

FLX-REKU / FLX-REKU-OVAL

Air distribution system

ALNOR reserves the right to modify technical specifications in line with the policy of continuous product improvement.

System FLX-REKU

TECHNICAL INFORMATION**System description**

FLX-REKU is a complete air distribution system which consists of semi-rigid ducts, plenum boxes, distribution boxes, air dampers and other components necessary for complete ventilation system with heat recovery unit. The system is a great solution when high strength and flexibility are required. The high circumferential rigidity allows burying the ducts in concrete.

Dimensions

Main component of FLX-REKU system is plastic semi-rigid ducting in the outer diameter range from 63 to 90 mm and the inner diameter of 51 mm, 63 mm or 75 mm respectively. All fittings are suitable to the outer diameter size of the ducting. Main component of FLX-REKU-OVAL system is oval semi-rigid ducting with the outer size of 132x52 mm. All fittings are suitable to the outer diameter size of the ducting.

Installation instructions

The ducts are joined by insertion into the metal fittings and air dampers with stop folds. The stop fold fastens the corrugated flexible duct while the tip of the duct is snugly pressed against the inner gasket to provide an airtight seal. The FLX-REKU-OVAL ducts are inserted into the connection spigots on plenum boxes of the same system.

Airtightness testing

The standard version of the FLX-REKU system meets the air tightness class B as per EN 12237. The air tightness can be increased to class C by adding extra gaskets. For air tightness class B no additional sealing is required. The standard version of the FLX-REKU-OVAL system meets the air tightness class B as per EN 12237.

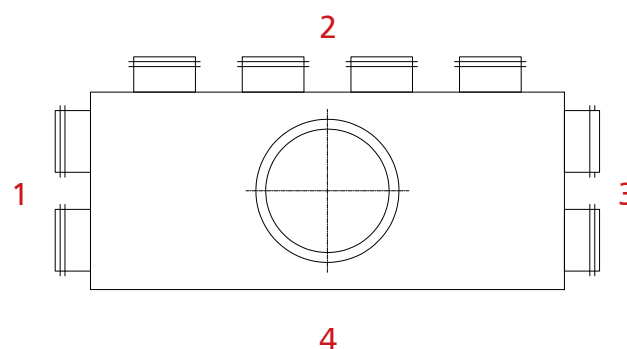


The product range also includes FLX-PLO plenum boxes with EPDM gaskets. The FLX-HDPE-75 semi-rigid duct connections with the FLXPLO plenum boxes meet the air tightness class C without any additional seals.

The 63 mm connection spigot with EPDM gasket is fitted into the FLX-HDPE-75 duct (this only applies to the 75 mm size system). The male connection spigots for SPIRAL ducts available in sizes of 125 to 250 mm are also provided with EPDM gaskets.

Application advantages

The relatively small dimensions and an unique structure allow installing FLX ducts under the ceiling, on walls and laid on floors. The FLX ducts can be also concealed under drywall panels or wet render. The superior durability and strength of FLX materials can withstand the pressure of cast concrete and make this FLX system perfect for burying in separating floor slabs and cast-in-place flooring systems. The low-profile plenum boxes save space and usually do not require any specific finish of walls or ceiling systems. The antimicrobial lining in FLXHDPE-A flexible ducts contains silver ions. The bactericidal and fungicidal performance of this model is certified with a technical approval.

How to order

Example: FLX-PLO-R- $\varnothing d_2$ -1-2-3-4- $\varnothing d_1$

Specify the type of plenum box:

type FLX-PLO or FLX-PRO (for $\varnothing 63$ mm only)
 $\varnothing d_2$ diameter of FLX-HDPE duct connection spigot
 ($\varnothing 63$, $\varnothing 75$, $\varnothing 90$)

1-2-3-4 number and configuration of spigots
 $\varnothing d_1$ 80,100,125,150,160,180,200,250 mm SPIRAL duct diameter

Z no spigots, DIY solution - cutting at the construction site

F female connection / no symbol = male connection

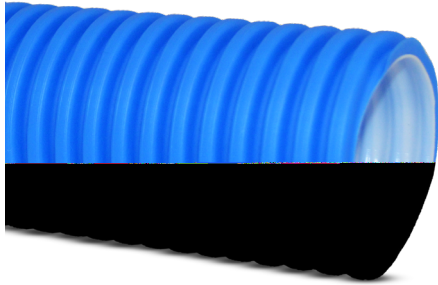
Marking

ALNOR products carry the Polish conformity mark B for construction products and product codes as shown in the technical specifications listed in this catalogue.



Semi-rigid ducting

FLX-HDPE/FLX-HDPE-A



Description

FLX-HDPE and FLX-HDPE-A plastic ducts are used to air distribution in domestic ventilation systems. Relatively small diameters allow to hide the installation in ceilings, screeds or suspended ceilings. In addition, the FLX-HDPE-A ducting has antimicrobial properties in accordance with the **ISO22196: 2007 standard**.

FLX-HDPE and FLX-HDPE-A semi-rigid ducts are connected to other system components like plenum boxes or distribution boxes with a simple push fit connection. Application of seals on the FLX-PLO plenum boxes' spigots guarantees high air tightness system.

FLX-HDPE and FLX-HDPE-A semi-rigid ducting is made of high-impact polyethylene. This makes the entire ventilation ductwork very durable.

Mechanical strength rating: 450 N.

The smooth-bore ducting provides very low pressure losses.

Temperature resistance: combustible; softening point at 130°C, flash point at 350°C.

Fire resistance class: B2.

Operating temperature: -20°C +60°C

The semi-rigid ducting is delivered in 50-metre long coils.

Dimensions of the coil:

FLX-HDPE-63/FLX-HDPE-A-63: 1200cm x 40cm

FLX-HDPE-75/FLX-HDPE-A-75: 1100cm x 40cm

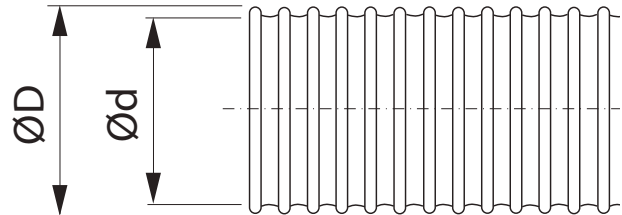
FLX-HDPE-90/FLX-HDPE-A-90: 1400cm x 50cm

Product code example

Product code: **FLX - HDPE - 75**

type _____
 material _____
 diameter _____

Dimensions



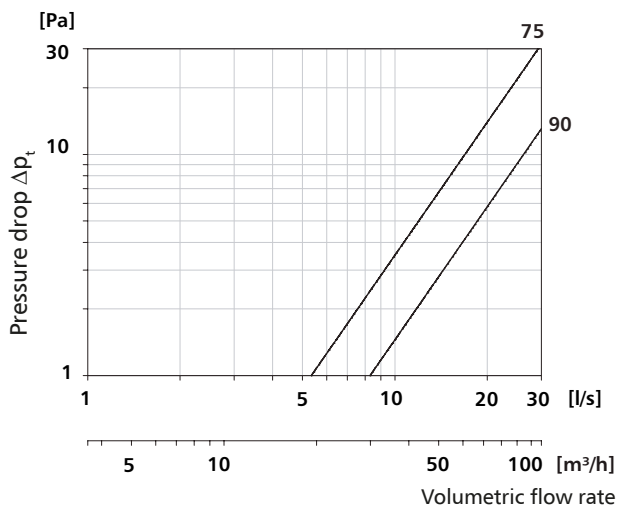
Product code	ØD [mm]	Ød [mm]	Bend radius [m]	Weight [kg]
FLX-HDPE-63	63	51	0.26	0.26
FLX-HDPE-A-63	63	51	0.26	0.26
FLX-HDPE-75	75	63	0.29	0.31
FLX-HDPE-A-75	75	63	0.29	0.31
FLX-HDPE-90	90	75	0.33	0.42
FLX-HDPE-A-90	90	75	0.33	0.42

