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.

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.

1. Blowing power

2. Air consumption

3. Noise level

Example for measuring

Measuring method
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.

The new Lechler compressed air nozzles have already proven successful in practice in many operations.
Whisperblast Multiple Spray Nozzles

Low-noise flat jet nozzles

Multiple spray flat jet nozzle series 600. 130 / 600. 484 / 600. 283 / 600. 493
- Powerful air stream, directed on the surface
- Low noise level
- Low air consumption
- Standard nozzle with a big variety of applications
- Aluminium version for high mechanical/thermal stress

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

Ordering no. | Thread connection G | Accessories
---|---|---
600. 130. 56 (material: POM) | BC G 1/4 NPT |
| AC G 1/4 A ISO 228 | Plug |
| 02 G 1/4 A ISO 228 | Plug |
| 01 G 1/4 A ISO 228 | Hose nipple (D = 8 mm), Clamping piece, steel (L = 85 mm) |
600. 484. 56 (material: POM) | AC G 1/4 A ISO 228 | |
| BC G 1/4 NPT | |
| HG M12 x 1,25 | |
| 00 Quick Connection NW5 | |
600. 283. 42 (material: aluminium) | AC G 1/4 A ISO 228 | |
| BC G 1/4 NPT | |
600. 493. 1Y (material: stainless steel 316L) | AC G 1/4 A ISO 228 | |
| BC G 1/4 NPT | |

Example for ordering: 600. 130. 56 + AC = 600. 130. 56. AC

Nozzle row see page 12
Whisperblast Multiple Spray Nozzles

Low-noise flat jet nozzles

Mini-flat jet nozzle

**Type 600.382.30.AE**
- Exceptionally low air consumption
- **Weight:** 35 g · **Tmax:** 90°C
- **Vₐ:** 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
- **Vₐ:** 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 · **Tmax:** 90°C
- **Vₐ:** 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 · **Tmax:** 90°C
- **Vₐ:** 51 m³/h at 2 bar
- **Connection:** 3/4 BSPP

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**Ordering no.** | **Material** | **G BSPP** | **L [mm]** | **Lₕ [mm]** | **S [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
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.

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

![Image of nozzle]

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Thread connection G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Code</td>
</tr>
<tr>
<td>600. 326. 5K (Material: ABS)</td>
<td>BA 1/4 NPT</td>
</tr>
<tr>
<td></td>
<td>BC 1/4 NPT</td>
</tr>
<tr>
<td></td>
<td>AC 1/4 BSPP</td>
</tr>
<tr>
<td></td>
<td>HG M 12 x 1.25</td>
</tr>
<tr>
<td>600. 326. 3W (Material: Zinc)</td>
<td>AC 1/4 BSPP</td>
</tr>
<tr>
<td></td>
<td>HG M 12 x 1.25</td>
</tr>
</tbody>
</table>

Example for ordering: 600. 326. 5K + AC = 600. 326. 5K. AC

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

Reduction of noise up to 60 %.
**Whisperblast Multiple Spray Nozzles**

**Low-noise round jet nozzles**

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**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 · $T_{\text{max}}$: 50°C

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**Ordering no.**  
**Thread connection G**

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Thread Connection G</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.388.30</td>
<td>AA</td>
<td>1/8 BSPP</td>
</tr>
<tr>
<td>(Material: Brass/POM)</td>
<td></td>
<td>M 12 x 1.25</td>
</tr>
</tbody>
</table>

Example for ordering:  
600.388.30 + AA = 600.388.30.AA

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**Maxi-multiple round jet nozzle**  
**type 600.387.30.AH**  
- Particularly high blowing power, even for long distances

Material: Brass/PVC  
Weight: 100 g · $T_{\text{max}}$: 90°C
Flat jet slot nozzle for air and saturated steam series 679
- Wide, strong air stream
- Easy, adjustable mounting
- Easy, spray adjustment

Ordering no. | Mat. no. | Ø [mm] | Vn Air [m³/h i. N.] | M Saturated steam [kg/h] | p [bar] | 0,5 | 2,0 | 5,0 | 10,0 | p [bar] | 0,5 | 2,0 | 5,0 | 10,0
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
679. 037 | 1,4571 | 30 | 1.2 | 1.40 | 2.00 | 3.40 | 11.00 | 0.50 | 1.50 | 3.20 | 6.10
679. 085 | 1.3 | 1.20 | 2.00 | 3.00 | 6.00 | 11.10 | 0.90 | 1.90 | 3.70 | 6.70
679. 117 | 1.65 | 1.70 | 3.50 | 7.80 | 15.00 | 0.80 | 2.30 | 5.10 | 9.50
679. 165 | 1.8 | 2.20 | 5.30 | 10.70 | 19.50 | 1.70 | 3.30 | 6.60 | 11.80
679. 255 | 2.1 | 3.20 | 7.90 | 15.70 | 28.80 | 2.50 | 4.90 | 9.70 | 17.50
679. 365 | 2.8 | 5.40 | 13.10 | 26.20 | 48.10 | 4.10 | 8.20 | 16.10 | 29.10
679. 415 | 3.6 | 8.90 | 21.70 | 43.30 | 79.40 | 6.80 | 13.60 | 26.70 | 48.10
679. 495 | 4.3 | 13.40 | 32.80 | 65.60 | 120.20 | 10.30 | 20.60 | 40.40 | 72.90

A = equivalent bore diameter

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

Noise level
- Distance x
- Distance y
Flat jet tongue type nozzle for air and saturated steam series 686
- Air stream on an extremely wide area
- Suitable for short blowing distances

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.

