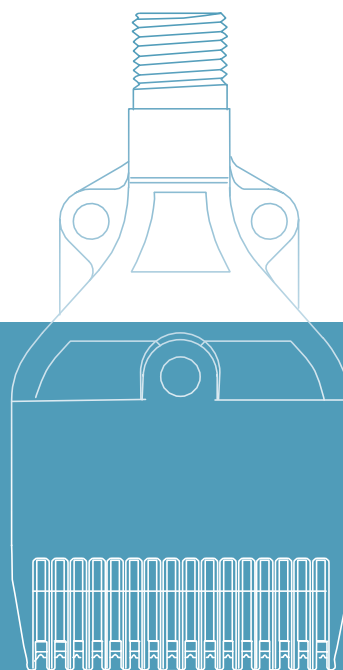
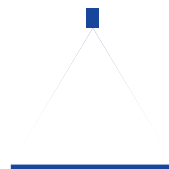


AIR NOZZLES

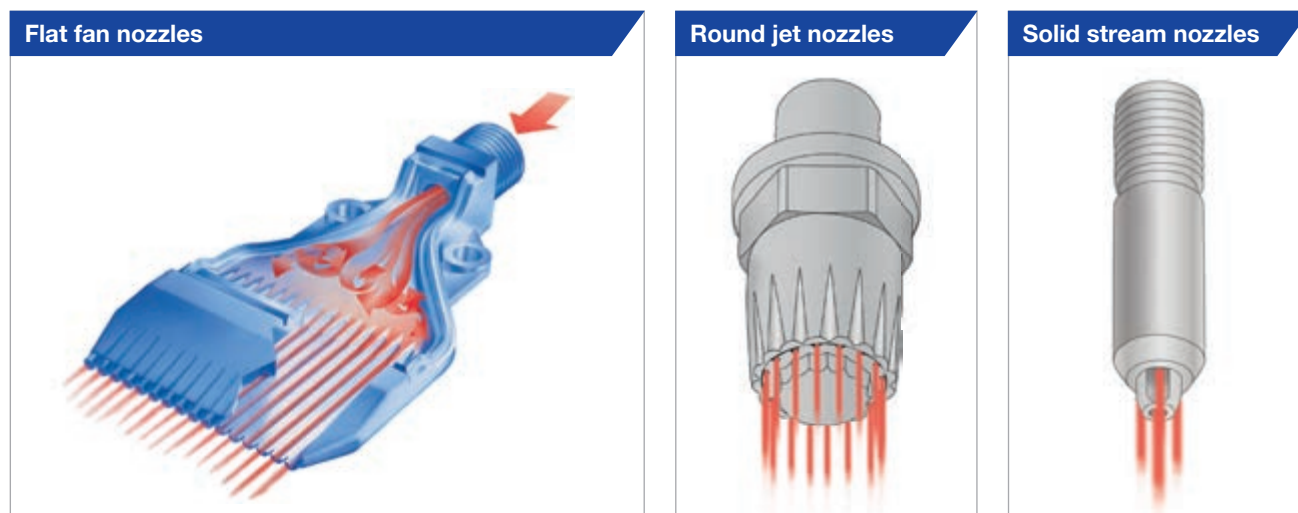


AIR NOZZLES

GENERAL INFORMATION



Compressed air is an indispensable tool in many areas for drying, cooling, cleaning, conveying, blowing off and much more. Lechler air nozzles make all this possible – with the highest level of precision at extraordinarily favourable conditions.



The three advantages of Lechler air nozzles for you



Cost efficiency

Lechler nozzles make it possible to reduce compressed air consumption by up to 45% compared to open pipes. In view of increasing energy costs and the growing range of compressed air applications, it is not surprising that there are extremely high potential savings in this area. An advantage that will have direct positive impact on your business.

Employee safety

The unique design of our nozzles allows noise levels to be verifiably reduced by up to 25% compared to conventional solutions – thus also reducing noise-related stress for your employees. Noise levels have been confirmed to reduce concentration resulting in increased levels of stress. The use of low-noise nozzles has a positive effect on production quality.

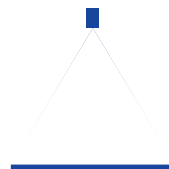
Service offering

A perfect solution must be optimally tailored to the local requirements. We will, therefore, gladly advise you in person about the use of air nozzles and introduce you to new possibilities. Contact us and let us come up with the best possible solution together for improved quality and optimized process reliability.

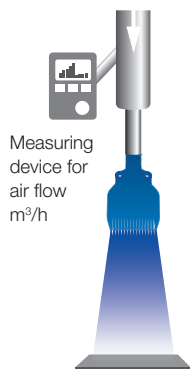
Good to know

Detailed information can be found in our brochure "Air nozzles" as well as at www.lechler.com/de-en/airnozzles.

MODERN NOZZLE TECHNOLOGY FOR MORE EFFICIENCY AND LESS NOISE



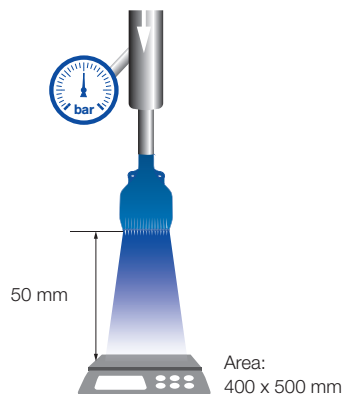
Air consumption



Lower measurable air consumption

The generation of compressed air requires energy. Since the energy costs account for an increasingly large share of the overall costs of manufacturing a product, considerable savings can be achieved through the right nozzle selection. Nozzles from Lechler are designed so that they need less compressed air than conventional nozzles, without the need to compromise on performance. As a result, our products help to make production processes more efficient and more environmentally friendly.

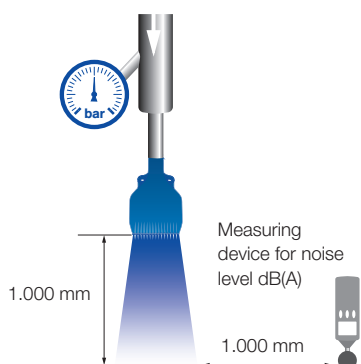
Blowing force



Higher measurable blowing force

In practice, the available blowing force is critical. Our measurements show that Lechler multi-channel nozzles achieve a high blowing force even at large distances. Thanks to this benefit, our nozzle technology opens up new applications for use with compressed air. Compared with conventional solutions, the competitive advantage that can be realized with Lechler nozzles is evident again.

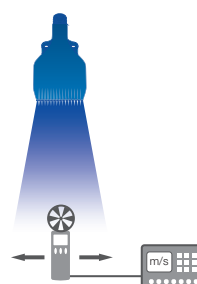
Noise level



Less measurable noise

Conventional air nozzles simply blow air through a hole. The resulting turbulence generates unpleasant, loud hissing noises. Such noises can trigger stress reactions among employees even at relatively low sound pressure levels, thereby impairing both concentration and performance. Regulations such as those on determination of occupational noise exposure (DIN EN ISO 9612) are designed to protect employees. Testing of our compressed air nozzles in accordance with this standard is one reason why the German Employers' Liability Insurance Associations recommend Lechler air nozzles as a valuable aid to combat noise.

Jet pattern measurement

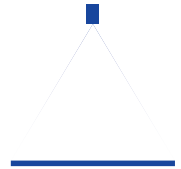


Larger measurable jet pattern

For the jet pattern measurement, the nozzles are clamped in a fixture specially designed for this purpose. An anemometer (windmeter) moves through the air jet at right angles to the jet direction at previously defined distances and at different pressures. The wind speeds measured here define the jet (as specified on the product pages). An air speed of 2.5 m/s was defined as the limit value on the basis of experience and flow calculations (CFD).



WHAT YOU SHOULD KEEP IN MIND WHEN PLANNING



- The difference between standard volume flow and operating volume flow
- Difference between blowers and compressors
- Jet pattern of air nozzles
- Innovative nozzle design
- Materials and connections
- Gases
- Operating medium steam
- Cost savings and noise reduction in comparison to an open pipe

The difference between standard volume flow and operating volume flow

The term „standard volume flow“ refers to a unit quantity of a gas based on a standard reference. These standard conditions are used in nozzle technology, process engineering and other areas to compare gases on the basis of quantity information. If reference is made to standard volume flows in relation to nozzle technology, Lechler always bases its values on DIN EN ISO 1343. **DIN EN ISO 1343** is a standard that is commonly used in pneumatics. This standard specifies a unit of measure, the so-called standard volume, to describe a quantity of gas on the basis of reference conditions (pressure and temperature).

The standard conditions for pressure and temperature are as follows:

Absolute pressure: $p_n = 101325 \text{ Pa} // [1.01325 \text{ bar(a)}]$

Temperatur: $T_n = 273.15 \text{ K} // [0 \text{ } ^\circ\text{C}]$

In contrast, the term „operating volume flow“ describes the volume of the corresponding gas under the actual operating/application conditions. Since these normally differ from the standard conditions, pressure and temperature must always be clearly defined. If an operating volume is delivered in a certain time, this results in the operating volume flow.

In order to avoid mistakes or misunderstandings, mass flows are used in practice and for calculation since the mass of a substance is independent of pressure and temperature.

Figure 1 shows the relationship between standard and operating volume flows at different pressures with constant temperature. Since the influence of temperature on the volume of a substance is comparatively small, this diagram can be used for approximate determination of the respective volume.

The following formula can be used for exact calculation:

$$\dot{V}_{\text{Operating}} = \frac{T}{p} \cdot 0.00371 \times \dot{V}_{\text{Standard}}$$

Diagram Operating and standard flow rate at 298 K (+25°C)

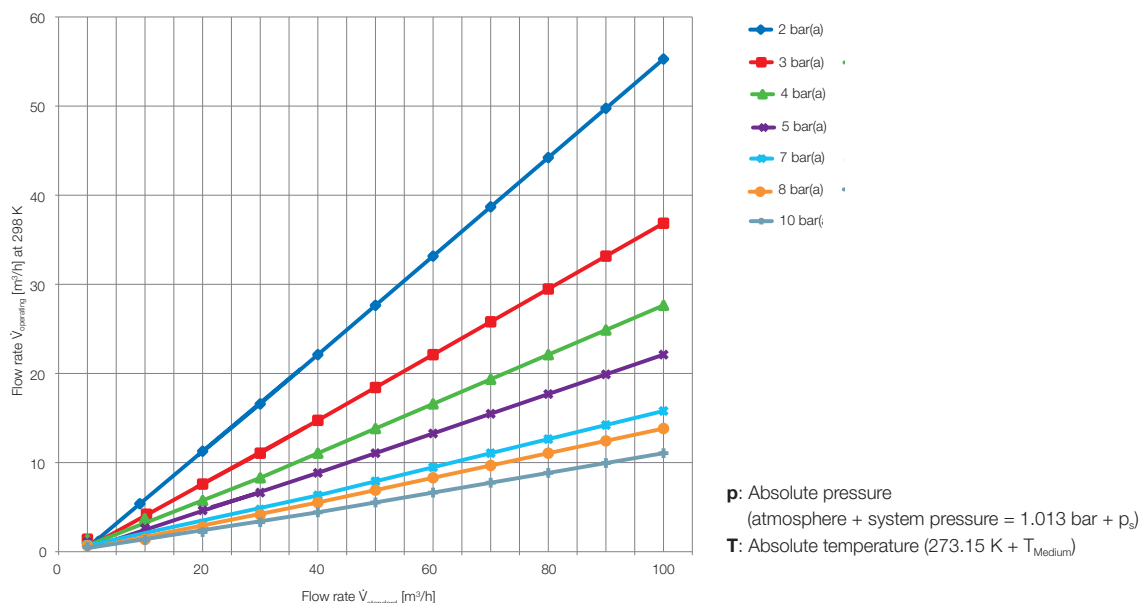


Figure 1: Relationship between standard volume flow and operating volume flow

Jet pattern of air nozzles

Air nozzles are used for concentrated, targeted delivery of air or other gases. The nozzles used are normally flat jet or round jet nozzles. Air is also discharged at a specific angle. However, this is not comparable with that of liquids (which, however, is not comparable to that of liquids) which leads to expansion of the jet. The spray angle is normally approx. 20°.