Semi-rigid ducting

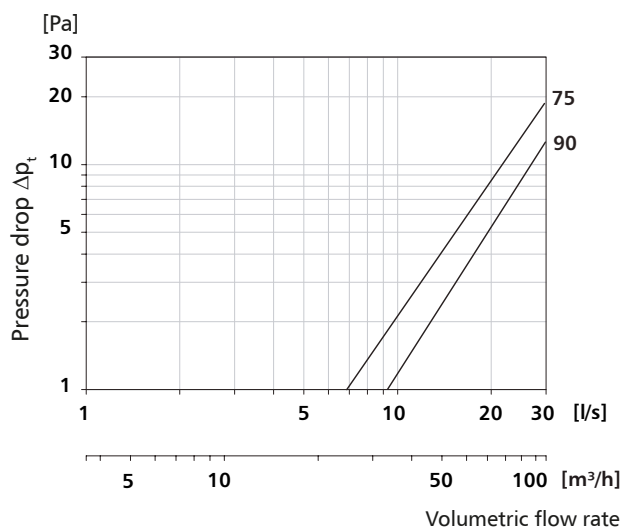
FLX-HDPE/FLX-HDPE-A

Technical data

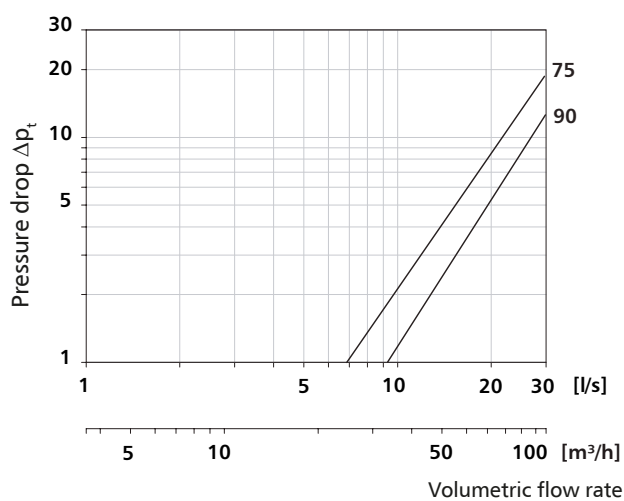
Straight section (length: 1.0 m)



45° bend (length: 0.5 m)

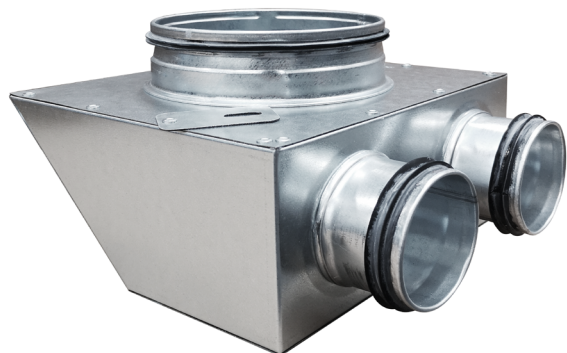


90° bend (length: 0.5 m) [Pa]



Plenum box for air valve

FLX-PLO/FLX-PRO



Description

FLX-PLO / FLX-PRO plenum boxes are components of the FLX-REKU system intended for domestic mechanical ventilation systems, also known as mechanical ventilation heat recovery (MVHR) or heat recovery ventilation.

The low profile plenum boxes require less installation space than standard solutions, which is very convenient when they should not be prominent once concealed. This advantage helps free up usable indoor area.

FLX-PLO plenum boxes are made of galvanized steel sheet. Plenum boxes made from stainless steel are available on request.

Available also insulated plenum box version - **FLX-PLI** and **FLX-PRI**. These plenum boxes have inside a insulation lining made from 9 mm thick rubber foam.

FLX-PLO plenum boxes are equipped with duct connection spigot $\varnothing d_2$ with a EPDM seal – this type of connection with FLX-HDPE ducting is airtight and easy to install.



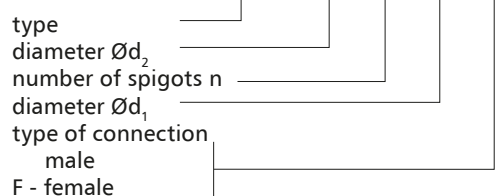
FLX-CS-PVC end caps fit connection spigots of FLX-PLO-75 and FLX-PLO-90 plenum boxes.



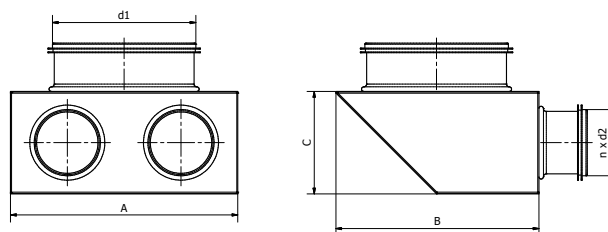
FLX-CF-PVC end caps fit (inside) duct connection spigots of FLX-PRO-63 plenum boxes.

Product code example

Product code **FLX-PLO - 75 - 2 - 150 - F**



Dimensions



Product code	A [mm]	B [mm]	C [mm]	d_1 [mm]	n [szt.]	d_2 [mm]
FLX-PRO-63-1- d_1	180	180	75	80-160	1	63
FLX-PRO-63-2- d_1	180	180	75	80-160	2	63
FLX-PRO-63-3- d_1	180	270	75	80-160	3	63
FLX-PLO-75-1- d_1	180	200	90	80-160	1	63
FLX-PLO-75-2- d_1	180	200	90	80-160	2	63
FLX-PLO-75-3- d_1	180	300	90	80-160	3	63
FLX-PLO-90-1- d_1	180	200	90	80-160	1	75
FLX-PLO-90-2- d_1	180	200	90	80-160	2	75
FLX-PLO-90-3- d_1	180	300	90	80-160	3	75

Duct connection spigot d_1 : 80, 100, 125, 150, 160 mm

Types of plenum boxes



FLX-PLO plenum box



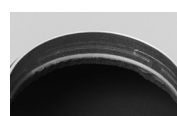
FLX-PRO plenum box (spigot - 63mm only)



FLX-PLO-75-2-160 male connection spigot $\varnothing d_1$ with a seal



FLX-PLO-75-2-160-F female connection spigot $\varnothing d_1$



FLX-PLI / FLX-PRI 9 mm thick rubber foam insulation lining

Plenum boxes with long connection spigot for air valve **FLX-PLO-L / FLX-PRO-L**



Description

FLX-PLO-L / FLX-PRO-L plenum boxes with long connection spigot are components of the FLX-REKU system intended for domestic mechanical ventilation systems, also known as mechanical ventilation heat recovery (MVHR) or heat recovery ventilation. The low profile plenum boxes require less installation space than standard solutions, which is very convenient when they should not be prominent once concealed. This advantage helps free up usable indoor area.

FLX-PLO-L / FLX-PRO-L plenum boxes are made of galvanized steel sheet. Plenum boxes made from stainless steel are available on request. Available also insulated plenum box version - FLX-PLI-L / FLX-PRI-L. These plenum boxes have inside a insulation lining made from 9 mm thick rubber foam.

FLX-PLO-L plenum boxes are equipped with duct connection spigot $\varnothing d_2$ with a EPDM seal – this type of connection with FLX-HDPE ducting is airtight and easy to install.



FLX-CS-PVC end caps fit connection spigots of FLX-PLO-75 and FLX-PLO-90 plenum boxes.



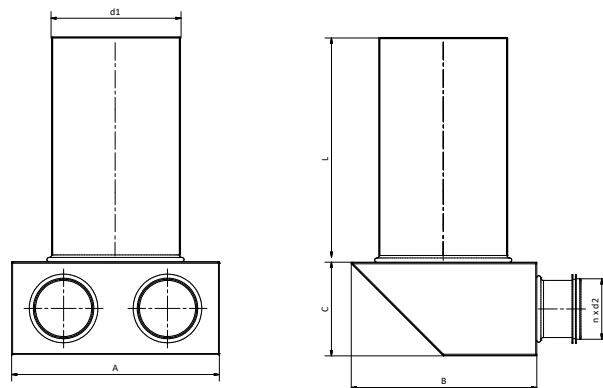
FLX-CF-PVC end caps fit (inside) duct connection spigots of FLX-PRO-63 plenum boxes.

