

## Horizontal models



Vario Door air curtains



Tandem Door air curtains 300



Tandem Door air curtains 385

# Installation Manual

Retain this manual carefully for future use!

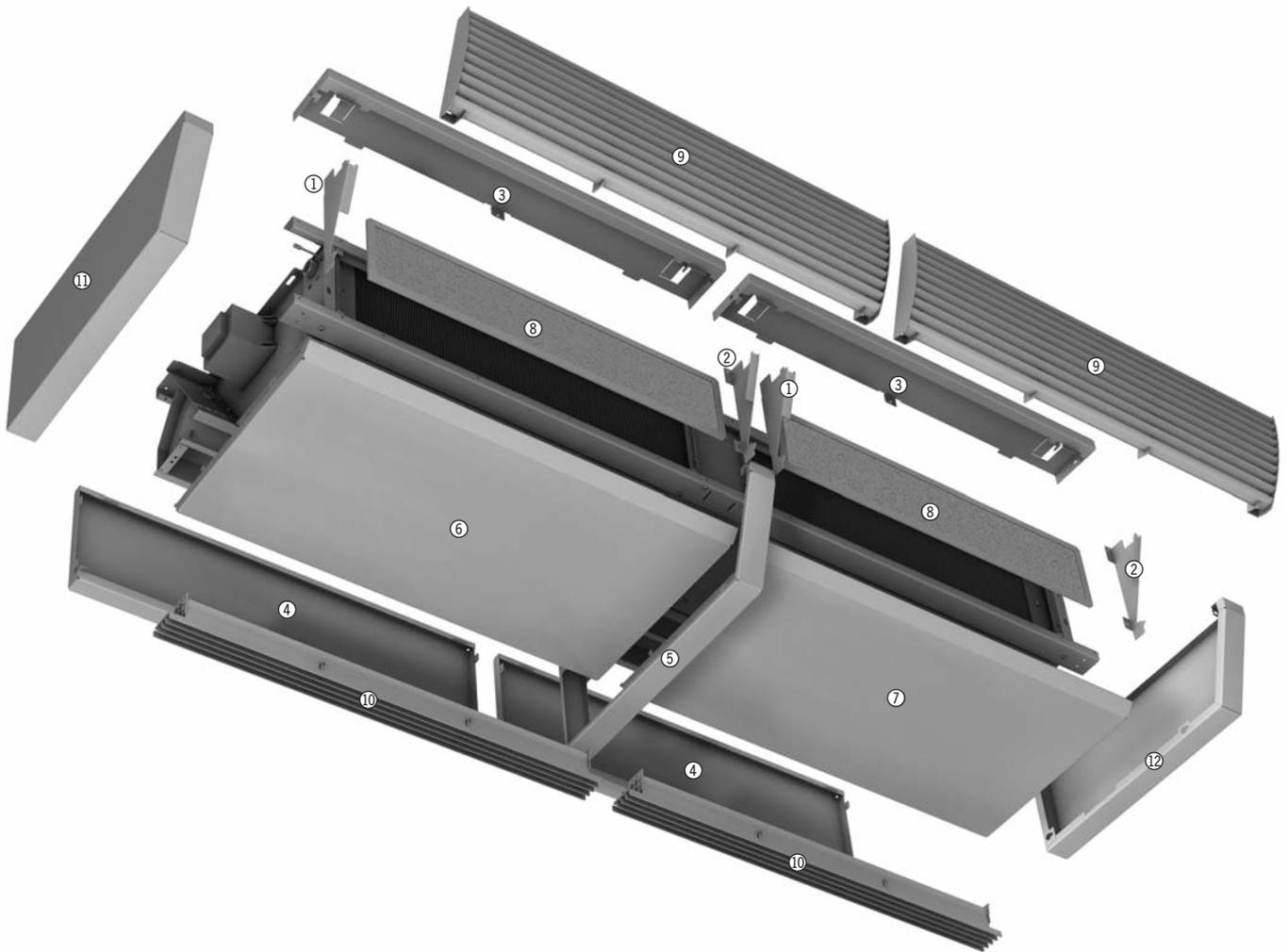


2 men are needed to fit these units!

# 1.51 | 2.51 | 2.52 Vario Door air curtains, Tandem Door air curtains 300/385

Horizontal models

Exploded view



| Model                    |    | Component article nos. |          |          |          |          |          |          |          |          |          |          |          |
|--------------------------|----|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                          |    | ①                      | ②        | ③        | ④        | ⑤        | ⑥        | ⑦        | ⑧        | ⑨        | ⑩        | ⑪        | ⑫        |
| Vario                    | 10 | 31513270               | 31513271 | 31513240 | 31513220 | 31513215 | 31513250 | -        | 11510270 | 31516150 | 31516000 | 31513210 | 31513211 |
|                          | 15 | 31513270               | 31513271 | 31513241 | 31513221 | 31513215 | 31513251 | -        | 11510272 | 31516151 | 31516001 | 31513210 | 31513211 |
|                          | 20 | 31513270               | 31513271 | 31513242 | 31513222 | 31513215 | 31513252 | 31513257 | 11510274 | 31516152 | 31516002 | 31513210 | 31513211 |
|                          | 25 | 31513270               | 31513271 | 31513243 | 31513223 | 31513215 | 31513253 | 31513258 | 11510276 | 31516153 | 31516003 | 31513210 | 31513211 |
| Tandem<br>300            | 10 | 32513270               | 32513271 | 32513240 | 32513220 | 32513215 | 32513250 | -        | 12510270 | 32516150 | 32516000 | 32513210 | 32513211 |
|                          | 15 | 32513270               | 32513271 | 32513241 | 32513221 | 32513215 | 32513251 | -        | 12510272 | 32516151 | 32516001 | 32513210 | 32513211 |
|                          | 20 | 32513270               | 32513271 | 32513242 | 32513222 | 32513215 | 32513252 | 32513257 | 12510274 | 32516152 | 32516002 | 32513210 | 32513211 |
|                          | 25 | 32513270               | 32513271 | 32513243 | 32513223 | 32513215 | 32513253 | 32513258 | 12510276 | 32516153 | 32516003 | 32513210 | 32513211 |
|                          | 30 | 32513270               | 32513271 | 32513244 | 32513224 | 32513215 | 32513254 | 32513259 | 12510278 | 31516154 | 32516004 | 32513210 | 32513211 |
| Tandem<br>385            | 15 | 32523270               | 32523271 | 32523241 | 32523221 | 32523215 | 32523251 | -        | 12520272 | 32526151 | 32526001 | 32523210 | 32523211 |
|                          | 20 | 32523270               | 32523271 | 32523242 | 32523222 | 32523215 | 32523252 | 32523257 | 12520274 | 32526152 | 32526002 | 32523210 | 32523211 |
|                          | 25 | 32523270               | 32523271 | 32523243 | 32523223 | 32523215 | 32523253 | 32523258 | 12520276 | 32526153 | 32526003 | 32523210 | 32523211 |
| No. per<br>basic<br>unit | 10 | 1                      | 1        | 1        | 1        | -        | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
|                          | 15 | 1                      | 1        | 1        | 1        | -        | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
|                          | 20 | 2                      | 2        | 2        | 2        | 1        | 1        | 2        | 2        | 2        | 2        | 1        | 1        |
|                          | 25 | 2                      | 2        | 2        | 2        | 1        | 1        | 2        | 2        | 2        | 2        | 1        | 1        |
|                          | 30 | 2                      | 2        | 2        | 2        | 1        | 1        | 2        | 2        | 2        | 2        | 1        | 1        |

Explanation of symbols:



**Important!  
Danger!**

*Non-observation of this instruction can result in serious personal injury or damage to the equipment.*



**Danger from electrocution!**

*Non-observation of this instruction can result in serious personal injury or damage to equipment by electrocution*

**Read this manual carefully prior to installing the equipment!**

All persons involved in fitting, servicing and using this equipment are obliged to pass this manual onto other persons currently or subsequently working on this equipment, right through to the final user or operator. Retain this manual until the equipment is ultimately decommissioned!

Amendments to the content or layout of this manual can be made without prior notification!

**Contents**

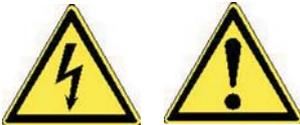
- 1. Correct and proper use ..... 4
- 2. Safety information ..... 4
- 3. Fitting position and minimum distances ..... 5
- 4. Fitting casing extension ..... 6
- 5. Fitting wall and ceiling brackets ..... 7
- 6. Fitting basic unit casing ..... 8
  - Fitting components ① + ② ..... 8
  - Fitting component ③ ..... 8
  - Fitting right-hand component ④ ..... 9
  - Fitting component ⑤ ..... 10
  - Fitting left-hand component ④ ..... 11
  - Fitting components ⑥ + ⑦ ..... 11
  - Fitting component ⑩ ..... 13
  - Fitting component ⑨ ..... 14
  - Fitting components ⑪ + ⑫ ..... 15
- 7. Maintenance ..... 16
  - Removing component ⑧ (filter) ..... 16
- 8. Suggested installation within a suspended ceiling ..... 17
- 9. Vario door air curtain: fitting thermoelectric shut-off valve and leaving air limiting valve ..... 20
- 10. Tandem door air curtain 300: fitting thermoelectric shut-off valve and leaving air limiting valve ..... 21
- 11. Tandem door air curtain 385: fitting thermoelectric shut-off valve and leaving air limiting valve ..... 22
- 12. Electrics ..... 23
  - Wiring ..... 25
- 13. Remote control ..... 29



## 1. Correct and proper use

Kampmann Vario/Tandem door air curtains have been designed and manufactured according to state-of-the-art engineering and recognised safety directives. Their use can nevertheless result in personal injury or damage to the units or other equipment if they are not correctly and properly fitted and commissioned and are not correctly and properly used.

Vario/Tandem door air curtains should only be fitted above internal doors and doorways e.g. residential or office buildings, exhibition space etc. They should not be used in damp areas, such as swimming pools, or fitted externally. The products should be prevented from becoming wet during installation. In case of doubt, you should discuss the proposed application with the manufacturer. Any other use not specified above will be deemed to be improper and, as such, any damage resulting from this use will be the sole responsibility of the operator of the equipment. Observation of the fitting information contained in this manual is deemed to be part of correct and proper use. The installation and fitting of this equipment requires knowledge of heating, cooling and ventilation, This knowledge is generally taught in vocational courses in the above fields and so is not described in detail here. Damage resulting from improper fitting of the equipment is the responsibility of the operator.



## 2. Safety information

The installation and fitting of this product requires specialist technical knowledge and expertise of electrical engineering. This knowledge is generally taught in vocational courses in electrical engineering and so is not described in detail here. The equipment should be wired in accordance with current Association of German Electrician's regulations (VDE) and energy supply company (EVU) guidelines.

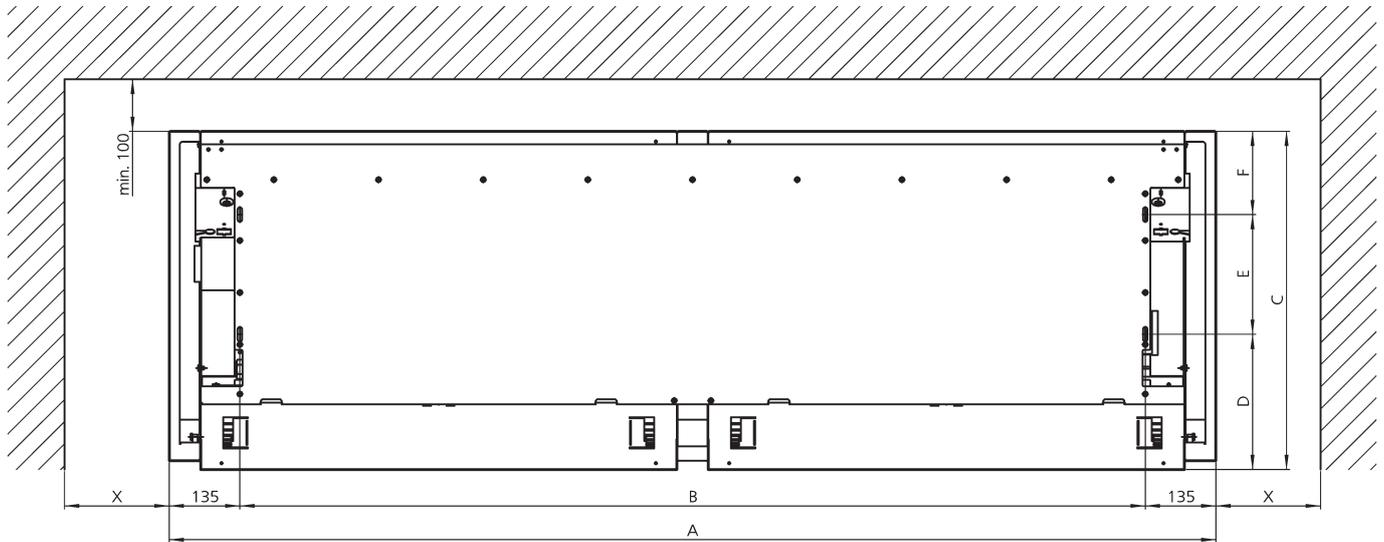
Non-observation of these regulations and the information contained in this manual could cause the unit to malfunction resulting in possible damage and personal injury. Incorrect wiring of the equipment could result in fatal injury!

All parts of the equipment should be disconnected and made dead and secured against reconnection prior to commencement of any work. Technicians working on the equipment should also have some knowledge of :

- Safety and accident prevention regulations
- Standard and recognised engineering guidelines and regulations, such as Association of German Electrician's regulations
- DIN and EN standards
- Accident prevention regulations VBG, VBG4, VBG9a
- DIN VDE 0100, DIN VDE 0105
- EN 60730 (Part 1)
- Regional electricity supply providers' regulations (so-called TABs)

The installation, operation and maintenance of this equipment must comply with current national legislation, standards and regulations, as well as current state-of-the-art!