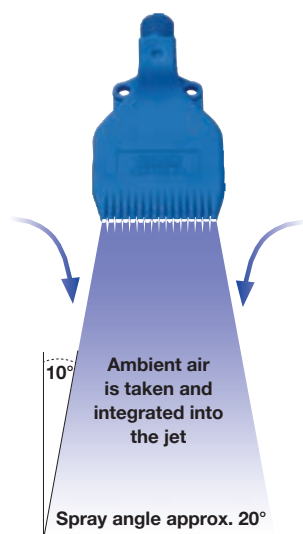


Figure 2: Jet expansion of an air nozzle

Materials and connections

Lechler nozzles meet many different requirements of international organizations – including food grade compatibility and occupational safety.



The FDA, the U.S. Food & Drug Administration, is a federal agency which oversees those two industries. Materials used in making Lechler products are compliant with the requirements of FDA regulation 21 CFR for use in food applications.



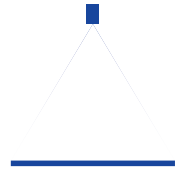
The regulation (EC) No. 1935/ 2004 of the European Parliament regulates general safety requirements to all food and beverage contact materials. Within this regulation, it is additionally stipulated that plastics must comply with (EU) 10/2011.



The Occupational Safety and Health Administration (OSHA) is a US federal authority for prevention of accidents at work.

The respective logo on the product pages indicates which requirements are met.





Gases

The output of gases (e.g. air) is fundamentally different to the output of liquids. Gases are compressible fluids, whereas liquids are considered as incompressible fluids.

Gases can be supplied with practically all nozzles that can also be used for atomizing liquids. However, due to the compressibility and lower density of gases, gas jets cannot be formed in the same way as with liquids. Gases tend to generate a significantly increased noise level under certain conditions (pressure and nozzle design).

The development of multi-channel nozzles with specially shaped nozzle orifices makes it possible to considerably reduce the turbulence in the nozzle that causes noise. In addition, this nozzle design increases blowing force while at the same time reducing air consumption.

The speeds of gases can be very high under certain conditions. If a specific pressure difference is applied to a nozzle, speeds of approx. 320 m/s can often occur in the smallest cross section. This speed can even increase shortly after the gas leaves the nozzle. The illustration below shows the speed characteristic in a flow simulation.

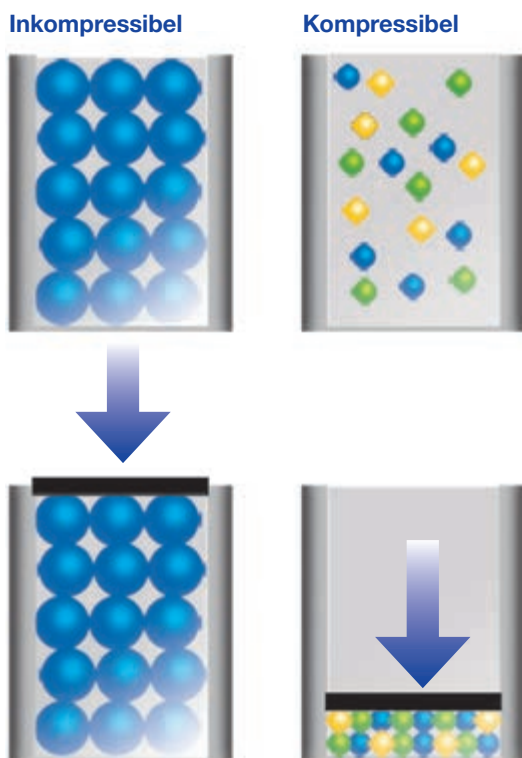


Figure 3: Compressibility behavior: Left water / right air

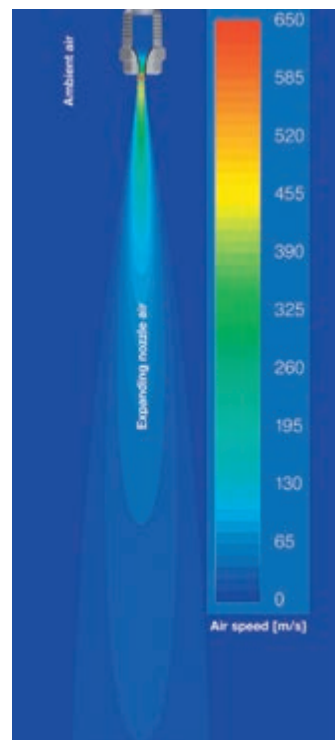
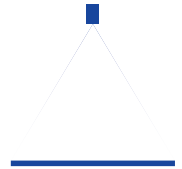


Figure 4: Representation of the speed curve of outflowing air



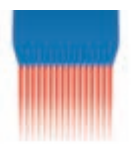
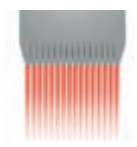
Cost savings and noise reduction in comparison to an open pipe

The use of compressed air has long been standard in companies. Whether for blowing off debris, sorting out defective parts or simply for drying products after washing. Companies frequently use simple pipes for this purpose. These are often purchased inexpensively and then individually shaped and aligned for the specific application.

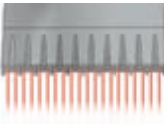
However, this seemingly inexpensive solution is usually very uneconomical in the long run. Thanks to their individual design, the air consumption and noise level of Lechler air nozzles are significantly lower than for comparable open pipes with equivalent bore diameter. The use of Lechler air nozzles is not only a cost savings but it also protects the health and safety of your employees.

AIR NOZZLES

OVERVIEW OF SERIES

						
Series		6WB	6WB (OSHA)	600.484.56	600.130.1Y	600.283.42
Information on page		172	174	177	178	179
Spray pattern		Multi-channel flat fan	Multi-channel flat fan	Multi-channel flat fan	Multi-channel flat fan	Multi-channel flat fan
						
 Nozzle material	Plastic	•	•	•		
	Stainless steel				•	
	Galvanized steel					
	Brass					
	Zinc					
	Aluminium					•
 Air consumption	At 2 bar	16.5 m³/h	16.5 m³/h	8 m³/h	12 m³/h	18 m³/h
 Nozzle connection		1/4 BSPP 1/4 NPT	1/4 BSPP 1/4 NPT	1/4 BSPP 1/4 NPT M12 x 1.25 Quick-release coupling size 5	1/4 BSPP 1/4 NPT	1/4 BSPP 1/4 NPT
 Maximum pressure		6 bar	6 bar	6 bar	10 bar	10 bar
 Maximum temperature		50 °C	50 °C	50 °C	550 °C	200 °C
 Noise level	At 2 bar	72 dB(A)	72 dB(A)	65 dB(A)	70 dB(A)	76 dB(A)
 Blowing force	At 2 bar	2,4 N	2,4 N	0.8 N	2 N	2.4 N

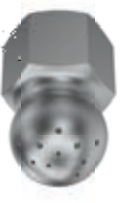
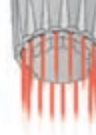
Flat fan nozzles

					
600.606.42	600.493.1Y	600.562.1Y	600.382.35	600.383.35	600.386.01
179	180	181	182	183	184
Multi-channel flat fan	Multi-channel flat fan	Multi-channel flat fan	Mini multi-channel flat fan	Intensive multi-channel flat fan	Compact multi-channel flat fan
					
	•	•			•
•			•	•	
12 m³/h	30 m³/h	9 m³/h	15 m³/h	31 m³/h	27 m³/h
1/4 BSPP 1/4 NPT	1/4 BSPP 1/4 NPT	1/8 BSPP 1/8 NPT	3/8 BSPP	3/8 BSPP	3/8 BSPP
10 bar	30 bar	30 bar	10 bar	10 bar	10 bar
200 °C	550 °C	550 °C	50 °C	50 °C	50 °C
68.5 dB(A)	78 dB(A)	71 dB(A)	77.5 dB(A)	86 dB(A)	83.5 dB(A)
1.4 N	4.2 N	1.2 N	2.3 N	4.3 N	3.7 N

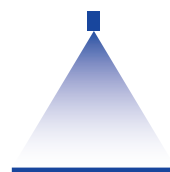




		Flat fan nozzles			
					
Series		600.385.35	679	686	600.326.5K
Information on page		185	186	188	189
Spray pattern		Maxi multi-channel flat fan	Flat fan slotted nozzle	Flat fan tongue-type nozzle	Multi-channel round jet
					
 Nozzle material	Plastic				•
	Stainless steel		•	•	
	Galvanized steel				
	Brass	•	•	•	
	Zinc				
	Aluminium				
 Air consumption	at 2 bar	100 m³/h	3–31 m³/h	2–16 m³/h	15 m³/h
 Nozzle connection		3/4 BSPP	Assembly with retaining nut	1/8 BSPT	1/8 BSPP 1/4 BSPP 1/8 NPT 1/4 NPT M12 x 1.25
 Maximum pressure		10 bar	10 bar	30 bar	6 bar
 Maximum temperature		50 °C	550 °C (stainless steel) 240 °C (brass)	550 °C (stainless steel) 240 °C (brass)	50 °C
 Noise level	at 2 bar	91.5 dB(A)	67–92 dB(A)	73–84 dB(A)	74 dB(A)
 Blowing force	at 2 bar	11.5 N			2.2 N

Round jet nozzles					Solid stream nozzle/Multiple solid stream nozzle	
						
600.725.5K	600.326.3W	600.388.30	600.625.1Y	600.387.35	544	540/541
189	190	191	192	193	194	195
Multi-channel round jet	Multi-channel round jet	Multi-channel round jet	Multi-channel round jet	Maxi multi-channel round jet	Solid stream	Multiple solid stream
						
•		•	•		•	•
		•		•		
	•					
32 m³/h	15 m³/h	8 m³/h	2–4 m³/h	105 m³/h	1–16 m³/h	34–251 m³/h
1/4 BSPP 1/4 NPT	1/4 BSPP 1/4 NPT M12 x 1.25	1/8 BSPP 1/8 NPT M12 x 1.25	M4 x 0.5 M5 x 0.5	G 1/2 ISO 228	1/8 BSPT 1/4 BSPT	1/2 BSPP
6 bar	10 bar	10 bar	5 bar	6 bar	30 bar	10 bar
50 °C	90 °C	50 °C	550 °C	50 °C	550 °C	550 °C
96 dB(A)	79 dB(A)	77 dB(A)	63–70 dB(A)	92 dB(A)	65–90 dB(A)	
3.9 N	2.1 N	1.1 N	0.4–0.7 N	17.0 N	0.25–2.9 N	

Multi-channel flat fan nozzles for air “Whisperblast”, plastic version Series 6WB.800.56/6WB.800.S2



Features:

- Laminar, powerful air stream
- Low noise level
(also at higher levels of pressure)

Applications:

- Blowing off and out
- Cleaning
- Drying
- Cooling
- Transporting

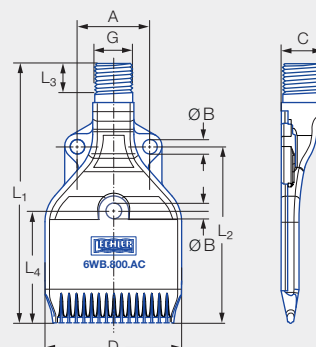


Figure 1
With mounting bracket

Series 6WB.800.56/6WB.800.S2

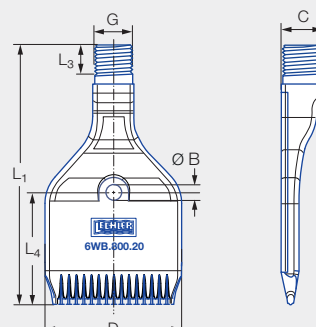


Figure 2
Without mounting bracket

¹ Meets OSHA specifications
in terms of noise level.