Product code example

Product code **FLX-PLO-L - 75 - 2 - 150 - F**

type _____
 diameter $\varnothing d_2$ _____
 number of spigots n _____
 diameter $\varnothing d_1$ _____
 type of connection _____
 male _____
 F - female _____

Dimensions



Product code	A [mm]	B [mm]	C [mm]	L [mm]	d_1 [mm]	n [pcs.]	d_2 [mm]
FLX-PRO-L-63-1- d_1	180	180	75	320	80-160	1	63
FLX-PRO-L-63-2- d_1	180	180	75	320	80-160	2	63
FLX-PRO-L-63-3- d_1	180	270	75	320	80-160	3	63
FLX-PLO-L-75-1- d_1	180	200	90	320	80-160	1	63
FLX-PLO-L-75-2- d_1	180	200	90	320	80-160	2	63
FLX-PLO-L-75-3- d_1	180	300	90	320	80-160	3	63
FLX-PLO-L-90-1- d_1	180	200	90	320	80-160	1	75
FLX-PLO-L-90-2- d_1	180	200	90	320	80-160	2	75
FLX-PLO-L-90-3- d_1	180	300	90	320	80-160	3	75

Duct connection spigot d_2 : 80, 100, 125, 150, 160 mm

Types of plenum boxes



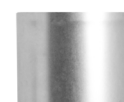
FLX-PLO plenum box



FLX-PRO plenum box (spigot - 63mm only)



FLX-PLO-L-75-2-160 male spigot $\varnothing d_1$ with a seal



FLX-PLO-L-75-2-160-F female spigot $\varnothing d_1$



FLX-PLI / FLX-PRI 9 mm thick rubber foam insulation lining

Plenum boxes for grilles

FLX-PLO-MOV



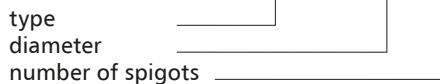
Description

The FLX-MOV plenum box is used for mounting supply-exhaust grilles in the residential ventilation system with heat recovery unit. The plenum box has on the one end male duct connection spigot for FLX-HDPE ducts, and on the other end it has a slot adapted to SHR grilles.

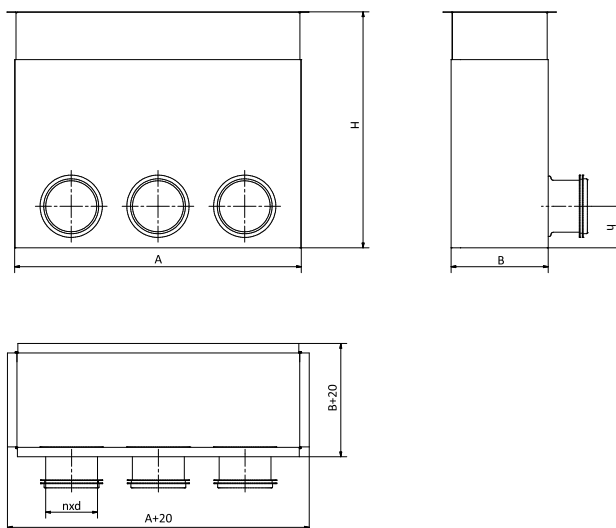
In addition, the height (length) of the plenum box is adjustable in the range of 200-310, which allows you to match the plenum box size to the partition thickness.

Product code example

Product code **FLX-PLO-MOV - 75 - 2**



Dimensions



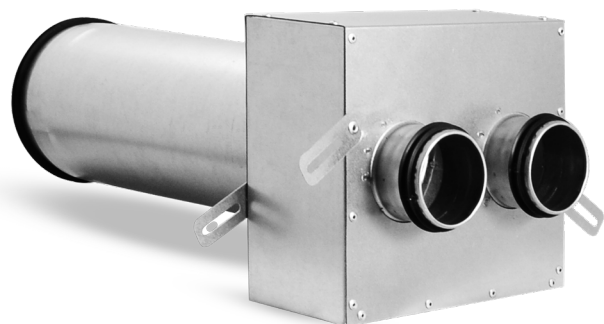
Product code	SHR	A [mm]	B [mm]	H [mm]	d [mm]	h [mm]	n [pcs]
FLX-PLO-MOV-75-2	200x100	204	103	200-310	63	44	2
FLX-PLO-MOV-75-3	300x100	304	103	200-310	63	44	3

How to install



Horizontal plenum box for air valve

FLX-PLO-PL / FLX-PRO-PL



Description

FLX-PLO-P / FLX-PRO-P plenum boxes are components of the FLX-REKU system intended for domestic mechanical ventilation systems, also known as mechanical ventilation heat recovery (MVHR) or heat recovery ventilation. In this plenum box type, spigots $\varnothing d_1$ and $\varnothing d_2$ are aligned on single side.

The low profile plenum boxes require less installation space than standard solutions, which is very convenient when they should not be prominent once concealed. This advantage helps free up usable indoor area.

FLX-PLO-PL/FLX-PRO-PL plenum boxes are made of galvanized steel sheet. Plenum boxes made from stainless steel are available on request.

Available also insulated plenum box version - **FLX-PLI-PL/FLX-PRI-PL**. These plenum boxes have inside a insulation lining made from 9 mm thick rubber foam.

FLX-PLO-PL plenum boxes are equipped with duct connection spigot $\varnothing d_2$ with an EPDM seal – this type of connection with FLX-HDPE ducting is airtight and easy to install.



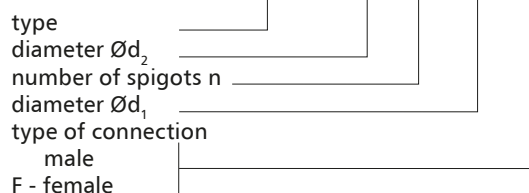
FLX-CS-PVC end caps fit connection spigots of FLX-PLO-75 and FLX-PLO-90 plenum boxes.



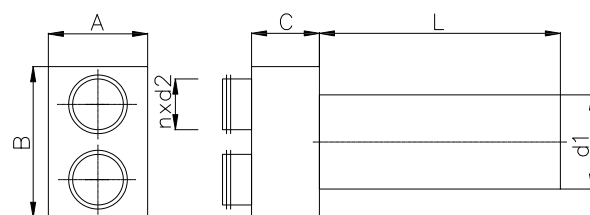
FLX-CF-PVC end caps fit (inside) duct connection spigots of FLX-PRO-63 plenum boxes.

Product code example

Product code: **FLX-PLO-PL - 75 - 2 - 150 - F**



Dimensions



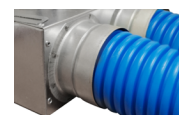
Product code	A [mm]	B [mm]	C [mm]	L [mm]	d_1 [mm]	n [pcs.]	d_2 [mm]
FLX-PRO-PL-63-2- d_1	180	200	90	320	80-160	2	63
FLX-PRO-PL-63-3- d_1	180	300	90	320	80-160	3	63
FLX-PLO-PL-75-2- d_1	180	200	90	320	80-160	2	63
FLX-PLO-PL-75-3- d_1	180	300	90	320	80-160	3	63
FLX-PLO-PL-90-2- d_1	180	200	90	320	80-160	2	75
FLX-PLO-PL-90-3- d_1	180	300	90	320	80-160	3	75

Duct connection spigot d_1 : 80, 100, 125, 150, 160 mm

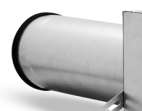
Types of plenum boxes



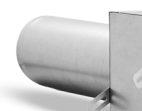
FLX-PLO plenum box



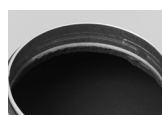
FLX-PRO plenum box
(spigot - 63mm only)