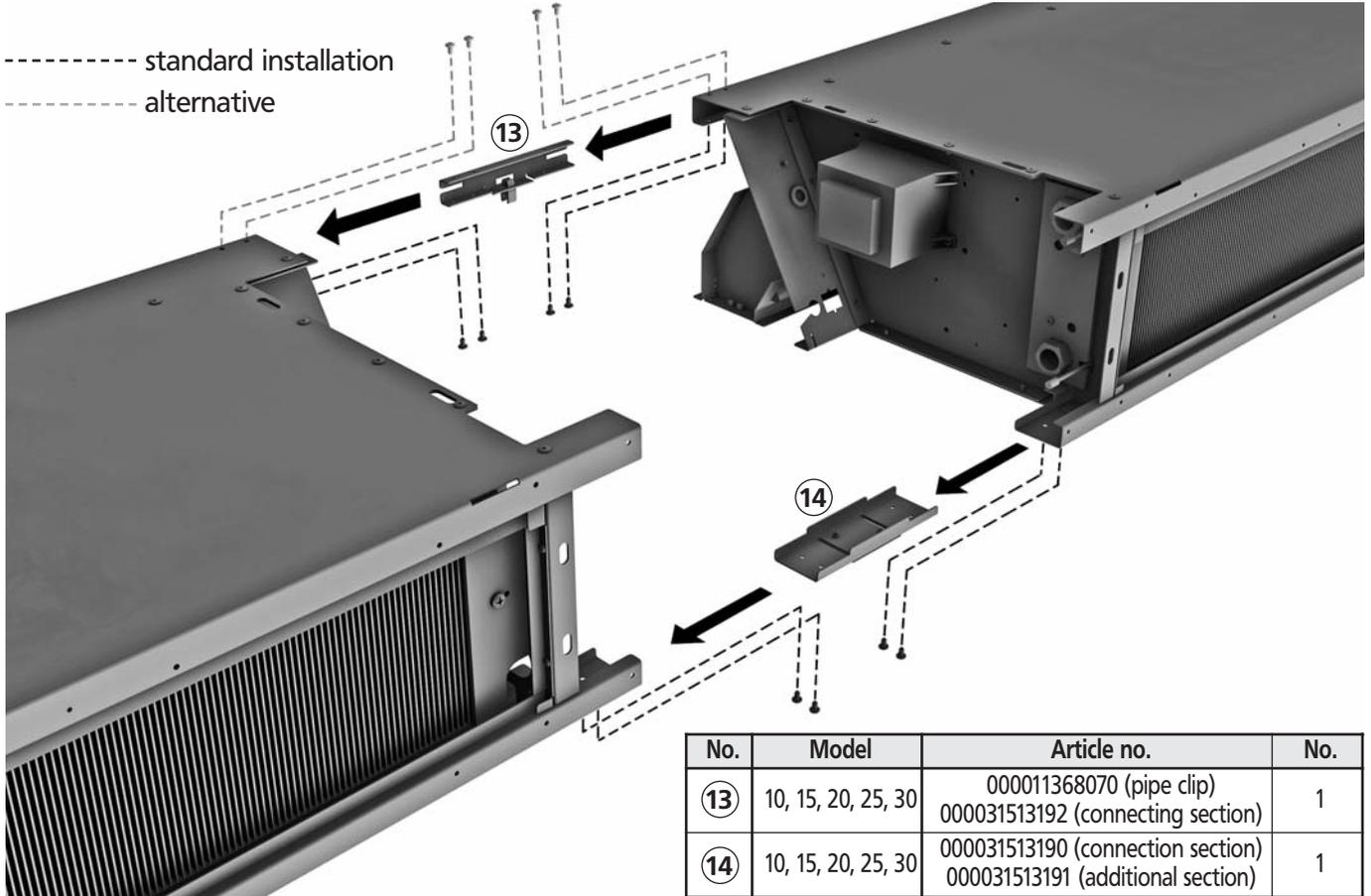
### 3. Fitting position and minimum distances



x = Allow room for access to electrical and water connections for service and maintenance!

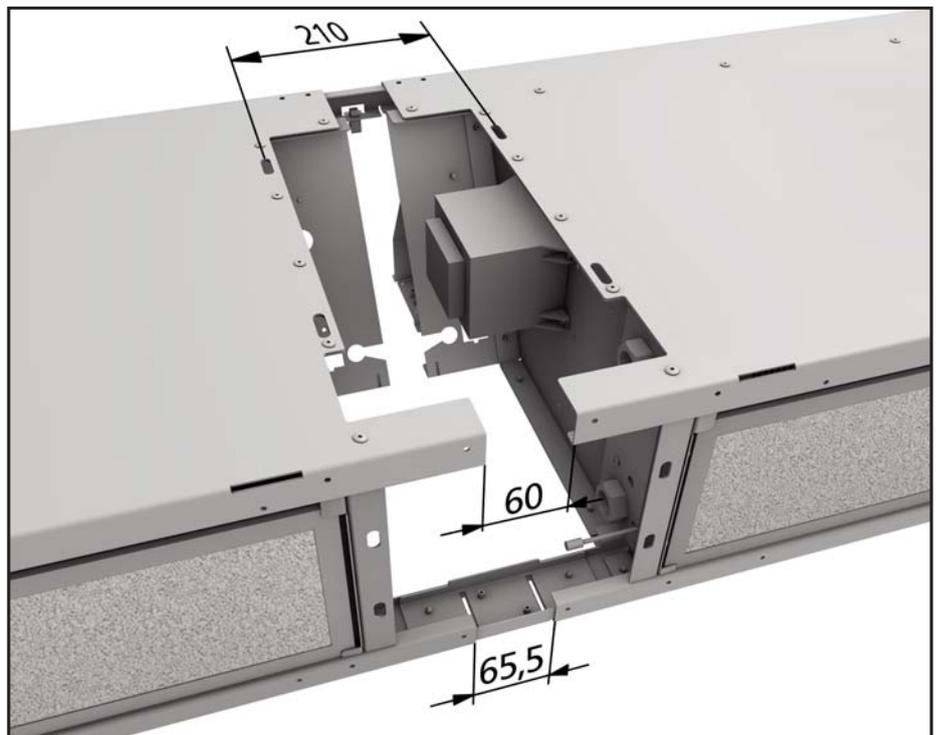
| Model |            | A    | B    | C   | D   | E   | F   |
|-------|------------|------|------|-----|-----|-----|-----|
| 10    | Vario      | 1000 | 730  | 650 | 260 | 230 | 160 |
|       | Tandem 300 | 1000 | 730  | 844 | 269 | 415 | 160 |
|       | Tandem 385 | -    | -    | -   | 365 | -   | -   |
| 15    | Vario      | 1500 | 1230 | 650 | 260 | 230 | 160 |
|       | Tandem 300 | 1500 | 1230 | 844 | 269 | 415 | 160 |
|       | Tandem 385 | 1500 | 1230 | 985 | 365 | 400 | 220 |
| 20    | Vario      | 2000 | 1730 | 650 | 260 | 230 | 160 |
|       | Tandem 300 | 2000 | 1730 | 844 | 269 | 415 | 160 |
|       | Tandem 385 | 2000 | 1730 | 985 | 365 | 400 | 220 |
| 25    | Vario      | 2500 | 2230 | 650 | 260 | 230 | 160 |
|       | Tandem 300 | 2500 | 2230 | 844 | 269 | 415 | 160 |
|       | Tandem 385 | 2500 | 2230 | 985 | 365 | 400 | 220 |
| 30    | Tandem 300 | 3000 | 2730 | 844 | 269 | 415 | 160 |

**4. Fitting casing extension**



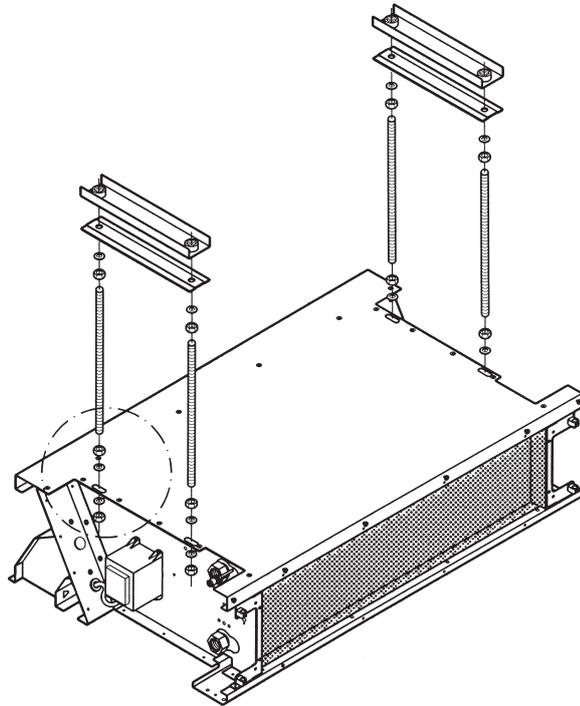
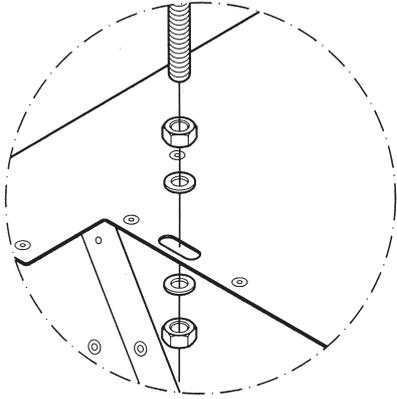
**Important note!** If several basic units are to be joined to form a single unit:

- Connect up the basic units first!
- Only then fit the casing and casing extension.