Cost savings and noise reduction



Cost saving

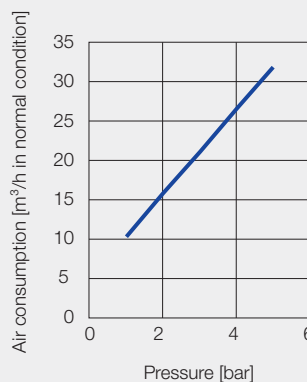
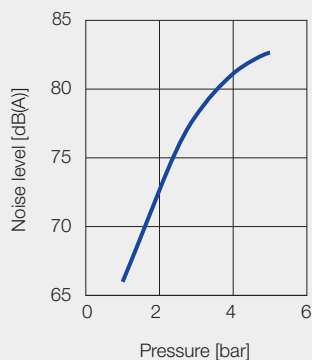
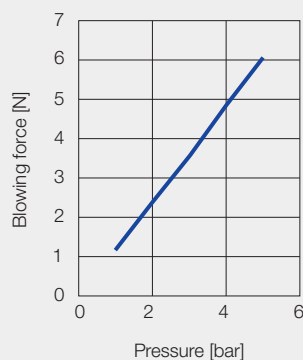
21 %



Noise
reduction

24 %

Technical data



**Maximum
pressure**
6 bar



**Maximum
temperature**
50 °C

Code	Figure	G	Dimensions [mm]								Weight [g]
			A	C	D	L ₁	L ₂	L ₃	L ₄	Ø B	
AC	1	1/4 BSPP	25.0	14.2	47.0	90.0	61.0	10.5	39.0	5.0	23.0
BC	1	1/4 NPT	25.0	14.2	47.0	90.0	61.0	10.5	39.0	5.0	23.0
20	2	1/4 BSPP	–	14.2	47.0	90.0	61.0	10.5	39.0	5.0	23.0
21	2	1/4 NPT	–	14.2	47.0	90.0	61.0	10.5	39.0	5.0	23.0

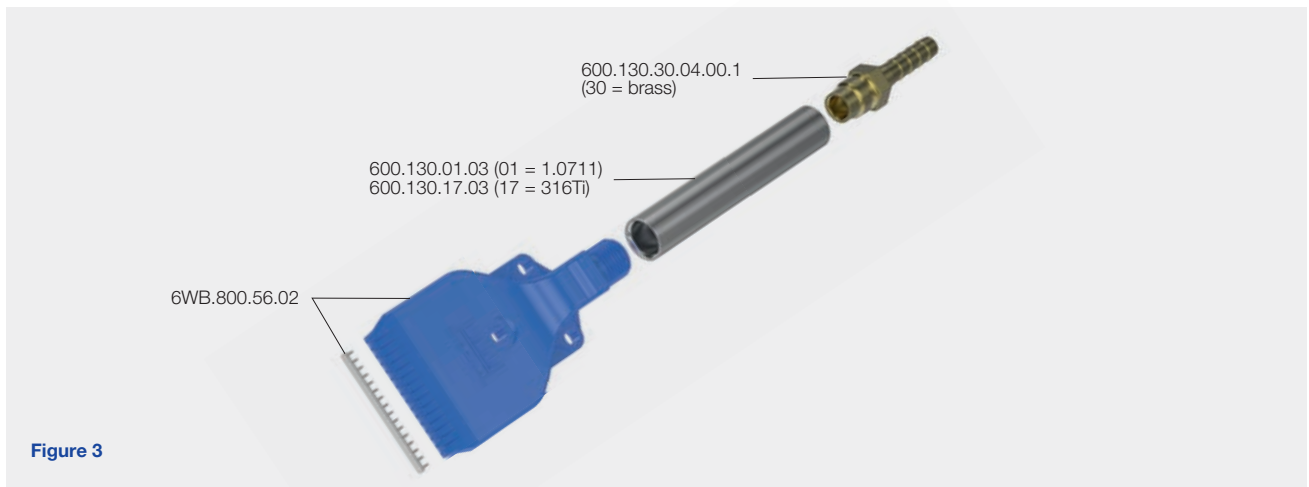
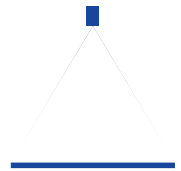
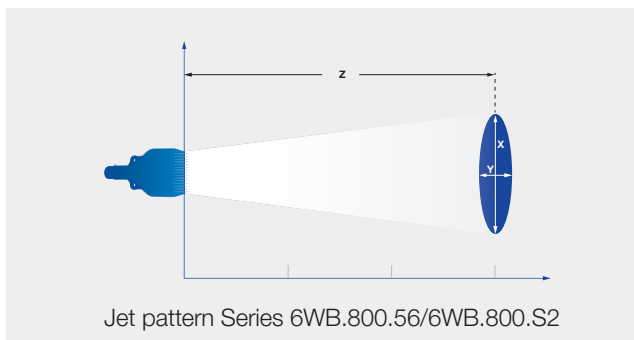


Figure 3



Pressure		1 bar	3 bar	5 bar
6WB.800	Length Z [mm]	600	900	900
	X [mm]	140	240	260
	Y [mm]	130	185	220

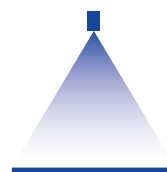
Ordering no.					Figure
Type	Mat.-no.		Code		
	56	S2	1/4 BSPP	1/4 NPT	
	POM	Natural PP			
6WB.800	●	●	AC	BC	1
6WB.800	●	●	20	21	2
6WB.800 (with cover strip)	●		02		3
6WB.800 (Düse mit Rohr)	●		01		3

Ordering Type + Material no. + Code = Ordering no.
example: 6WB.800 + 56 + AC = 6WB.800.56.AC



Assembly accessories can be found in Chapter 9 "Accessories".

Multi-channel flat fan nozzles for air “Whisperblast”, plastic version Series 6WB.800.56 OSHA



Features:

- Laminar, powerful air stream
- Low noise level
(also at higher levels of pressure)

Applications:

- Blowing off and out
- Cleaning
- Drying
- Cooling
- Transporting



OSHA®

FDA

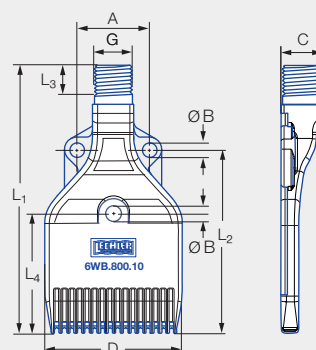


Figure 1
With mounting bracket

Series 6WB.800.56 OSHA



OSHA®

FDA

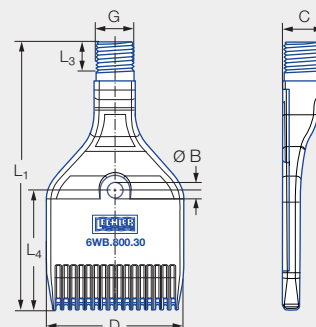


Figure 2
Without mounting bracket

Cost savings and noise reduction



Cost saving

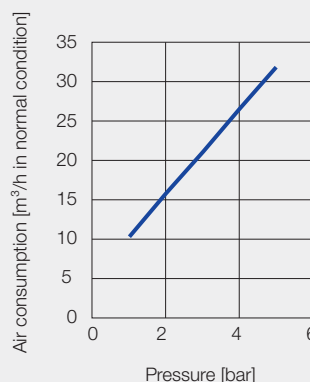
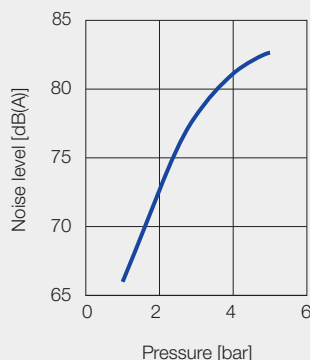
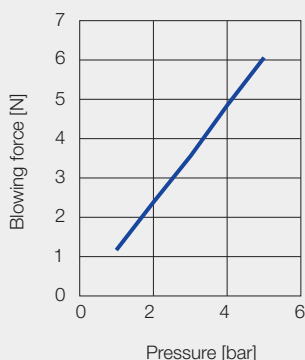
26 %



Noise reduction

21 %

Technical data

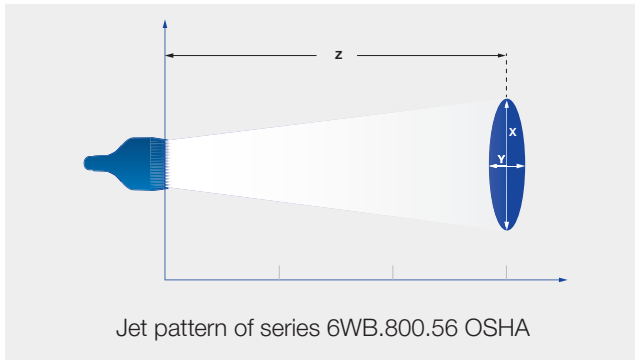
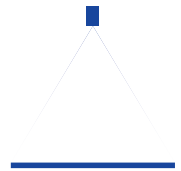


Maximum pressure
6 bar



Maximum temperature
50 °C

Code	Figure	G	Dimensions [mm]								Weight [g]
			A	C	D	L ₁	L ₂	L ₃	L ₄	Ø B	
10	1	1/4 BSPP	25.0	14.2	47.0	92.0	63.0	10.5	41.0	5.0	23.0
11	1	1/4 NPT	25.0	14.2	47.0	92.0	63.0	10.5	41.0	5.0	23.0
30	2	1/4 BSPP	–	14.2	47.0	92.0	63.0	10.5	41.0	5.0	23.0
31	2	1/4 NPT	–	14.2	47.0	92.0	63.0	10.5	41.0	5.0	23.0



Pressure		1 bar	3 bar	5 bar
6WB.800 (OSHA)	Length Z [mm]	625	900	900
	X [mm]	125	200	230
	Y [mm]	125	200	230

Ordering no.				Figure
Type	Mat.-no.	Code		
	56	1/4 BSPP	1/4 NPT	
	POM			
6WB.800	●	10	11	1
6WB.800	●	30	31	2

Ordering Type + Material no. + Code = Ordering no.
 example: 6WB.800 + 56 + 10 = 6WB.800.56.10



Assembly accessories can be found in Chapter 9 "Accessories".



Multi-channel flat fan nozzles for air “Whisperblast”, plastic version Series 600.484.56

Features:

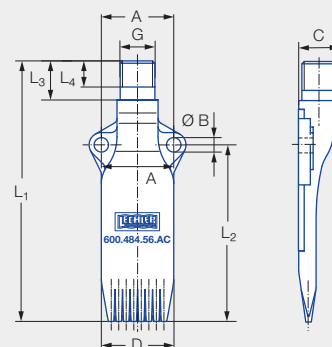
- Compact, powerful air stream
- Low noise level
(also at higher levels of pressure)
- Narrow design

Applications:

- Blowing off and out
- Cleaning
- Drying
- Cooling
- Transporting



Series 600.484.56



¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

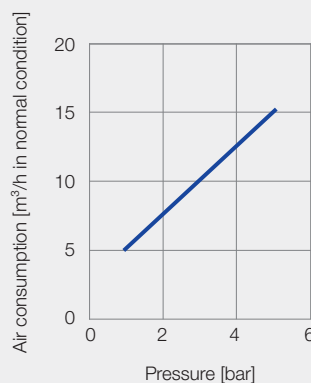
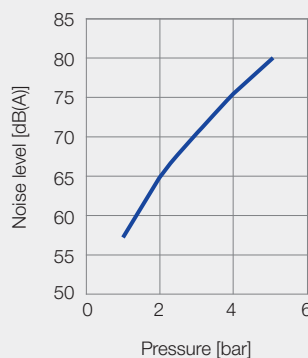
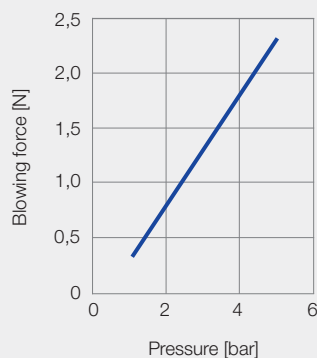
22 %



Noise reduction

22 %

Technical data

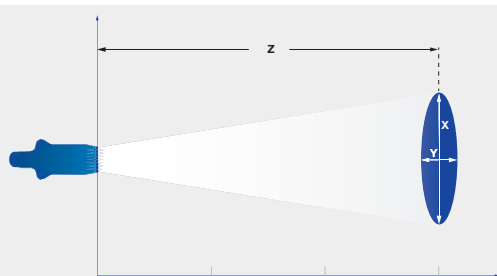


Maximum pressure
6 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]								Weight [g]
		A	C	D	L ₁	L ₂	L ₃	L ₄	Ø B	
AC	1/4 BSPP	25.0	14.2	25.0	90.0	61.0	13.5	9.0	5.0	16.0
BC	1/4 NPT	25.0	14.2	25.0	90.0	61.0	13.5	9.0	5.0	16.0
HG	M12 x 1.25	25.0	14.2	25.0	90.0	61.0	13.5	9.0	5.0	16.0
00	Quick-release coupling size 5	25.0	14.2	25.0	90.0	61.0	13.5	–	5.0	16.0



Jet pattern of series 6WB.484.56

Pressure		1 bar	3 bar	5 bar
600.484	Length Z [mm]	350	600	850
	X [mm]	110	170	220
	Y [mm]	80	120	170

Ordering no.					
Type	Mat.-no.	Code			
	56				
	POM	1/4 BSPP	1/4 NPT	M12 x 1.25	Quick-release coupling size 5
600.484	●	AC	BC	HG	00

Ordering Type + Material no. + Code = Ordering no.
example: 600.484 + 56 + AC = 600.484.56.AC

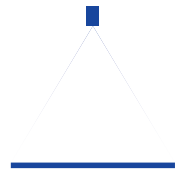


Assembly accessories can be found in Chapter 9
“Accessories”.