FLX-PLO-L-75-2-160
male spigot $\varnothing d_1$
with a seal



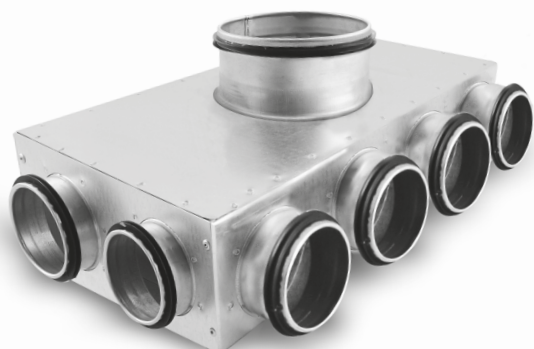
FLX-PLO-L-75-2-160-F
female spigot $\varnothing d_1$



FLX-PLI / FLX-PRI
9 mm thick rubber
foam insulation
lining

Distribution box for FLX-REKU system

FLX-PLO-R / FLX-PRO-R



Description

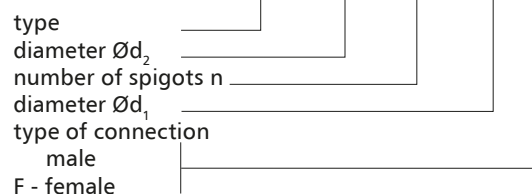
The FLX-PLO-R / FLX-PRO-R distribution boxes (manifolds) are used to run the domestic ventilation ductwork to each individual room. As a rule, one air distribution box with a proper amount of FLX duct connection spigots is installed in the supply and exhaust air. However, the number of air distribution boxes depends on the building design. The $\varnothing d_1$ connection spigot is used to connect the main supply or exhaust duct from the heat recovery unit. FLX-HDPE / FLX-HDPE-A ducting is connected to $\varnothing d_2$ connection spigots. FLX-PLO-R / FLX-PRO-R distribution boxes are made of galvanized steel sheet. Air distribution boxes made from stainless steel are available on request.

Available also insulated distribution box version - FLX-PLI-R / FLX-PRI-R. These distribution boxes have inside a insulation lining made from 9 mm thick rubber foam.

FLX-PLO-R distribution boxes are equipped with duct connection spigots $\varnothing d_2$ with an EPDM seal – this type of connection with FLX-HDPE ducting is airtight and easy to install.

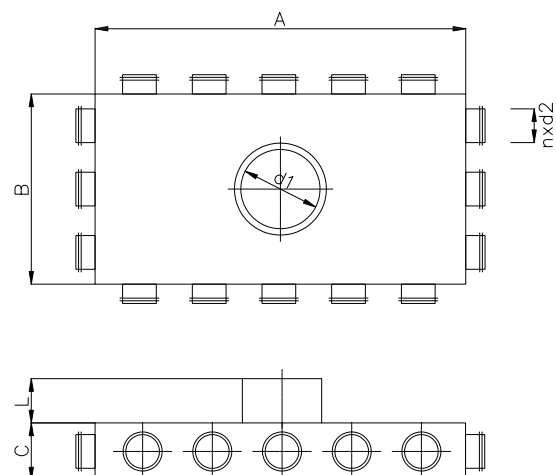
Product code example

Product code: **FLX-PLO-R - 75 - 2-4-2-0 - 160 - F**



Dimensions

An example of a technical drawing of FLX-PLO-R-75-3-5-3-5-d1 distribution box



Product code	A [mm]	B [mm]	C [mm]	L [mm]	d_1 [mm]	n [pcs.]	d_2 [mm]
FLX-PRO-R-63-2-4-2-0-d1	360	180	75	60	80-250	8	63
FLX-PRO-R-63-0-3-0-3-d1	270	270	75	60	80-250	6	63
FLX-PRO-R-63-0-4-0-4-d1	360	360	75	60	80-250	8	63
FLX-PRO-R-63-3-6-3-0-d1	540	270	75	60	80-250	12	63
FLX-PRO-R-63-0-5-0-5-d1	450	450	75	60	80-250	10	63
FLX-PRO-R-63-0-7-0-7-d1	630	280	75	60	80-250	14	63
FLX-PRO-R-63-3-5-3-5-d1	450	270	75	60	80-250	16	63
FLX-PRO-R-63-3-6-3-6-d1	540	270	75	60	80-250	18	63
FLX-PLO-R-75-2-4-2-0-d1	400	200	90	60	80-250	8	63
FLX-PLO-R-75-0-3-0-3-d1	300	300	90	60	80-250	6	63
FLX-PLO-R-75-0-4-0-4-d1	400	300	90	60	80-250	8	63
FLX-PLO-R-75-3-6-3-0-d1	600	300	90	60	80-250	12	63
FLX-PLO-R-75-0-5-0-5-d1	500	300	90	60	80-250	10	63
FLX-PLO-R-75-0-7-0-7-d1	700	300	90	60	80-250	14	63
FLX-PLO-R-75-3-5-3-5-d1	500	300	90	60	80-250	16	63
FLX-PLO-R-75-3-6-3-6-d1	600	300	90	60	80-250	18	63
FLX-PLO-R-90-2-4-2-0-d1	400	200	90	60	80-250	8	75
FLX-PLO-R-90-0-3-0-3-d1	300	300	90	60	80-250	6	75
FLX-PLO-R-90-0-4-0-4-d1	400	300	90	60	80-250	8	75
FLX-PLO-R-90-3-6-3-0-d1	600	300	90	60	80-250	12	75
FLX-PLO-R-90-0-5-0-5-d1	500	300	90	60	80-250	10	75
FLX-PLO-R-90-0-7-0-7-d1	700	300	90	60	80-250	14	75
FLX-PLO-R-90-3-5-3-5-d1	500	300	90	60	80-250	16	75
FLX-PLO-R-90-3-6-3-6-d1	600	300	90	60	80-250	18	75

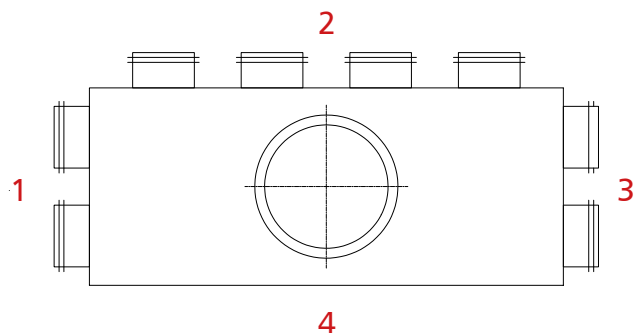
Duct connection spigot d_1 : 80, 100, 125, 150, 160, 180, 200, 250 mm

Distribution box for FLX-REKU system

FLX-PLO-R / FLX-PRO-R

How to order

Product code: FLX-PLO-R- $\varnothing d_2$ -1-2-3-4- $\varnothing d_1$



where:

- type (FLX-PLO or FLX-PRO for $\varnothing 63$ mm)
- $\varnothing d_2$ FLX-HDPE duct connection spigot ($\varnothing 63, \varnothing 75, \varnothing 90$)
- 1-2-3-4 number and configuration of connection spigots
- $\varnothing d_1$ 80,100,125,150,160,180,200,250 mm SPIRAL duct diameter
- Z no connection spigots, DIY solution = cutting at the construction site
- F female connection/ no symbol = male connection

Choose distribution box according to number of spigots::