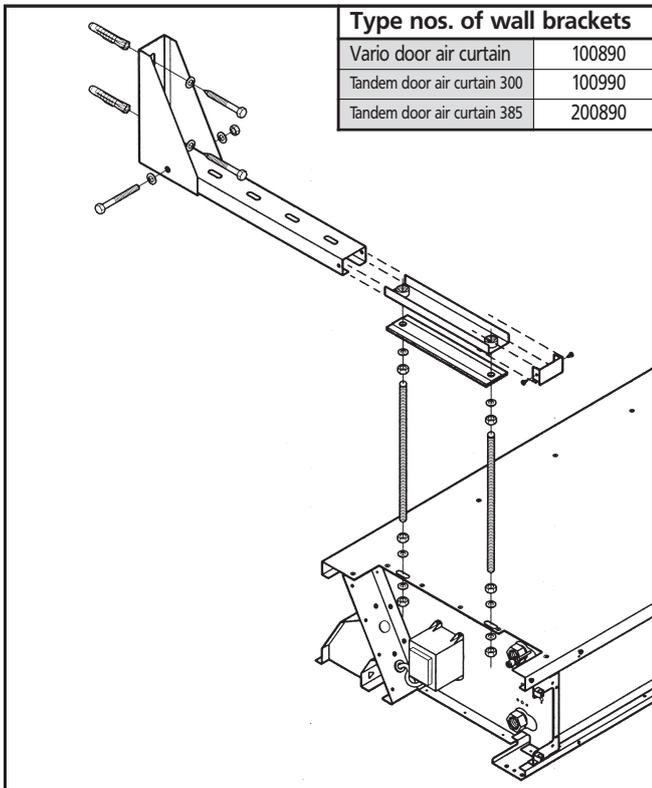


5. Fitting wall and ceiling brackets

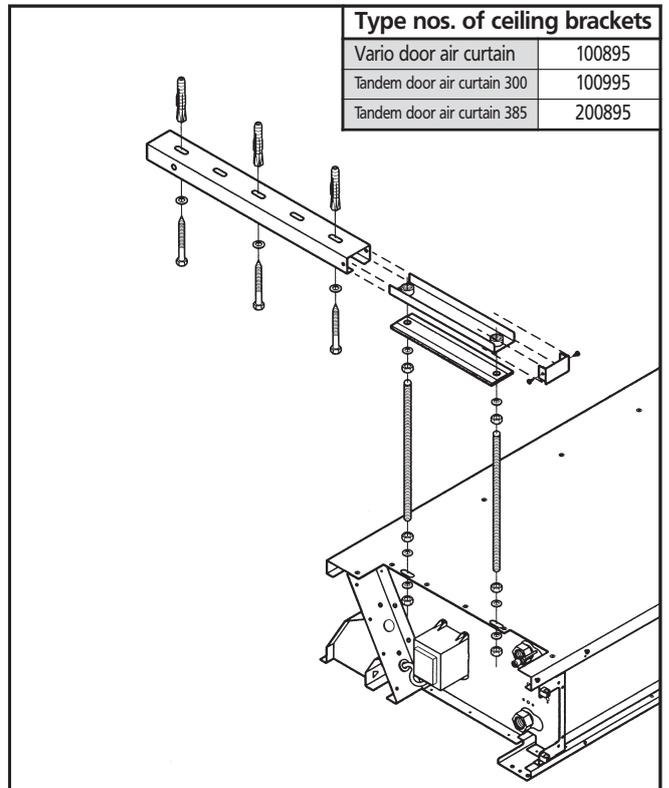
Fit sliding rail



Fitting wall brackets



Fitting ceiling brackets

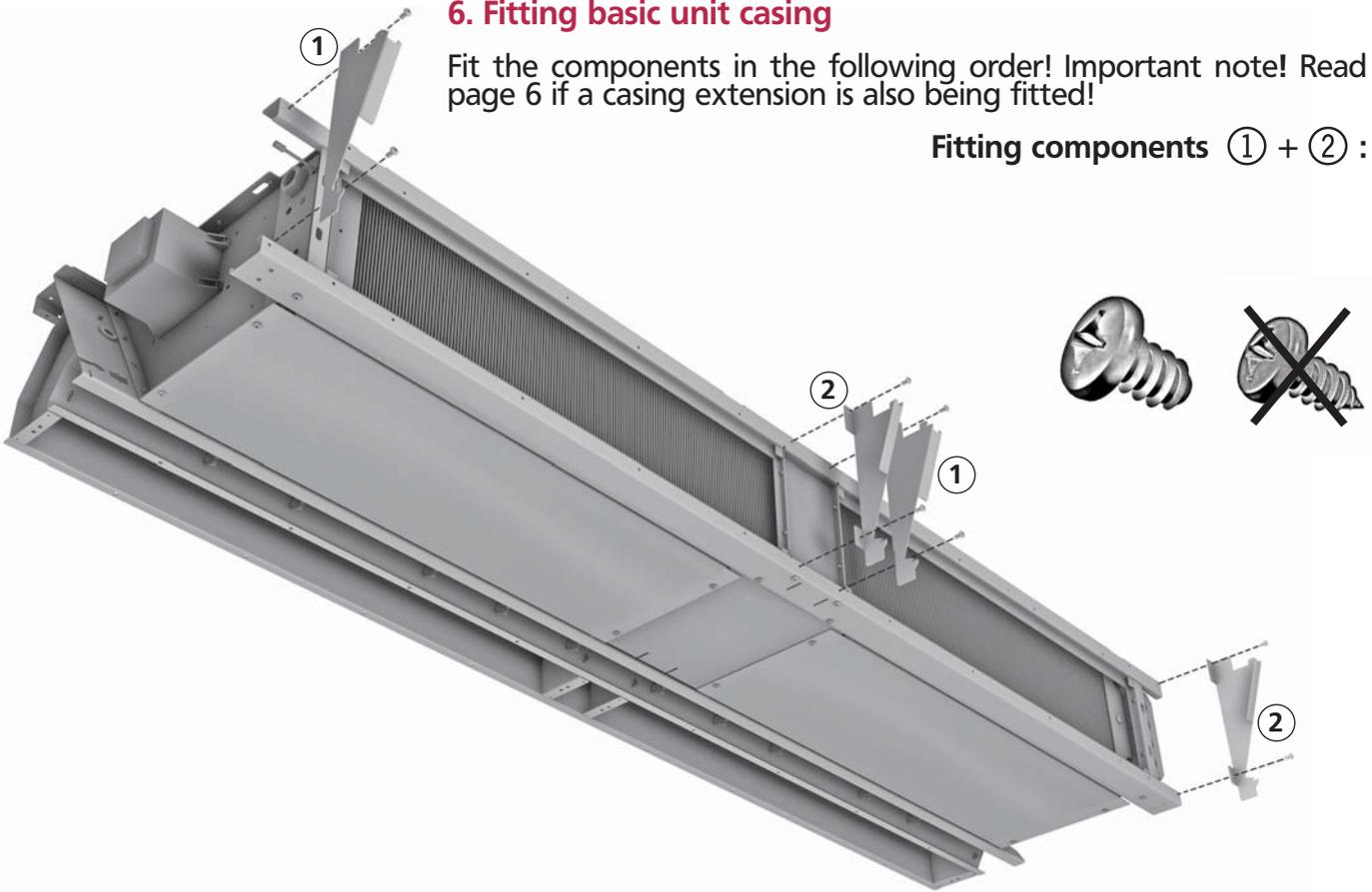


**Important:** Three wall or ceiling brackets are needed for the Tandem door air curtain 300, model 30 (3 m).

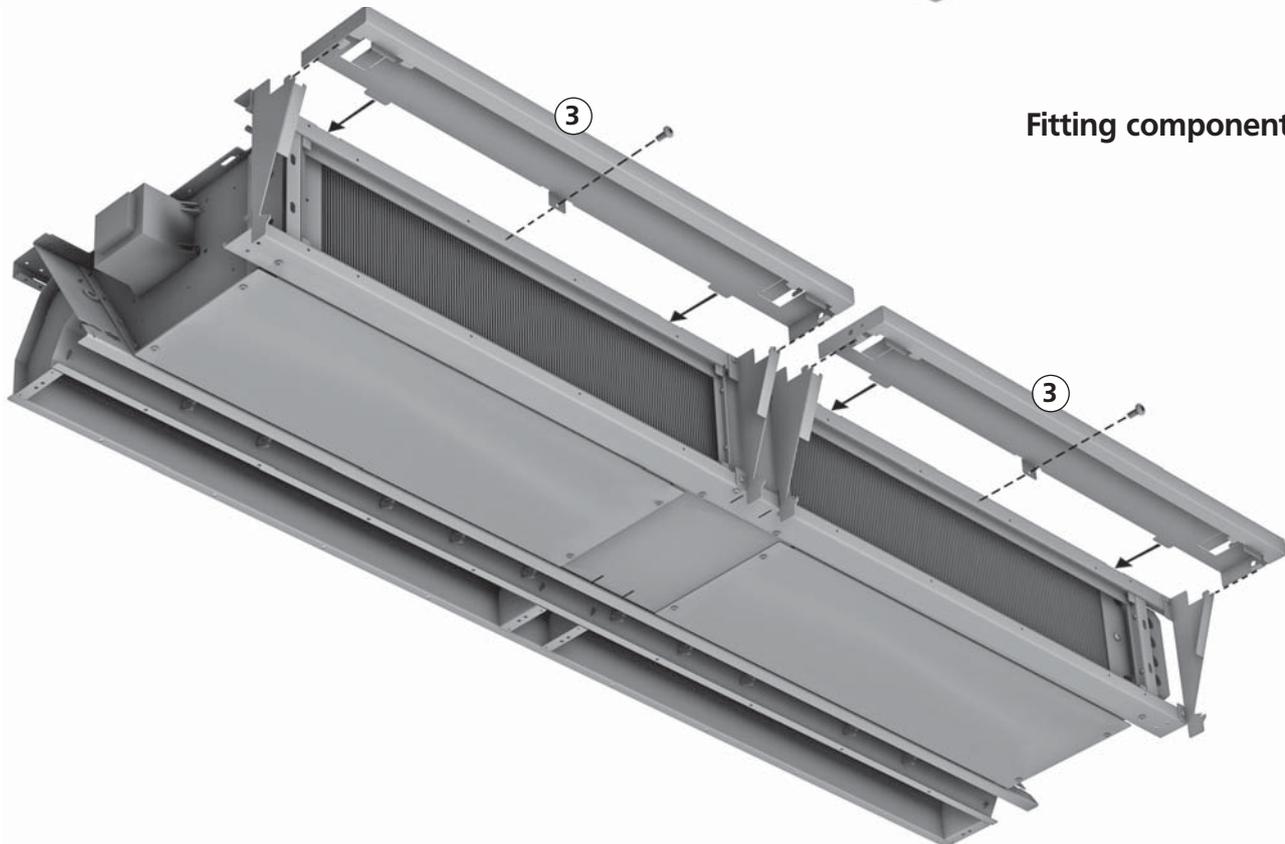
### 6. Fitting basic unit casing

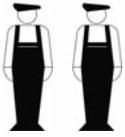
Fit the components in the following order! Important note! Read page 6 if a casing extension is also being fitted!

Fitting components ① + ② :

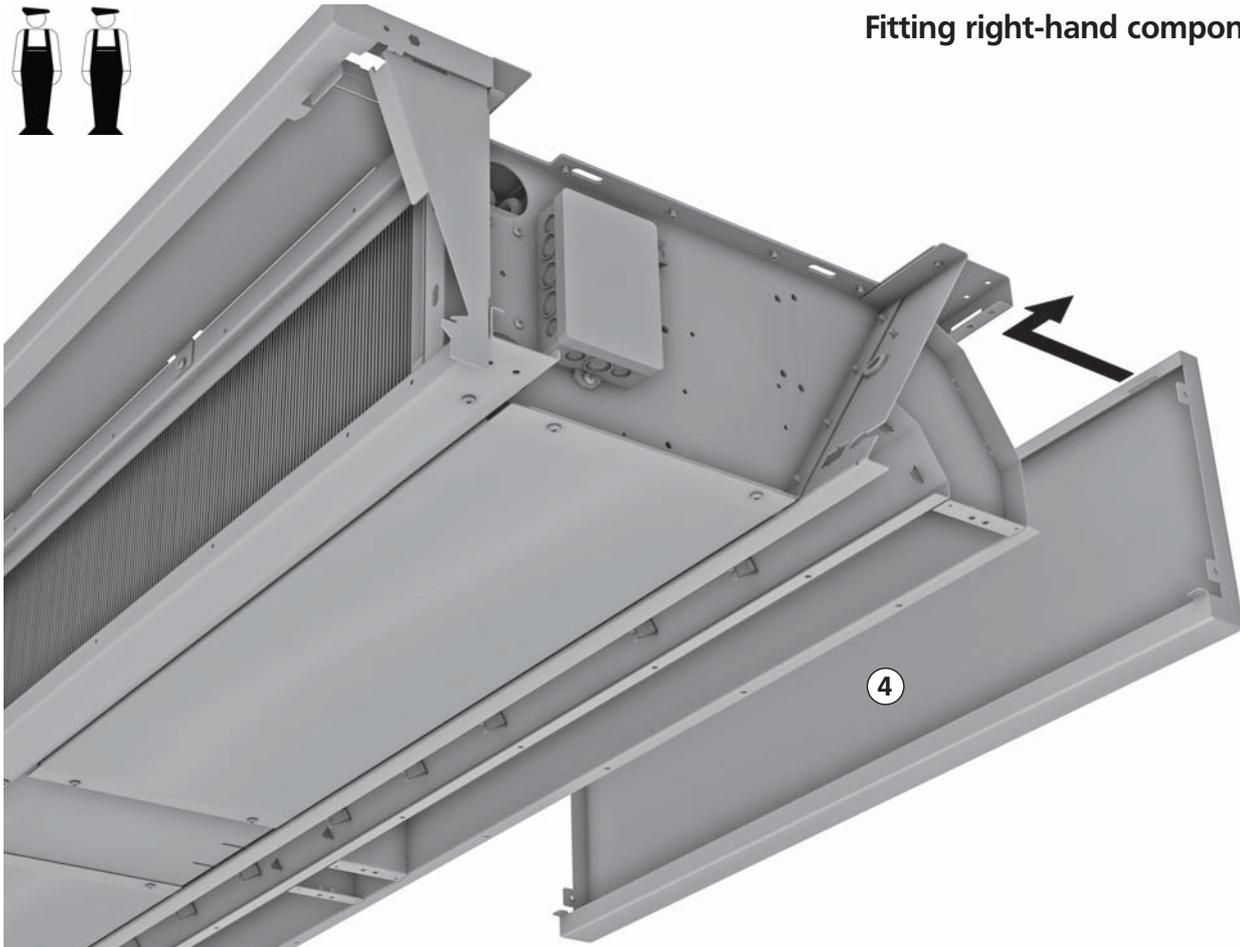


Fitting component ③ :

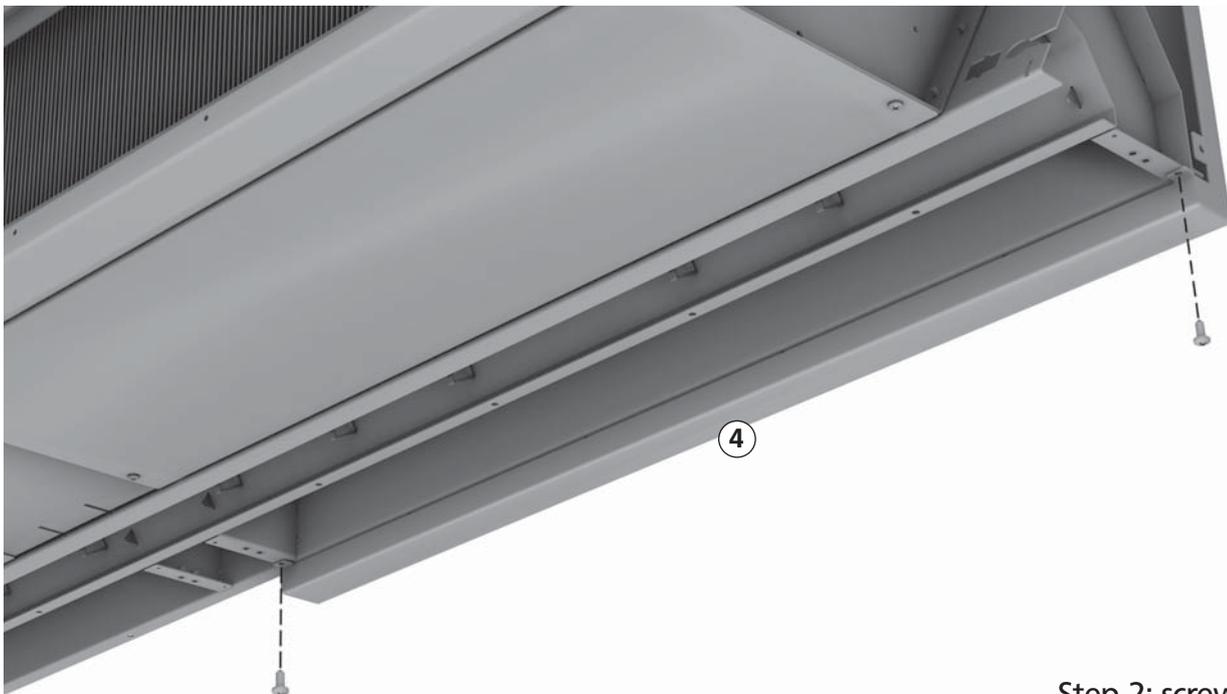




Fitting right-hand component ④ :



step 1

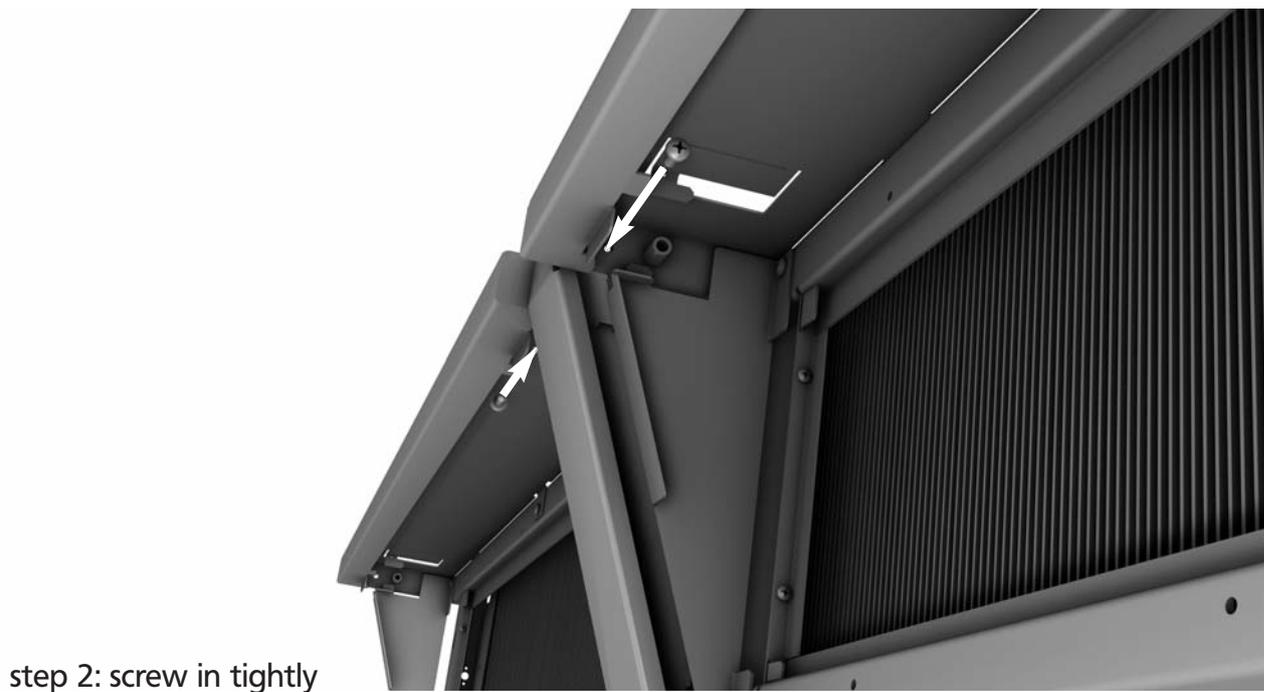
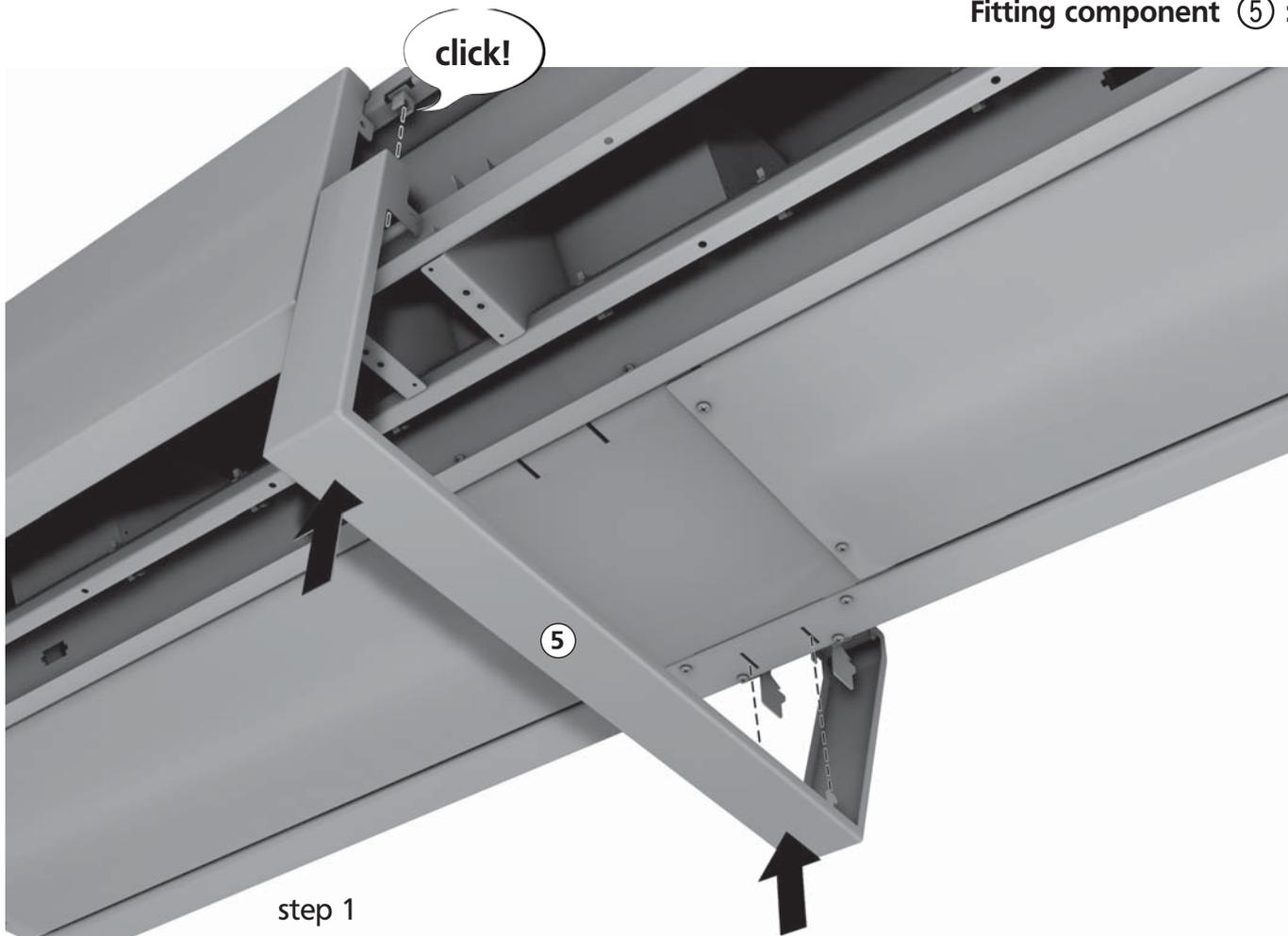


