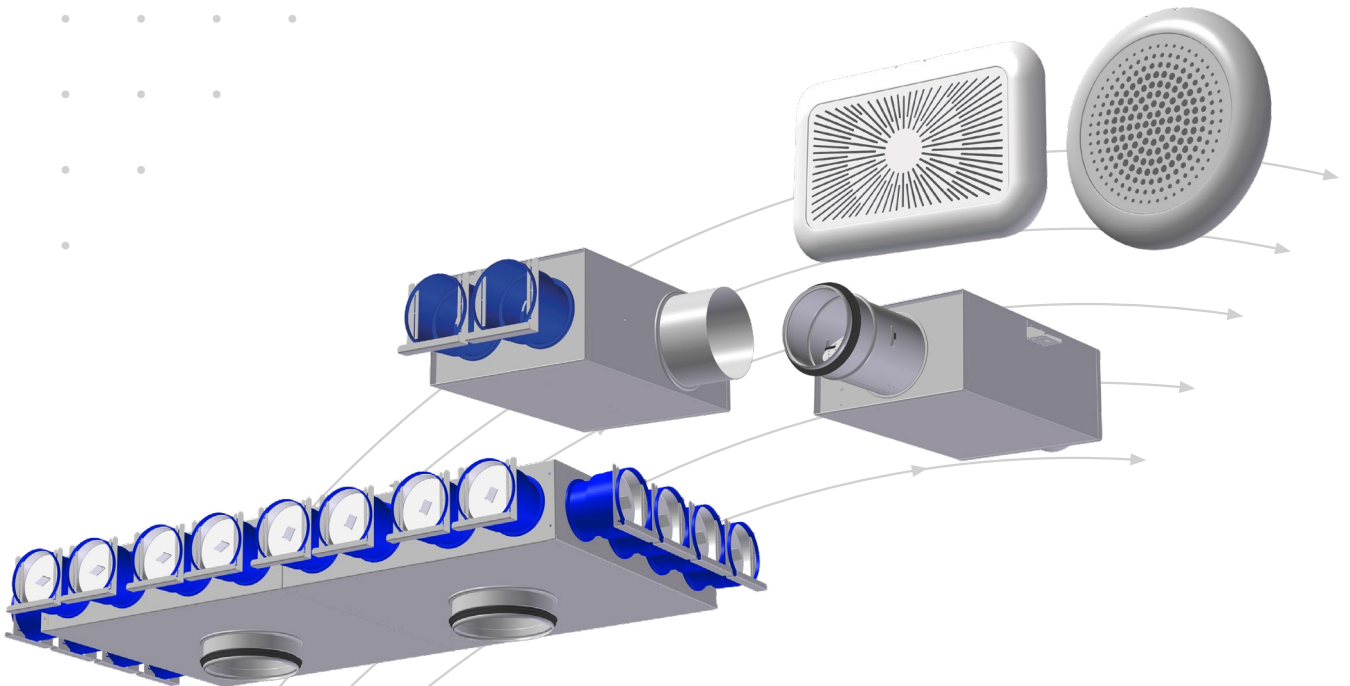


AuraFlex

Apartment ventilation



- Diffusers in steel
- Customer adapted diffuser pattern
- Available in all colours
- Plenum box with damper and measuring outlet for commissioning
- Plenum box adapted both spiro and flexible ducts
- Distribution box designed for low pressure loss and good sound attenuation

TROX[®] TECHNIK

Auranor

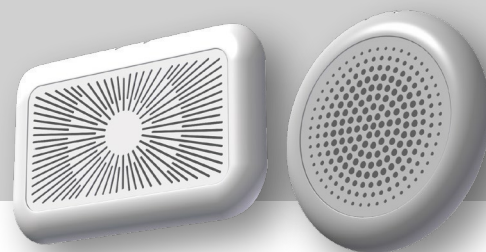
TROX Auranor Norge AS

Telephone +47 61 31 35 00

Auranorvegen 6
NO-2770 Jaren

e-post: office-no@troxgroup.com
www.trox.no/en

AuraFlex-diffusers



APPLICATION

AFV is designed for comfort ventilation of all types of homes where balanced ventilation are installed, for example by new construction or rehabilitation of apartment buildings. Circular and rectangular diffusers are adapted standard wall thickness of steel joists and single plaster-board on both sides. Circular supply diffuser for ceiling installation are also available.

All AuraFlex-diffusers can be used both as inlet and extract diffusers. Plenum box damper is cleanable, so any purification using as a extract diffuser can be performed easily.

If there is a need for an extract air terminal device, we recommend to use the extract air terminal device DSO. Complete technical leaflet for the DSO is to be found on our website: www.trox.no

DESIGN

AFV consisting of a front frame and rear plate with connections for inlet duct. Diffuser front attaches without tools and is easily removable for cleaning etc. The frame has separate slots for adjustment wire and measuring tube. Ceiling diffusers are produced as a slit diffuser, the steel rear plate is manufactured from galvanized steel with mounted EPDM rubber gasket.

MATERIAL AND FINISH

Diffuser Front and frame are made of steel, and rear plate consists of galvanized steel. The rear plate is fitted with EPDM rubber gasket.

AFV is delivered painted standard white; RAL 9003 - gloss 30.

Other colours are available on request.

Ceiling diffusers are made of steel, rear plate is manufactured from galvanized steel with mounted EPDM rubber gasket. The diffuser front is fixed with magnets.

ORDER CODE

Product: AFV - R - 100 - T10 / 0

Design: R=Rectangular, S=Circular

Dimension: 100=Ø100 connection, 125=Ø125 connection

Diffuser design: T10-T11 = For rectangular wall diffusers, T50-T51 = For circular wall diffusers, T58-T59 ** = For circular ceiling diffusers

** T58-T59 = Ceiling diffusers (See sketches for diffuser design)

SL = Special paint

Example:
AFV - R - 100 - T10 / 0

Explanation:
AuraFlex-diffuser, rectangular with Ø100 connection, type T10 painted standard white RAL 9003 - gloss 30.