FLX-HDPE \varnothing [mm]	No of FLX duct connection spigots n [pcs.]	Product code of distribution box
63	6	FLX-PRO-R-63-2-4-2-0-d1 FLX-PRO-R-63-0-3-0-3-d1
	8	FLX-PRO-R-63-0-4-0-4-d1
	9	FLX-PRO-R-63-3-6-3-0-d1
	10	FLX-PRO-R-63-0-5-0-5-d1
	14	FLX-PRO-R-63-0-7-0-7-d1
	16	FLX-PRO-R-63-3-5-3-5-d1
	18	FLX-PRO-R-63-3-6-3-6-d1
75	6	FLX-PLO-R-75-2-4-2-0-d1 FLX-PLO-R-75-0-3-0-3-d1
	8	FLX-PLO-R-75-0-4-0-4-d1
	9	FLX-PLO-R-75-3-6-3-0-d1
	10	FLX-PLO-R-75-0-5-0-5-d1
	14	FLX-PLO-R-75-0-7-0-7-d1
	16	FLX-PLO-R-75-3-5-3-5-d1
	18	FLX-PLO-R-75-3-6-3-6-d1
90	6	FLX-PLO-R-90-2-4-2-0-d1 FLX-PLO-R-90-0-3-0-3-d1
	8	FLX-PLO-R-90-0-4-0-4-d1
	9	FLX-PLO-R-90-3-6-3-0-d1
	10	FLX-PLO-R-90-0-5-0-5-d1
	14	FLX-PLO-R-90-0-7-0-7-d1
	16	FLX-PLO-R-90-3-5-3-5-d1
	18	FLX-PLO-R-90-3-6-3-6-d1

Horizontal distribution box for FLX-REKU system

FLX-PLO-R-P



Description

The FLX-PLO-R-P/FLX-PRO-R-P distribution boxes (manifolds) are used to run the domestic ventilation ductwork to each individual room. The air distribution box is equipped with a perforated panel, which is intended for even airflow distribution. As a rule, one air distribution box with a proper amount of FLX duct connection spigots is installed in the supply and exhaust air. However, the number of air distribution boxes depends on the building design. The $\varnothing d_1$ connection spigot is used to connect the main supply or exhaust duct from the heat recovery unit. FLX-HDPE / FLX-HDPE-A ducting is connected to $\varnothing d_2$ connection spigots.

FLX-PLO-R-P / FLX-PRO-R-P distribution boxes are made of galvanized steel sheet. Air distribution boxes made from stainless steel are available on request.

Available also insulated distribution box version - FLX-PLI-R-P / FLX-PRI-R-P. These distribution boxes have inside a insulation lining made from 9 mm thick rubber foam.

FLX-PLO-R-P distribution boxes are equipped with duct connection spigots $\varnothing d_2$ with a EPDM seal – this type of connection with FLX-HDPE ducting is airtight and easy to install.



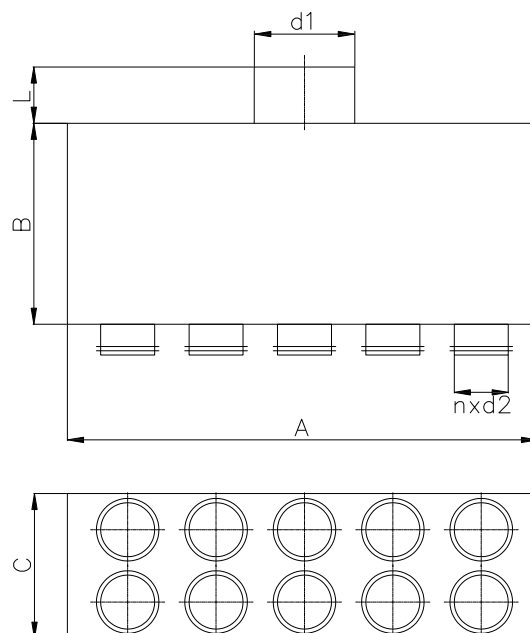
FLX-CF-PVC end caps fit duct connection spigots $\varnothing d_2$ of FLX-PLO-R-P and FLX-PRO-R-P distribution boxes.

Product code example

Product code **FLX-PRO-R-P - 75 - 2x10 - 200 -**

type _____
 diameter $\varnothing d_2$ _____
 number of spigots n _____
 diameter $\varnothing d_1$ _____
 type of connection _____
 male _____
 F - female _____

Dimensions



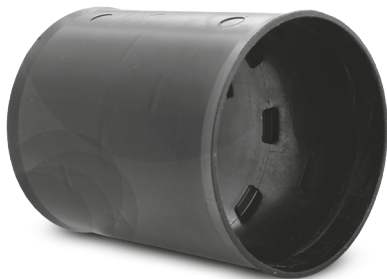
Product code	A [mm]	B [mm]	C [mm]	L [mm]	d_1 [mm]	n [pcs.]	d_2 [mm]
FLX-PRO-R-P-63-2x5-d1	500	180	230	60	80-250	10	63
FLX-PRO-R-P-63-2x6-d1	600	180	230	60	80-250	12	63
FLX-PRO-R-P-63-2x7-d1	700	180	230	60	80-250	14	63
FLX-PLO-R-P-75-2x5-d1	500	180	230	60	80-250	10	63
FLX-PLO-R-P-75-2x6-d1	600	180	230	60	80-250	12	63
FLX-PLO-R-P-75-2x7-d1	700	180	230	60	80-250	14	63
FLX-PLO-R-P-90-2x5-d1	500	180	230	60	80-250	10	75
FLX-PLO-R-P-90-2x6-d1	600	180	230	60	80-250	12	75
FLX-PLO-R-P-90-2x7-d1	700	180	230	60	80-250	14	75

Duct connection spigot d_1 : 80, 100, 125, 150, 160, 180, 200, 250 mm.

Choose distribution box according to number of spigots:

FLX-HDPE \varnothing [mm]	No of FLX duct connection spigots n [pcs.]	Product code of distribution box
63	10	FLX-PRO-R-P-63-2x5-d1
	12	FLX-PRO-R-P-63-2x6-d1
	14	FLX-PRO-R-P-63-2x7-d1
75	10	FLX-PLO-R-P-75-2x5-d1
	12	FLX-PLO-R-P-75-2x6-d1
	14	FLX-PLO-R-P-75-2x7-d1
90	10	FLX-PLO-R-P-90-2x5-d1
	12	FLX-PLO-R-P-90-2x6-d1
	14	FLX-PLO-R-P-90-2x7-d1

Female couplings **FLX-MSF...**



Description

FLX-MSF female couplings are designed for joining sections of FLX-HDPE or FLX-HDPE-A ducting.

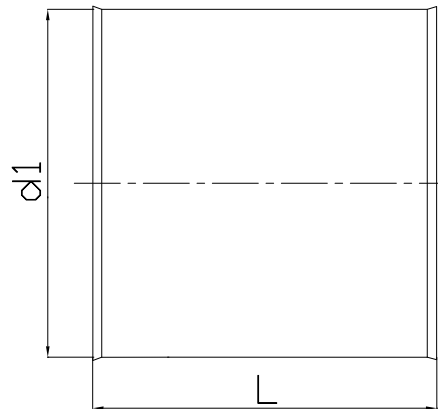
In order to achieve airtightness class C acc. EN 12237, it's recommended to use EPDM seals - FLX-USZ.

Product code example

Product code: **FLX-MSF - 75**

type _____
 $\varnothing d_1$ _____

Dimensions



Product code	d_1 [mm]	L [mm]
FLX-MSF-63	63	100
FLX-MSF-75	75	100
FLX-MSF-90	90	100

Seal rings for FLX ducting

FLX-USZ...



Description

FLX-USZ-63/FLX-USZ-75/FLX-USZ-90 seal rings are made of EPDM and provide sealing at the connection between ducts and female couplings which meet the airtightness class C as per EN 12237.

FLX-USP-63/FLX-USP-75/FLX-USP-90 gaskets are made of foam and installed inside the connection spigots of plenum boxes and dampers. The gaskets are used to seal the connection between plenum boxes and semi-rigid ducting - meet the air tightness class B as per EN 12237.

FLX-UST-63/FLX-UST-75/FLX-UST-90 heat-shrink gaskets for connecting and sealing the joints between two ducts or a duct and a plenum box.