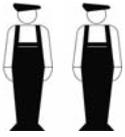
Step 2: screw in tightly

**Important note!** Prior to fitting further components ④ you must fit component ⑤!

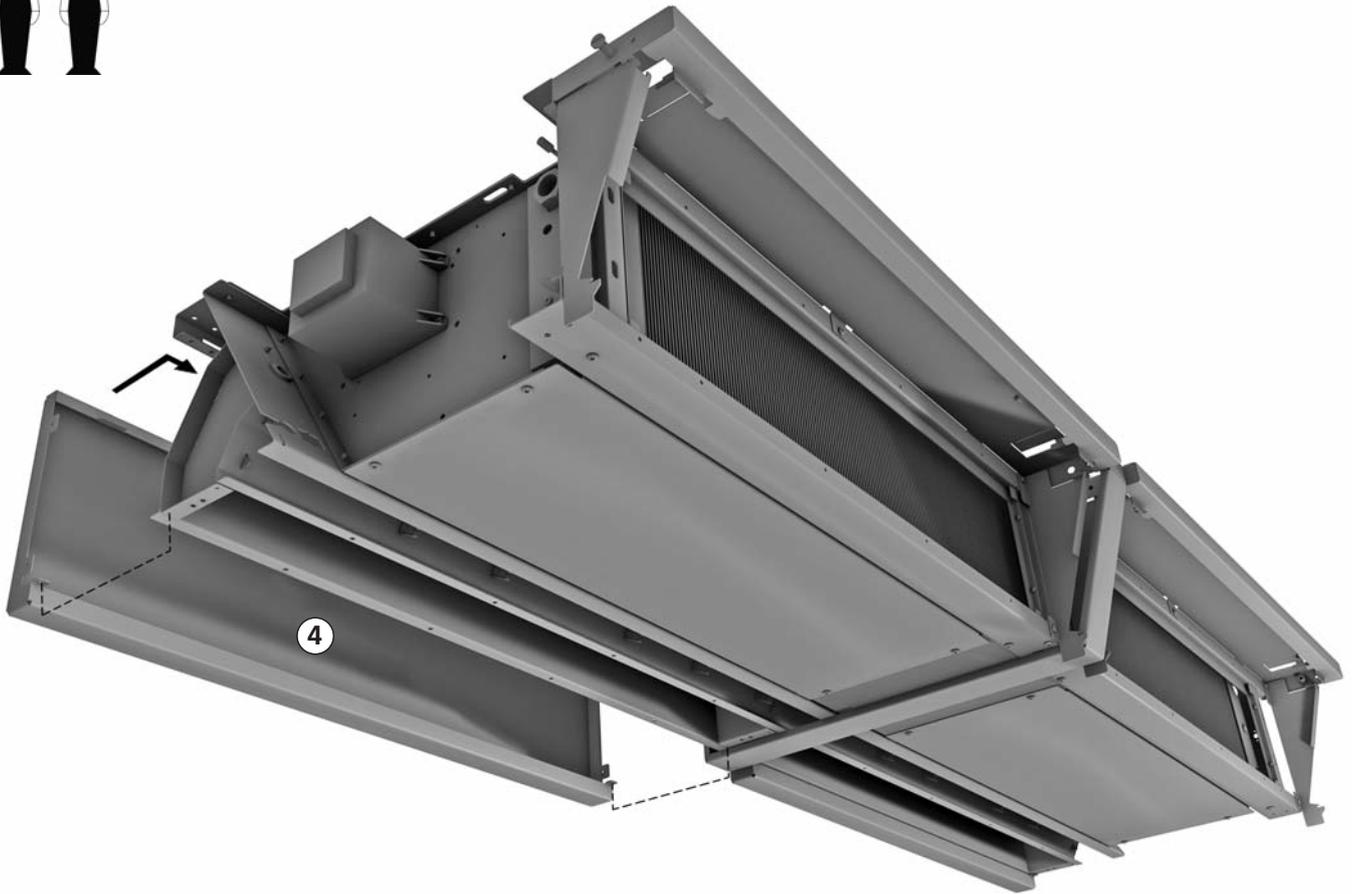
See description on the next page

Fitting component ⑤ :

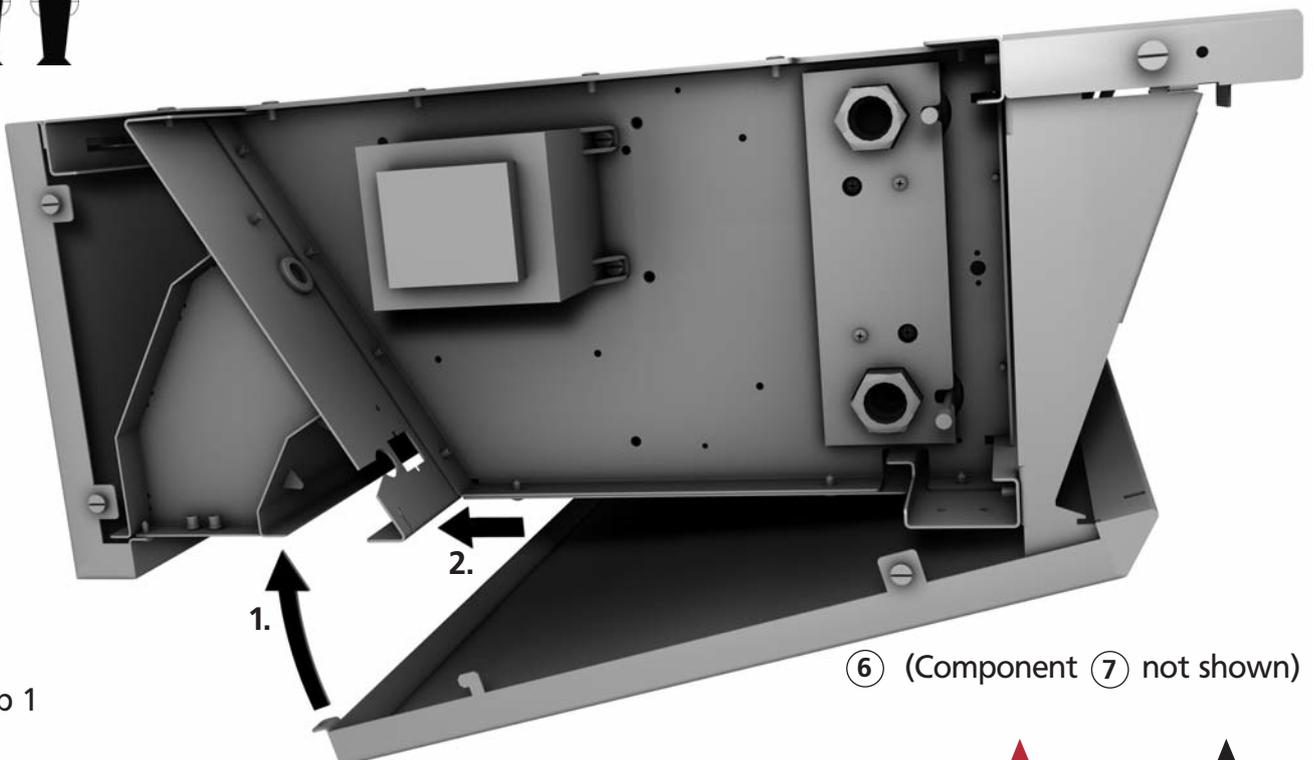




Fitting left-hand components ④ :

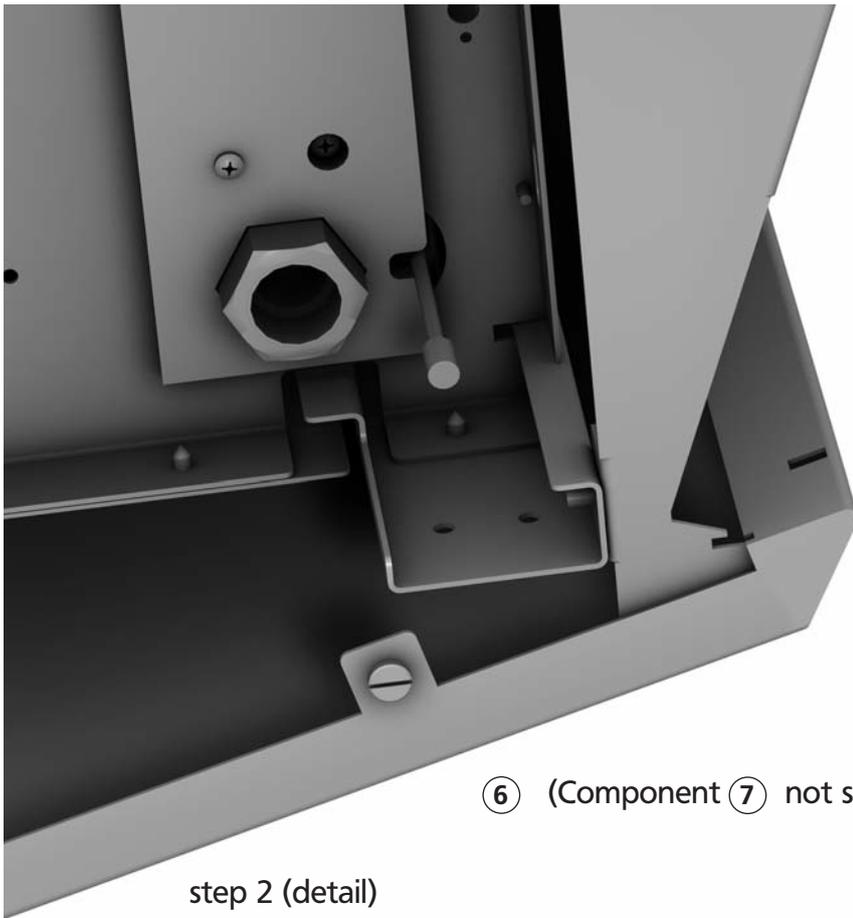


Fitting components ⑥ + ⑦ :



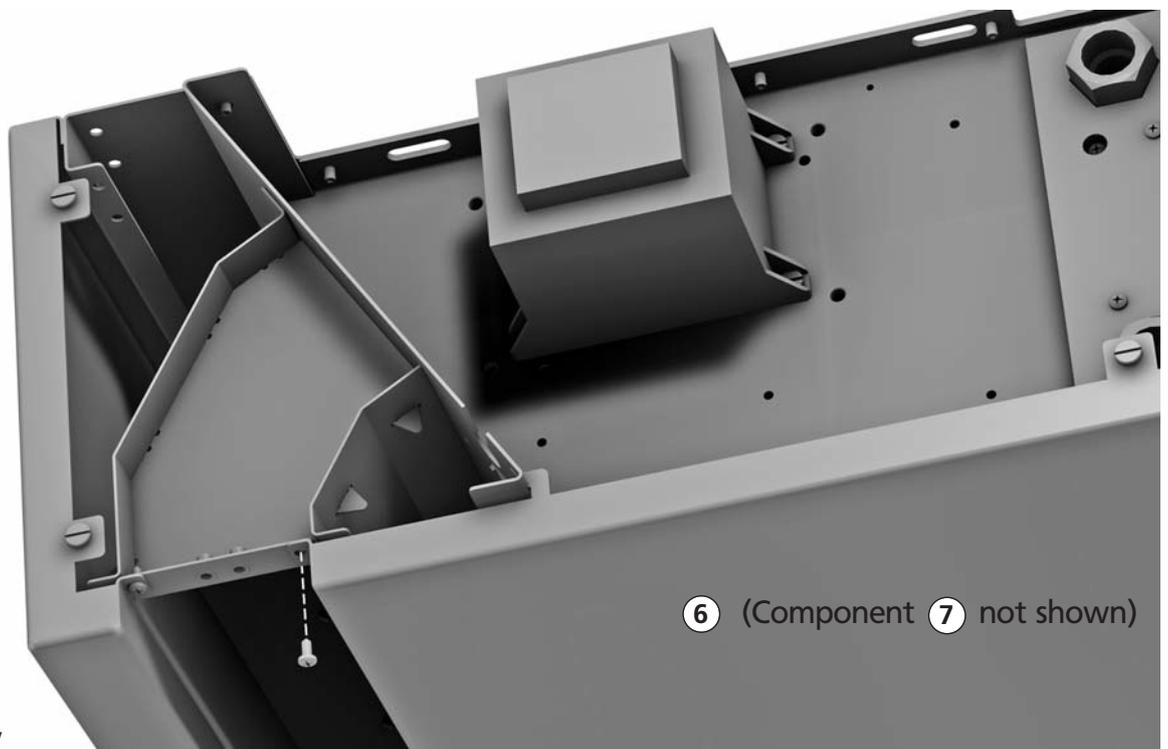
step 1

⑥ (Component ⑦ not shown)



⑥ (Component ⑦ not shown)

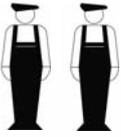
step 2 (detail)



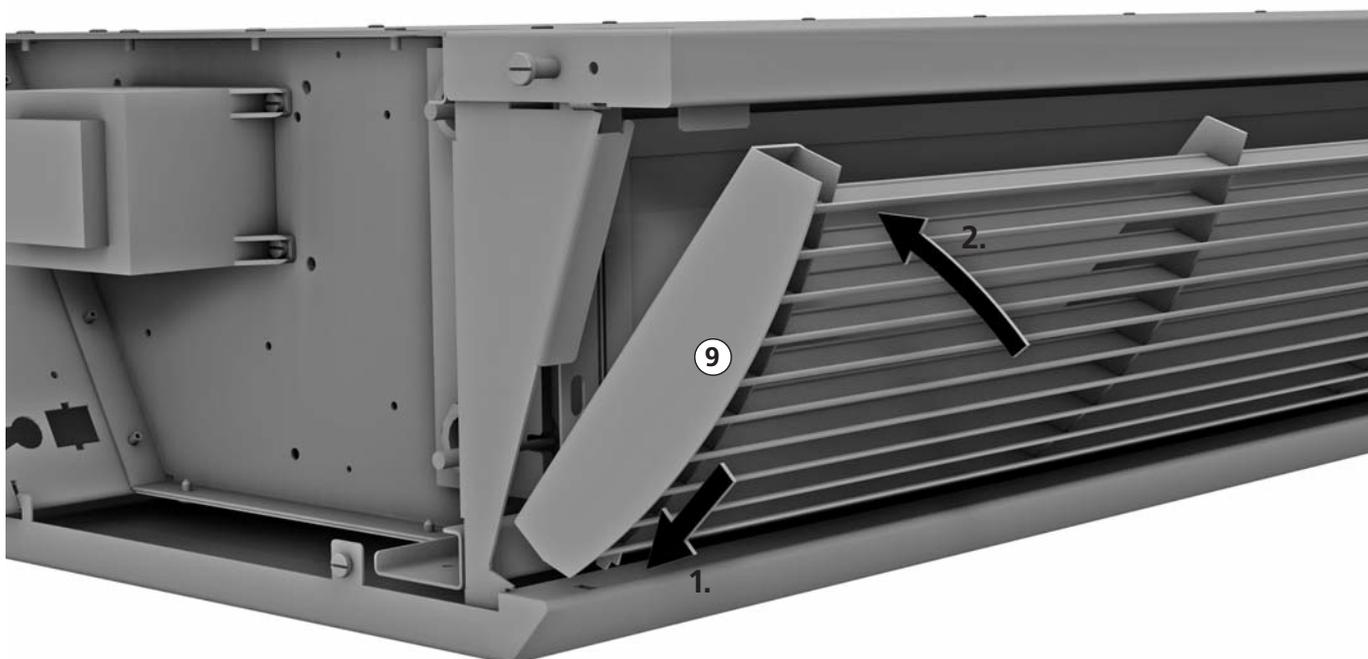
⑥ (Component ⑦ not shown)