Figure 1, Extract air terminal device DSO

DIMENSION AND WEIGHT

Table 1, Dimension and weight table diffusers

Dim	B	D	Weight (Kg)
100	111	99	0,5
125	136	124	0,6

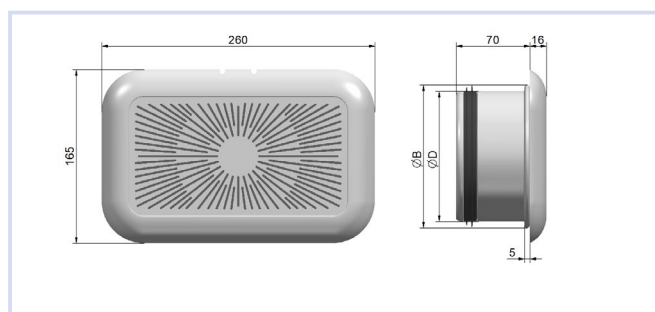


Figure 2, Dimensional sketch AFV-R

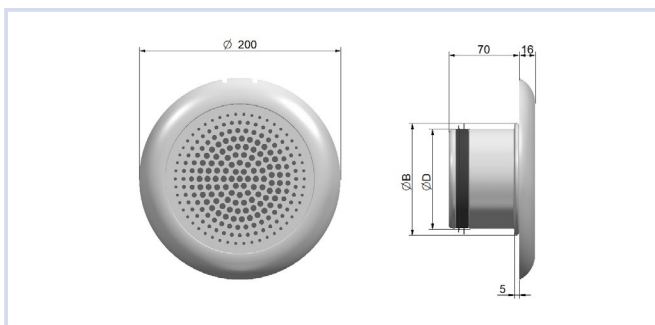


Figure 3, Dimensional sketch AFV-S

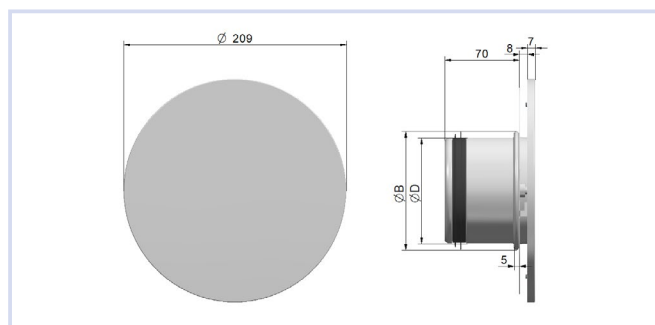


Figure 4, Dimensional sketch AFV-S-T59

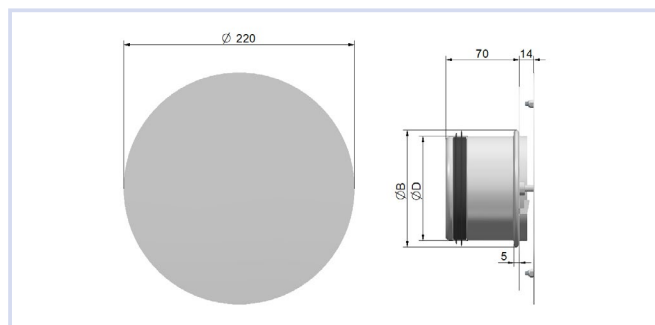


Figure 5, Dimensional sketch AFV-S-T58

AuraFlex rectangular/circular diffusers

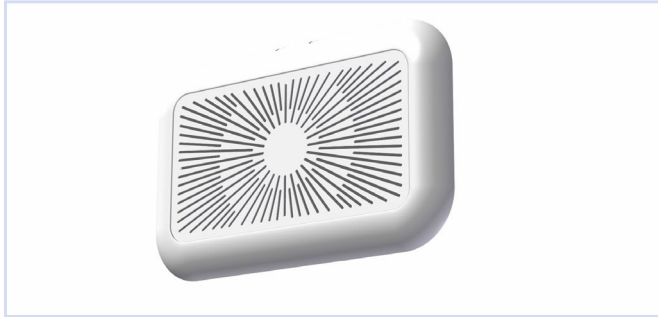
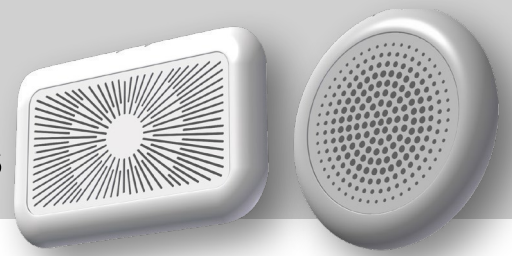


Figure 6, AFV-R-T10



Figure 7, AFV-R-T11



Figure 8, AFV-S-T50



Figure 9, AFV-S-T51

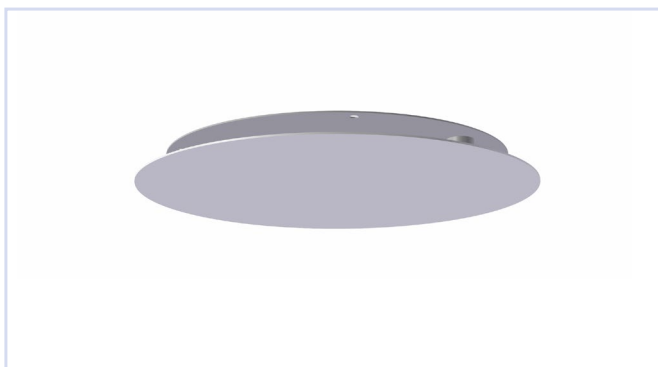
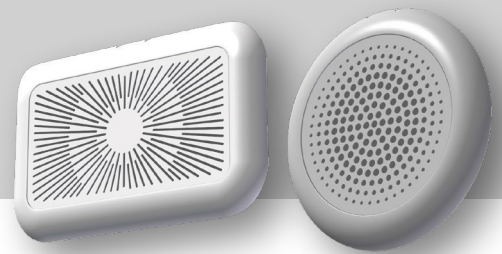


