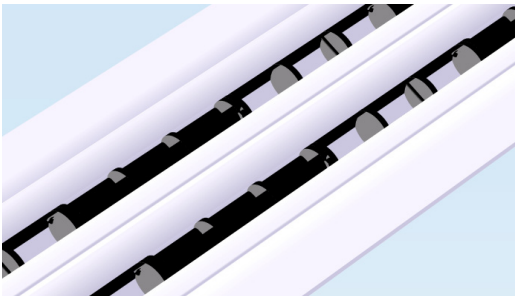


Installation Instructions

LTG Air Diffusers

Linear air diffusers LDB



Installation in ceilings, walls and sills

Installation Instructions

Linear Air Diffusers LDB

LTG Comfort Air Technology	
Air-Water Systems	
Air Diffusers	
Air Distribution	

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Notes

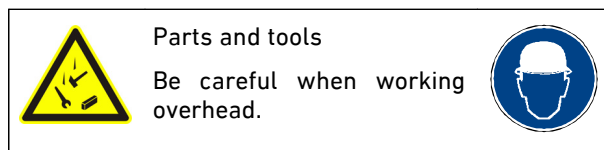
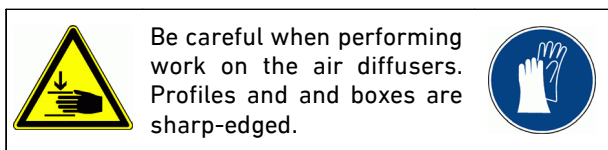
Please note!

The profiles for our linear diffusers are exclusively designed for use as decoration elements to cover the gap between the ceiling and the diffuser. They are not suitable for use as supporting profiles or fasteners!

Installation Instructions

Linear Air Diffusers LDB

1. Safety Instructions



2. Sequence of installation

With air distribution box

- Make sure that the delivery is complete
- Assembly end caps (if available)
- Adjust throttling device DLU
- Mount linear diffuser and plenum on the ceiling
or
first mount plenum, after painting the ceiling linear diffusers can be mounted via second fix.
- Mount connecting pieces (if available)

Without air distribution box

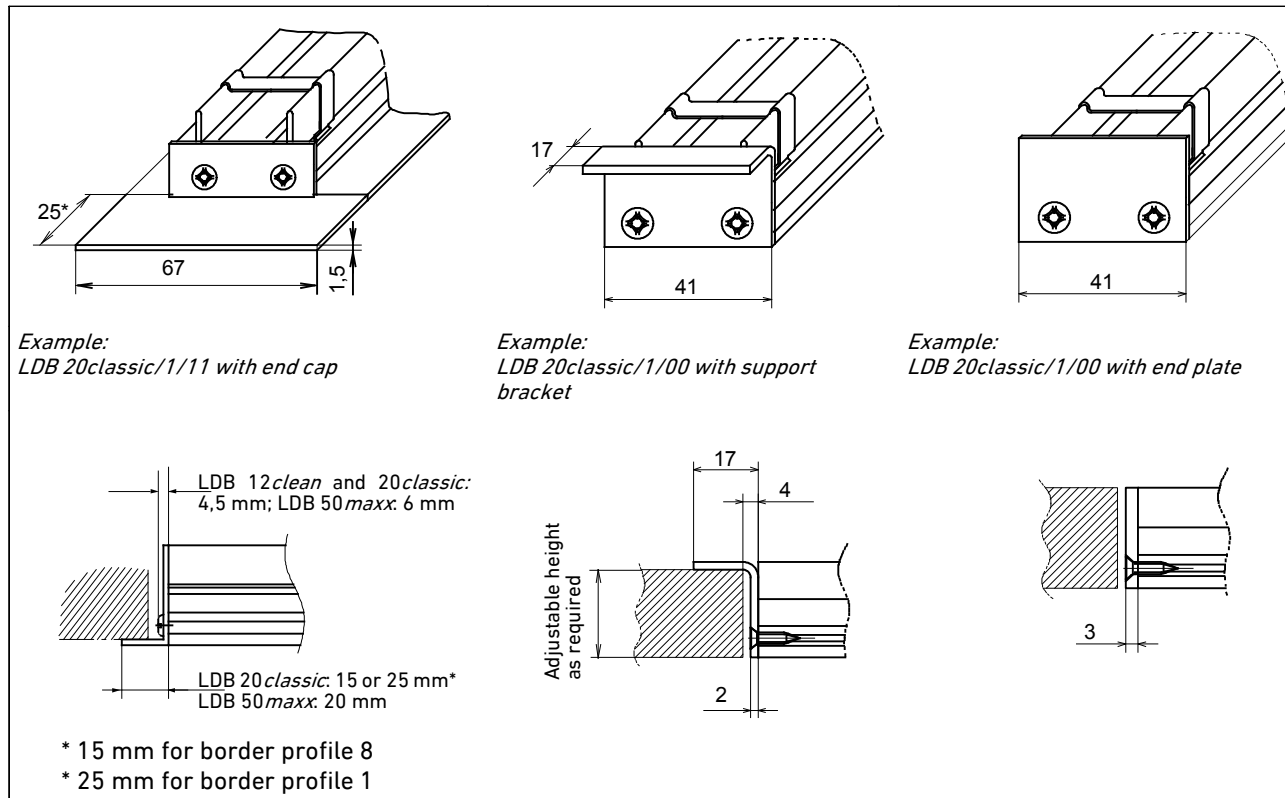
- Make sure that the delivery is complete
- Assembly End caps (if available)
- Mount fixing brackets for blind attachment (if available)
- Mount the linear diffuser after painting the ceiling
- Mount connecting pieces (if available)