Multi-channel flat fan nozzles for air “Whisperblast”, stainless steel version Series 600.130.1Y

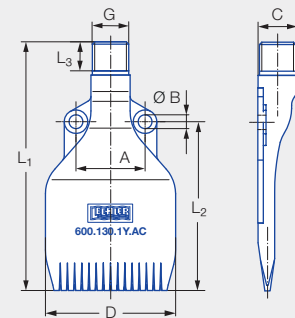


Features:

- Laminar, powerful air stream
- Low noise level
(also at higher levels of pressure)
- For the highest demands

Applications:

- Blowing off and out
- Cleaning
- Drying
- Cooling
- Transporting



Series 600.130.1Y

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

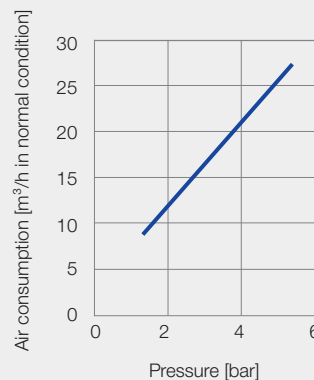
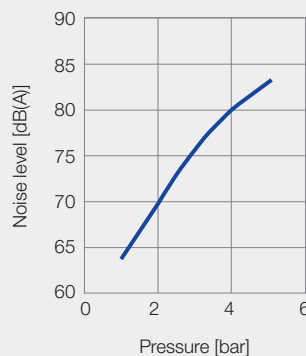
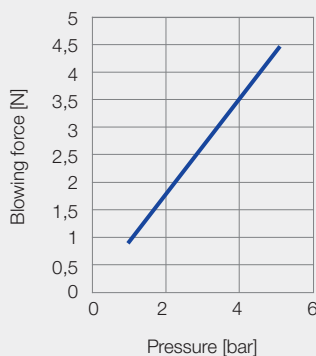
24 %



Noise reduction

22 %

Technical data

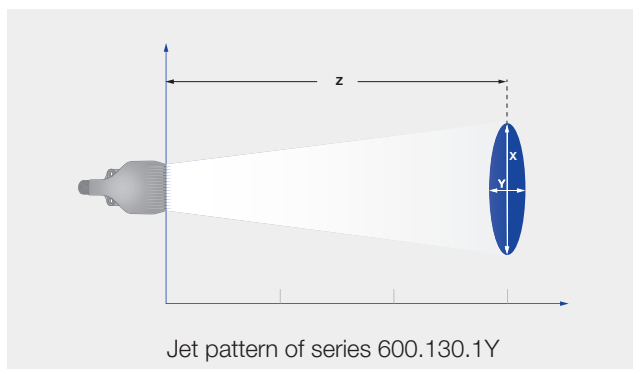


Maximum pressure
10 bar



Maximum temperature
550 °C

Code	G	Dimensions [mm]							Weight [g]
		A	C	D	L ₁	L ₂	L ₃	Ø B	
AC	1/4 BSPP	22.0	13.0	42.0	81.0	53.0	10.5	4.0	100.0
BC	1/4 NPT	22.0	13.0	42.0	81.0	53.0	10.5	4.0	100.0



Jet pattern of series 600.130.1Y

Pressure		1 bar	3 bar	5 bar
600.130	Length Z [mm]	300	425	600
	X [mm]	100	140	170
	Y [mm]	56	80	110

Ordering no.			
Type	Mat.-no.	Code	
	1Y		
	Stainless steel 316L	1/4 BSPP	1/4 NPT
600.130	●	AC	BC

Ordering Type + Material no. + Code = Ordering no.
example: 600.130 + 1Y + AC = 600.130.1Y.AC



Assembly accessories can be found in Chapter 9
“Accessories”.

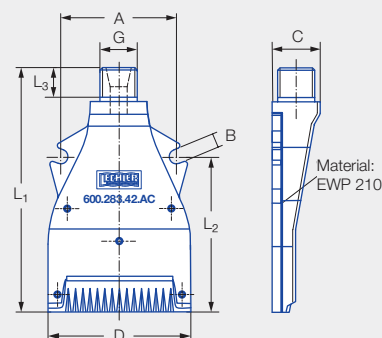
Multi-channel flat fan nozzles for air “Whisperblast”, metal version Series 600.283.42/600.606.42

Features:

- Laminar, powerful air stream
- Low noise level
(also at higher levels of pressure)
- For the highest demands

Applications:

- Blowing off and out
- Cleaning
- Drying
- Cooling
- Transporting



Series 600.283.42/600.606.42

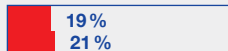
¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction

Series 600.283/
Series 600.606



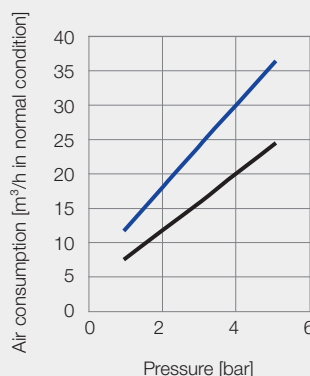
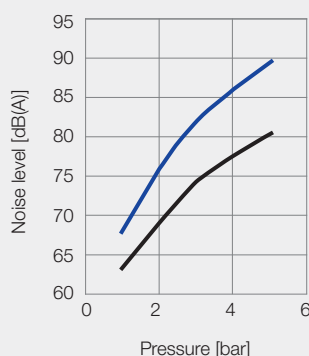
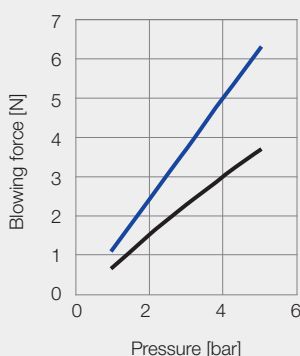
Cost saving



Noise reduction



Technical data



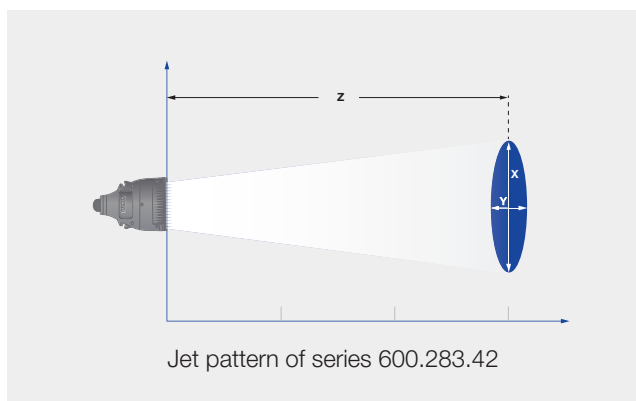
Maximum pressure
10 bar



Maximum temperature
200 °C

— 600.283.42
— 600.606.42

Code	G	Dimensions [mm]							Weight [g]
		A	B	C	D	L ₁	L ₂	L ₃	
AC	1/4 BSPP	41.0	5.1	17.0	51.0	86.5	55.0	10.5	60.0
BC	1/4 NPT	41.0	5.1	17.0	51.0	86.5	55.0	10.2	60.0



Pressure		1 bar	3 bar	5 bar
600.283	Length Z [mm]	675	900	900
	X [mm]	160	300	460
	Y [mm]	215	215	215
600.606	Length Z [mm]	900	900	900
	X [mm]	200	425	510
	Y [mm]	230	230	230

Ordering no.			
Type	Mat.-no.	Code	
	42 Aluminium 3.2582	1/4 BSPP	1/4 NPT
600.283	•	AC	BC
600.606	•	AC	

Ordering Type + Material no. + Code = Ordering no.
example: 600.283 + 42 + AC = 600.283.42.AC



Assembly accessories can be found in Chapter 9
“Accessories”.

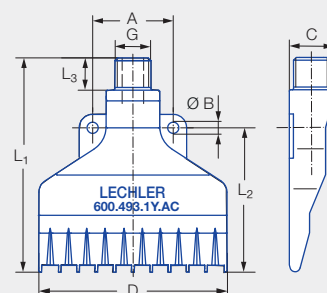
Multi-channel flat fan nozzles for air “Whisperblast”, stainless steel version Series 600.493.1Y

Features:

- Extremely wide, powerful air stream
- For the highest thermal requirements
- Protecting tips prevent air penetrating your skin

Applications:

- Blowing off and out
- Cleaning
- Drying



Series 600.493.1Y

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

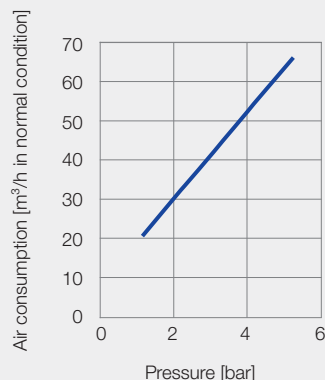
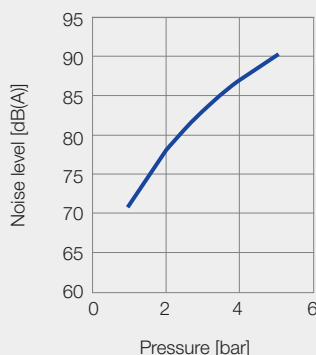
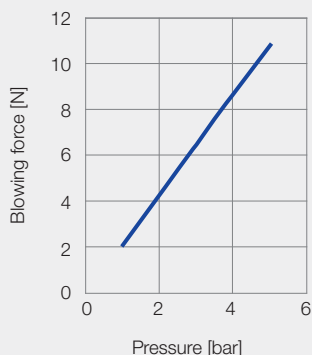
34 %



Noise reduction

21 %

Technical data

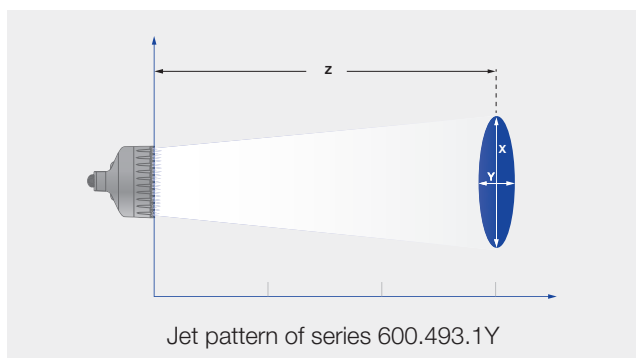


Maximum pressure
30 bar



Maximum temperature
550 °C

Code	G	Dimensions [mm]							Weight [g]
		A	C	D	L ₁	L ₂	L ₃	Ø B	
AC	1/4 BSPP	30.0	16.5	70.0	79.7	53.7	12.0	4.2	130.0
BC	1/4 NPT	30.0	16.5	70.0	79.7	53.7	12.0	4.2	130.0



Pressure		1 bar	3 bar	5 bar
600.493	Length Z [mm]	900	900	900
	X [mm]	210	240	270
	Y [mm]	210	210	280

Ordering no.			
Type	Mat.-no.	Code	
	1Y		
	Stainless steel 316L	1/4 BSPP	1/4 NPT
600.493	●	AC	BC

Ordering Type + Material no. + Code = Ordering no.
example: 600.493 + 1Y + AC = 600.493.1Y.AC



Assembly accessories can be found in Chapter 9
“Accessories”.