Figure 10, AFV-S-T58



Figure 11, AFV-S-T59

AuraFlex-diffusers



THROW LENGTH

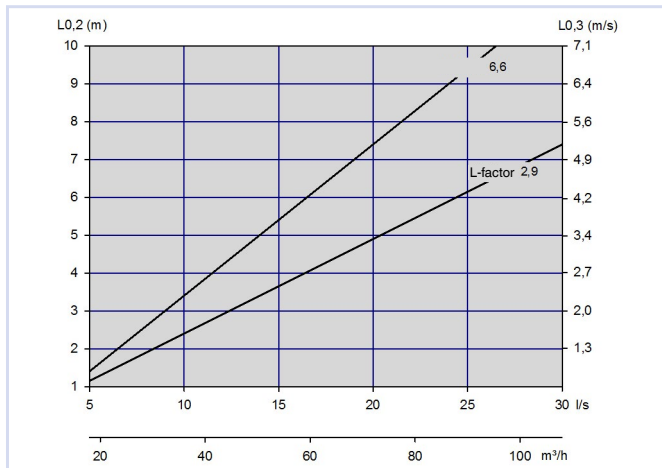


Diagram 1, AuraFlex Ø100

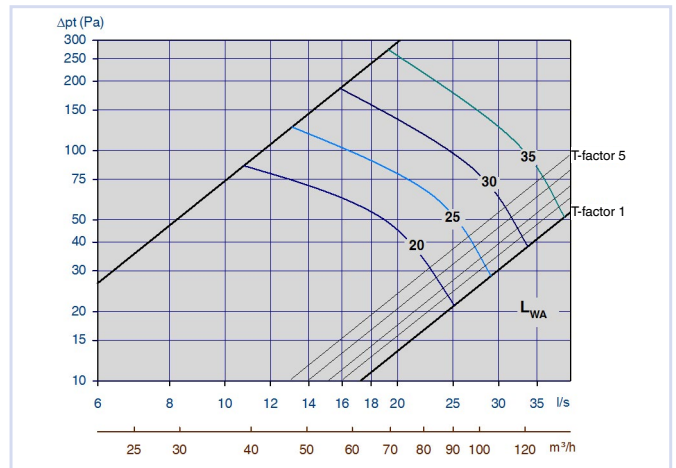


Diagram 4, AuraFlex Ø125

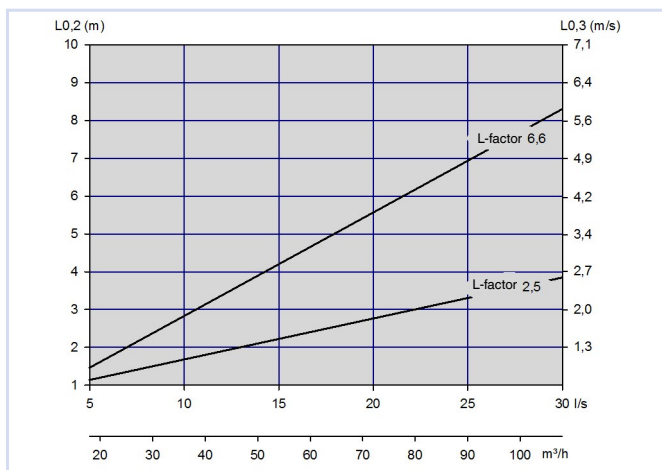


Diagram 2, AuraFlex Ø125

Table 2, Throw length- and calculation factors

Table for AuraFlex diffusers			
Diffuser nr.	Design	L-factor	T-factor
T10	Rectangular	6,6	1
T11	Rectangular	6,1	1
T50	Circular	5,3	2
T51	Circular	4,2	3
T58	Circular	5,6	1
T59	Circular	5,6	1

Explanation:

T-factor indicates the pressure drop line that applies to diffuser type in open position in the diagram for generated noise.

L-factor indicates throw length factor for diffuser type interpolated to the intermediate line.

CALCULATION DIAGRAM

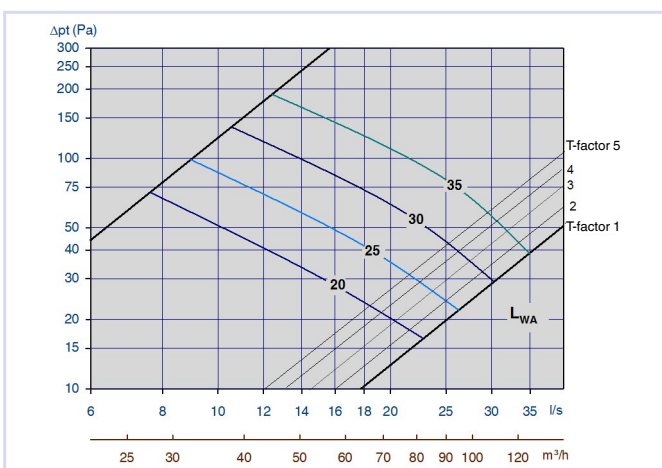


Diagram 3, AuraFlex Ø100

Table 3, Opening grade diffuser

L=2,9		L=4,9		L=6,6	
small opening grade (diffuser netto opening grade)				large opening grade	
T=5	T=4	T=3	T=2	T=1	T=1