3. Delivery

The accessories are packed in a separate carton and are labelled „Zubehör/accessories“.

4. End caps

By using end caps, a closed frame of linear diffusers is obtained.

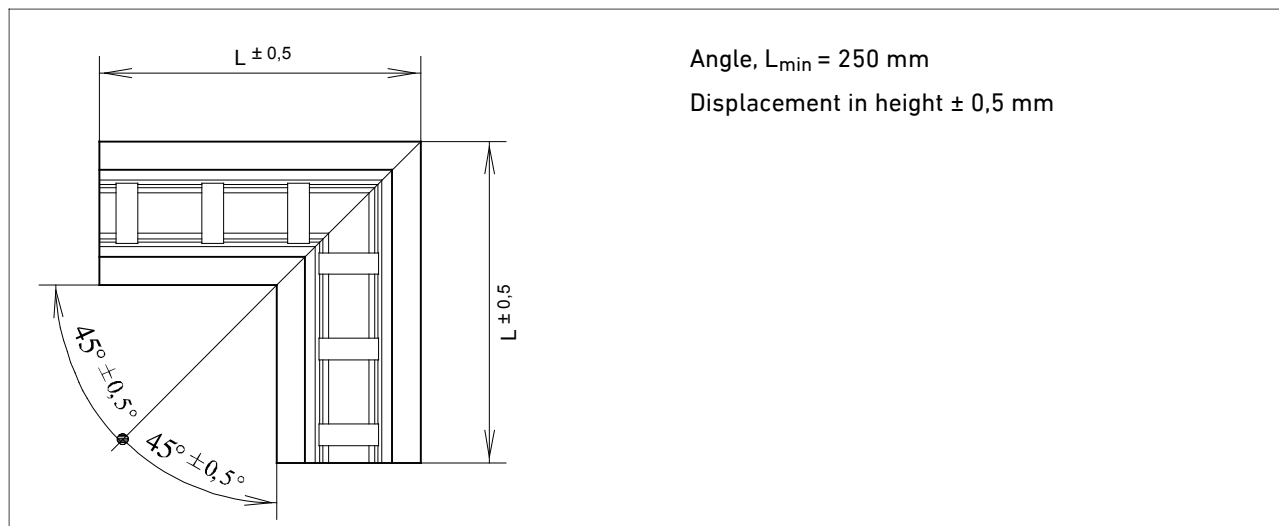


Installation Instructions

Linear Air Diffusers LDB

5. Angles

Corner pieces allow an optical solution (over corner solutions) for a continuous linear diffuser assembly. Assembly occurs in Factory (if available).