step 3:  
screw in tightly

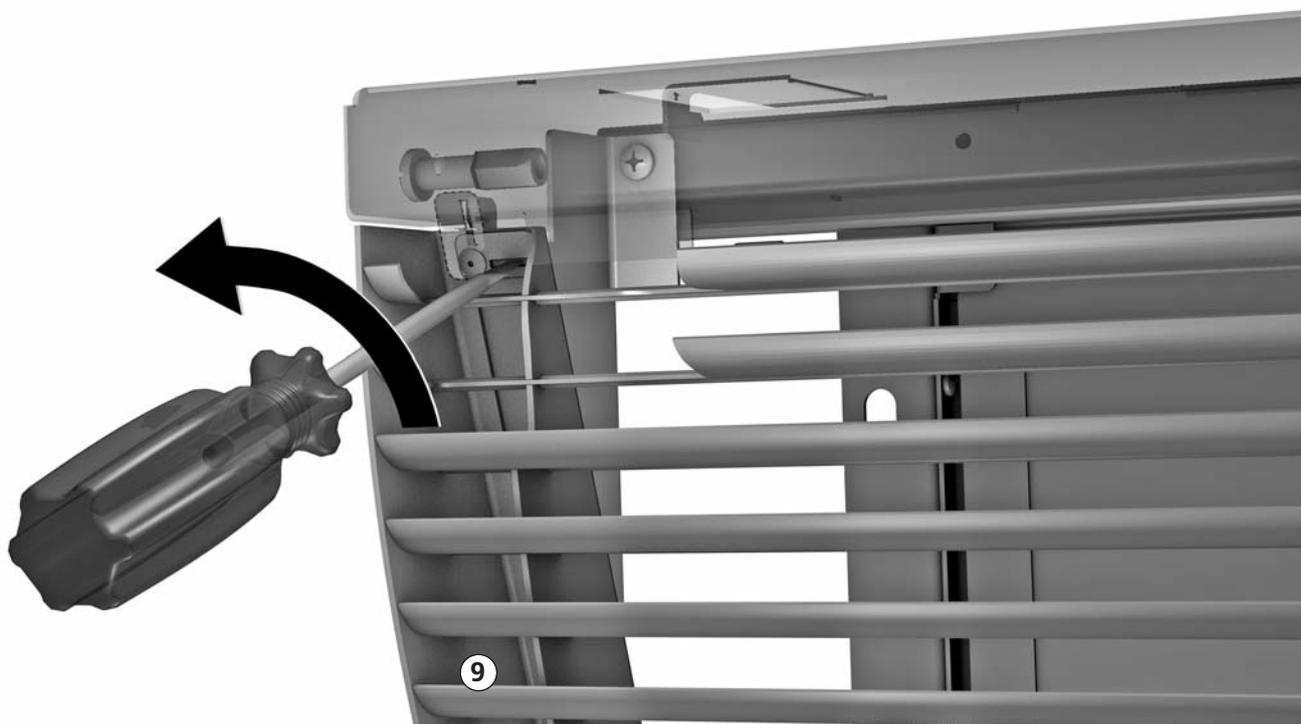
Fitting component ⑩ :



Fitting component ⑨ :

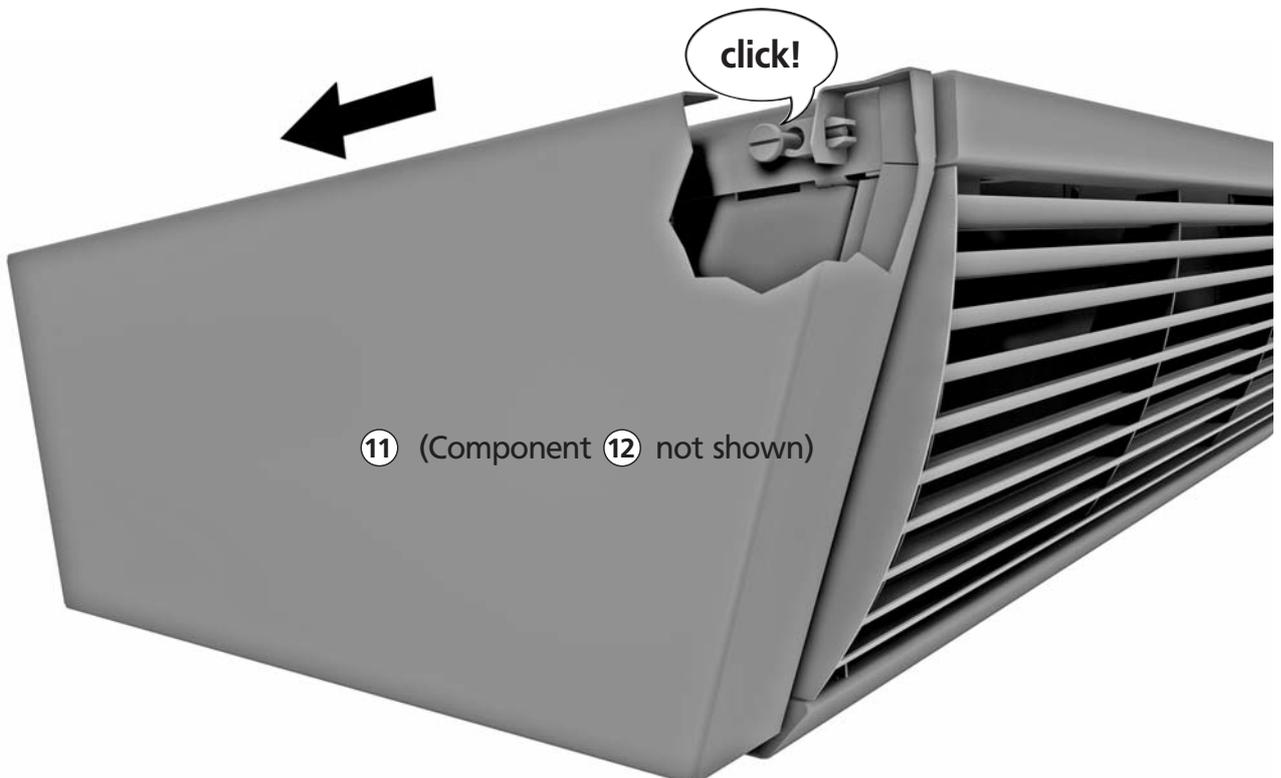
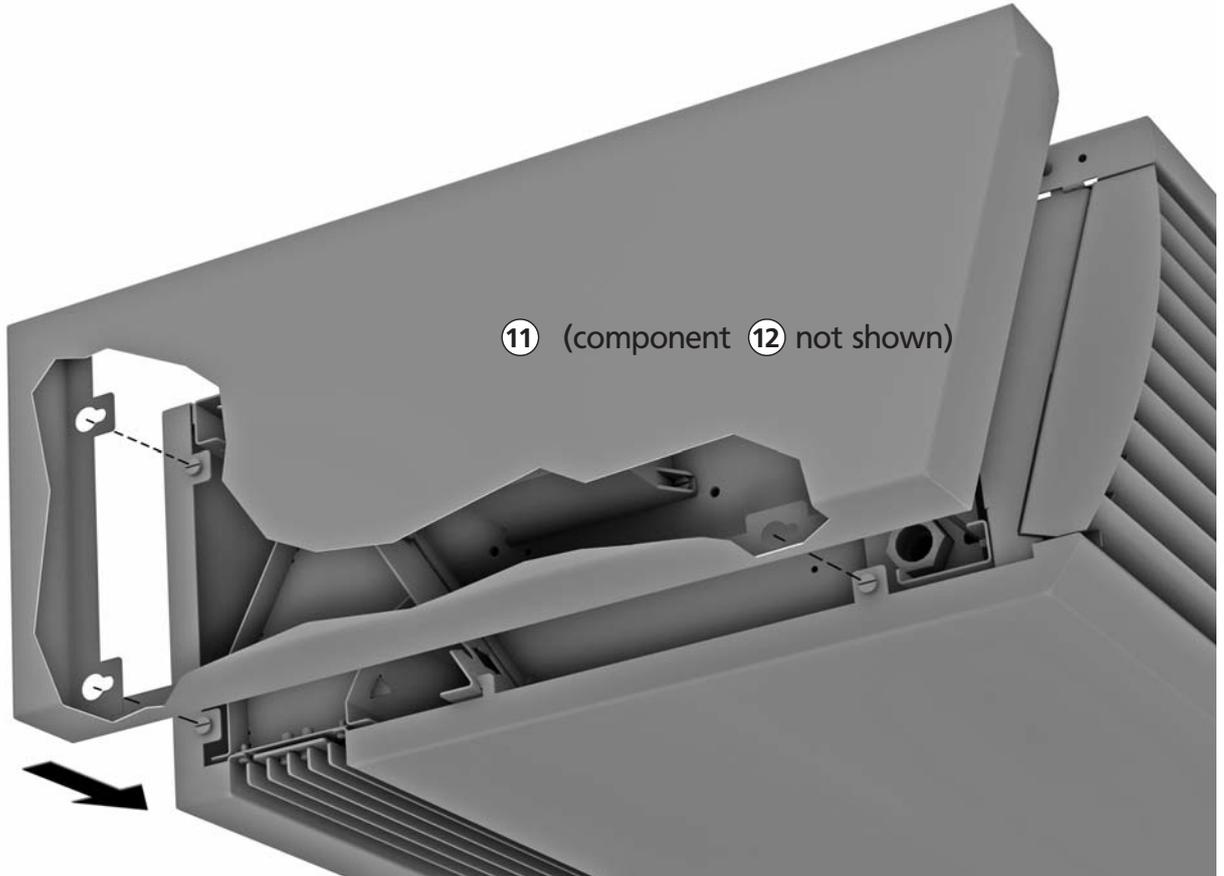


step 1



step 2

Fitting components ⑪ + ⑫ :



## 7. Maintenance

Removing component ⑧ (filter):



### Fan motor

The fans are maintenance-free and their bearings are greased for their service life.

### Heat exchanger

Only clean heat exchangers can guarantee a full heat output over years. Once installation has been completed or after the units have been run without an induction filter, the heat exchangers should be checked and possibly cleaned.

To clean the heat exchanger, remove the casing and vacuum the heat exchanger.

### Induction filter



A G2 (EU2) filter is fitted on the induction side of the basic unit.

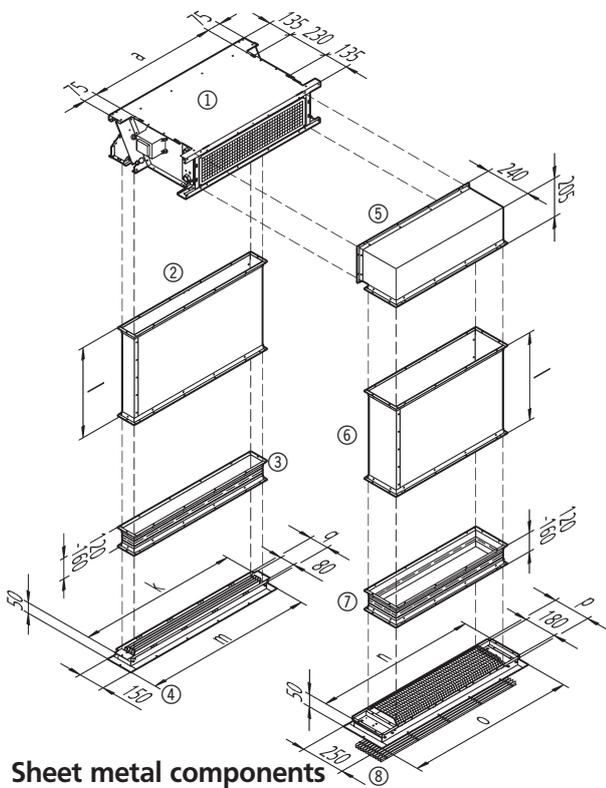
**Important note!** Remove the filter from the basic unit if it is fitted within a suspended ceiling!

If the filter is dirty, the heat output of the unit is reduced and the fans can become damaged by overloading. Regularly clean and monitor the induction filter, at least twice per year, and more often if the units are installed in a dusty atmosphere.

The door air curtain should never be operated without a filter.

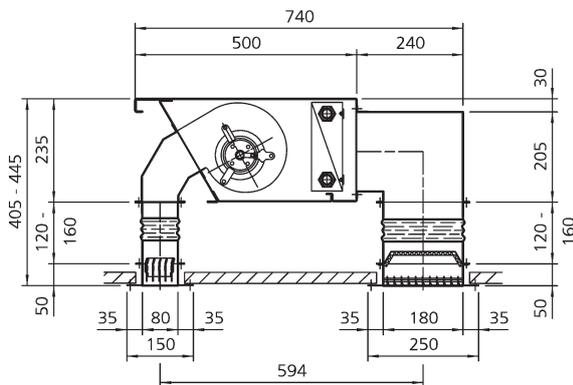
8. Suggested installation within a suspended ceiling

Vario Door air curtain



Sheet metal components

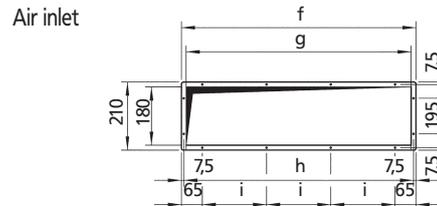
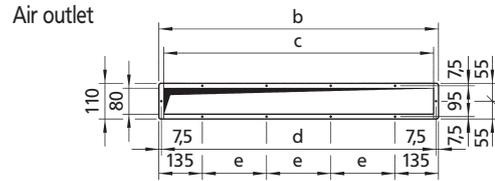
- ① Vario door air curtain, basic unit, horizontal model
- ② Air duct for air outlet
- ③ Flexible connection for air outlet
- ④ Air outlet rectifier
- ⑤ 90° Induction section
- ⑥ Air duct for air inlet
- ⑦ Flexible connection for air inlet
- ⑧ Induction grille



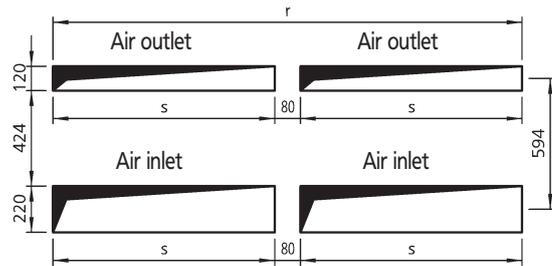
Installation within a suspended ceiling

Horizontal model shown

all dims. in mm



Frame dimensions



Opening dimensions

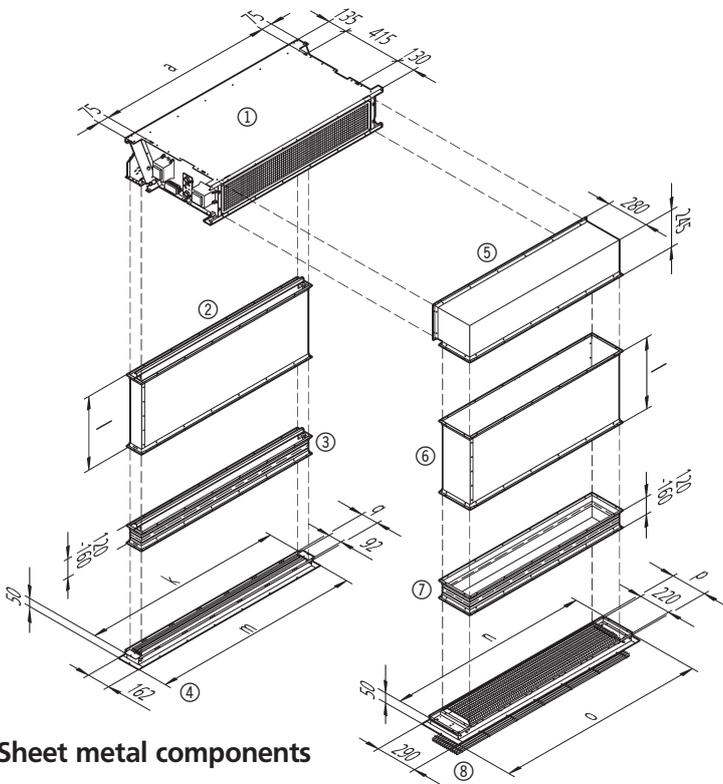
| Model | 10                                    | 15   | 20   | 25    |
|-------|---------------------------------------|------|------|-------|
| a     | 730                                   | 1230 | 1730 | 2230  |
| b     | 870                                   | 1370 | 900* | 1150* |
| c     | 840                                   | 1340 | 870* | 1120* |
| d     | 855                                   | 1355 | 885* | 1135* |
| e     | 200                                   | 220  | 200  | 212,5 |
| f     | 730                                   | 1230 | 820* | 1070* |
| g     | 700                                   | 1200 | 790* | 1040* |
| h     | 715                                   | 1215 | 805* | 1055* |
| i     | 200                                   | 220  | 200  | 212,5 |
| k     | 884                                   | 1384 | 884* | 1134* |
| l     | Please state dimensions when ordering |      |      |       |
| m     | 954                                   | 1454 | 954* | 1204* |
| n     | 884                                   | 1384 | 884* | 1134* |
| o     | 954                                   | 1454 | 954* | 1204* |
| p     | 210                                   | 210  | 210  | 210   |
| q     | 110                                   | 110  | 110  | 110   |
| r     | -                                     | -    | 1920 | 2420  |
| s     | 920                                   | 1420 | 920* | 1170* |

\*Two of each sheet metal component are supplied for model 20 and 25 door air curtains.