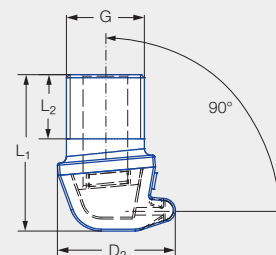
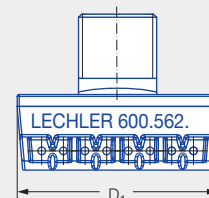
Multi-channel flat fan nozzles for air “Whisperblast”, stainless steel version Series 600.562.1Y

Features:

- Compact, powerful air stream
- Angled design for applications with restricted installation conditions
- Resistant to higher pressures and temperatures
- Protecting tips prevent air penetrating your skin

Applications:

- Blowing off and out
- Cleaning
- Drying



Series 600.562.1Y

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

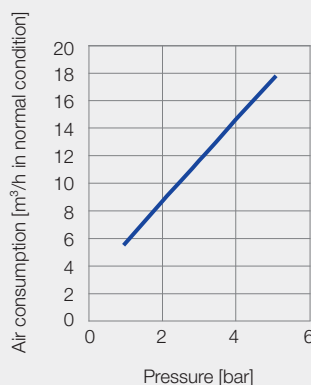
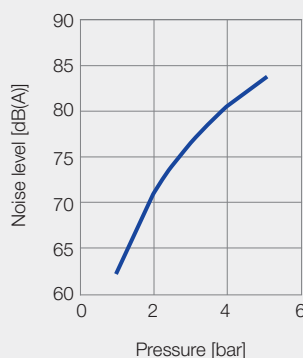
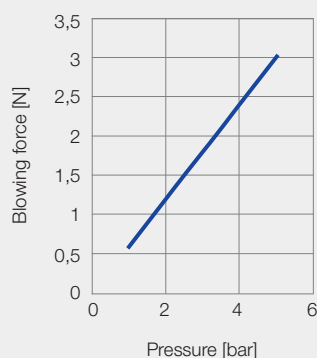
8 %



Noise reduction

14 %

Technical data

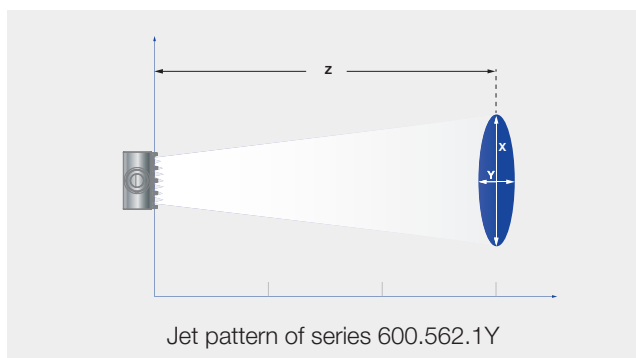


Maximum pressure
30 bar



Maximum temperature
550 °C

Code	G	Dimensions [mm]				Weight [g]
		D ₁	D ₂	L ₁	L ₂	
10	1/8 BSPP	25.0	14.7	19.5	8.0	17.0
20	1/8 NPT	25.0	14.7	19.5	6.7	17.0



Pressure		1 bar	3 bar	5 bar
600.562	Length Z [mm]	750	900	900
	X [mm]	170	210	240
	Y [mm]	150	180	210

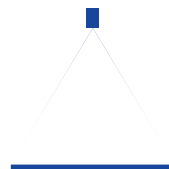
Ordering no.			
Type	Mat.-no.	Code	
	1Y		
	Stainless steel 316L	1/8 BSPP	1/8 NPT
600.562	●	10	20

Ordering Type + Material no. + Code = Ordering no.
example: 600.562 + 1Y + 10 = 600.562.1Y.10



Assembly accessories can be found in Chapter 9 “Accessories”.

Mini-multi-channel flat fan nozzles for air Series 600.382.35



Features:

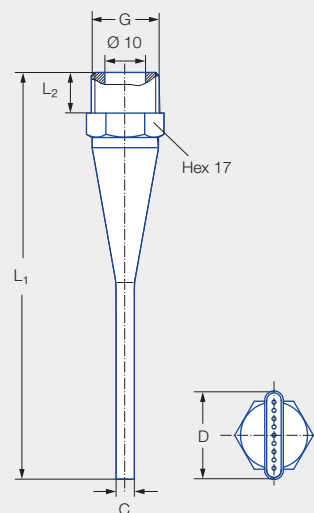
- Narrow, powerful air jet
- Smaller nozzle for precise alignment
- Accurate and economical operation possible thanks to the narrow orifice

Applications:

- Blowing off and out
- Cleaning
- Drying



OSHA¹



Series 600.382.35

¹ Meets OSHA specifications in terms of noise level.

Cost savings and noise reduction



Cost saving

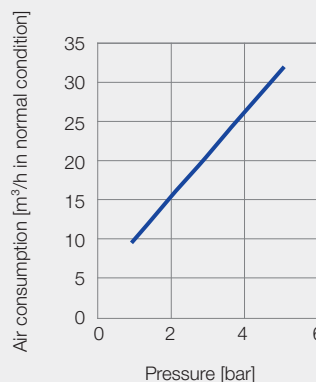
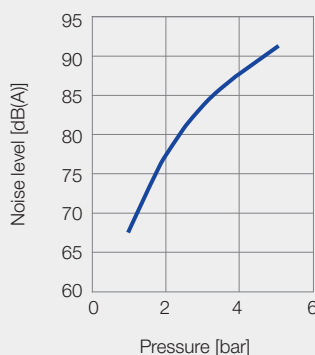
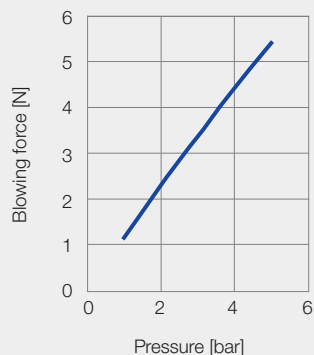
15%



Noise reduction

12%

Technical data

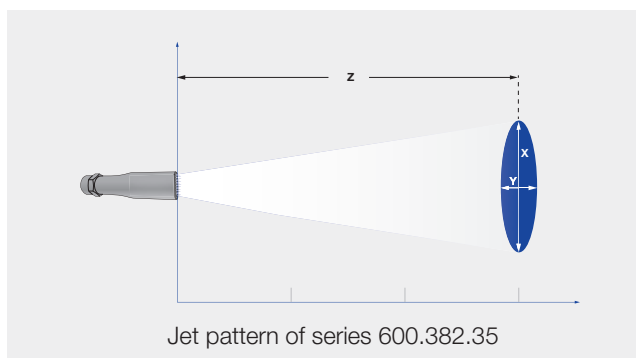


Maximum pressure
10 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]					Weight [g]
		C	D	L ₁	L ₂	Hex	
AE	3/8 BSPP	4.5	21.5	100.0	10.0	17	48.0



Pressure		1 bar	3 bar	5 bar
600.382	Length Z [mm]	475	825	900
	X [mm]	110	170	200
	Y [mm]	85	140	180

Ordering no.		
Type	Mat.-no.	Code
	35	
	Brass nickel-plated/PVC	3/8 BSPP
600.382	●	AE

Ordering Type + Material no. + Code = Ordering no.
example: 600.382 + 35 + AE 600.382.35.AE



Assembly accessories can be found in Chapter 9 "Accessories".

Intensive-multi-channel flat fan nozzles for air

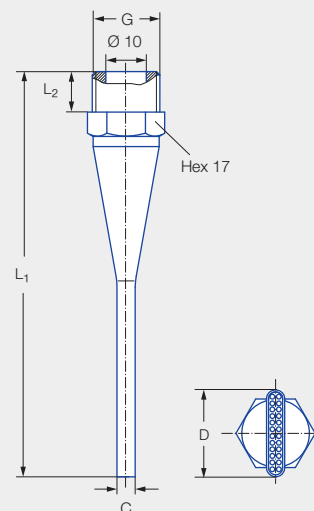
Series 600.383.35

Features:

- Concentrated, powerful air jet
- Constant jet depth thanks to flattened design
- Precise work under changing conditions

Applications:

- Blowing off and out
- Cleaning
- Drying



Series 600.383.35

¹ Meets OSHA specifications in terms of noise level.

Cost savings and noise reduction



Cost saving

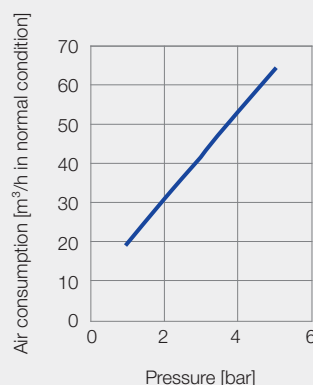
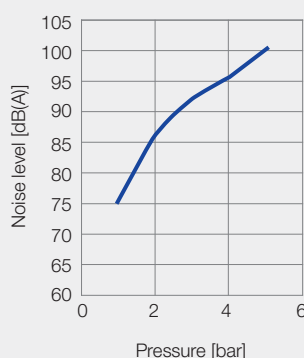
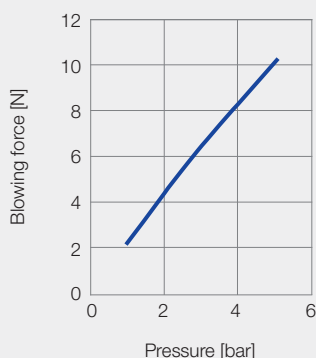
8%



Noise reduction

10%

Technical data

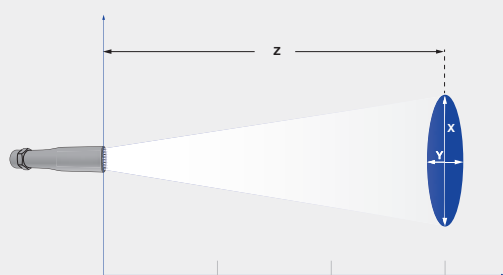


Maximum pressure
10 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]				Hex	Weight [g]
		C	D	L ₁	L ₂		
AE	3/8 BSPP	6.0	21.0	100.0	10.0	17	60.0



Jet pattern of series 600.383.35

Pressure		1 bar	3 bar	5 bar
600.383	length Z [mm]	900	900	900
	X [mm]	200	425	510
	Y [mm]	230	230	230

Ordering no.		
Type	Mat.-no.	Code
	35	
	Brass nickel-plated/PVC	3/8 BSPP
600.383	●	AE

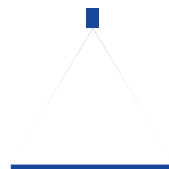
Ordering Type + Material no. + Code = Ordering no.
example: 600.383 + 35 + AE 600.383.35.AE



Assembly accessories can be found in Chapter 9 "Accessories".

Compact-multi-channel flat fan nozzles for air

Series 600.386.01

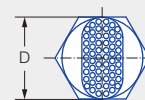
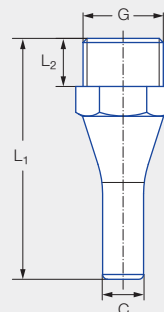


Features:

- Concentrated, powerful air jet
- Compact design suitable for use in hard-to-reach areas
- Precise work in very small spaces

Applications:

- Blowing off and out
- Cleaning
- Drying



Series 600.386.01

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

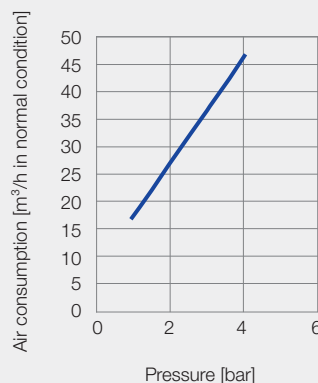
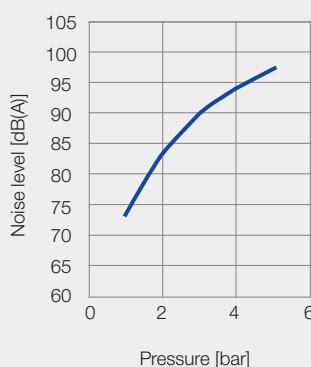
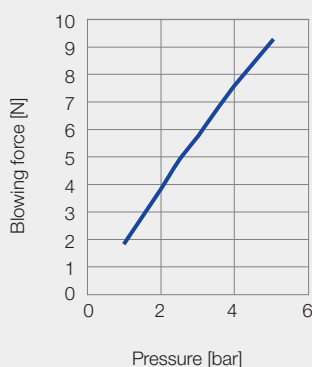
45%



Noise reduction

15%

Technical data

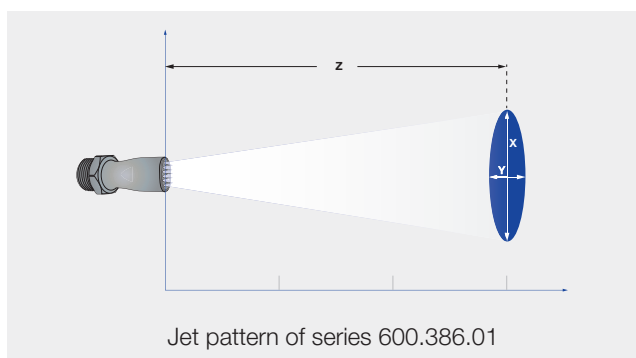


Maximum pressure
10 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]				Weight [g]
		C	D	L ₁	L ₂	
AE	3/8 BSPP	8.6	16.5	50.0	10.0	58.0



Pressure		1 bar	3 bar	5 bar
600.386	Length Z [mm]	825	900	900
	X [mm]	160	300	460
	Y [mm]	216	216	216

Ordering no.		
Type	Mat.-no.	Code
	01	3/8 BSPP
	Galvanized steel//PVC	
600.386	•	AE

Ordering Type + Material no. + Code = Ordering no.
example: 600.386 + 01 + AE 600.386.01.AE



Assembly accessories can be found in Chapter 9 "Accessories".