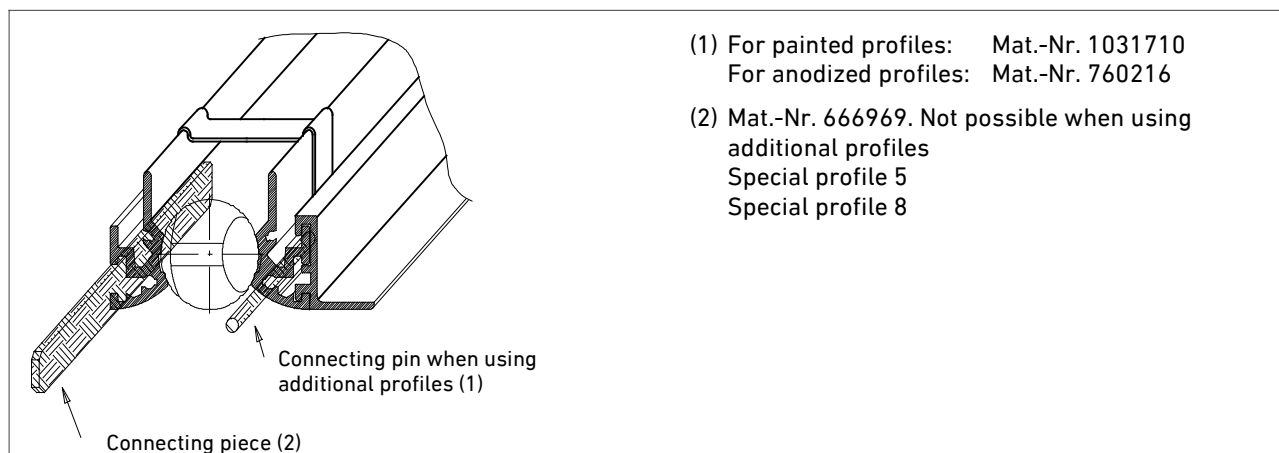


6. Connecting pieces / pins

A flush mounting of the diffusers is achieved by using connecting pieces inserted in the guiding grooves of the profiles.

Several linear diffusers may thus be connected to form a continuous line.

For linear diffusers with additional profiles, a flush mounting is achieved by using additional overlap profiles or connecting pins.



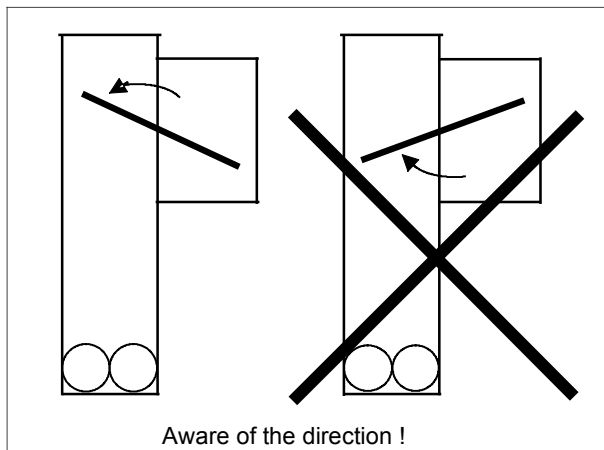
Installation Instructions Linear Air Diffusers LDB