## Horizontal models

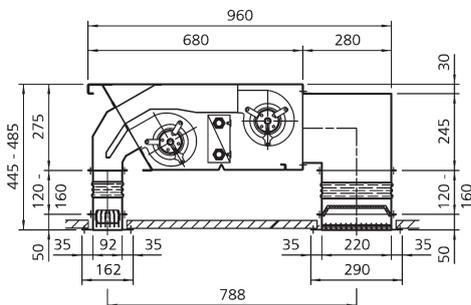
### Installation manual

#### Tandem door air curtain 300



#### Sheet metal components

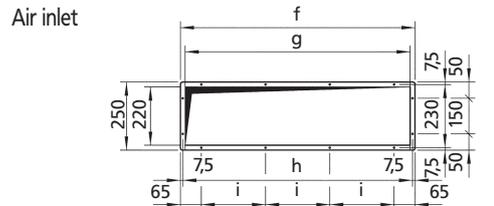
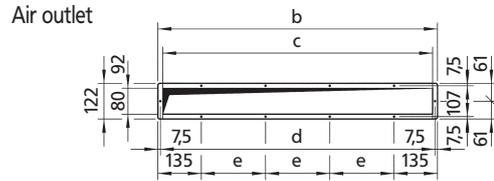
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- ② Air duct for air outlet
- ③ Flexible connection for air outlet
- ④ Air outlet rectifier
- ⑤ 90° Induction section
- ⑥ Air duct for air inlet
- ⑦ Flexible connection for air inlet
- ⑧ Induction grille



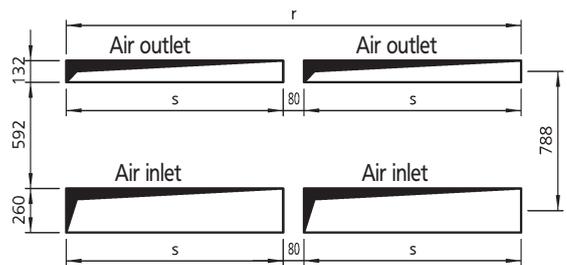
#### Installation within a suspended ceiling

Horizontal model shown

all dims. in mm



#### Frame dimensions

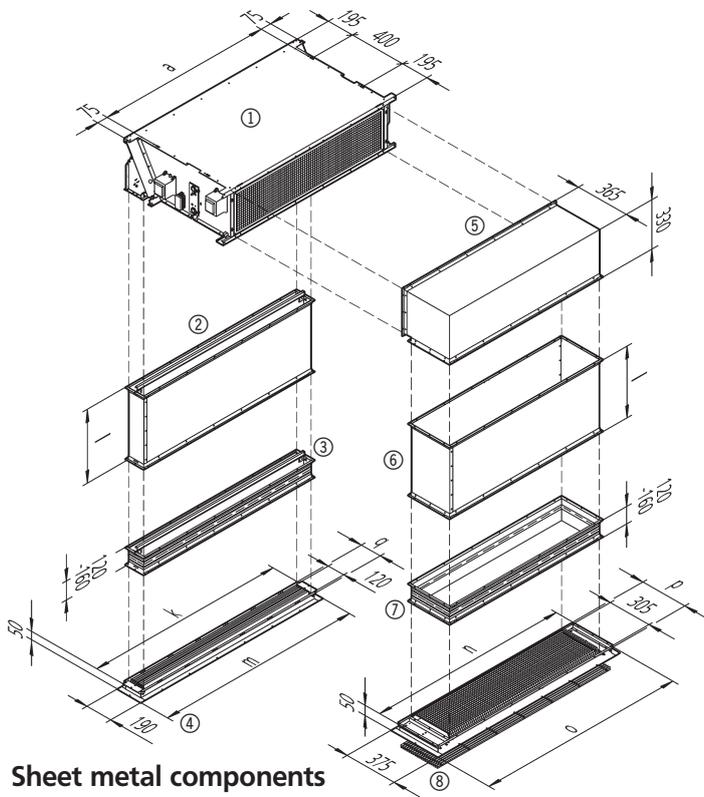


#### Opening dimensions

| Model | 10                                    | 15   | 20   | 25    |
|-------|---------------------------------------|------|------|-------|
| a     | 730                                   | 1230 | 1730 | 2230  |
| b     | 870                                   | 1370 | 900* | 1150* |
| c     | 840                                   | 1340 | 870* | 1120* |
| d     | 855                                   | 1355 | 885* | 1135* |
| e     | 200                                   | 220  | 200  | 212,5 |
| f     | 730                                   | 1230 | 820* | 1070* |
| g     | 700                                   | 1200 | 790* | 1040* |
| h     | 715                                   | 1215 | 805* | 1055* |
| i     | 200                                   | 220  | 200  | 212,5 |
| k     | 884                                   | 1384 | 884* | 1134* |
| l     | Please state dimensions when ordering |      |      |       |
| m     | 954                                   | 1454 | 954* | 1204* |
| n     | 884                                   | 1384 | 884* | 1134* |
| o     | 954                                   | 1454 | 954* | 1204* |
| p     | 250                                   | 250  | 250  | 250   |
| q     | 122                                   | 122  | 122  | 122   |
| r     | -                                     | -    | 1920 | 2420  |
| s     | 920                                   | 1420 | 920* | 1170* |

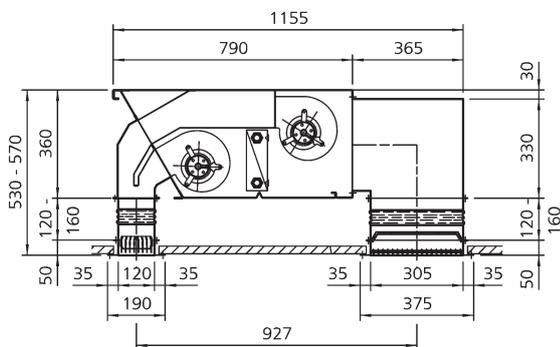
\*Two of each sheet metal component are supplied for model 20 and 25 door air curtains.

Tandem Door air curtains 385



Sheet metal components

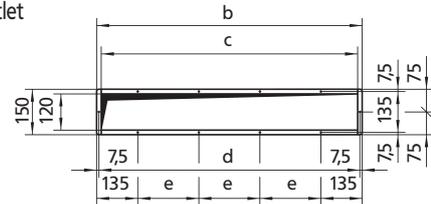
- ① Vario door air curtain, basic unit, horizontal model
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- ⑧ Induction grille



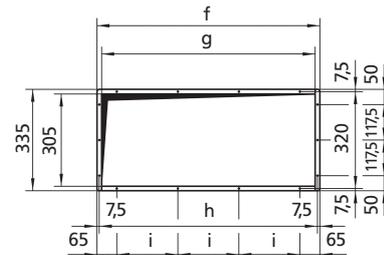
Installation within a suspended ceiling

Horizontal model shown

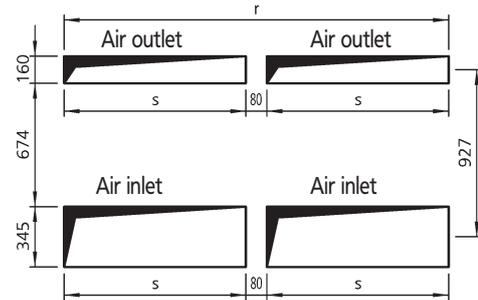
Air outlet



Air inlet



Frame dimensions

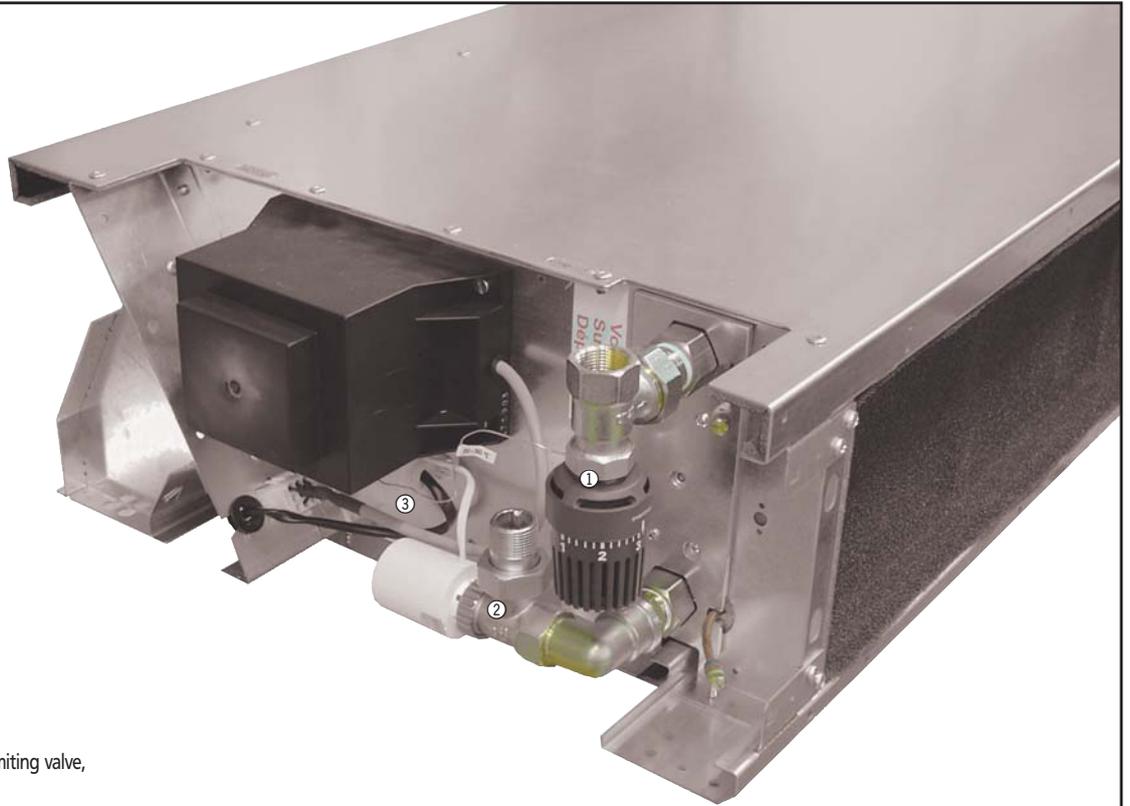


Opening dimensions

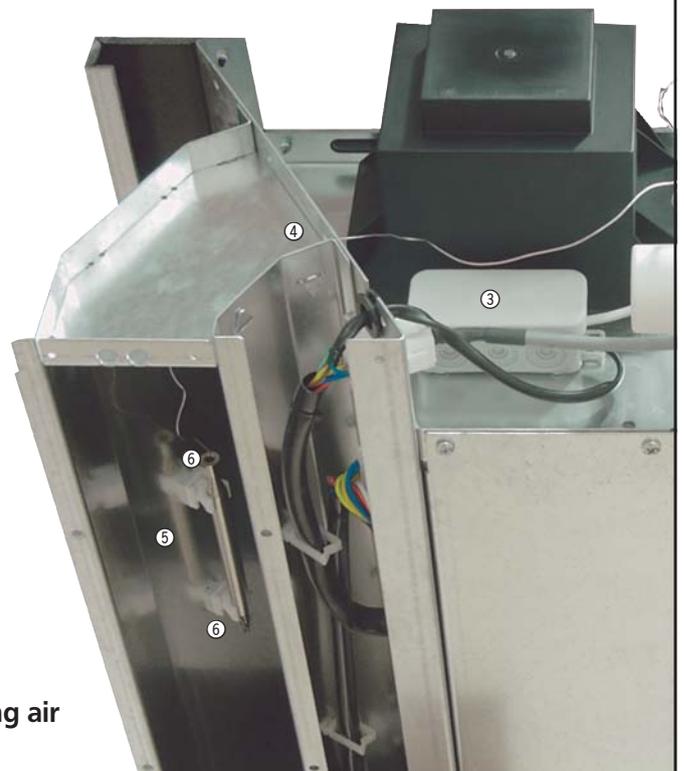
| Model           | 15                                    | 20   | 25    |
|-----------------|---------------------------------------|------|-------|
| a               | 1230                                  | 1730 | 2230  |
| b               | 1370                                  | 900* | 1150* |
| c               | 1340                                  | 870* | 1120* |
| d               | 1355                                  | 885* | 1135* |
| e               | 220                                   | 200  | 212,5 |
| f               | 1230                                  | 820* | 1070* |
| g               | 1200                                  | 790* | 1040* |
| h               | 1215                                  | 805* | 1055* |
| i               | 220                                   | 200  | 212,5 |
| k               | 1384                                  | 884* | 1134* |
| l               | Please state dimensions when ordering |      |       |
| m               | 1454                                  | 954* | 1204* |
| n               | 1384                                  | 884* | 1134* |
| o               | 1454                                  | 954* | 1204* |
| p               | 335                                   | 335  | 335   |
| q               | 150                                   | 150  | 150   |
| r               | -                                     | 1920 | 2420  |
| all dims. in mm | 1420                                  | 920* | 1170* |

\*Two of each sheet metal component are supplied for model 20 and 25 door air curtains.

