

Nozzles and Accessories for Compressed Air



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

5

Z4

power 3

Blowing 5

<u></u> Z 50

40

30

20

10

100

90

80

70

60

2 3 4 5

Air pressure [bar]

Voise level [dB(A)]

[m^{3/h} i.

consumption

Air





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 levelby 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 consumpti-
- on 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.







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



Low-noise flat jet nozzles







Multiple spray flat jet nozzle series 600. 130/600. 484/ 600. 283/600. 493

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

Compressed air is essential in today's engineering processes. Lechler have purposely developed the Wisperblast[®] 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.







Weight: 15 g · T_{max}: 50 °C



600. 283. 42 (Aluminium)

Weight: 60 g · T_{max}: 200 °C

Material IVMP 210

- Type 600. 130 - Type 600. 283 - Type 600. 484 - Type 600. 493

Ordering n	0.	Thread connection G	Accessories
Туре	Code		
600. 130. 56	BC	1/4 NPT	
(Material:	AC	1/4 BSPP	
POM)	02	1/4 BSPP	Plug
	01	1/4 BSPP	Plug
			Hose barbe
			(D = 8 mm),
			Extension tube, steel
			(L = 85 mm)
600. 484. 56	AC	1/4 BSPP	
(Material:	BC	1/4 NPT	
POM)	HG	M12 x 1,25	
	00	Quick Connection	
		NW5	
600. 283. 42	AC	1/4 BSPP	
(Material:	BC	1/4 NPT	
Aluminium)			
600. 493. 1Y	AC	1/4 BSPP	
(Material: Stain-	BC	1/4 NPT	
less steel 316L)			
Example	Туре	+ Material + Code	
for ordering:	600. 13	30. + 56 + AC	= 600. 130. 56. AC







Nozzle row see page 12

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Low-noise flat jet nozzles



Mini-flat jet nozzle type 600.382.30.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 600.383.30.AE

Exceptionally high blowing power

Weight: 36 g · Tmax: 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 600.385.30.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







5

5

4









2 3 4 5

Air pressure [bar]



90



















Ordering no.	Material	G BSPP	L [mm]	L _G [mm]	B [mm]	T [mm]
600. 382. 30 AE	Brass/PVC	3/8	100	10	21,5	4,5
600. 383. 30. AE	Brass/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. 30. AL	Brass/PVC	3/4	120	-	43,0	9,0

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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.



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











Ordering no.		Thread connection G
Туре	Code	
600. 326. 5K	BA	1/8 NPT
(Material: ABS)	BC	1/4 NPT
	AC	1/4 BSPP
	HG	M 12 x 1,25
600. 326. 3W	AC	1/4 BSPP
(Material: Zinc)	HG	M 12 x 1,25



Lechler 600.326

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

Reduction of noise up to 60 %.



Example	Туре	+ Code	=	Ordering no.
for ordering:	600. 326. 5K	+ AC	=	600. 326. 5K. AC

Low-noise round jet nozzles

Mini-multiple round jet nozzles series 600.388

- Particularly high blowing
- Compact form
- Mainly suitable for positi-
- ons where access is limited and also for blowingout blind holes

Material: Brass/POM Weight: 12 g · T_{max}: 50°C







Ordering	no.			Tł	nread	conn	ection G	
Туре	Type Code							
600. 388. 30	AA	1/8 BSPP						
(Material: Brass/PC	(Material: Brass/POM)			M 12 x 1,25				
	Гуре 600. 38	8. 30	+ +	Code AA		= =	Ordering no. 600. 388. 30. AA	

Maxi-multiple round jet nozzle type 600.387.30.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 nozzle for air and saturated steam series 679