7. Throttling device DLU

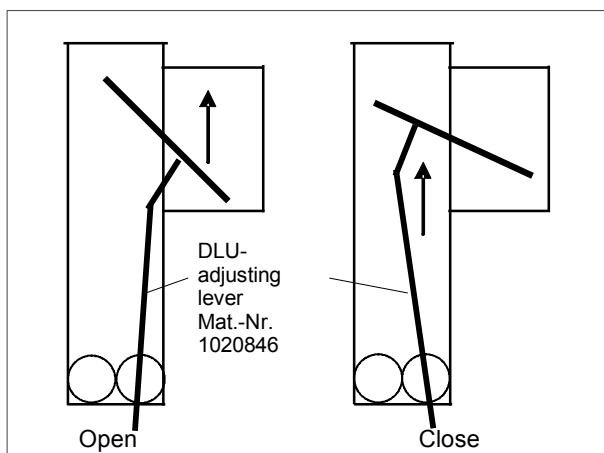


Open the throttling device before connecting the air ducts.

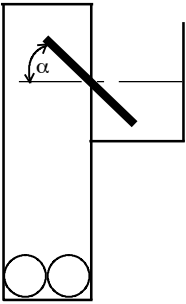
7.1 Open - optimum acoustics



7.2 Adjustment of pressure drop



7.3 Additional pressure drop [Pa] of throttling device

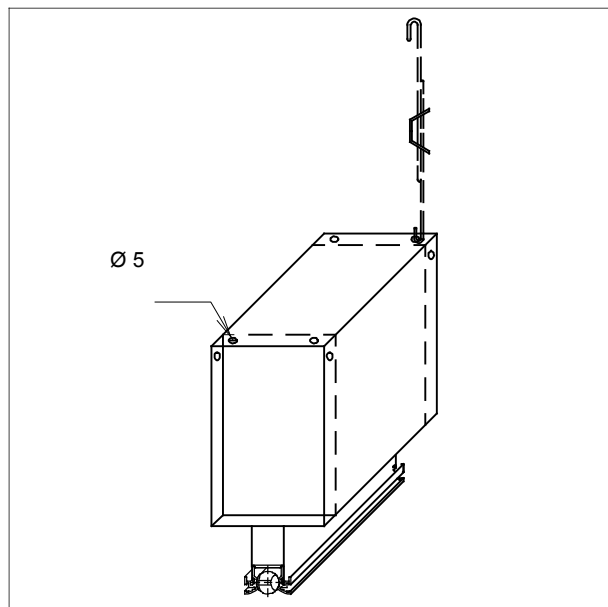
	DLU DN 100			DLU DN 125			DLU DN 140		
	Flow rate [m³/h]			Flow rate [m³/h]			Flow rate [m³/h]		
	60	80	100	100	120	140	100	140	180
	Pressure drop [Pa]			Pressure drop [Pa]			Pressure drop [Pa]		
Angle α [°]	Pressure drop [Pa]			Pressure drop [Pa]			Pressure drop [Pa]		
90°	32 Pa	52 Pa	80 Pa	47	65	90	35	70	110
75°	18 Pa	32 Pa	50 Pa	22	33	45	19	30	50
60°	9 Pa	17 Pa	26 Pa	13	17	25	8	15	26