**9. Vario Door air curtains: Fitting thermoelectric shut-off valve and leaving air temperature limiting valve**

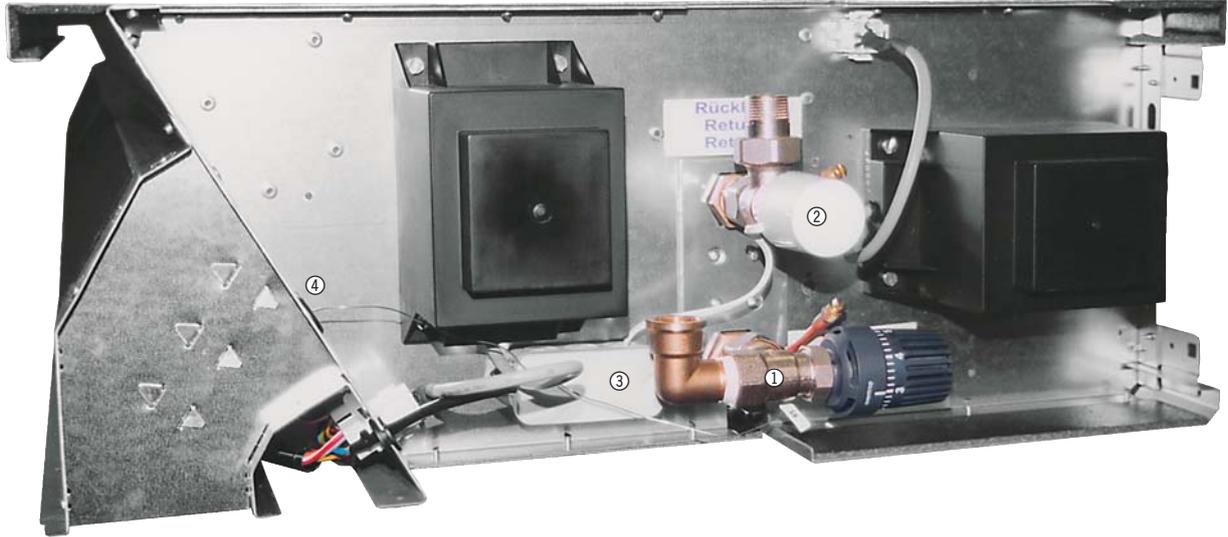


- ① Leaving air temperature limiting valve, Type 100965 (flow)
- ② Thermoelectric shut-off valve, Type 100910 (return)
- ③ Electrical junction box for thermoelectric shut-off valve
- ④ Opening for remote sensor for leaving air temperature limiting valve
- ⑤ Remote sensor for leaving air temperature limiting valve (fit using clips provided ⑥)



**Fitting remote sensor for leaving air temperature limiting valve**

10. Tandem door air curtain 300: Fitting thermoelectric shut-off valve and leaving air temperature limiting valve.

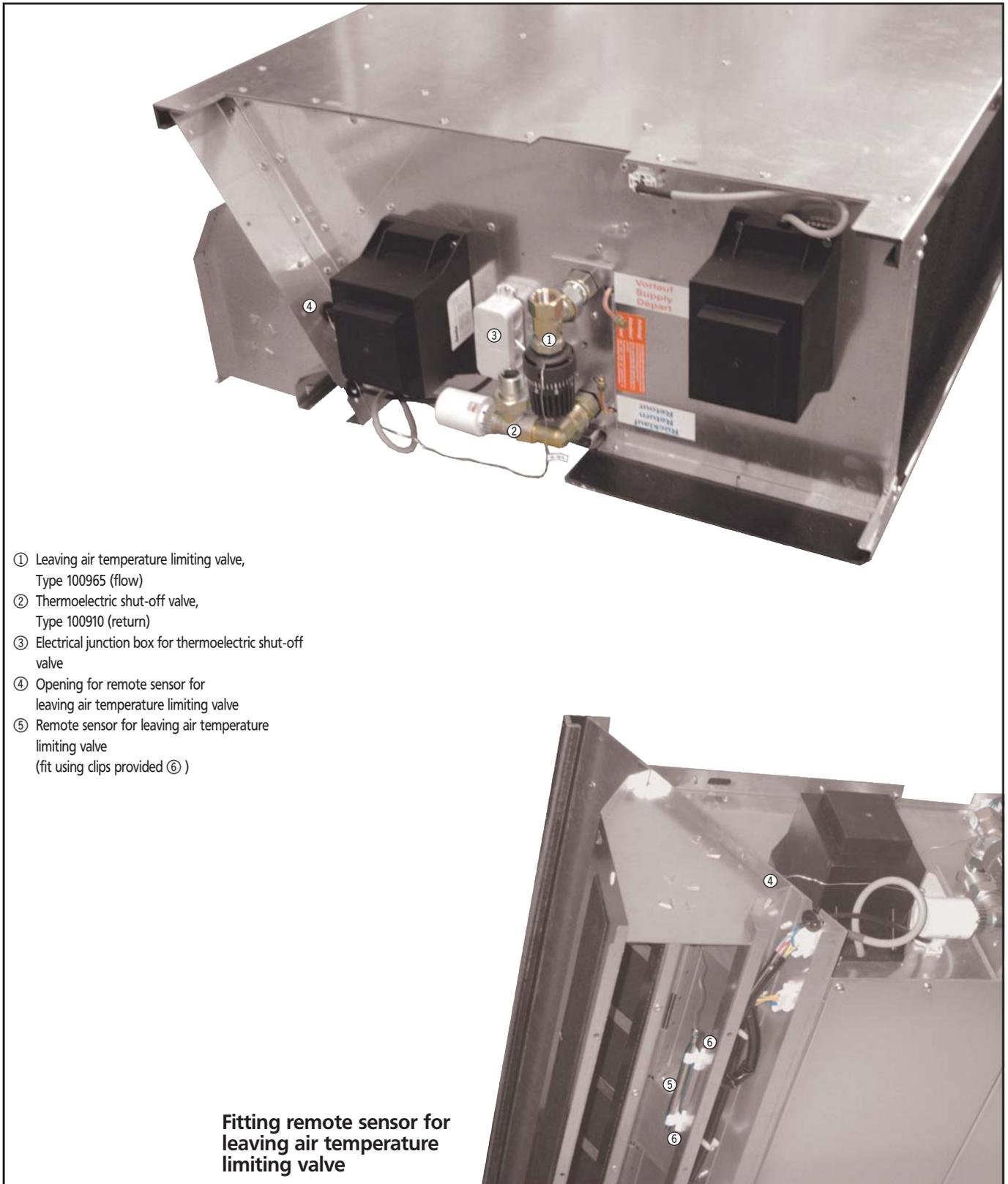


- ① Leaving air temperature limiting valve, Type 100965 (flow)
- ② Thermoelectric shut-off valve, Type 100910 (return)
- ③ Electrical junction box for thermoelectric shut-off valve
- ④ Opening for remote sensor for leaving air temperature limiting valve
- ⑤ Remote sensor for leaving air temperature limiting valve (fit using clips provided ⑥)



Fitting remote sensor for leaving air temperature limiting valve

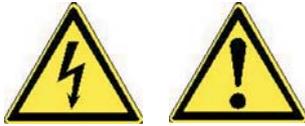
**11. Tandem Door air curtain 385: Fitting thermoelectric shut-off valve and leaving air temperature limiting valve**



- ① Leaving air temperature limiting valve, Type 100965 (flow)
- ② Thermoelectric shut-off valve, Type 100910 (return)
- ③ Electrical junction box for thermoelectric shut-off valve
- ④ Opening for remote sensor for leaving air temperature limiting valve
- ⑤ Remote sensor for leaving air temperature limiting valve (fit using clips provided ⑥)

**Fitting remote sensor for leaving air temperature limiting valve**

## 12. Electrical wiring



### Safety information

The wiring of this equipment requires technical knowledge in the field of electrical engineering. This knowledge is usually gained as part of vocational training in electrical engineering and is not described in detail here.

**Electrical wiring should only be carried out on equipment which has been fitted with an all-pole mains circuit breaker with a contact gap of at least 3 mm!**

The following safety advice should be followed before any work is carried out on the controller or on the door air curtain:

- The system should be disconnected from the mains and prevented from accidental reconnection.
- All wiring should be carried out in accordance with the wiring diagrams enclosed with the equipment
- Wiring should only be carried out in accordance with current Association of German Electricians' (VDE) and EN guidelines and Technical Wiring Conditions laid down by the national energy supply companies
- The unit should only be wired using fixed cabling

Incorrect wiring can result in damage to the unit! The manufacturer cannot be held liable for any personal injury or damage to property caused by incorrect wiring or improper operation of the equipment!

| Electrical rating |         |   | Baugröße |      |      |      |      |      |
|-------------------|---------|---|----------|------|------|------|------|------|
| Variante          |         |   | 10       | 15   | 20   | 25   | 30   | 35   |
| Vario             | Current | A | 1.68     | 2.48 | 3.27 | 4.77 | 4.77 | 5.75 |
|                   | Power   | W | 392      | 573  | 754  | 1091 | 1091 | 1327 |
| Tandem 300        | Current | A | 2.55     | 3.81 | 4.85 | 7.10 | 7.10 | -    |
|                   | Power   | W | 590      | 900  | 1120 | 1603 | 1603 | -    |
| Tandem 385        | Current | A | -        | 4.96 | 6.54 | 9.54 | -    | -    |
|                   | Power   | W | -        | 1146 | 1508 | 2182 | -    | -    |

### Wiring

The terminal strip is located on the right-hand side of the unit, seen from the inlet side, behind the removable side panel.

- Remove the side panel
- Remove the cover of the terminal strip
- Connect up all wires in accordance with the wiring diagrams supplied. Take into account the different controls options.

### Controls options

The cabling and wiring depends on the controllers used. The relevant wiring diagrams are supplied with the respective units.

**Electromechanical option**

Wiring:

- The mains voltage is wired to the integral transformer within the door air curtain.
- The five voltage outputs on the transformers are wired to the stage switch.
- The required fan speed (= voltage level) is connected via the foot contact on the switch for the fans.
- The heating valve (if used) is opened/closed via a separate 230V contact.

Insert a link on the stage switch as shown on the table below if you intend to use a Kampmann stage switch!

| Controls options  | Type                                 | Link                      |
|---|--------------------------------------|---------------------------|
| 3-Stage switch (surface-mounted)<br>3-Stage switch (flush-mounted)  | 100917<br>100918                     | valve not possible        |
| 3-Stage summer/winter switch (surf-mounted)<br>3-Stage summer/winter switch (flush-mounted)   | 100920<br>100922                     | Terminal 6 - Terminal 7   |
| 5-Stage switch (surface-mounted)<br>5-Stage switch (flush-mounted)<br>5-Stage summer/winter switch (surf.mounted)<br>5-Stage summer/winter switch (flush-mounted) | 100925<br>100926<br>100928<br>100929 | Terminal 10 - Terminal 12 |

**Parallel operation**

A maximum of two door air curtains can be switched in parallel using a cascade module type 100906. The size of the group can be increased using further cascade modules. The number of cascade modules required depends on the number of door air curtains being operated in parallel and can be taken from the table below.

| No. of cascade modules when door air curtains are operated in parallel (maximum 10 units) |                                |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |    |    |   |   |   |   |   |   |   |   |   |    |
|---|--------------------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|----|----|---|---|---|---|---|---|---|---|---|----|
|   | No. of Vario door air curtains |   |   |   |   |   |   |   |   |    | No. of Tandem door air curtains                     |   |   |   |   |   |   |   |    |    |   |   |   |   |   |   |   |   |   |    |
|   |                                |   |   |   |   |   |   |   |   |    | Individual control (secondary and warm air curtain) |   |   |   |   |   |   |   |    |    | Parallel control (secondary and warm air curtain) |   |   |   |   |   |   |   |   |    |
|   | 1                              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  | 10 | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| No. of cascade modules when a stage switch is used  | 0                              | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5  | 0   | 2 | 4 | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 0   | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5  |

Wiring diagrams

Vario door air curtain - individual control

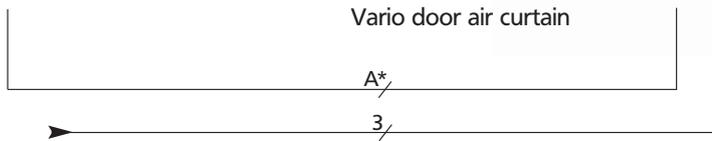


3-stage switch surf. mounted, type 100917



Vario door air curtain

Mains  
230 V/50 Hz,  
fuse by others



Vario door air curtain - parallel control



Vario door air curtain



Vario door air curtain

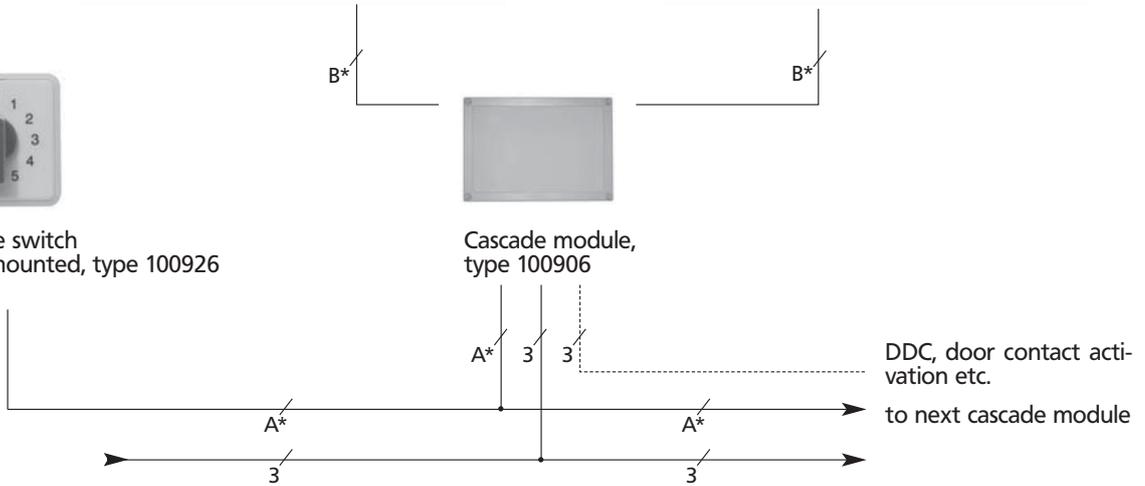


5-stage switch flush-mounted, type 100926



Cascade module, type 100906

Mains  
230 V/50 Hz,  
fuse by others



\* The no. of wires required for the lines indicated with letters are given in the table below. The no., of wires incl. earthing conductor are given on the diagram itself. The figure in brackets applies if a frost protection thermostat is used (only required in unheated rooms).

No. of wires incl. earthing conductor

| Cable | 3-Stage switch, type 100917/100918 | 3-Stage summer/winter switch, type 100920/100922 | 5-Stage switch, type 100925/100926 | 5-Stage summer/winter switch, type 100928/100929 |
|-------|------------------------------------|--|------------------------------------|--|
| A     | 5                                  | 7  | 8                                  | 8  |
| B     | 6 (9)                              | 7 (10)   | 9 (12)                             | 9 (12)   |

# 1.51 | 2.51 | 2.52 Vario Door air curtains, Tandem Door air curtains 300/385

## Horizontal models

### Installation manual

#### Tandem door air curtain - individual control (separate secondary and warm air curtains)



3-Stage switch flush-mounted, type 100918

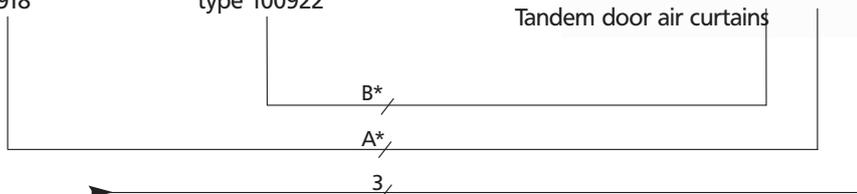


3-Stage summer/winter switch, flush-mounted, type 100922



Tandem door air curtains

Mains  
230 V/50 Hz  
fuse by others



#### Tandem door air curtain (separate secondary and warm air curtains)



5-Stage switch, surface-mounted, type 100925



5-Stage summer/winter switch, surface-mounted, type 100928



Tandem door air curtains

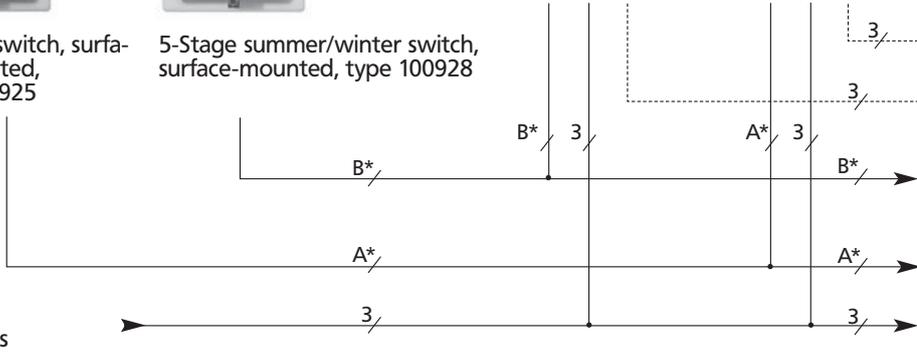


Cascade module for warm air curtain type 100906



Cascade module for secondary air curtain, type 100906

Mains  
230 V/50 Hz  
fuse by others



DDC / door contact activation etc.  
DDC / door contact activation etc.  
to further warm air curtain cascade modules  
to further secondary air curtain cascade modules  
to next cascade module

\*The no. of wires required for the lines indicated with letters are given in the table below. The no., of wires incl. earthing conductor are given on the diagram itself. The figure in brackets applies if a frost protection thermostat is used (only required in unheated rooms).