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







Orderin	g no.		A Ø		Vn Air[m	13/h i. N.]			M Saturated	steam [kg/h]				
Туре	Mat	. no.	[mm]											
	17	30												
					p [l	bar]		p [bar]						
	1.4571	Brass												
	1.	ğ		0,5	2,0	5,0	10,0	0,5	2,0	5,0	10,0			
679. 037	-	0	1,2	1,40	2,60	5,40	11,00	0,50	1,50	3,20	6,10			
679. 085	0	0	1,3	1,20	3,00	6,00	11,10	0,90	1,90	3,70	6,70			
679. 117	0	0	1,5	1,70	3,50	7,80	15,00	0,80	2,30	5,10	9,50			
679. 165	0	0	1,8	2,20	5,30	10,70	19,50	1,70	3,30	6,60	11,80			
679. 255	0	0	2,1	3,20	7,90	15,70	28,80	2,50	4,90	9,70	17,50			
679. 365	0	0	2,8	5,40	13,10	26,20	48,10	4,10	8,20	16,10	29,10			
679. 415	0	0	3,6	8,90	21,70	43,30	79,40	6,80	13,60	26,70	48,10			
679. 495	0	0	4,3	13,40	32,80	65,60	120,20	10,30	20,60	40,40	72,90			

A = equivalent bore diameter

Example	Туре	+ 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





Order	ing no.			В	η		Vn Air [n	13/h i. N.]			M Saturated	steam [kg/h]			
Туре	Mat	. no.	Code	[mm]											
	16	30													
	1.4305	Brass	1/ 8 BSPT			1,0	p [I 2,0	bar]	10,0	1,0	p [bar] 1,0 2,0 5,0 10,0				
686. 408	0	0	CA	1,0	75°	0,70	1,00	2,10	3,70	0,90	1,30	2,40	4,00		
686. 488	0	0	CA	1,3	75°	1,20	1,70	3,60	6,20	1,40	2,10	3,90	6,50		
686. 528	0	0	CA	1,5	75°	1,60	2,30	4,80	8,40	1,90	2,80	5,20	8,70		
686. 568	0	0	CA	1,7	75°	2,00	3,00	6,30	11,00	2,50	3,70	6,90	11,50		
686. 608	0	0	CA	1,9	75°	2,50	3,70	7,80	13,50	3,10	4,60	8,60	14,30		
686. 688	0	0	CA	2,4	75°	4,00 5,90 12,40 21,50 4,90 7,30 13,60 22,									
686. 728	0	0	CA	2,7	75°	7,10 10,00 21,20 38,20 5,70 9,20 16,40 29,20									
686. 808	0	0	CA	3,4	75°	11,20	16,00	33,70	60,60	9,00	14,60	26,00	46,30		

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.





¢	Ordering not	o. Mat.	B Ø [mm]		Ůn Air [m	1 ³ /h i. N.]			M Saturated	steam [kg/h]					
Spray angle		1.4305/ 91 303 SS 91		1,0	p [ł 2,0	par]	5,0	p [bar] 1,0 2,0 3,0 5,0							
appr.	540. 909	0	0,8	26,20	39,30	52,50	78,70	21,80	32,00	38,20	58,60				
240°	540. 989	0	1,0	41,00	61,50	82,00	102,00	34,00	50,00	59,70	91,50				
	541. 109	0	1,5	92,20	138,00	184,00	231,00	76,60	113,00	134,00	206,00				
	541. 189	0	2,0	164,00	246,00	328,00	492,00	136,00	200,00	239,00	366,00				
	541. 239	0	2,3	217,00	325,00	434,00	651,00	180,00	265,00	316,00	484,00				

B = bore diameter

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



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 thread connection



Ball joint with welding connection





35 G1 G1 Critering point Ordering po :

Ordering no.: 095.016.56.07.21

- Material polypropylene
- Swivelling on one plane
- Less expensive alternative to metal ball joints
- Swivelling range 90° left/right

G1: NPT 1/4 inside thread G2: 3/8 BSPP outside thread

Connection	Ordering no.				Dimensions											
	Type Material no. ਭੂ			Code	- [mm]											
														(*		
		'1.4571 316 SS														Weight (brass)
		1.4305/ 303SS/	1.4305	Brass												∍ight (
		1.4 30:	1.4	Bra		D 1	D 2	G1	G2	L G1	LG2	L	Hex 1	Hex 2	Нехз	Š
	092. 020	-	0	0	AD	-	-	G1/4	G1/4	12.0	11,5	60,3	27	27	17	60 g
Ball joints with thread connection	092. 021	-	0	0	AF	-	-	G3/8	G1/4	12.0	11,5	58,3	27	27	17	80 g
	092. 030	-	0	0	AF	-	-	G3/8	G3/8	12.0	12,0	56,7	27	30	19	80 g
Ball joints with welding connection	092. 020	0	-	-	SD	20,0	15,0	-	G1/4	-	11,5	64,3	-	27	17	60 g
Dail Johns with welding connection	092. 030	0	-	-	SF	22,0	15,0	-	G3/8	-	12,0	58,7	-	30	19	80 g