Installation Instructions

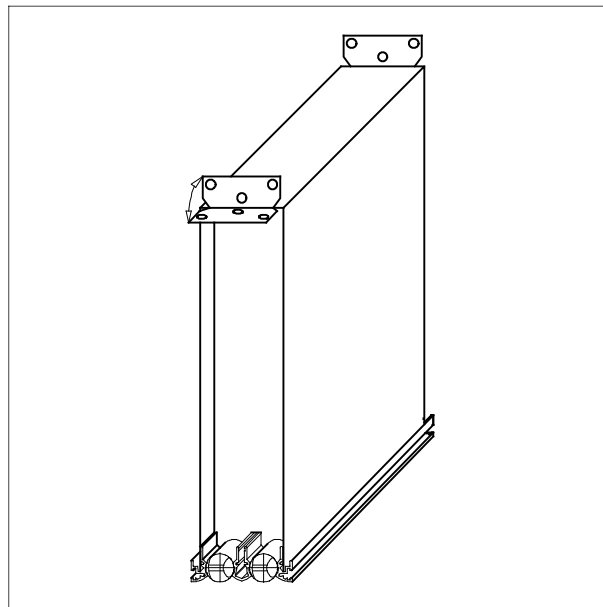
Linear Air Diffusers LDB

8. Installation

8.1 Insertion of the linear diffuser in the ceiling, completely with plenum box

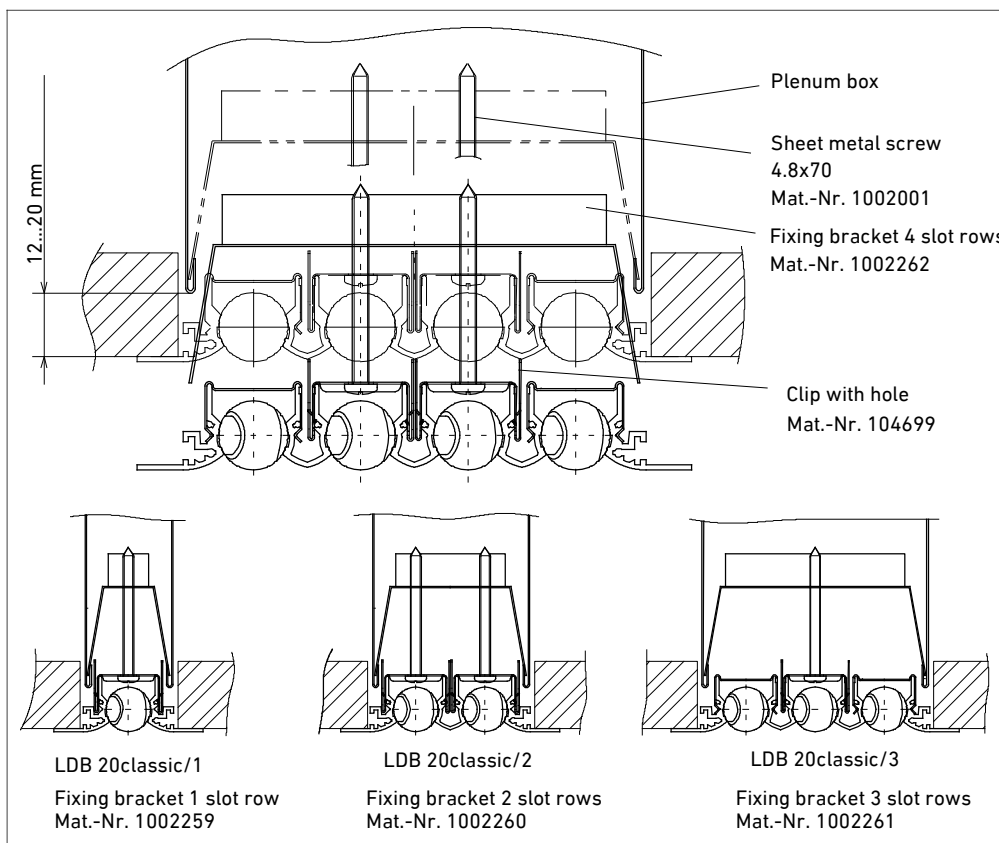


Example for installation of type LDB 20classic/1/00 with air distribution box and **continuously adjustable spring hanger** (adjusting range about 3/4 of the length of the hooked wire)



Example for installation of type LDB 20classic/2/00 with air distribution box without insulation. The **four suspension eyes** are included in the delivery of the narrow box.