Maxi-multi-channel flat fan nozzles for air Series 600.385.35

Features:

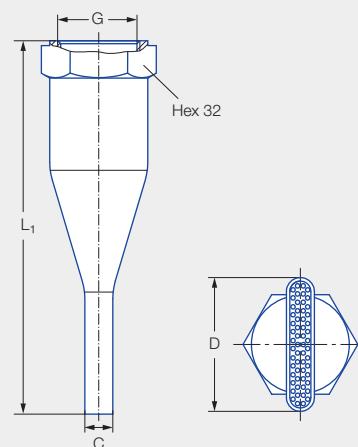
- Very powerful air jet
- Large volume of air in a concentrated jet due to large nozzle cross-section
- Effective over long distances Low noise level

Applications:

- Blowing off and out
- Cleaning
- Drying



OSHA¹



Series 600.385.35

Innengewinde (15 mm)

Cost savings and noise reduction



Cost saving

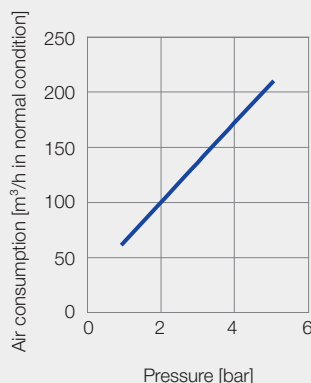
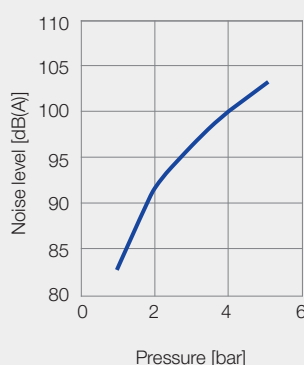
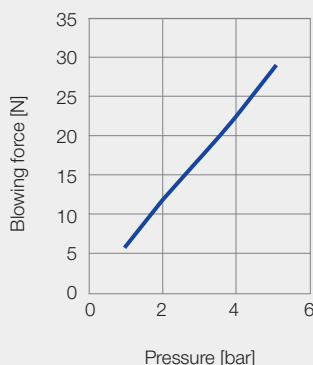
28 %



Noise reduction

15 %

Technical data

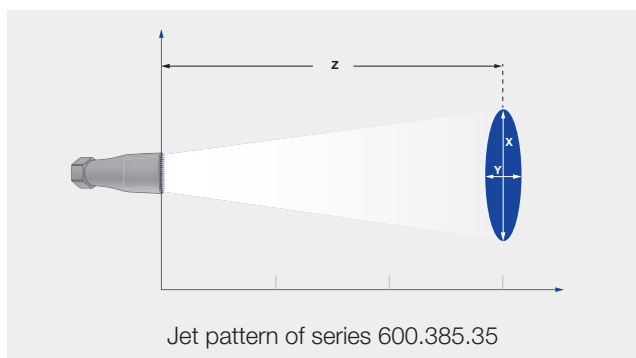


Maximum pressure
10 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]				Weight [g]
		C	D	L ₁	Hex	
AL	3/4 BSPP	9.0	43.0	120.0	32	200.0



Pressure		1 bar	3 bar	5 bar
600.383	Length Z [mm]	775	775	775
	X [mm]	205	255	270
	Y [mm]	200	245	270

Ordering no.		
Type	Mat.-no.	Code
	35	3/4 BSPP
	Brass nickel-plated/PVC	
600.385	●	AL

Ordering Type + Material no. + Code = Ordering no.
example: 600.385 + 35 + AL 600.385.35.AL



Assembly accessories can be found in Chapter 9 "Accessories".

Flat fan nozzles for air or saturated steam Series 679

Features:

- Wide, powerful air stream
- Assembly with retaining nut
- Easy nozzle changing
- Simple jet alignment

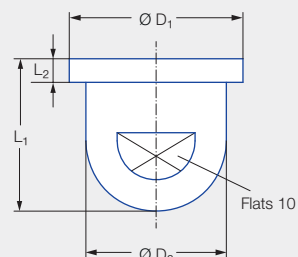
Applications:

- Blowing off liquids
- Cooling
- Heating
- Drying



OSHA¹

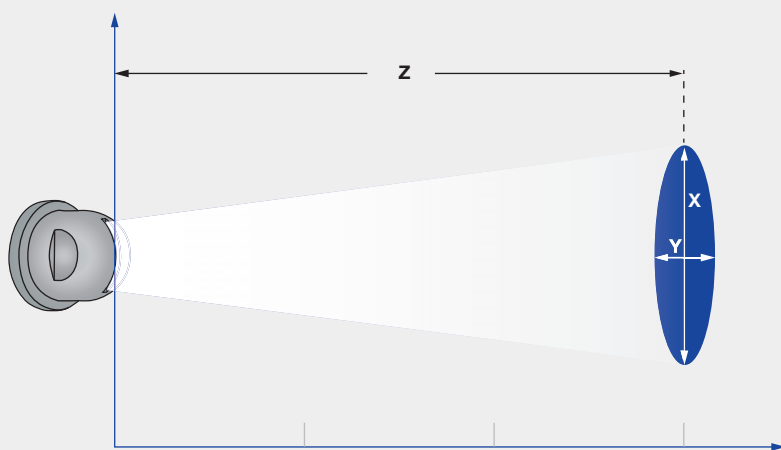
FDA²



Series 679

¹ Meets OSHA specification in terms of noise level.

² Only applies to the stainless variant.



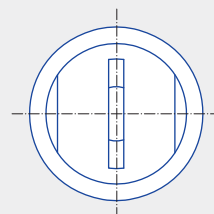
Jet pattern of series 679



Maximum pressure
10 bar



Maximum temperature
550 °C (Stainless steel)
240 °C (Brass)



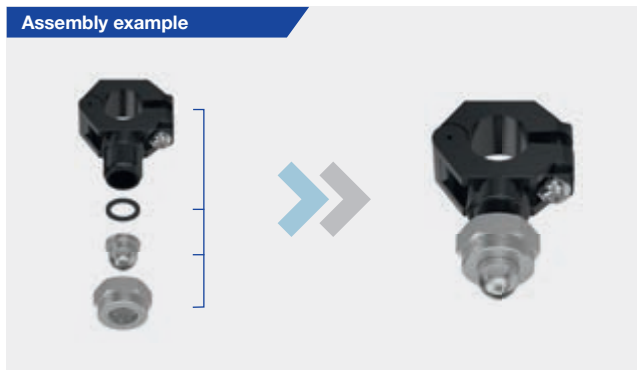
Pressure		1 bar	3 bar	5 bar
679.037	Length Z [mm]	50	100	150
	X [mm]	110	260	380
	Y [mm]	25	35	45
679.117	Length Z [mm]	50	125	150
	X [mm]	100	250	310
	Y [mm]	25	30	35
679.255	Length Z [mm]	375	500	500
	X [mm]	90	190	280
	Y [mm]	90	90	90

Pressure		1 bar	3 bar	5 bar
679.415	Length Z [mm]	675	900	900
	X [mm]	160	300	460
	Y [mm]	215	215	215
679.495	Length Z [mm]	900	900	900
	X [mm]	200	425	510
	Y [mm]	230	230	230

Code	Dimensions [mm]					Weight [g] (Brass)
	L ₁	L ₂	Ø D ₁	Ø D ₂	Hex	
Assembly with retaining nut 3/8 BSPP	13.0	2.0	14.8	12.0	10	8.0

Strahl- winkel	Ordering no.			Equivalent bore diameter B [mm]	Ṽ _n Air [m³/h]				Ṁ Saturated steam [kg/h]			
	Type	Mat.-no.			p [bar]				p [bar]			
		17	30									
		Stainless steel 316L	Brass 2.0401									
					0.5	2.0	5.0	10.0	0.5	2.0	5.0	10.0
Circa 70°–90°	679.037		●	1.2	1.5	3.0	6.0	11.0	1.2	2.3	4.6	8.3
	679.085	●	●	1.3	2.0	4.0	8.0	14.7	1.6	3.1	6.1	11.1
	679.117	●	●	1.5	2.1	4.2	8.4	15.4	1.7	3.3	6.5	11.7
	679.165	●	●	1.8	2.6	5.1	10.3	18.8	2.0	4.1	8.0	14.3
	679.255	●	●	2.1	3.6	7.3	14.5	26.6	2.8	5.7	11.2	20.2
	679.365	●	●	2.8	6.3	12.7	25.4	46.5	5.0	10.0	19.6	35.3
	679.415	●	●	3.6	10.2	20.3	40.7	74.6	8.0	16.0	31.4	56.7
	679.495	●	●	4.3	15.6	31.1	62.2	114.0	12.4	24.8	48.5	87.6

Assembly example



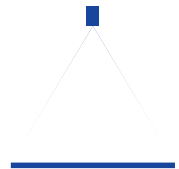
Ordering Type + Material no. = Ordering no.
 example: 679.037 + 30 = 679.037.30



Assembly accessories can be found in Chapter 9
 "Accessories".

Flat fan tongue-type nozzles for air or saturated steam

Series 686



Features:

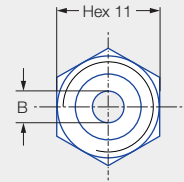
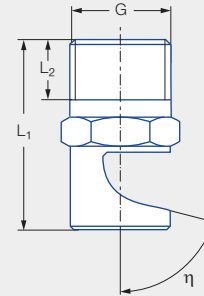
- Wide, powerful air stream
- Compact design
- Large spray width, also for short blowing distances
- Brass and stainless steel versions available for high ambient temperatures

Applications:

- Blowing off liquids
- Cooling
- Heating
- Drying



OSHA¹



Series 686

¹ Meets OSHA specifications in terms of noise level.

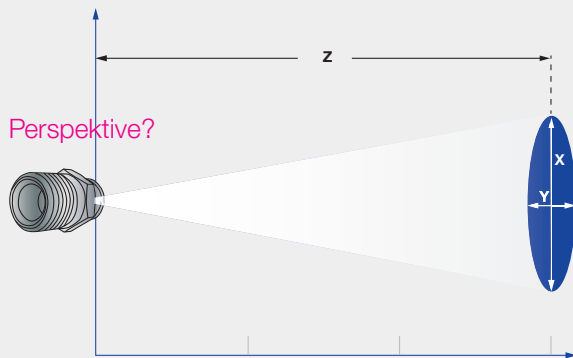
² Only applies to the stainless variant.



Maximum pressure
30 bar



Maximum temperature
550 °C (Stainless steel)
240 °C (Brass)



Jet pattern of series 686

G	Dimensions [mm]			Weight [g] (Brass)
	L ₁	L ₂	Hex	
1/8 BSPT	23.0	6.5	11	13.0

Pressure		1 bar	3 bar	5 bar
686.408	Length Z [mm]	40	80	125
	X [mm]	35	50	60
	Y [mm]	15	40	50
686.528	Length Z [mm]	60	100	150
	X [mm]	75	140	210
	Y [mm]	20	40	50
686.608	Length Z [mm]	90	175	250
	X [mm]	145	230	350
	Y [mm]	25	45	55
686.688	Length Z [mm]	150	400	525
	X [mm]	230	560	740
	Y [mm]	40	80	100
686.728	Length Z [mm]	180	230	375
	X [mm]	170	360	530
	Y [mm]	50	50	70

Strahl- winkel	η	Ordering no.				Bore diameter B [mm]	V̇ _n Air [m³/h]				Ṁ Saturated steam [kg/h]			
		Type	Mat.-no.		Code		p [bar]				p [bar]			
			16	30										
			Stainless steel 316L	Brass 2.0401	1/8 BSPT									
						1.0	2.0	5.0	10.0	0.5	2.0	5.0	10.0	
Circa 27°–47°	75°	686.408	●	●	CA	1.00	1.07	1.60	3.20	5.86	0.88	1.31	2.57	4.64
	75°	686.488	●	●	CA	1.30	1.76	2.64	5.29	9.69	1.46	2.17	4.25	7.67
Circa 70°	75°	686.528	●	●	CA	1.50	2.2	3.31	6.61	12.13	1.83	2.71	5.31	9.59
	75°	686.568	●	●	CA	1.70	2.73	4.09	8.19	15.01	2.27	3.36	6.57	11.87
	75°	686.608	●	●	CA	1.90	3.35	5.02	10.04	18.40	2.78	4.11	8.06	14.55
	75°	686.688	●	●	CA	2.40	5.45	8.18	16.36	30.00	4.53	6.71	13.14	23.72
	75°	686.728	●	●	CA	2.70	6.88	10.33	20.65	37.86	5.71	8.46	16.58	29.94
	75°	686.808	●	●	CA	3.40	10.89	16.33	32.66	59.87	9.04	13.28	26.22	47.35

Ordering Type + Material no. + Code = Ordering no.
example: 686.408 + 16 + CA = 686.408.16.CA



Assembly accessories can be found in Chapter 9
"Accessories".

