ordering no.			B [mm]	η	V̇ _n Air [m ³ /h i. N.]				Ṁ Saturated steam [kg/h]				
Type	Mat. no.				p [bar]				p [bar]				
	16	30			1.0	2.0	5.0	10.0	1.0	2.0	5.0	10.0	
	1.4305	Brass	1/8 BSPT										
686. 408	○	○	CA	1.0	75°	1.07	1.60	3.20	5.86	0.88	1.31	2.57	4.64
686. 488	○	○	CA	1.3	75°	1.76	2.64	5.29	9.69	1.46	2.17	4.25	7.67
686. 528	○	○	CA	1.5	75°	2.20	3.31	6.61	12.13	1.83	2.71	5.31	9.59
686. 568	○	○	CA	1.7	75°	2.73	4.09	8.19	15.01	2.27	3.36	6.57	11.87
686. 608	○	○	CA	1.9	75°	3.35	5.02	10.04	18.40	2.78	4.11	8.06	14.55
686. 688	○	○	CA	2.4	75°	5.45	8.18	16.36	30.00	4.53	6.71	13.14	23.72
686. 728	○	○	CA	2.7	75°	6.88	10.33	20.65	37.86	5.71	8.46	16.58	29.94
686. 808	○	○	CA	3.4	75°	10.89	16.33	32.66	59.87	9.04	13.28	26.22	47.35

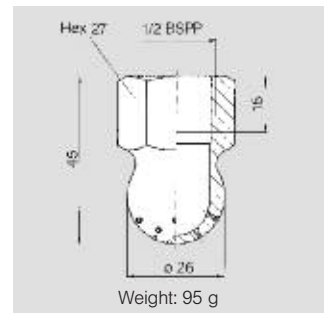
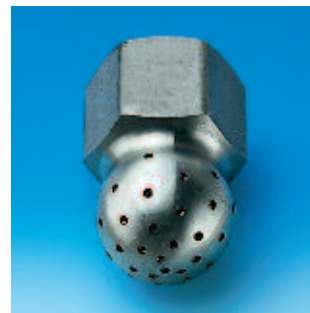
B = bore diameter

Multiple solid jet nozzle for air and saturated steam series 540/541

- Even complete air distribution by 40 single bores

Applications:

Steam atomization into liquids, aeration of bulk material, loosening, atomization of gas into acid and neutralizing baths, liquid circulation, acceleration of chemical reactions and processes.



Spray angle	Ordering no.		B Ø [mm]	V̇ _n Air [m ³ /h i. N.]				Ṁ Saturated steam [kg/h]					
	Type	Mat. no.		p [bar]				p [bar]					
				1.0	2.0	3.0	5.0	1.0	2.0	3.0	5.0		
		1.4305/303 SS											
appr. 240°	540. 909	○	0.8	22.80	34.20	45.50	68.30	18.10	26.90	35.50	52.70		
	540. 989	○	1.0	35.50	53.30	71.00	106.50	28.20	41.70	55.10	81.70		
	541. 109	○	1.5	83.30	124.90	166.50	249.80	66.00	97.70	129.20	191.60		
	541. 189	○	2.0	129.70	194.50	259.30	389.00	103.00	152.60	201.70	299.10		
	541. 239	○	2.3	167.20	250.80	334.30	501.50	133.20	197.30	260.80	386.60		

B = bore diameter

Example for ordering Type + Material no. (+ code) = Ordering no.
 686. 408 + 16 (+ CA) = 686. 408. 16. (CA)



Accessories for Whisperblast Multiple Spray Nozzles

Ball joint

- For moveable assembly of low-noise flat jet and round jet nozzles
- Swiveling range: 30 degrees any direction
- Durable metal version, without wear-prone gaskets



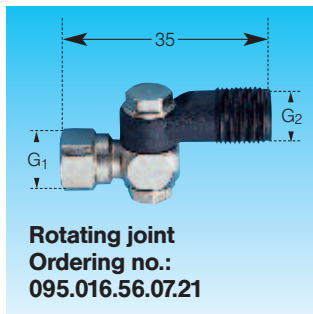
Ball joint with female thread connection



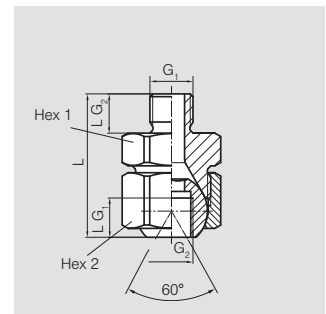
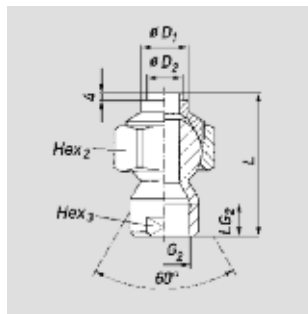
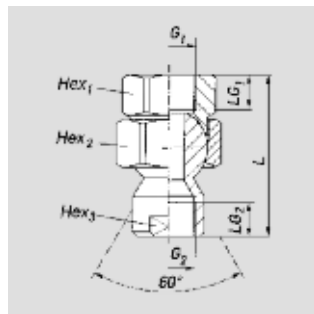
Ball joint with welding connection