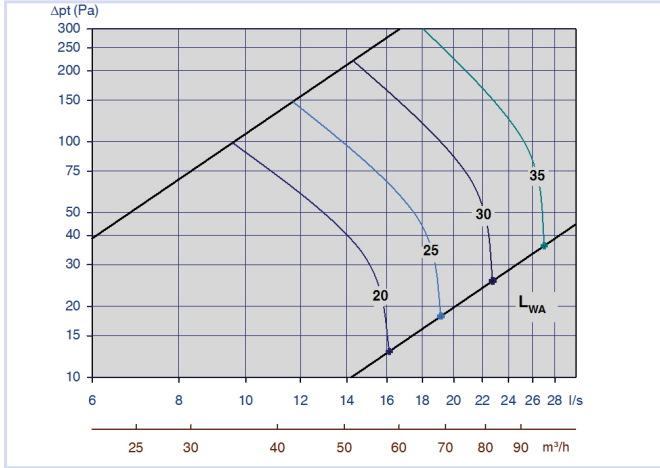


Diagram 5, ceiling diffuser Ø100 type T58 with plenum box

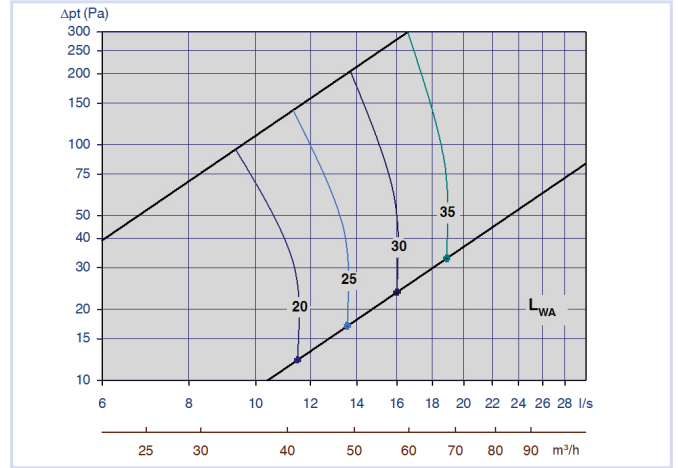


Diagram 6, ceiling diffuser Ø100 type T59 with plenum box

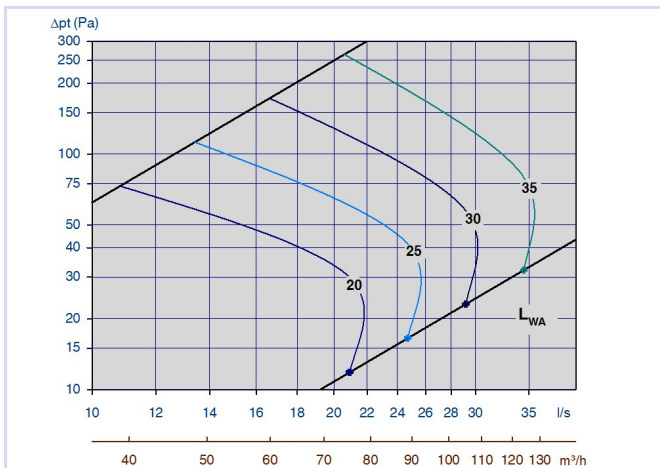


Diagram 7, ceiling diffuser Ø125 type T58 with plenum box

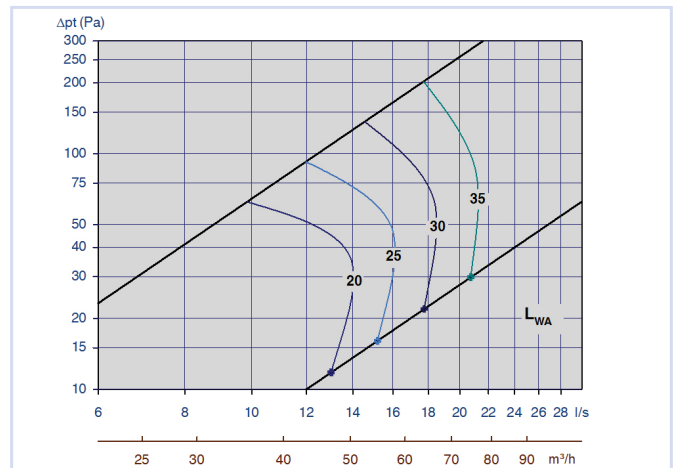


Diagram 8, ceiling diffuser Ø125 type T59 with plenum box

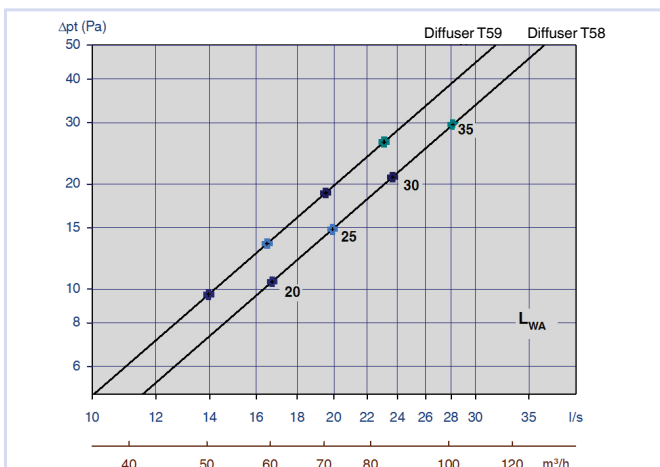


Diagram 9, ceiling diffuser Ø100 in duct end

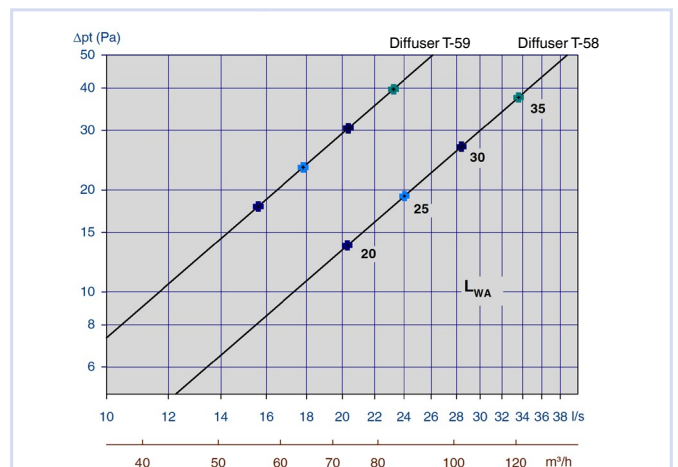
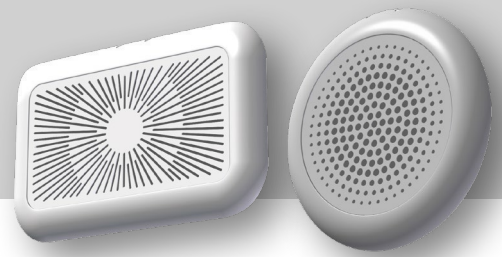


Diagram 10, ceiling diffuser Ø125 in duct end

AuraFlex-diffusers



DISTRIBUTION PATTERN

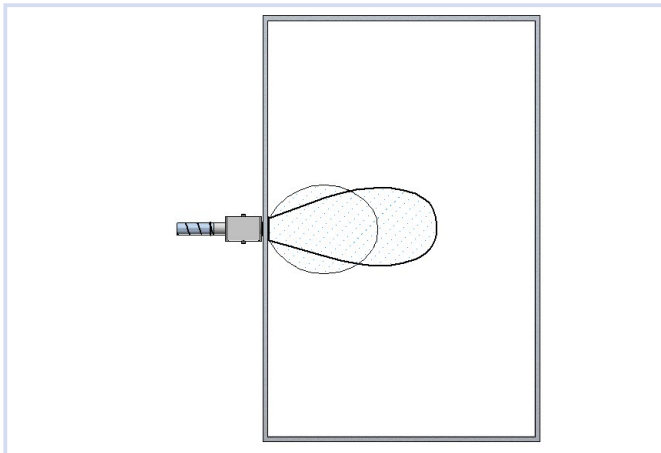


Figure 12, distribution pattern AFV

MOUNTING

The diffuser is mounted on the wall by first position the backplate with the wire fixing down towards the floor and screw it to the wall. Then place the diffuser front on the backplate with magnets, with slots for measuring tube and regulation wire up towards the ceiling.

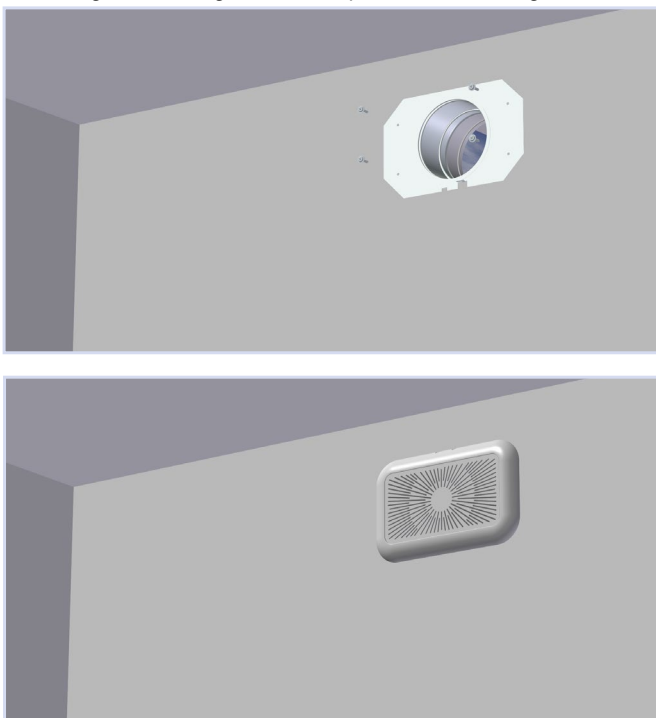


Figure 13, Mounting AFV

ADJUSTMENT

During adjustment, the diffuser front must be fitted. Measuring hose and regulation wire is pulled out, the damper is secured by using a clamping nut on the wire and the wire attaches to the wire fixing on the backplate. See figure 21. Tighten the clamping nut properly so the damper not change position. K-factors for calculation of air flow is to be found on our website:

www.trox.no

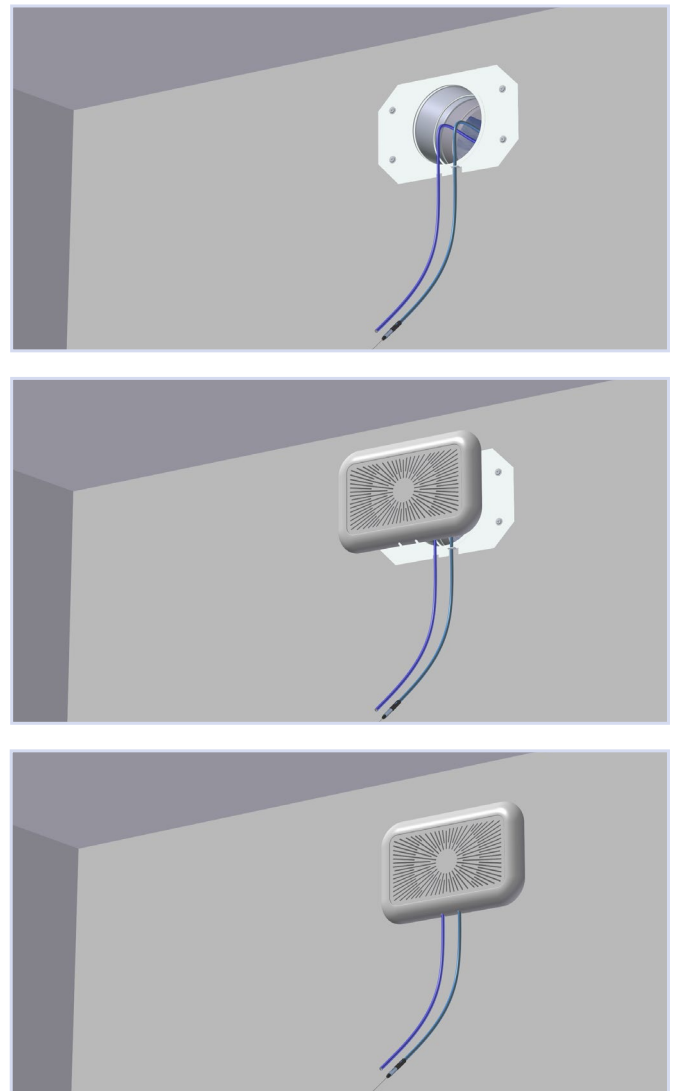
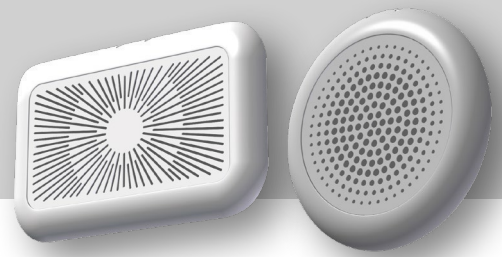


Figure 14, adjustment AFV



ADJUSTMENT WITH ORIFICE PLATES

Orifice plates is used for adjustment on sites where you choose not to or do not have room for plenum boxes with damper and measuring outlet, and chose to mount the diffuser directly in the spiro channel. You can use 1 to 4 orifice plates as required for chooking. The orifice plates are mounted in the spigot on the diffuser up against the gasket groove and secures with the rear and front bow clamp. See fig. 22. This becomes a stepwise regulation where it requires a funnel for measuring the airflow.

MATERIAL AND FINISH

Orifice plates are made of filter foam.
Bow clamps are made of steel.

MAINTENANCE

The diffuser can be cleaned with a damp cloth. When cleaning the duct network, remove the diffuser front to reach the duct. If AFK is used disassemble the damper to gain free access to the duct.

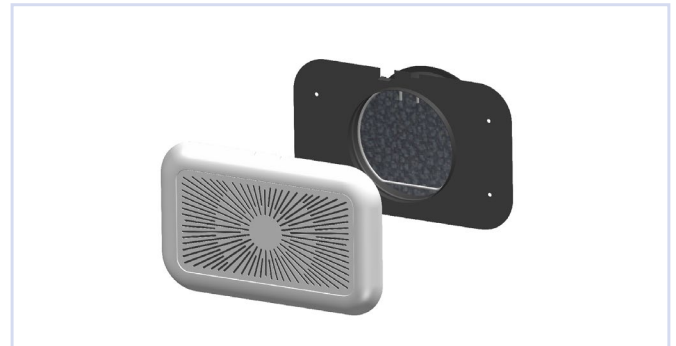
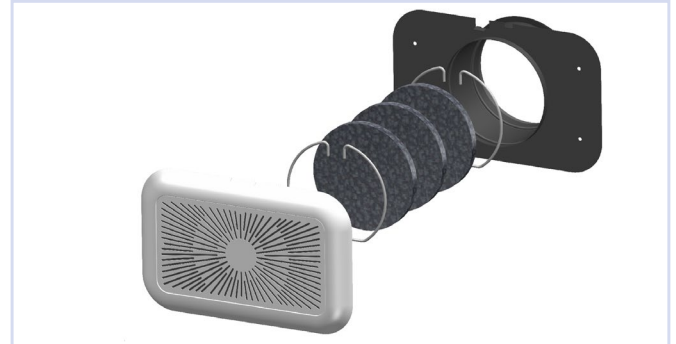
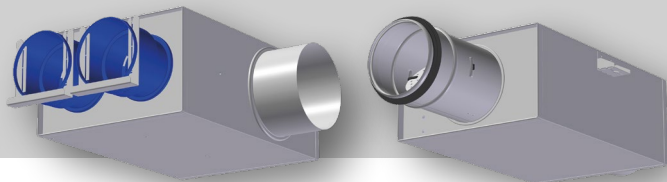


Figure 15, Adjustment of AFV with orifice plates

AuraFlex-plenum box



APPLICATION

AFK plenum box is recommended to provide better sound attenuation, and adjustment and measurement unit. AFK is a rectangular plenum box with sound absorber and damper which provides access to the connecting duct. The damper can be locked in the desired position. AFK-TK is used with DSO where there is no need for damper and measuring outlet.

DESIGN

AFK plenum box is available in three versions; straight, angle and Roof design. The plenum box is insulated with a sound absorber in two sides. The plenum box can be provided with one outlet, and one, two or three inlets for AuraFlex duct. The plenum box has wire operated damper, and measuring outlet for commissioning. The plenum box is also provided for spiro-assembly, but then only with one inlet and one outlet.

AFK-TK is insulated in the sides and bottom, without adjustment possibilities as this is done on the DSO diffuser.