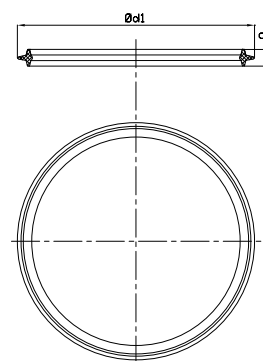
Product code example

Product code: **FLX-USZ - 75**

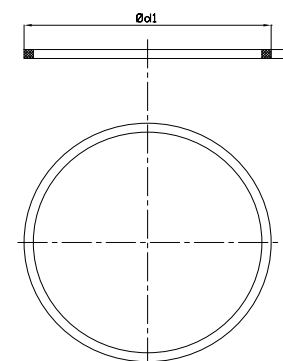
type _____
 $\varnothing d_1$ _____

Dimensions

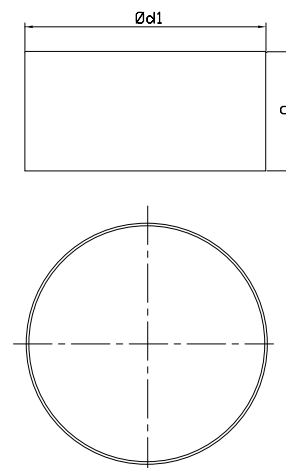
FLX-USZ-63 / FLX-USZ-75 /
FLX-USZ-90



FLX-USP-63 / FLX-USP-75 /
FLX-USP-90



FLX-UST-63 / FLX-UST-75 /
FLX-UST-90



Product code	$\varnothing d_1$ [mm]	g [mm]
FLX-USZ-63	65	8
FLX-USP-63	63	6
FLX-UST-63	63	100
FLX-USZ-75	78	8
FLX-USP-75	75	6
FLX-UST-75	75	100
FLX-USZ-90	93	8
FLX-USP-90	90	6
FLX-UST-90	90	100

Male coupling for FLX-REKU system

FLX-NSL



Description

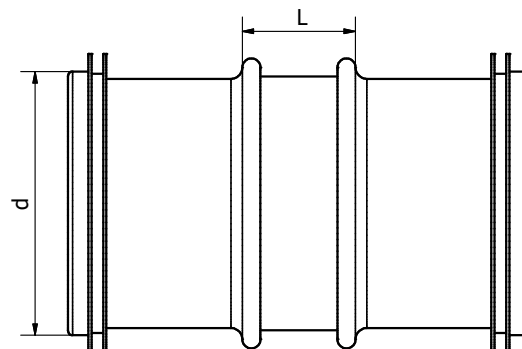
The FLX-NSL male coupling is intended for the joining FLX-HDPE and FLX-HDPE-A semi-rigid ducting. The male coupling has factory installed EPDM rubber seals, which guarantee an airtight connection.

Product code example

Product code: **FLX-NSL - 75**

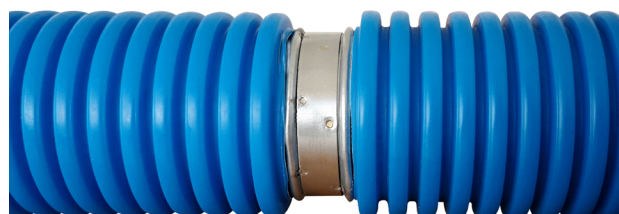
type _____
diameter _____

Dimensions



Product code	d [mm]	L [mm]
FLX-NSL-75	63	25
FLX-NSL-90	75	25

How to install



Silencer for heat recovery ventilation system

FLX-SQOL



Description

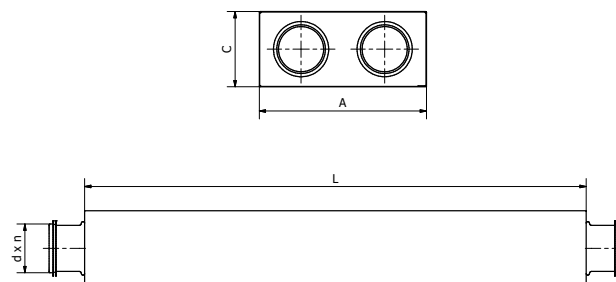
The FLX-SQOL silencer was designed as an attenuating element that is mounted before the FLX-PLO / FLX-PRO plenum box. It has either 1 or 2 spigots (just like the number of FLX-PLO / FLX-PRO plenum boxes spigots), the silencer is connected using FLX-HDPE ducting. In the case of 3-spigot FLX-PLO plenum boxes, it's recommended to use a combination of two silencers - $2n + 1n$. The FLX-SQOL silencer are insulated with an attenuating material - non-combustible stone wool.

Product code example

Product code: **FLX-SQOL - 75 - 1 - 300**

type _____
 diameter _____
 number of spigots _____
 length _____

Dimensions



Product code	A [mm]	C [mm]	L [mm]	d [mm]	No of spigots n [pcs.]
FLX-SQOL-75-1-300	120	90	300	63	1
FLX-SQOL-75-1-600	120	90	600	63	1
FLX-SQOL-75-1-900	120	90	900	63	1
FLX-SQOL-75-2-300	200	90	300	63	2
FLX-SQOL-75-2-600	200	90	600	63	2
FLX-SQOL-75-2-900	200	90	900	63	2
FLX-SQOL-90-1-300	120	110	300	75	1
FLX-SQOL-90-1-600	120	110	600	75	1
FLX-SQOL-90-1-900	120	110	900	75	1
FLX-SQOL-90-2-300	240	110	300	75	2
FLX-SQOL-90-2-600	240	110	600	75	2
FLX-SQOL-90-2-900	240	110	900	75	2

Offset plenum box for heat recovery ventilation system

FLX-ODSQL



Description

FLX-ODSQL offset plenum boxes are components of the FLX-REKU system which are used to intersect two main ventilation ducts or to lead ducts over other installations in the floor. Offset plenum boxes with 1 or 2 FLX-HDPE duct connector spigots with a diameter of 75 and 90 mm are available.

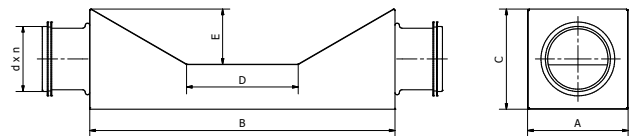
FLX-ODSQL-75-1-300 can be crossed with three FLX-ODSQL-75-1-100 plenum boxes - the width of the maximum clearance allows to bypass up to 3 plenum boxes - 3x90mm (dimension A) < 300 mm (dimension D).

Product code example

Product code: **FLX-ODSQL - 75 - 1 - 300**



Dimensions



Product code	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Ød [mm]	No of spigots n [pcs.]
FLX-ODSQL-75-1-100	90	275	90	100	50	63	1
FLX-ODSQL-75-1-300	90	475	90	300	50	63	1
FLX-ODSQL-75-2-100	200	275	90	100	50	63	2
FLX-ODSQL-75-2-300	200	475	90	300	50	63	2
FLX-ODSQL-90-1-120	110	310	110	120	60	75	1
FLX-ODSQL-90-1-370	110	50	110	370	60	75	1
FLX-ODSQL-90-2-120	240	310	110	120	60	75	2
FLX-ODSQL-90-2-370	240	550	110	370	60	75	2

Fastening support FLX-FAX...



Description

FLX-FAX fastening supports facilitate routing and fastening of semi-rigid ducting at 90°. The fastening supports keep the installed duct firmly in place to prevent shifting when casting concrete floors over the ductwork.

The FLX-FAX fastening supports are made from galvanized steel sheet.

Special versions made from stainless steel are available on request.

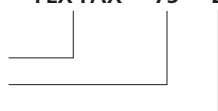
Product code example

Product code: **FLX-FAX - 75 - 2**

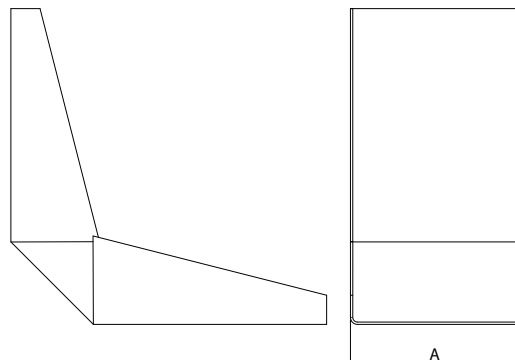
type

Ød₁

number of ducts



Dimensions



Product code	A [mm]
FLX-FAX-63	68
FLX-FAX-63-2	131
FLX-FAX-75	80
FLX-FAX-75-2	155
FLX-FAX-90	95
FLX-FAX-90-2	190

End caps

FLX-CS-PVC/FLX-CF-PVC



Description

The FLX-CS-PVC end cap is used for plugging the ends of FLX-HDPE and FLX-HDPE-A ducts, e.g. when installing ducting on the construction site - they effectively protect against contamination of the interior of the ducts. At the same time, FLX-CS-PVC end cap is also used to plug unused connection spigots in plenum boxes and FLX-PLO distribution boxes (but they are not inserted inside the spigot, but onto it).