Example	Туре	+	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
Z. SPZ. 300. 02. AE. AD. 0	300	600. 283
Z. SPZ. 450. 02. AE. AD. 0	450	600. 326





Clamps

- For flat jet slot nozzles series 679
- Easy fixing of nozzles with nut
- Adjustment of stream without any problems





Orderin	ng no.				Dimensions										
Туре	Ma	terial	no.		[mm]										
	Polyamide <u>5</u>	Polypropylene 🖏	PVDF 5	Screw	Pipe ø	Dø	Br Ø	B1	H2	Weight (Polyamide)					
090. 003	0	0	0	305	1/2"	20- 22,0	6,2	21,2	23,8	18,5	36,5	16,5	20 g		
090. 013	0	0	0	Material 1.4305	3/4"	25- 27,5	7,8	24,5	26,5	22,0	39,5	17,5	25 g		
090. 023	0	0	0	Mate	1"	32- 34,5	10,8	30,0	31,0	22,0	44,0	21,0	32 g		

Double nipple

	Ordering		Dimensions									
G ₂	Туре	Type Mat. no.										
(D)		17	30									
		1.4571 316 SS	Brass	G1 BSPP	G2 BSPP	Hı	H ₂	D1	D2	Hex	Weight (Brass)	
		- •	-	DOIT	DOIT		112		02	TICA		
*D1	065. 215	0	0	3/8	1/4	25	10	10	7	22	30 g	
- 0 1	065. 211	0	0	3/8	3/8	25	10	11,5	-	22	25 g	
	Hex	02 Type x ¹ 02 Hex x ² *01 x ² 065. 215	62 17 17 17 17 125 18 17 19 11 10 11 11 11 12 11 11 12 11 12 11 12 11 12 12 12 13 12 14 12 15 12	Type Mat. no. 17 30 125 9 10 065. 215 0	Type Mat. no. 17 30 17 30 17 30 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 10 17 10 17 10 17 10 18 10 19 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	Type Mat. no. 17 30 17 30 17 50 17 50 17 50 17 50 17 50 17 50 17 50 17 50 17 50 10 10 10 10 10 10	Type Mat. no. 17 30 17 30 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 17 90 10 10 10 11 10 11 10 11 10 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11	Type Mat. no. Mat. no. [mm] 17 30 \$	Type Mat. no. IT 30 G2 H1 H2 D1 065.215 0 0 3/8 1/4 25 10 10	Type Mat. no. IT 30 IT IT 30 It IT <thit< th=""> IT</thit<>	Type Mat. no. I I G2 III H2 D1 D2 Hex 0055.215 0 0 3/8 1/4 25 10 10 7 22	

Nuts

	C	ng no.										
	Туре	Material no.						Irass				
		16	17 30		56 5E				jht (b			
Contraction of the second		4305/ 03 SS	4571, 16 SS	Brass	POM	PVDF						Weight (bra
		1- 8	÷	μ Δ	۲ ۲	đ	BSPP	H1	H2	D	Hex	
I.I.	065. 200	0	0	0	-	-	3/8	13,0	10,0	12,8	22	25 g
eD	065. 200	-	-	-	0	0	3/8	14,5	11,5	12,8	22	25 g

Multiple Nozzle Base



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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 Whisparblast pozzles

with 5 Whisperblast nozzles type 600. 130. 56. BC

Materials: Nozzles: POM, Nozzle base: PVC

Thread: G 3/8" BSPP

Applications:

- Cover big working ranges
- Air curtain











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Please ask for it!