MATERIAL AND FINISH

AFK is made of galvanized sheet steel, with sound absorber of polyester. On AFK for AuraFlex duct outlet is made of galvanized sheet steel and inlet made of plastic. AFK for spiro-assembly having outlets and inlets made of galvanized sheet steel.

ORDER CODE

Product: AFK - V - F1-100

Design:

- R= Straight design
- T= Ceiling design
- V= Angle design
- TK= Ceiling control diffuser

Inlet - Outlet:

- F1-100 = 1 pcs. flex-connection. Ø100 outlet
- F2-100 = 2 pcs. flex-connection. Ø100 outlet
- F2-125 = 2 pcs. flex-connection. Ø125 outlet
- F3-125 = 3 pcs. flex-connection. Ø125 outlet
- 100-100 = Ø100 inlet, Ø100 outlet
- 125-125 = Ø125 inlet, Ø125 outlet

Example:
AFK - V - F1-100

Explanation:
AuraFlex-plenum box, angle design with 1 pcs. flex-connection and Ø100 outlet.

DIMENSION AND WEIGHT

Dim	D	DA	B	H	L	L1	L2	L3	L4	Weight kg
Inlet-Outlet										
100-100	99	102	220	122	325	285	118	133	232	2,4
125-125	124	127	250	147	360	333	130	145	220	2,9
F1-100		102	220	122		307	118	133	272	2,6
F2-100		102	250	122		307	118	133	272	2,9
F2-125		127	250	147		295	130	145	260	3,2
F3-125		127	380	147		295	130	145	260	4,2

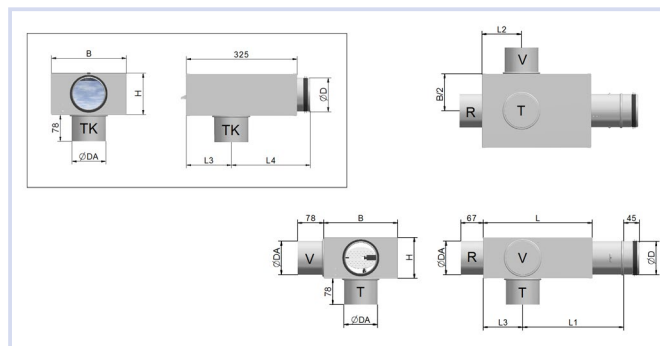


Figure 16, Dimensional sketch AFK-100-100 and AFK 125-125

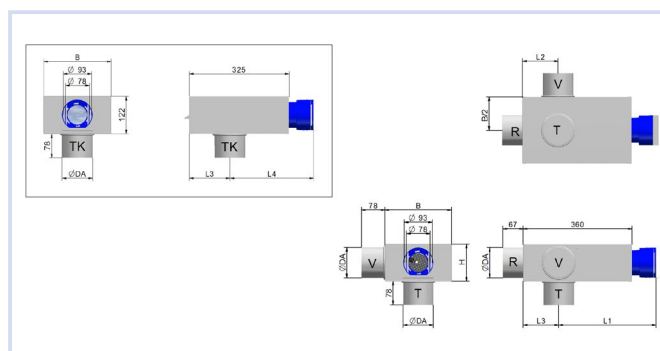


Figure 17, Dimensional sketch AFK-F1-100

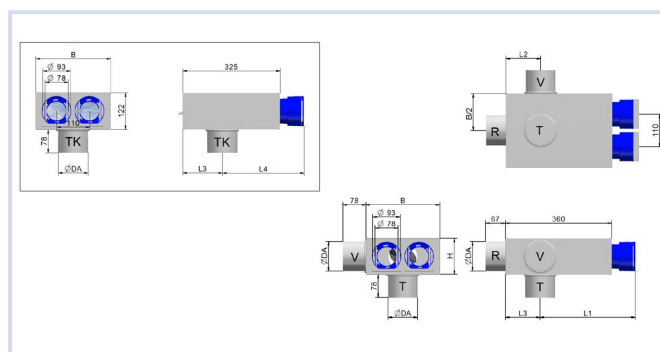


Figure 18, Dimensional sketch AFK-F2-100 and AFK-F2-125

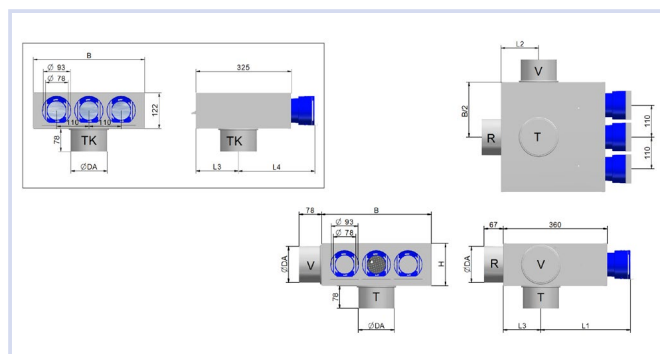
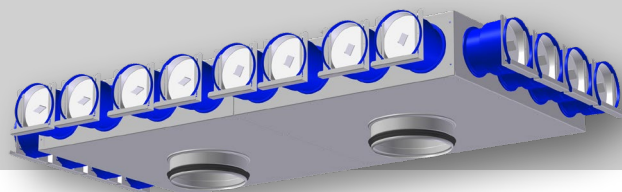


Figure 19, Dimensional sketch AFK-F3-125

MAINTENANCE

For cleaning AFK: Remove the diffuser front and damper and vacuum the plenum box inside.

AuraFlex-distribution box



APPLICATION

AF-FB is a distribution box which distributes AuraFlex ducts until the respective rooms of the apartment. The outlet pipe not in use, is blocked with plastic lids.

DESIGN

Distribution boxes are designed for low pressure loss and great sound absorption. AF-FB is delivered as standard with Ø160 connection. Other dimensions on request.

MATERIAL AND FINISH

AF-FB is made of galvanized sheet steel, inlet is fitted with EPDM rubber gasket. The attached outlets are made of plastic.

ORDER CODE

Product: AF-FB - B - V5

Design:
 B = Connection in the rear end
 U = Connection in the top/bottom

Type:
 V1 = 4 spigots, single
 V2 = 6 spigots, single
 V3 = 8 spigots, single
 V4 = 4+4 spigots, combined
 V5 = 6+6 spigots, combined
 V6 = 8+8 spigots, combined

(See sketches for explanation)

Example:
 AF-FB - B - T5

Explanation:
 AuraFlex - distribution box, with connection in the rear end, with 6+6 spigots, combined supply air and extract air.