Multi-channel round jet nozzles for air, plastic version

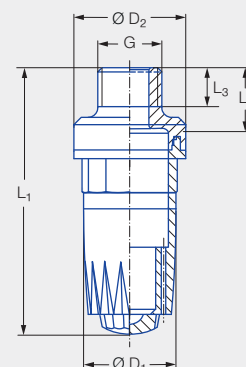
Series 600.326.5K/600.725.5K

Features:

- Powerful, circular air stream
- Low noise level
- Reduced air consumption

Applications:

- Targeted blowing off and blowing out (e.g. in connection with a compressed air gun)



Series 600.326.5K/600.725.5K

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

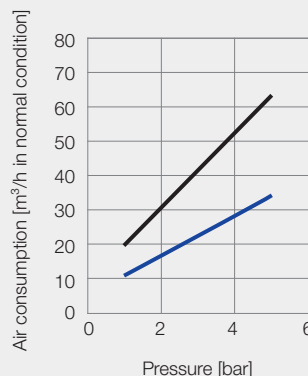
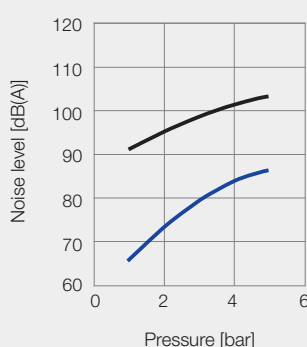
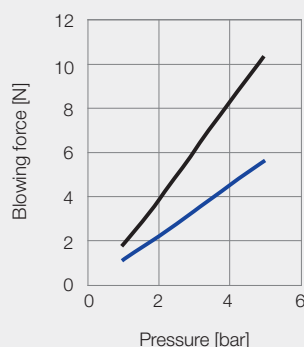
9%



Noise reduction

17%

Technical data



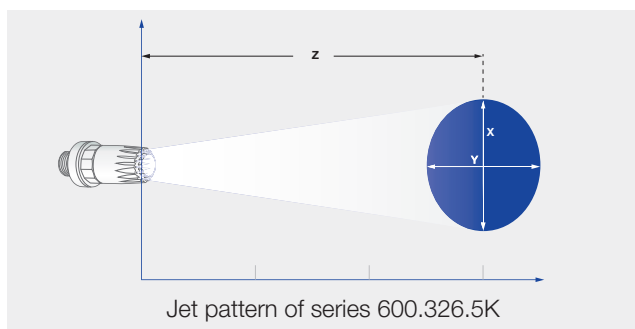
Maximum pressure
6 bar



Maximum temperature
50 °C

— 600.326.5K
— 600.725.5K

Code	G	Dimensions [mm]					Weight [g]
		L ₁	L ₂	L ₃	Ø D ₁	Ø D ₂	
AA	1/8 BSPP	54.0	9.5	6.2	19.0	23.0	7.0
AC	1/4 BSPP	55.0	10.2	8.0	19.0	23.0	7.0
BA	1/8 NPT	54.0	9.5	6.7	19.0	23.0	7.0
BC	1/4 NPT	55.0	10.2	9.7	19.0	23.0	7.0
HG	M12 x 1.25	55.0	10.2	8.0	19.0	23.0	7.0



Pressure		1 bar	3 bar	5 bar
600.386	Length Z [mm]	700	900	900
	X [mm]	180	220	260
	Y [mm]	180	220	260

Ordering no.						
Type	Mat.-no.	Code				
	ABS	1/8 BSPP	1/4 BSPP	1/8 NPT	1/4 NPT	M12 x 1.25
600.326.5K	●	AA	AC	BA	BC	HG
600.725.5K	●		AC		BC	

Ordering Type + Material no. + Code = Ordering no.
example: 686.408 + 16 + CA = 686.408.16.CA



Assembly accessories can be found in Chapter 9 "Accessories".

Multi-channel round jet nozzles for air, zinc version

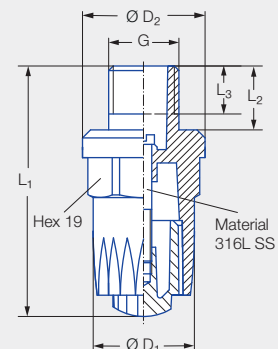
Series 600.326.3W

Features:

- Powerful, circular air stream
- Low noise level
- Reduced air consumption
- Zinc version: Use at high pressure and temperature levels

Applications:

- Targeted blowing off and blowing out (e.g. in connection with a compressed air gun)



Series 600.326.3W

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

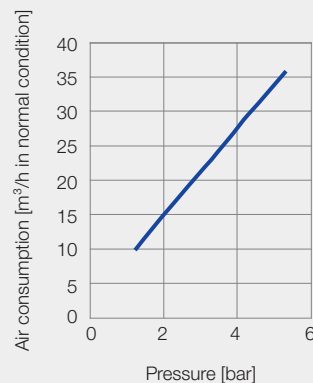
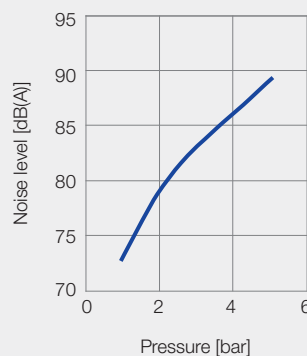
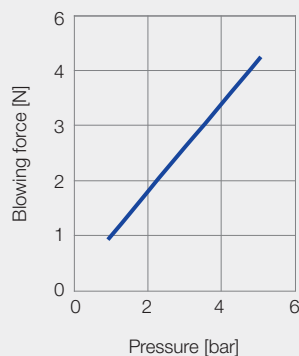
8 %



Noise reduction

17 %

Technical data

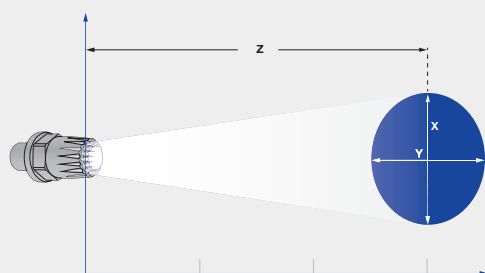


Maximum pressure
10 bar



Maximum temperature
90 °C

Code	G	Dimensions [mm]						Weight [g]
		L ₁	L ₂	L ₃	Ø D ₁	Ø D ₂	Hex	
AC	1/4 BSPP	47.0	12.0	9.0	19.0	23.0	19	50.0
BC	1/4 NPT	47.0	12.0	10.2	19.0	23.0	19	50.0
HG	M12 x 1.25	47.0	12.0	9.5	19.0	23.0	19	50.0



Jet pattern of series 600.326.3W

Pressure		1 bar	3 bar	5 bar
600.326	Length Z [mm]	700	900	900
	X [mm]	180	220	260
	Y [mm]	180	220	260

Ordering no.				
Type	Mat.-no.	Code		
	Zinc	1/4 BSPP	1/4 NPT	M12 x 1.25
600.326.3W	●	AC	BC	HG

Ordering Type + Code = Ordering no.
example: 600.326.3W + AC = 600.326.3W.AC



Assembly accessories can be found in Chapter 9 "Accessories".

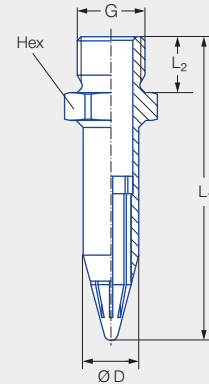
Mini multi-channel round jet nozzles for air Series 600.388.30

Features:

- Powerful, punctiform air stream for large distances
- Compact design
- Low noise level
- Reduced air consumption
- Particularly suitable for difficult-to-reach locations

Applications:

- Targeted blowing off and blowing out (e.g. in connection with a compressed air gun)



Series 600.388.30

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

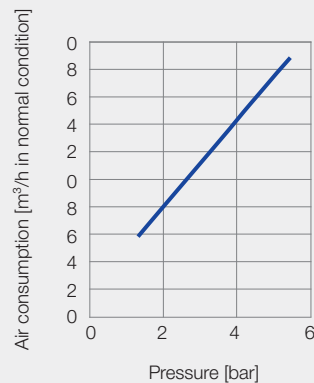
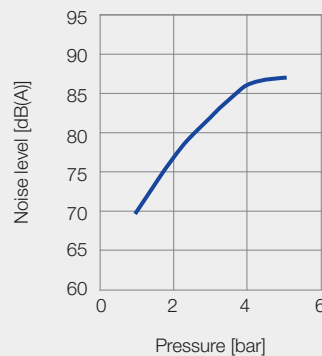
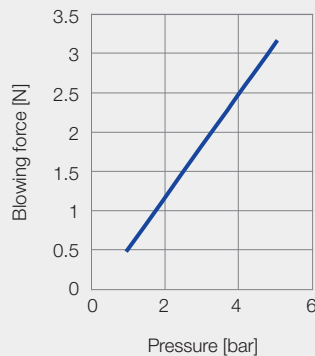
7 %



Noise reduction

8 %

Technical data

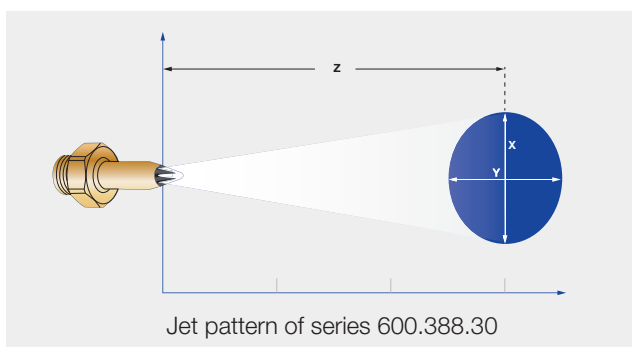


Maximum pressure
10 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]				Weight [g]
		L ₁	L ₂	Ø D	Hex	
AA	1/8 BSPP	43.5	8.0	8.0	12	12.0
BA	1/8 NPT	44.0	6.7	8.0	12	12.0
HG	M12 x 1.25	43.5	8.0	8.0	17	20.0



Pressure		1 bar	3 bar	5 bar
600.388	Length Z [mm]	500	750	900
	X [mm]	130	185	260
	Y [mm]	130	185	260

Ordering no.				
Type	Mat.-no.	Code		
	Brass, POM	1/8 BSPP	1/8 NPT	M12 x 1.25
600.388.30	●	AA	BA	HG

Ordering Type + Code = Ordering no.
example: 600.388.30 + AA = 600.388.30.AA



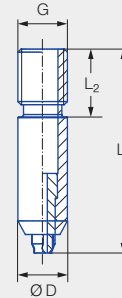
Assembly accessories can be found in Chapter 9 "Accessories".