FLX-CF-PVC end caps are used for plugging unused connection spigots in plenum boxes and FLX-PRO distribution boxes. The end caps are made of PVC.

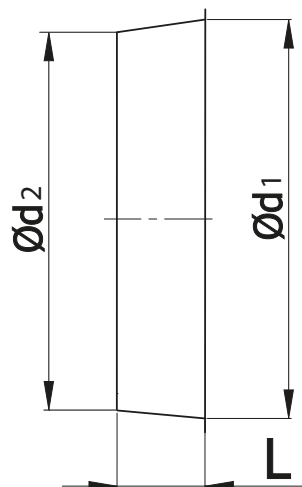
Product code example

Product code: **FLX-CS-PVC - 75**

type _____

diameter _____

Dimensions



Product code	\varnothing_1 [mm]	\varnothing_2 [mm]	L [mm]
FLX-CS-PVC-63	51	49	20
FLX-CF-PVC-63	66	63	20
FLX-CS-PVC-75	63	59	20
FLX-CF-PVC-75	78	78	20
FLX-CS-PVC-90	76	74	20
FLX-CF-PVC-90	95	91	20

How to install



FLX-CS-PVC end caps fit inside FLX-HDPE and FLX-HDPE-A ducting.



FLX-CS-PVC end caps are mounted onto the connection spigots of FLX-PLO-75 and FLX-PLO-90 plenum boxes.



FLX-CF-PVC end caps fit inside the connection spigots of FLX-PRO-63 plenum boxes.

Pressed bends **FLX-BP**



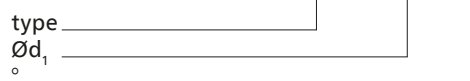
Description

FLX-BP pressed ventilation bends are used with the FLX-HDPE/FLX-HDPE-A semi-rigid ducting. The bend is made by seam welding for improved installation airtightness. The duct is connected by inserting it into the bend. The pressed form of the ventilation bend helps to reduce the airflow resistance and the pressure loss. The air tightness class can be increased to class B by wrapping the joints with the TAL, MET or DUCT sealing tape.

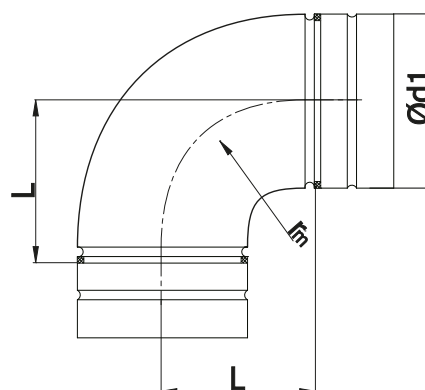
Available materials — Product code example
FLX-BP-090-90-... - galvanized steel sheet

Product code example

Product code: **FLX-BP - aaa - 90**



Dimensions



$$r_m \approx 1 \times d_1$$

Product code	Ød ₁ [mm]	L [mm]
FLX-BP-075-90	75	100
FLX-BP-090-90	90	100

Short reducers for ventilation systems

FLX-RPC/FLX-RSCL



Description

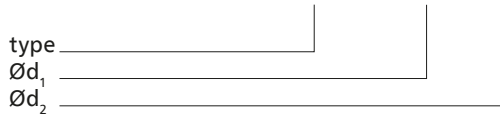
FLX-RPC/FLX-RSCL reducers are used with the FLX-HDPE/FLX-HDPE-A semi-rigid ducting. The reducer is made by seam welding for improved installation airtightness. The duct is connected by inserting it into the reducer. The air tightness class can be increased to class B by wrapping the joints with the TAL, MET or DUCT sealing tape.

Available materials — Product code example

FLX-RPC-...-... - galvanized steel sheet
 FLX-RSCL-...-... - galvanized steel sheet

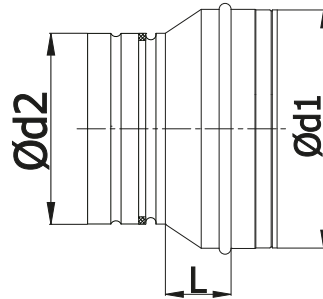
Product code example

Product code: **FLX-RPC** - aaa - bbb

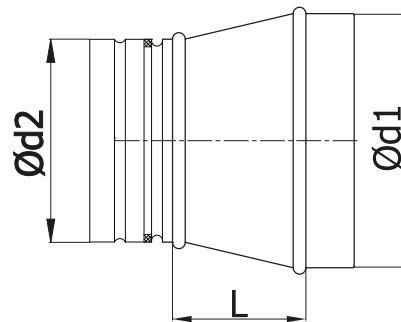


Dimensions

FLX-RPC



FLX-RSCL



Product code	$\varnothing_{1\text{ nom}}$ [mm]	$\varnothing_{2\text{ nom}}$ [mm]	L [mm]	Weight [kg]
FLX-RPC-100-075	100	75	18	0.20
FLX-RPC-125-075	125	75	28	0.20
FLX-RPC-160-075	160	75	34	0.24
FLX-RSCL-100-090	100	90	47	0.19
FLX-RSCL-125-090	125	90	74	0.24
FLX-RSCL-160-090	160	90	113	0.35

Reducer/ transition piece for SPIRAL system and FLX-REKU system

FLX-RSFCLL



Description

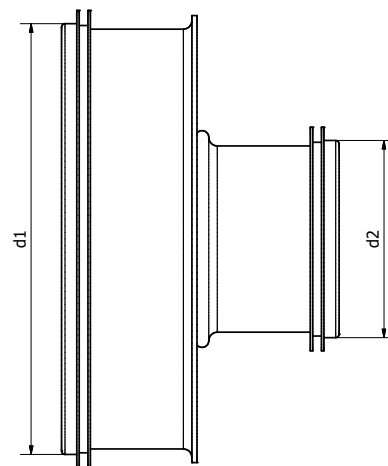
FLX-RSFCLL reducer is used as a transition piece between SPIRAL system ductwork and FLX-REKU system ducting. On the one end it has male connection in diameters: 100-160mm (for SPIRAL duct), on the other end it has male connection in diameter 75 or 90mm for FLX-HDPE ducting.

Product code example

Product code: **FLX-RSFCLL - 100 - 75**

type _____
 diameter $\varnothing d_1$ _____
 diameter $\varnothing d_2$ _____

Dimensions



Product code	d_1 [mm]	d_2 [mm]
FLX-RSFCLL-100-75	100	63
FLX-RSFCLL-125-75	125	63
FLX-RSFCLL-160-75	160	63
FLX-RSFCLL-100-90	100	75
FLX-RSFCLL-125-90	125	75
FLX-RSFCLL-160-90	160	75

Pressed collar saddles for SPIRAL ducts

FLX-SP



Description

FLX-SP pressed collar saddle is used to join SPIRAL ductwork and FLX-REKU ducting.