ADJUSTMENT

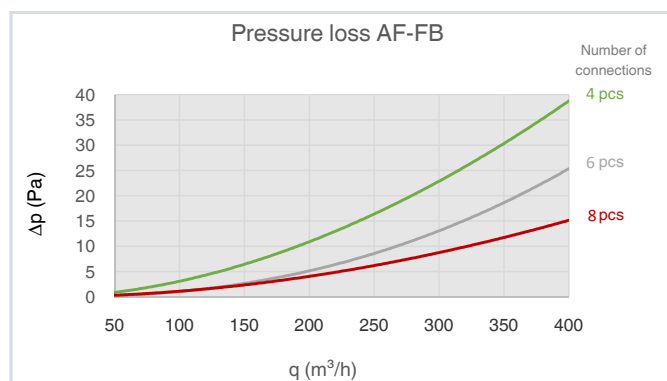


Diagram 11, Pressure loss inlet and outlet AF-FB

MAINTENANCE

There are no special requirements for maintenance.

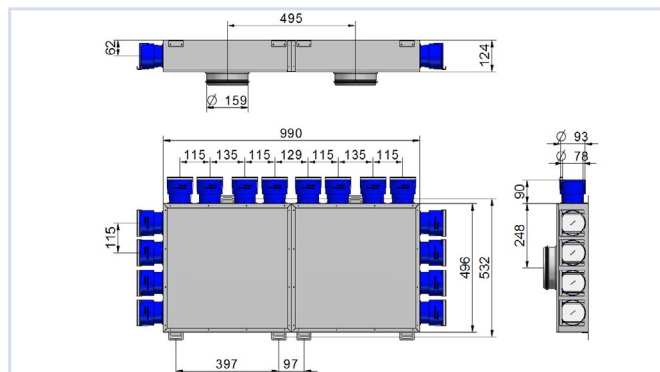


Figure 20, Dimensioned sketch AF-FB combi box with connections under/over. Weight for AF-FB combi box with connection under/over = 12 kg.

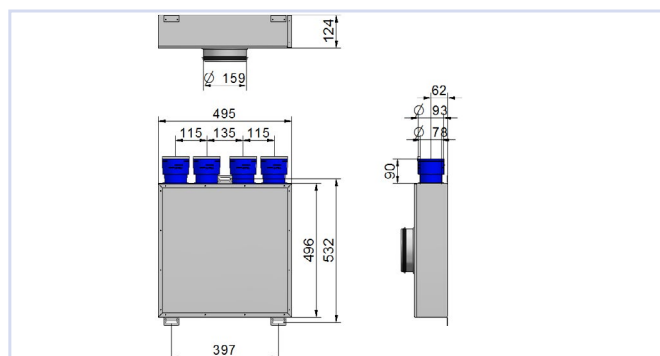


Figure 21, Dimensioned sketch AF-FB single box with connection under/over. Weight for AF-FB single box with connection under/over = 6 kg.

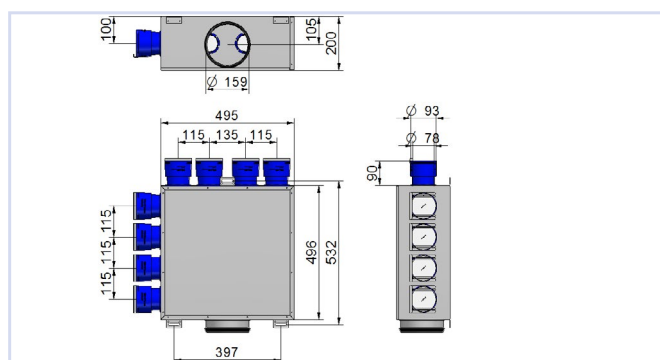


Figure 22, Dimensioned sketch AF-FB single box with rear end connection. Weight for AF-FB single box with rear end connection = 7 kg.

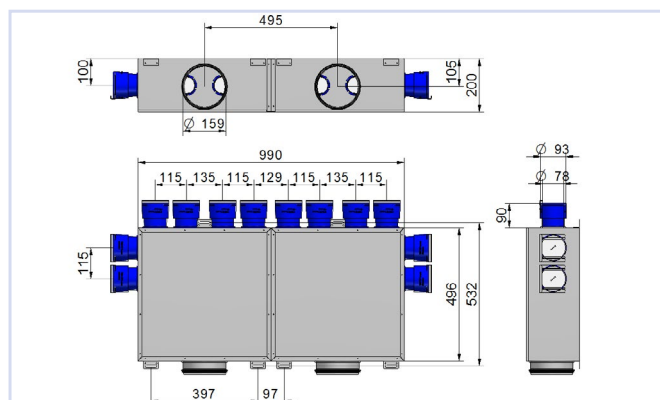


Figure 23 Dimensioned sketch AF-FB combi box with rear end connections. Weight for AF-FB combi box with rear end connection = 14 kg.

AuraFlex-accessories

APPLICATION

AuraFlex ducts have many advantages over solutions with spiro ducting. The flexible plastic ducts are quick and easy to assemble, and cuts easily with a knife. The flexibility of the ducts allows them to be used in situations where spiro ducts is unsuitable, AuraFlex ducts is suitable in confined spaces. The ducts can be bent to 30 cm exterior radius.

The ducts are specially designed for ventilation systems and can therefore be used in:

- The insulating layer
- Cast into concrete floor / ceiling
- Over ceiling
- Under floor with sufficient space for the ducts

Outlet spigots has two Spigot diameter, ie spigot suit both duct dimensions Ø75 mm and Ø90mm. Duct Lock locks easily the duct in the outlet spigot without tools.

DESIGN

Plastic ducts, outlet spigot, gaskets and duct lock are developed to provide fast and easy assembly of the products

MATERIAL AND FINISH

AuraFlex ducts are made of PE, outlet spigots and lid is made of plastic. Gaskets is made of EPDM rubber, duct lock is made of galvanized steel.

Documented abilities for the AuraFlex duct:

- Certified according to EN 10204
- Tested in accordance with DIN EN ISO 846 Hygiene and micro bacterial features
- Tested in accordance with DIN 4102 Fire, class B2
- Documented antistatic properties, surface resistance $<10^{12}\Omega$

Certificates for the AuraFlex ducts can be found on our website: www.trox.no

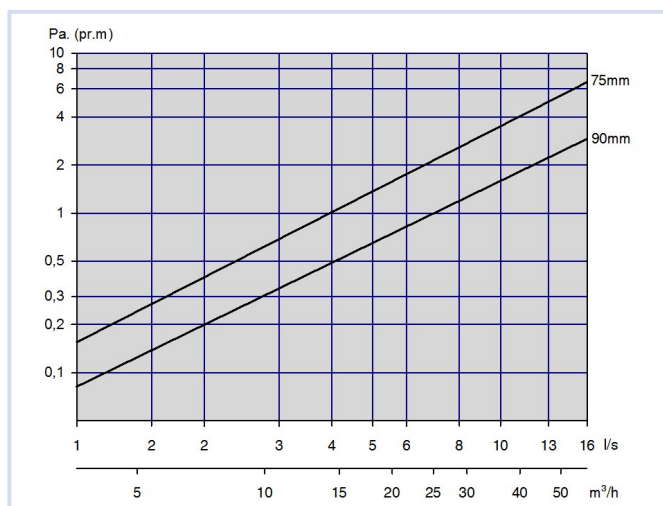


Diagram 12, Pressure loss AuraFlex-ducts

ORDER CODE

Product: AF-T - 2

Components:

- 1 = Ø75 flex-duct *
- 2 = Ø90 flex-duct *
- 3 = Ø75 duct joint
- 4 = Ø90 duct joint
- 5 = Ø75 seal **
- 6 = Ø90 seal **
- 7 = Fixing device for duct ***
- 8 = Orifice plates Ø100
- 9 = Orifice plates Ø125

* supplied on rolls a 50m
 ** number of seals reconciled with the number of spigots on the AuraFlex-plenum box and AuraFlex-distribution box.
 *** Fixing device for Ø75 and Ø90 flexible duct. Are supplied in packages of 50 pieces.