Micro multi-channel round jet nozzles for air

Series 600.625.1Y

Features:

- Powerful, punctiform air stream
- Ultra-compact design for difficult-to-reach locations
- Low noise level
- Reduced air consumption
- For the highest thermal requirements



Applications:

- Targeted blowing off and blowing out

Series 600.625.1Y

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

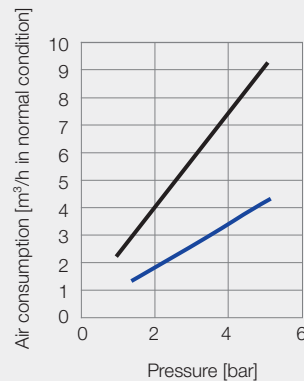
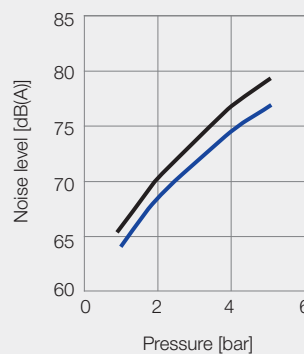
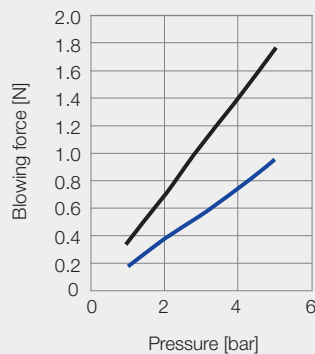
10%



Noise reduction

6%

Technical data



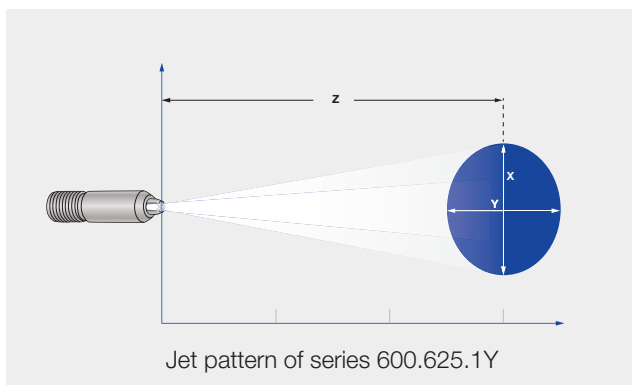
Maximum pressure
5 bar



Maximum temperature
550 °C

— 600.625.1Y.00
— 600.625.1Y.10

Code	G	Dimensions [mm]			Weight [g]
		L ₁	L ₂	Ø D	
00	M4 x 0.5	16.5	5.5	4.0	1.0
10	M5 x 0.5	16.5	5.5	5.0	1.0



Pressure		1 bar	3 bar	5 bar
600.625.1Y.00	Length Z [mm]	225	400	500
	X [mm]	60	85	110
	Y [mm]	60	85	110
600.625.1Y.10	Length Z [mm]	350	600	825
	X [mm]	80	110	155
	Y [mm]	80	110	155
Ordering no.				
Type	Mat.-no.	Code		
	1Y Stainless steel 316L	M4 x 0.5	M5 x 0.5	
600.625	●	00	10	

Ordering Type + Material no. + Code = Ordering no.
example: 600.625 + 1Y + 00 = 600.625.1Y.00



Assembly accessories can be found in Chapter 9 "Accessories".

➤ Maxi multi-channel round jet nozzles for air

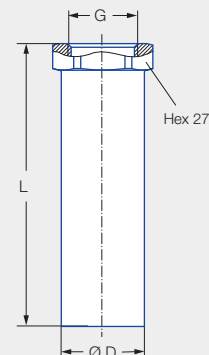
Series 600.387.35

Features:

- Circular, very powerful air jet
- Large volume of air in a concentrated jet due to large nozzle cross-section
- Effective over long distances

Applications:

- Blowing off and out
- Cleaning
- Drying



Series 600.387.35

¹ Meets OSHA specification in terms of noise level.

Cost savings and noise reduction



Cost saving

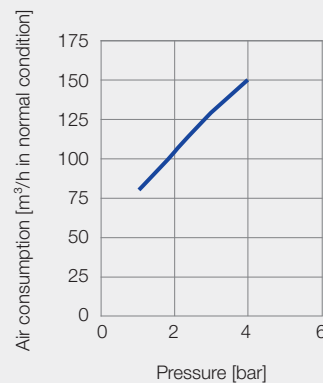
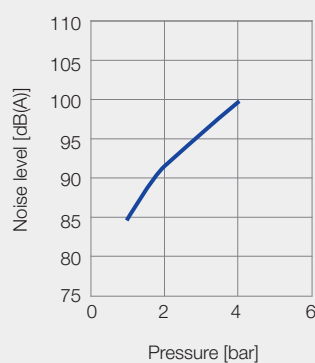
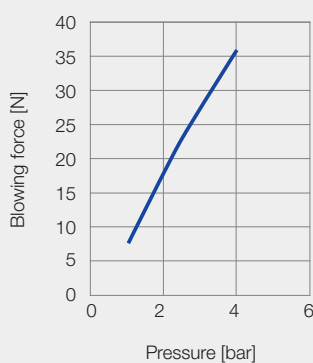
15%



Noise reduction

16%

Technical data

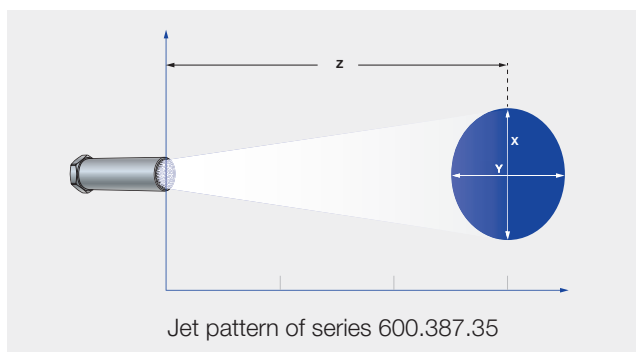


Maximum pressure
6 bar



Maximum temperature
50 °C

Code	G	Dimensions [mm]			Weight [g]
		L	Ø D	Hex	
AH	G 1/2 ISO 228	85.0	25.0	27	200.0



Pressure		1 bar	3 bar	5 bar
600.388	Length Z [mm]	800	800	800
	X [mm]	220	255	310
	Y [mm]	220	255	310

Ordering no.		
Type	Mat.-no.	Code
	35	1/2 BSPP
	Brass nickel-plated/ PVC	
600.387	●	AH

Ordering Type + Material no. + Code = Ordering no.
example: 600.387.35 + 35 + AH = 600.387.35.AH



Assembly accessories can be found in Chapter 9 "Accessories".

➤ Solid stream nozzles for air or saturated steam

Series 544

Features:

- Powerful, punctiform air stream
- Stainless steel version for higher ambient temperatures

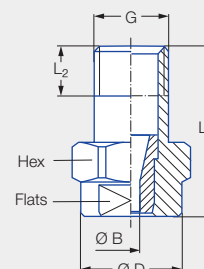
Applications:

- Targeted blowing off and blowing out



OSHA¹

FDA

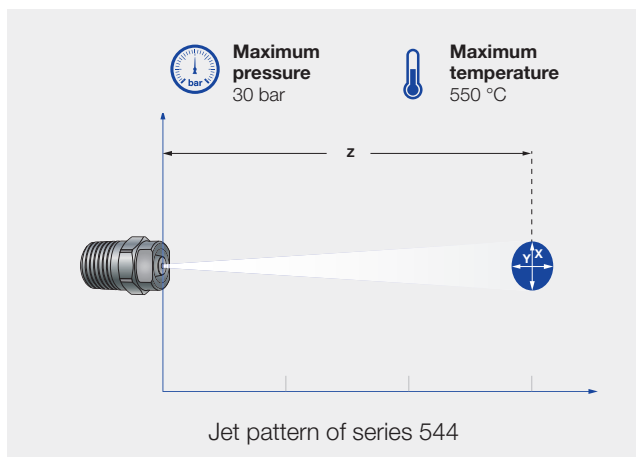


Series 544

¹ Meets OSHA specification in terms of noise level.

Code	G	Dimensions [mm]					Weight [g]
		L ₁	L ₂	Ø D	Hex	Flats	
CA	1/8 BSPT	22.0	6.5	13.0	14	10	14.0
CC	1/4 BSPT	22.0	10.0	13.0	14	10	16.0

Ordering no.				Bore diameter B [mm]	V̇ _n Air [m³/h]				Ṁ Saturated steam [kg/h]			
Type	Mat.-no.	Code			p [bar]				p [bar]			
	16											
	Stainless steel 316L				1/8 BSPT	1/4 BSPT	1.0	2.0	3.0	5.0	1.0	2.0
544.360	●	CA	CC	1.05	0.93	1.40	1.92	2.88	0.77	1.14	1.64	2.42
544.400	●	CA	CC	1.30	1.43	2.14	2.94	4.41	1.18	1.75	2.51	3.71
544.480	●	CA	CC	1.33	1.67	2.51	3.42	5.13	1.39	2.06	2.92	4.23
544.560	●	CA	CC	1.69	2.58	3.87	5.27	7.90	2.14	3.18	4.50	6.66
544.640	●	CA	CC	2.09	4.33	6.50	8.81	13.22	3.60	5.33	7.52	11.13
544.720	●	CA	CC	2.66	6.85	10.27	14.00	21.02	5.68	8.42	11.96	17.70
544.800	●	CA	CC	3.30	10.75	16.12	21.87	32.81	8.92	13.21	18.66	27.63



Pressure		1 bar	3 bar	5 bar
544.360	Length Z [mm]	175	325	400
	X [mm]	50	75	100
	Y [mm]	50	75	100
544.480	Length Z [mm]	250	400	475
	X [mm]	70	120	150
	Y [mm]	70	120	150
544.640	Length Z [mm]	400	650	825
	X [mm]	105	175	225
	Y [mm]	105	175	225
544.800	Length Z [mm]	750	900	900
	X [mm]	180	260	280
	Y [mm]	180	260	280

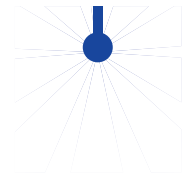
Ordering Type + Material no. + Code = Ordering no.
example: 544.360 + 16 + CA = 544.360.16.CA



Assembly accessories can be found in Chapter 9 "Accessories".

Cluster solid stream nozzles for air or saturated steam

Series 540/541

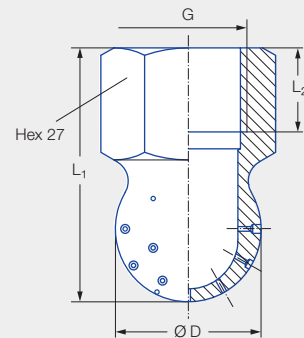


Features:

- Powerful round jet through 40 individual bore holes
- Delivery of media at an angle of approx. 240°
- Suitable for use in difficult conditions
- Suitable for immersion in liquid media

Applications:

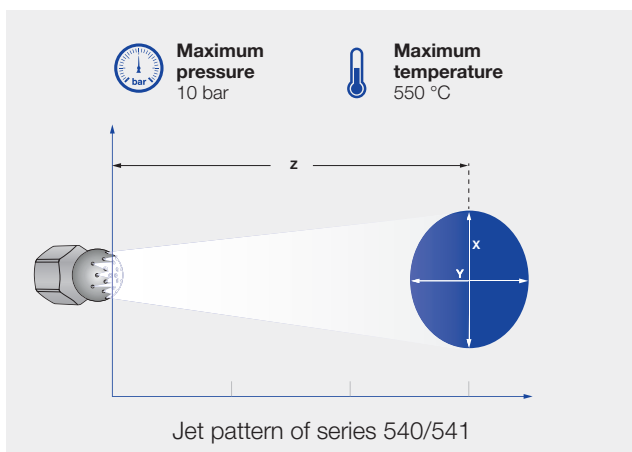
- Injection of steam into liquids
- Injection of compressed air into bulk goods
- Injection of gas (acid and neutralization baths)



Series 540/541

G	Dimensions [mm]				Weight [g]
	L ₁	L ₂	Ø D	Hex	
1/2 BSPP	45.0	15.0	26.0	27	100.0

Strahl- winkel	Ordering no.		Bore diameter B [mm]	V̇ _n Air [m³/h]				Ṁ Saturated steam [kg/h]			
	Type	Mat.-no.		p [bar]				p [bar]			
		16									
		Stainless steel 1.4305		1.0	2.0	3.0	5.0	1.0	2.0	3.0	5.0
Circa 240°	540.909	●	0.80	22.80	34.20	45.50	68.30	18.10	26.90	35.50	52.70
	540.989	●	1.00	35.50	53.30	71.00	106.50	28.20	41.70	55.10	81.70
	541.109	●	1.50	83.30	124.90	166.50	249.80	66.00	97.70	129.20	191.60
	541.189	●	2.00	129.70	194.50	259.30	389.00	103.00	152.60	201.70	299.10
	541.239	●	2.30	167.20	250.80	334.30	501.50	133.20	197.30	260.80	386.60



Pressure		1 bar	3 bar	5 bar
540.909	Length Z [mm]	375	725	850
	X [mm]	80	160	170
	Y [mm]	80	160	170
541.109	Length Z [mm]	800	800	800
	X [mm]	195	290	325
	Y [mm]	195	290	325
541.239	Length Z [mm]	800	800	800
	X [mm]	220	225	260
	Y [mm]	220	225	260

Ordering Type + Material no. = Ordering no.
example: 540.909 + 16 = 540.909.16



Assembly accessories can be found in Chapter 9 "Accessories".