8.2 Retrofitting via „Second-fix“-fixation



Plenum box

Sheet metal screw
4.8x70
Mat.-Nr. 1002001

Fixing bracket 4 slot rows
Mat.-Nr. 1002262

Clip with hole
Mat.-Nr. 104699

LDB 20classic/1
Fixing bracket 1 slot row
Mat.-Nr. 1002259

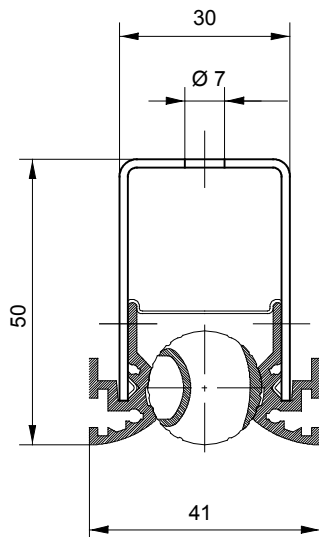
LDB 20classic/2
Fixing bracket 2 slot rows
Mat.-Nr. 1002260

LDB 20classic/3
Fixing bracket 3 slot rows
Mat.-Nr. 1002261

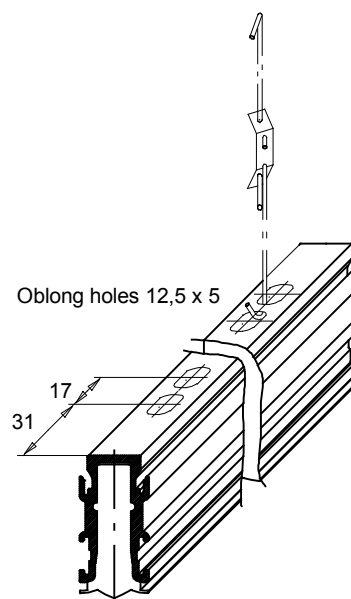
- The plenum box must be installed at a distance of 12...20 mm from the underside of the ceiling.
- Push the screws through the diffuser elements and the brackets,
- screw it on slightly with the fixing bracket,
- then push it completely into the plenum box until the fixing bracket latches in the rebate,
- now tighten the screws firmly.