#### No. of wires incl. earthing conductor

| Cable | 3-Stage switch, type 100917/100918 | 3-Stage summer/winter switch, type 100920/100922 | 5-Stage switch, type 100925/100926 | 5-Stage summer/winter switch, type 100928/100929 |
|-------|------------------------------------|--|------------------------------------|--|
| A     | 5                                  | /  | 7                                  | /  |
| B     | /                                  | 7  | /                                  | 8  |
| C     | 6 (9)                              | /  | 8 (11)                             | /  |
| D     | /                                  | 7 (10)   | /                                  | 9 (12)   |

Tandem door air curtain - individual control (parallel secondary and warm air curtains)

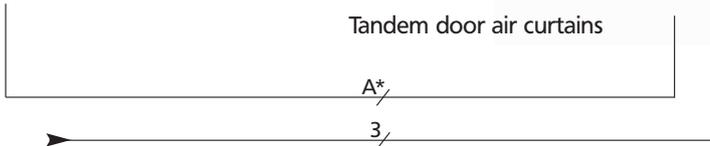


3-Stage switch surface-mounted, type 100917



Tandem door air curtains

Mains  
230 V/50 Hz,  
fuse by others



Tandem door air curtain - parallel control



Tandem door air curtain



Tandem door air curtain

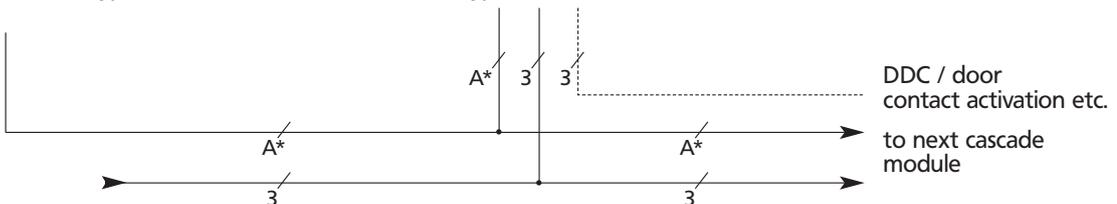


5-Stage switch flush-mounted, type 100926



Cascade module, type 100906

Mains  
230 V/50 Hz,  
fuse by others



\*The no. of wires required for the lines indicated with letters are given in the table below. The no., of wires incl. earthing conductor are given on the diagram itself. The figure in brackets applies if a frost protection thermostat is used (only required in unheated rooms).

| No. of wires incl. earthing conductor |                                    |  |                                    |  |
|---------------------------------------|------------------------------------|--|------------------------------------|--|
| Cable                                 | 3-Stage switch, type 100917/100918 | 3-Stage summer/winter switch, type 100920/100922 | 5-Stage switch, type 100925/100926 | 5-Stage summer/winter switch, type 100928/100929 |
| A                                     | 5                                  | 7  | 8                                  | 8  |
| B                                     | 6 (9)                              | 7 (10)   | 9 (12)                             | 9 (12)   |

# 1.51 | 2.51 | 2.52 Vario Door air curtains, Tandem Door air curtains 300/385

## Horizontal models

### Installation manual



5-stage controller type 200925

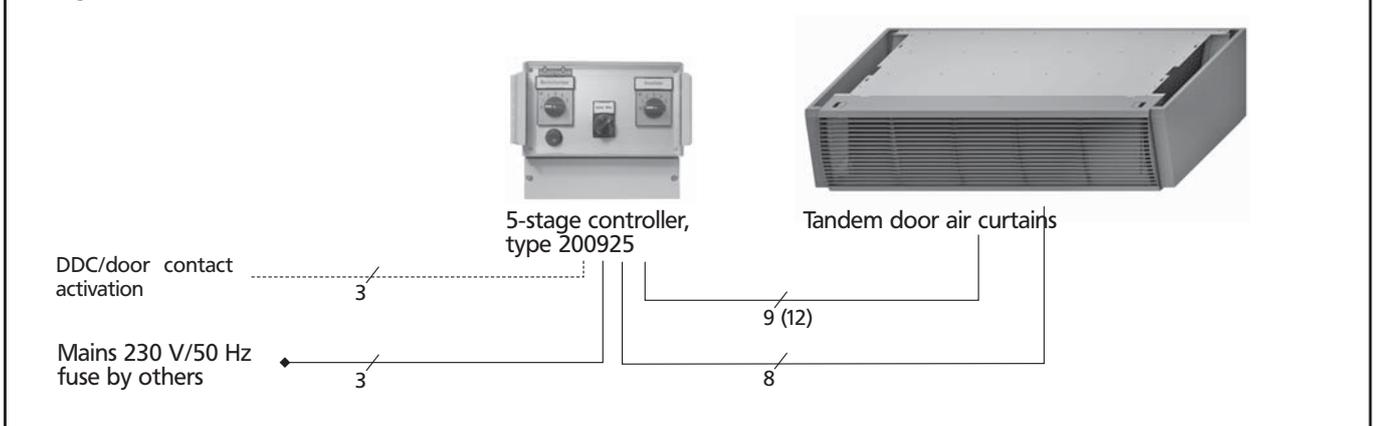
#### Stage switch 0-1-2-3-4-5, surface-mounted, type 200925

Only suitable for use with Tandem door air curtains; wall-mounted housing, grey with a transparent cover over the operating and display panel, cable entry from below; with the following controls:

- 1 switch 0-1-2-3-4-5 for "secondary air curtain" fan group
- 1 switch 0-1-2-3-4-5 for "warm air curtain" fan group
- 1 summer/winter switch to control a thermoelectric shut-off valve when the "warm air curtain" fan group is operational
- 1 switch input to activate the door air curtain via a DDC controller or door contact; separate terminal box for frost protection thermostat type 30268 or for door air curtains ending in letter "F"

|                        |                             |
|------------------------|-----------------------------|
| Protection             | IP 54                       |
| max. amperage          | 16 A                        |
| max. switching voltage | 230 V AC                    |
| Dimensions             | H x W x D:185 x 212 x 115mm |

#### 5-stage controller - individual control - Tandem door air curtains



The no. of wires incl. earthing conductor is given on the diagram itself. The figures in brackets apply if a frost protection thermostat is used (only required in unheated rooms).



Diag.: Carefully screw the thread of the wireless aerial onto the receiver circuit board (small circuit board).

### 13. Wireless remote control

Should your door air curtain be fitted with a wireless remote controller type \_\_\_\_\*\_\_-00W, please note the following information regarding its commissioning and operation.

#### Commissioning

- The receiver circuit board is located on the right hand side of the unit, seen from the air inlet.
- Remove the side casing panel.
- Connect up the wireless aerial by fixing the cable to the appropriate point on the small circuit board in the door air curtain (see diagram).
- The aerial is held in place by a magnetic foot and can be located anywhere on the unit. A position should be selected where there is optimum reception. It is important that the aerial cannot be reached by unauthorised persons.

#### Encoding the sender/receiver:

- Switch on the voltage supply to the socket and insert the plug into the socket. You have 1 minute after the power is switched on to encode the device. Should you have been unable to encode the device within this period of time, the process can be repeated once the mains has been re-connected (remove plug and re-insert). You should be close to the door air curtain when doing so to monitor whether the encoding has worked properly.

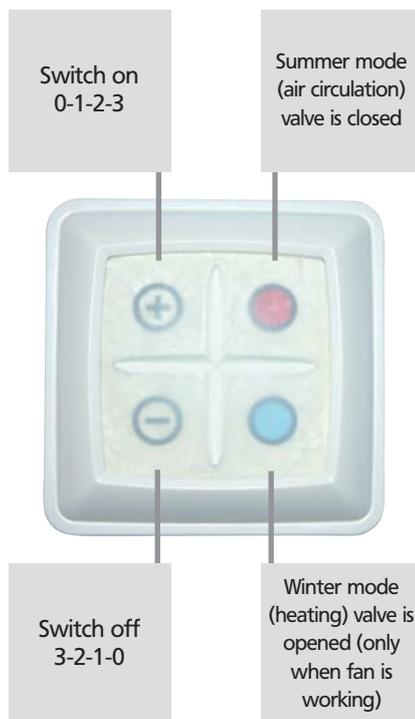
#### Logging in the operating unit (sender):

- Insert the mains plug into the Schuko plug 230 V/50 Hz. The yellow LED will flash on and off on the circuit board (see diagram).
- Press any two diagonally opposite buttons on the operating unit at the same time for longer than one second. If the coding has worked correctly, the door air curtain can now be controlled from the operating unit.

#### Logging off the operating unit (sender):

- Pull out mains plug.
- Insert mains plug into Schuko socket 230 V/50 Hz. The yellow LED will flash on an off on the circuit board (see diag.).
- Press all four buttons at the same time for longer than one second. If the encoding has been successful, the door air curtain will no longer work from remote control.

Replace the side panel after encoding the device.



#### Operation

As the operating unit does not have a display, the battery has a service life of approximately 10 years. You can fix the operating unit to the unit using the self-adhesive film on the rear once you have tested that the signal can be received. It should not be fixed to metal surfaces as this will impair its function or even cause it not to work. The operating unit has a range of 100 m, if no obstacles affect the signal transfer.

### External activation

Wireless control allows the user to access the controller via external, potential-free contacts. There are digital inputs on the control module mounted on the door air curtain for this via which the following functions can be activated:

#### Digital input 1 (External activation):

It is possible to activate the door air curtain via an external potential-free contacts, such as a time switch.

Digital input activated:

- All functions on the operating unit are activated

Digital input deactivated:

- All functions on the operating units are locked. The fan and the heating elements are switched off.

**Important note!** Once activated, the fan stage has to be selected via the controller.

#### Digital input 2 (fixed stage 2)

This provides the option to switch on the fan in fixed stage 2 via an external potential-free contact, such as a room thermostat or external thermostat. The valve is opened and the operation is switched to inactive.

#### Digital input 3 (Increasing the fan stage)

This provides the option to increase the selected fan stage by one stage via an external potential-free contact, such as a door contact switch. If fan speed 0 is selected on the operating unit, there is no increase in fan speed.

#### Priority of digital inputs:

- Digital input 1 higher than digital input 3, but lower than digital input 2
- Digital input 2 higher than digital input 1, but lower than digital input 3
- Digital input 3 higher than digital input 2, but lower than digital input 1

#### Status messages:

The status messages are indicated by a yellow LED on the circuit board:

LED illuminated:- digital input 1 selected (external activation) and

- digital input 2 not selected (fixed stage 2)

LED flashing: - digital input 2 not selected (fixed stage 2)

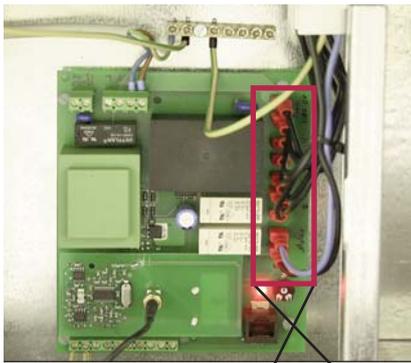
LED flashing: - digital input 1 not selected (external activation) and

- digital input 2 not selected (fixed stage 2)

LED not illuminated: - power supply interrupted

Troubleshooting measures:

- Is the plug inserted?
- Check fuses on site
- Check fuse on circuit board



**Selecting the fan stages of the three control stages**

Door air curtains are manufactured as standard with five fan stages but can be operated 3-stage using the remote wireless controller. The units are manufactured with fan stages 2, 3 and 5 active but this can be changed by swapping the pins of each fan stage on the terminal strip to other fan speeds (see diagram).

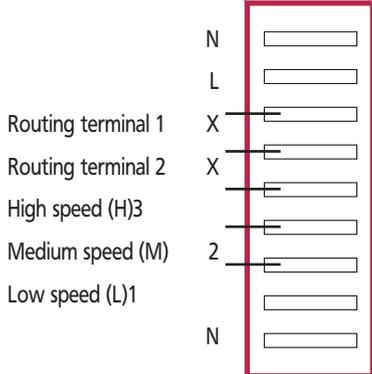
**Important note!** The following should be noted when selected the fan stages:



Fan stage 1 < Fan stage 2 < Fan stage 3.

**Factory wiring**

| Fan stage | Factory wiring                     | Wire colour | Terminal |
|-----------|------------------------------------|-------------|----------|
| Stage 1   | not connected (routing terminal 1) | white       | X        |
| Stage 2   | wired to low speed (L)             | red         | 1        |
| Stage 3   | wired to medium speed (M)          | grey        | 2        |
| Stage 4   | not connected (routing terminal 2) | orange      | X        |
| Stage 5   | wired to high speed (H)            | black       | 3        |



**Changing the fan speeds:**

Fan stages are swapped to stages 1, 4 and 5.

| Fan stage | Factory wiring                     | Wire colour | Terminal |
|-----------|------------------------------------|-------------|----------|
| Stage 1   | wired to low speed (L)             | white       | 1        |
| Stage 2   | not connected (routing terminal 1) | red         | X        |
| Stage 3   | not connected (routing terminal 2) | grey        | X        |
| Stage 4   | wired to low speed (M)             | orange      | 2        |
| Stage 5   | wired to high speed (H)            | black       | 3        |

**Wiring the remote wireless controller for Vario/Tandem door air curtains**

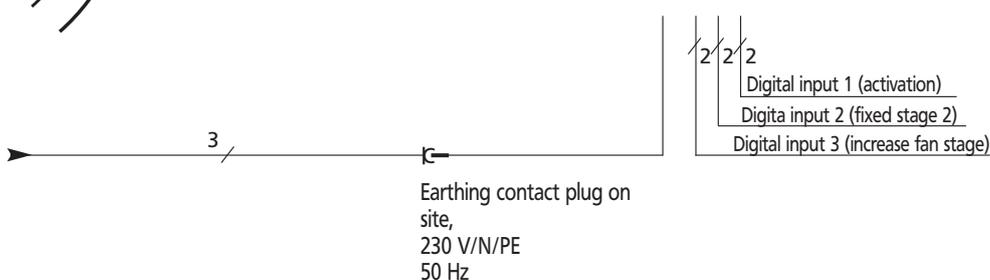


Receiver aerial (included)



Mains  
230 V/50 Hz,  
fuse by others

\*Door air curtain - basic unit





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