Ball joint with male connection
092.024.XX.AC



Rotating joint
Ordering no.:
095.016.56.07.21



Connection	Ordering no.					Dimensions [mm]									Weight (brass)	
	Type	Material no.			Code	D1	D2	G1	G2	LG1	LG2	L	Hex1	Hex2		Hex3
		16	16	30												
Ball joints with female thread connection	092.020	-	○	○	AD	-	-	G1/4	G1/4	12.0	11.5	60.3	27	27	17	60 g
	092.021	-	○	○	AF	-	-	G3/8	G1/4	12.0	11.5	58.3	27	27	17	80 g
	092.024	-	○	○	AC	-	-	G1/4	G1/4	12.0	12.0	44.0	27	27	-	140 g
	092.030	-	○	○	AF	-	-	G3/8	G3/8	12.0	12.0	56.7	27	30	19	80 g
Ball joints with welding connection	092.020	○	-	-	SD	20.0	15.0	-	G1/4	-	11.5	64.3	-	27	17	60 g
	092.030	○	-	-	SF	22.0	15.0	-	G3/8	-	12.0	58.7	-	30	19	80 g

Example Type + Material no. + Code = Ordering no.
for ordering: 092.020 + 16 + SD = 092.020.16.SD

Flexible pneumatic tube

Material:

Rubber tube, covered by metal braid; steel core

Connections:

Air supply: 3/8 BSPP
Nozzle side: 1/4 BSPP

T_{max} = 100°C · p_{max} = 15 bar

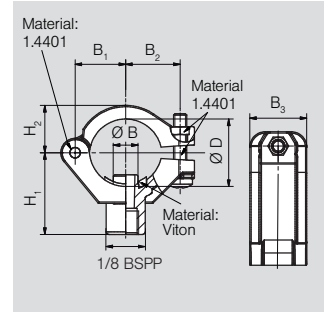
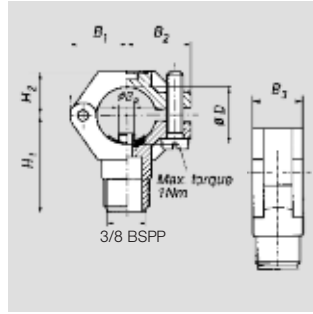


Ordering no.	Length [mm]	Suitable for nozzle series
Z. SPZ. 150.02. AE. AD. 0	150	600.130 600.283 600.326
Z. SPZ. 300.02. AE. AD. 0	300	
Z. SPZ. 450.02. AE. AD. 0	450	



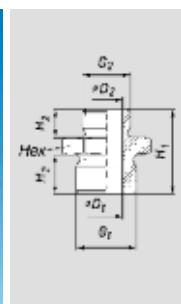
Accessories for Flat Jet Slot Nozzles

Clamps



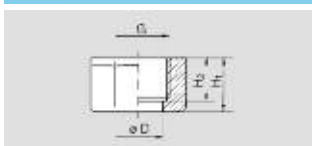
Type	Ordering no.			Screw	Dimensions [mm]								Weight (Polyamide)
	51	53	5E		Rohr Ø	D Ø	B _R Ø	B ₁	B ₂	B ₃	H ₁	H ₂	
090.003	○	○	○	1.4305	1/2"	20 - 22.0	6.2	21.2	23.8	18.5	36.5	16.5	20 g
090.013	○	○	○	1.4305	3/4"	25 - 27.5	7.8	24.5	26.5	22.0	39.5	17.5	25 g
090.023	○	○	○	1.4305	1"	32 - 34.5	10.8	30.0	31.0	22.0	44.0	21.0	32 g
090.012	-	-	○	1.4404	3/4"	25 - 27.5	7.8	19.5	21.0	22.0	31.5	18.0	40 g

Double nipple



Type	Ordering no.		Dimensions [mm]							Weight (Brass)
	Mat. no.		G ₁ BSPP	G ₂ BSPP	H ₁	H ₂	D ₁	D ₂	Hex	
065.215	1.4571/ 316 SS	30	3/8	1/4	25	10	10	7	22	30 g
065.211	Brass	30	3/8	3/8	25	10	11.5	-	22	25 g

Nuts



Type	Ordering no.					Dimensions [mm]				Weight (brass)	
	16	17	30	56	5E	G BSPP	H ₁	H ₂	D		Hex
065.200	1.4305/ 303 SS	1.4571/ 316 SS	Brass	POM	PVDF	3/8	13.0	10.0	12.8	22	25 g
065.200	-	-	-	○	○	3/8	14.5	11.5	12.8	22	25 g

Multiple Nozzle Base



Lechler GmbH
Precision Nozzles - Nozzle Systems
P.O. Box 13 23
72544 Metzingen / Germany
Phone: +49 (0) 71 23 - 962 - 0
Fax: +49 (0) 71 23 - 962 - 444

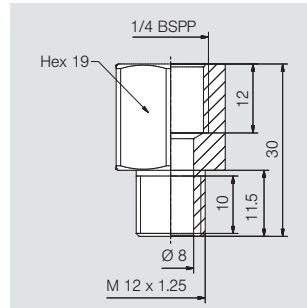
E-Mail: info@lechler.de
Internet: www.lechler.com

Nipple order no. 095.016.30.14.23.0

Material: Brass (Ms 30)

The following nozzles are suitable in connection with compressed air guns:

- 600. 130
- 600. 283
- 600. 493



Multiple Nozzle Base order no. 600. 130. 56. 05 with 5 Whisperblast nozzles type 600. 130. 56. BC

Materials:
Nozzles: POM,
Nozzle base: PVC

Thread: 3/8 BSPP

Applications:

- Cover big working ranges
- Air curtain