Installation Instructions Linear Air Diffusers LDB

8.3 Blind attachment

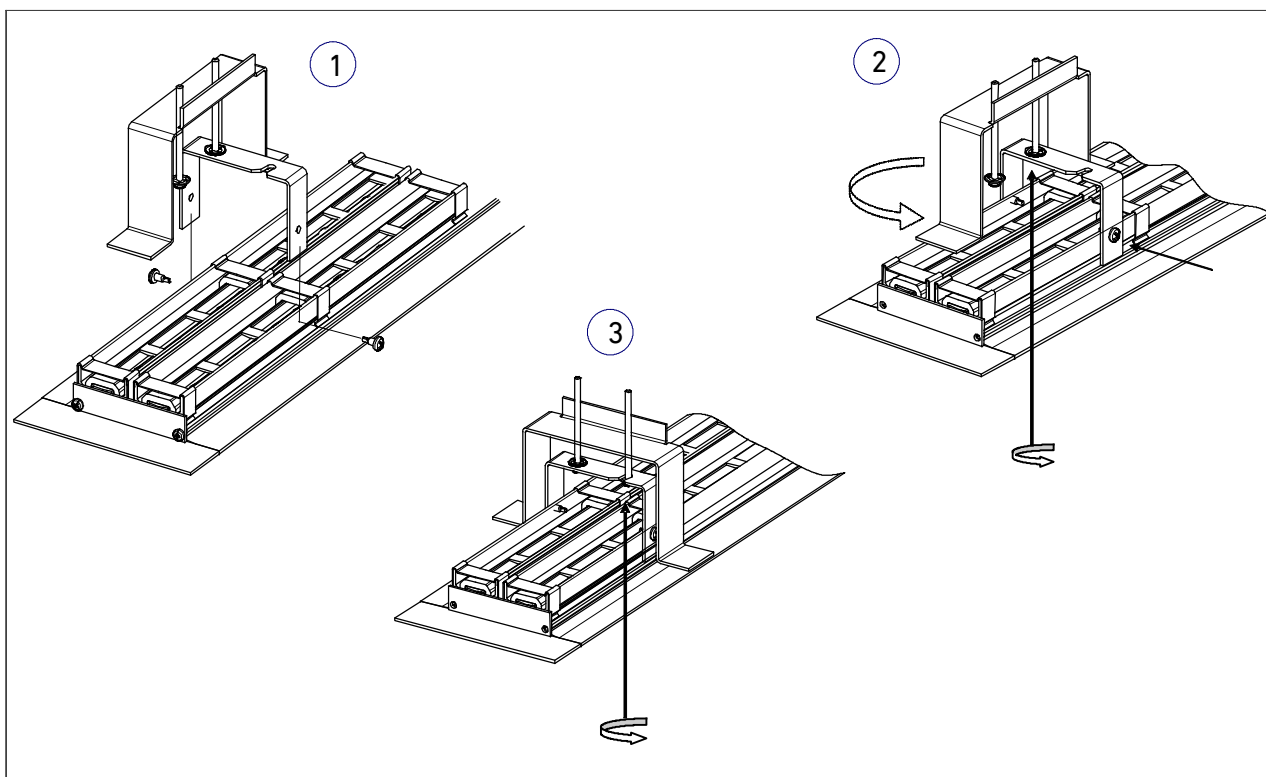


Example for installation of type LDB 20classic/1/00 with **suspension bracket** for blind attachment



Example for installation of **blind profiles** type LDB 15eco

8.4 Double dummy brackets for clamping in the ceiling or air duct



Example LDB 20classic/2/11 with **double dummy brackets** for blind attachment

Installation Instructions Linear Air Diffusers LDB

9. Adjustment of diffuser elements after installation

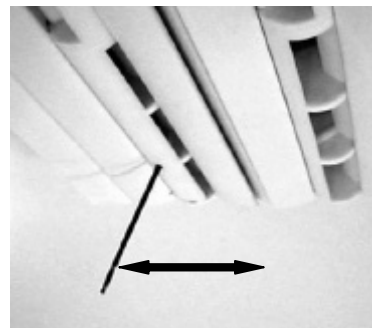
9.1 LDB 12*clean*



Adjusting wrench for
LDB 12*clean*
Mat.-Nr. 92961.4



Setting diffuser element position
2 or 3: apply the adjusting
wrench as shown, using the end
marked accordingly.



Setting diffuser element position
1 or close all the way: Insert a 1
mm thick pin into the hole as
shown.

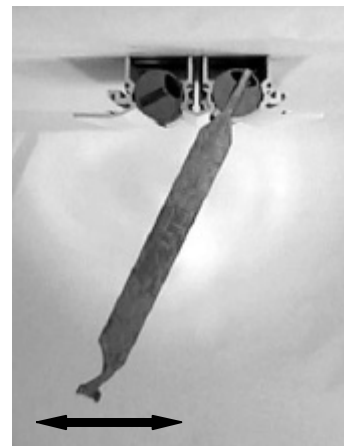
9.2 LDB 20*classic*



Adjusting wrench for
LDB 20*classic*
Mat.-Nr. 80178.9



Setting diffuser element position
0, 1, 2 or 3: apply the adjusting
wrench as shown.



Closing the diffuser element po-
sition: apply the other end of the
adjusting wrench as shown.

Installation Instructions Linear Air Diffusers LDB

9.3 LDB 50*maxx*



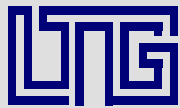
Adjusting wrench for
LDB 50*maxx*
Mat.-Nr. 64853.7



Setting diffuser element position
0, 1, 2 or 3: apply the adjusting
wrench as shown.



Closing the diffuser element po-
sition: apply the other end of the
adjusting wrench as shown.



**AIR TECH
SYSTEMS**

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Air-Water Systems
Air Diffusers
Air Distribution

Process Air Technology

Fans
Filtration technology
Humidification Technology

Engineering Services

Laboratory Test / Experiment
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R&D / Start-up

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