### Flat jet tongue type nozzle for air and saturated steam series 686
- B = bore diameter

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>B [mm]</th>
<th>Vn Air [m³/h i. N.]</th>
<th>M Saturated steam [kg/h]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1,0</td>
<td>2,0</td>
</tr>
<tr>
<td>686. 408</td>
<td>CA</td>
<td>1,0</td>
<td>0,70</td>
</tr>
<tr>
<td>686. 488</td>
<td>CA</td>
<td>1,3</td>
<td>1,20</td>
</tr>
<tr>
<td>686. 528</td>
<td>CA</td>
<td>1,5</td>
<td>1,60</td>
</tr>
<tr>
<td>686. 568</td>
<td>CA</td>
<td>1,7</td>
<td>2,00</td>
</tr>
<tr>
<td>686. 608</td>
<td>CA</td>
<td>1,9</td>
<td>2,50</td>
</tr>
<tr>
<td>686. 688</td>
<td>CA</td>
<td>2,4</td>
<td>4,00</td>
</tr>
<tr>
<td>686. 728</td>
<td>CA</td>
<td>2,7</td>
<td>7,10</td>
</tr>
<tr>
<td>686. 808</td>
<td>CA</td>
<td>3,4</td>
<td>11,20</td>
</tr>
</tbody>
</table>

### Multiple solid jet nozzle for air and saturated steam series 540/541
- B = bore diameter

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>B [mm]</th>
<th>Vn Air [m³/h i. N.]</th>
<th>M Saturated steam [kg/h]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1,0</td>
<td>2,0</td>
</tr>
<tr>
<td>540. 909</td>
<td>CA</td>
<td>0,8</td>
<td>26,20</td>
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<tr>
<td>540. 989</td>
<td>CA</td>
<td>1,0</td>
<td>41,00</td>
</tr>
<tr>
<td>541. 109</td>
<td>CA</td>
<td>1,5</td>
<td>92,30</td>
</tr>
<tr>
<td>541. 189</td>
<td>CA</td>
<td>2,0</td>
<td>164,00</td>
</tr>
<tr>
<td>541. 228</td>
<td>CA</td>
<td>2,3</td>
<td>217,00</td>
</tr>
</tbody>
</table>

### 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.

Example for ordering:
- Type 686. 408
- Material no. (+ CA) = Ordering no. 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

Rotating joint
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

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<table>
<thead>
<tr>
<th>Connection</th>
<th>Ordering no.</th>
<th>Dimensions [mm]</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball joints with thread connection</td>
<td>092. 020</td>
<td>- - AD G1/4 G1/4 12.0 11.5 60.3 27 27 17 60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>092. 021</td>
<td>- - AF G1/4 G1/4 12.0 11.5 58.3 27 27 17 80</td>
<td></td>
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<tr>
<td></td>
<td>092. 030</td>
<td>- - AF G3/8 G3/8 12.0 12.0 56.7 27 30 19 80</td>
<td></td>
</tr>
<tr>
<td>Ball joints with welding connection</td>
<td>092. 020</td>
<td>- - SD G1/4 20.0 15.0 - - - 11.5 64.3 - 27 17 60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>092. 030</td>
<td>- - SF G3/8 22.0 15.0 - - - 12.0 58.7 - 30 19 80</td>
<td></td>
</tr>
</tbody>
</table>

Example for ordering:

Type + Material no. + Code = Ordering no.

| 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 |

Flexible pneumatic tube

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

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Material no.</th>
<th>Dimensions [mm]</th>
<th>Weight (Polyamide)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Polyamide</td>
<td>Polypropylene</td>
<td>Screw</td>
</tr>
<tr>
<td>090. 003</td>
<td>535E51</td>
<td>PVDF</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>090. 013</td>
<td>30</td>
<td>PVDF</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>090. 023</td>
<td>5E</td>
<td>PVDF</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

Double nipple

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Mat. no.</th>
<th>Dimensions [mm]</th>
<th>Weight (Brass)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>17</td>
<td>30</td>
<td>G₁ BSPP</td>
</tr>
<tr>
<td></td>
<td>1.4305</td>
<td>316 SS</td>
<td>3/8</td>
</tr>
<tr>
<td></td>
<td>1.4571</td>
<td>316 SS</td>
<td>3/8</td>
</tr>
</tbody>
</table>

Nuts

<table>
<thead>
<tr>
<th>Ordering no.</th>
<th>Material no.</th>
<th>Dimensions [mm]</th>
<th>Weight (Brass)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>16 17 30 5E</td>
<td>BSPP G BSPP</td>
<td>H₁</td>
</tr>
<tr>
<td></td>
<td>1.4305 316 SS</td>
<td>Brass POM</td>
<td>3/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PVDF</td>
<td>3/8</td>
</tr>
</tbody>
</table>
Multiple Nozzle Base

order No. 600.130.56.05
with 5 Whisperblast nozzles
type 600.130.56.AC

Materials:
Nozzles: POM, nozzle base: PVC

Thread: G 3/8” BSPP

Applications:
- Cover big working ranges
- Air curtain

Lechler is also your partner for all liquid atomization applications.

Our new catalogue includes a wide range of products in an unsurpassed quality. Most of the products can be delivered immediately ex stock.

Please ask for it!