Example:
 AF-T - 2

Explanation:
 AuraFlex-duct Ø90 roll a 50 m.



Figure 24, Fixing device for AuraFlex duct



Figure 25, AuraFlex-duct

AuraFlex mounting

MOUNTING

The AuraFlex duct is mounted by first remove the duct lock and the plastic lids. Then insert a gasket on the duct. The duct is then pushed into the outlet spigot and locked with the duct lock.

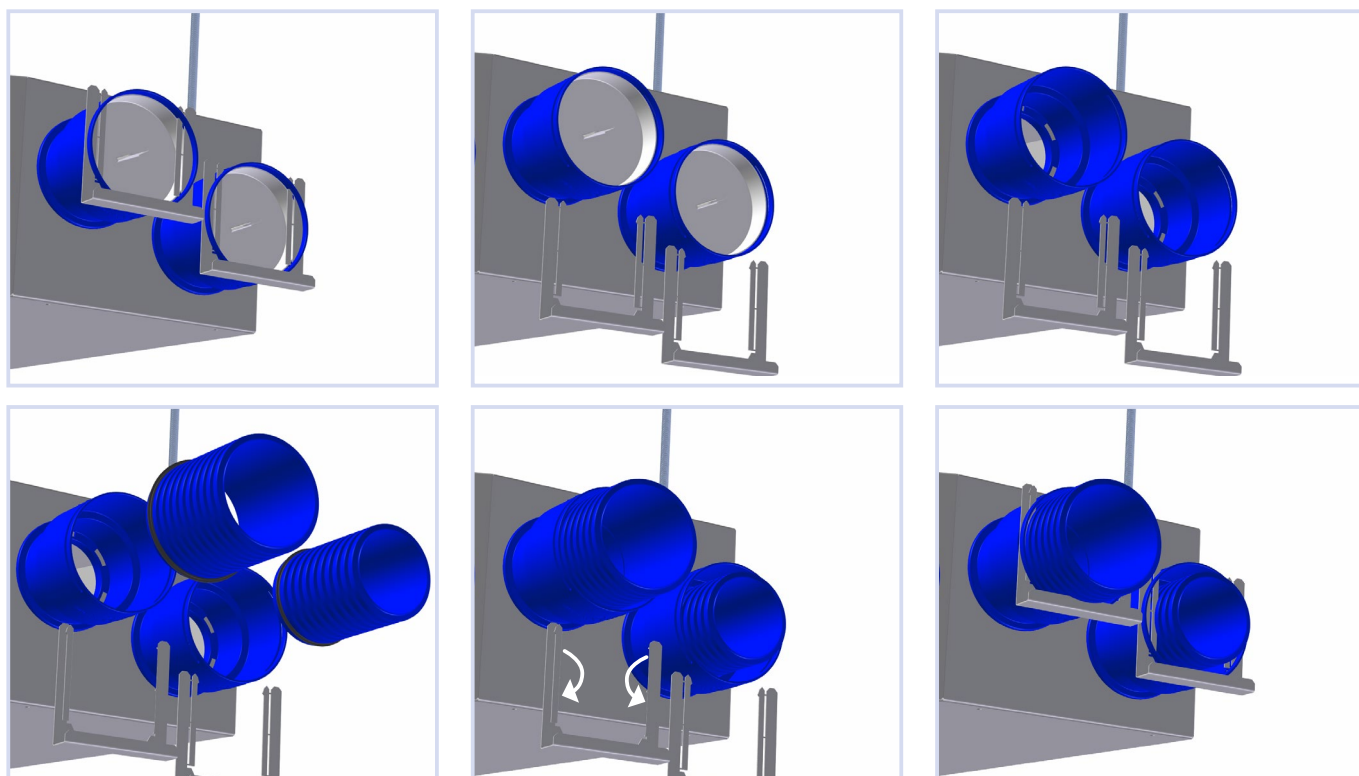


Figure 26, mounting of the AuraFlex duct

Bend in the inner flaps on the duct lock when locking Ø90 mm duct

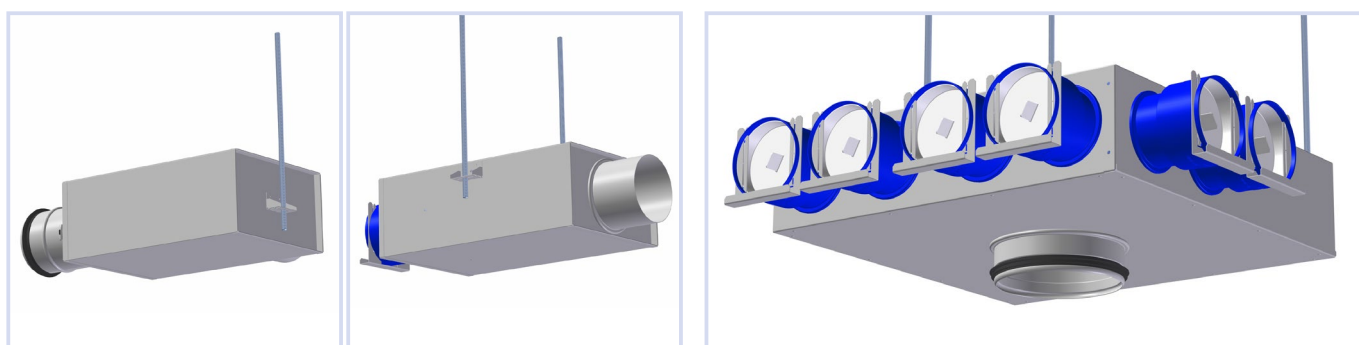


Figure 27, mounting of the AFK

Figure 28, the mounting of the AF-FB is done with suspension brackets and threaded rod or band.

ENVIRONMENT

Inquiries regarding the product declaration can be directed to our sales team, or information can be found on our website: www.trox.no

AuraFlex is developed and produced by:

The company reserves the right to make amendments without prior notice.