Available materials — Product code example

FLX-SP-... -... - galvanized steel sheet

Product code example

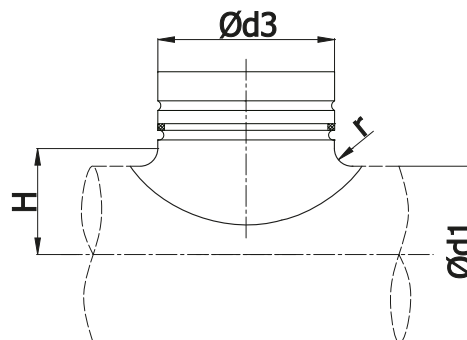
Product code: **FLX-SP - aaa - bbb**

type _____

Ød₁ _____

Ød₃ _____

Dimensions



Product code	Ød _{1 nom} - Ød _{3 nom} [mm]	diameter range for Ød _{1 nom} [mm]	r [mm]	H [mm]	Weight [kg]
FLX-SP-100-75	100-75	100 - 112	10	60	0,1
FLX-SP-125-75	125-75	112 - 125 - 140	10	72	0,1
FLX-SP-160-75	160-75	150 - 160	10	90	0,1
FLX-SP-200-75	200-75	180 - 200	10	110	0,1
FLX-SP-250-75	250-75	224 - 250 - 280 300 - 315	10	135	0,1

Shut-off dampers

FLX-DAS



Description

FLX-DAS shut-off dampers are a good choice when the ductwork closure does not have to be fully airtight. This product is rather intended for regulation of the airflow. The damper closure angle is between 0 and 90°.

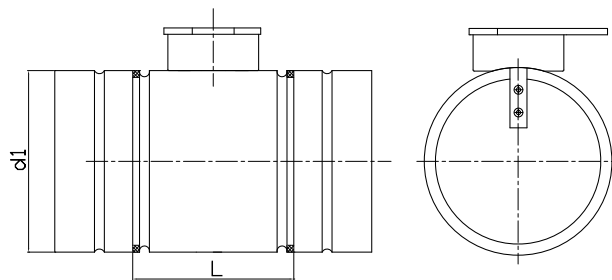
The FLX-DAS shutoff dampers are made from galvanized steel sheet. Available also damper version made from stainless steel on special request.

Product code example

Product code: **FLX-DAS - 75**

type _____
 Ød₁ _____

Dimensions



Product code	d ₁ [mm]	L [mm]
FLX-DAS-75	75	110
FLX-DAS-90	90	110

Airtight shut-off dampers

FLX-DAT



Description

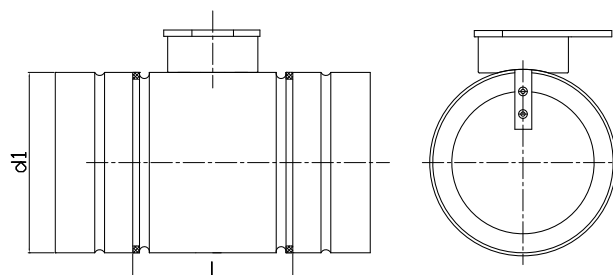
FLX-DAT dampers are a good choice when the ductwork closure must be airtight. The damper is used for cutting off the airflow. The damper closure angle is between 0 and 90°. The FLX-DAT airtight, shutoff dampers are made from galvanized steel sheet. Available also damper version made from stainless steel on special request.

Product code example

Product code: **FLX-DAT - 75**

type _____
 $\varnothing d_1$ _____

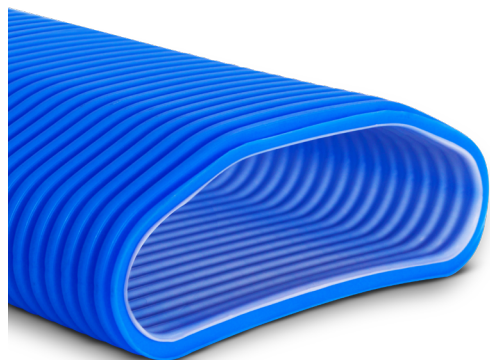
Dimensions



Product code	d_1 [mm]	L [mm]
FLX-DAT-75	75	110
FLX-DAT-90	90	110

Semi-rigid HDPE oval ducting for single-family home ventilation systems

FLX-HDPE-132-52



Description

FLX-HDPE-132-52 semi-rigid, oval ducts are intended for ventilation systems in single-family housing projects. FLX-HDPE-132-52 is made of HDPE (high-density polyethylene), a material with crush resistant construction and flexible enough for easy ductwork routing. The 20-metre sections help minimize the number of joints to improve the overall installation airtightness. This is a perfect duct for air distribution in single-family home ventilation systems laid on concrete floors within home insulation voids. The semi-rigid, oval ducting, plenum boxes and fittings make a perfect MHRV system with heat recovery unit. The ducts are joined with the plenum box by fitting onto the male connection ends.



FLX-CS-PVC-132-52 end cap is used for fitting inside the duct, e.g. during the ductwork installation on the construction site - it effectively protects against contamination of the interior of the ducts.

Mechanical compressive strength: 450 N

Antibacterial coating as per ISO 22196:2007
Effective against: Staphylococcus aureus, Escherichia coli

Lifetime of the antibacterial coating: 30 years

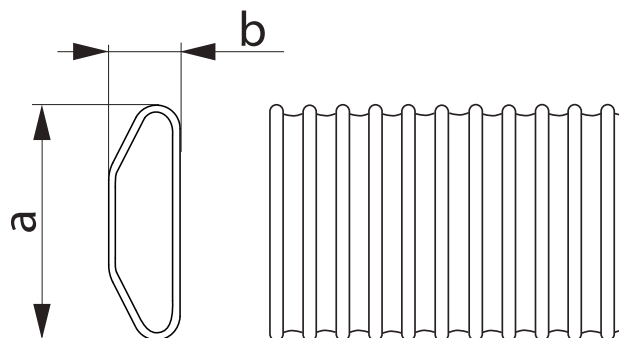
Temperature resistance: combustible; softening point at 130°C, flash point at 350°C, class B2.

Product code example

Product code: **FLX - HDPE - 132-52**

type _____
material _____
dimension _____

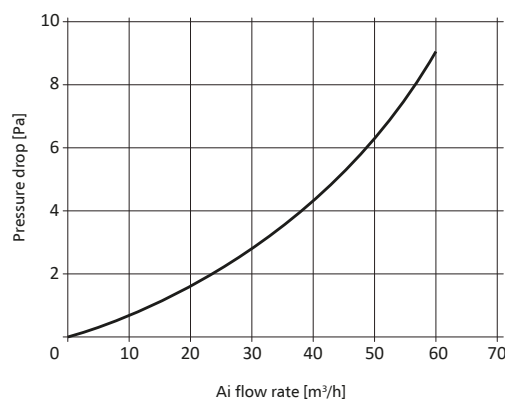
Dimensions



Product code	a [mm]	b [mm]	a _{wewn} [mm]	b _{wewn} [mm]	Bending radius [cm]	
					vertical	horizontal
FLX-HDPE-132-52	132	52	122	38	15	30

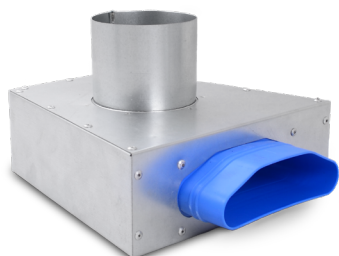
Technical data

Pressure loss chart for 1-metre long duct



Metal plenum box for air supply and exhaust valves

FLX-PRV-...-1-F / FLX-PRV-...-2-F



Description

FLX-PRV-...-1-F / FLX-PRV-...-2-F plenum boxes are used for air supply and exhaust valves. The plenum boxes are made from galvanized steel sheet, and plastic oval duct connection spigots that are designed to fit the FLX-HDPE-132-52 semi-rigid oval ducts. The plenum boxes are available with 1 or 2 oval connection spigots and SPIRAL duct connection spigots in diameter: 80 / 110 / 125 mm. Thanks to the low profile of the plenum box, it saves space and is perfect for concealing with cast-in-place concrete.

Available versions: code example FLX-PRV- $\varnothing d_1$ -n-F-O

FLX-PRV-125-1 male connection spigot $\varnothing d_1$

FLX-PRV-125-1-F female connection spigot $\varnothing d_1$

FLX-PRV-125-1-O male connection spigot $\varnothing d_1$,
the spigot inverted by 180°

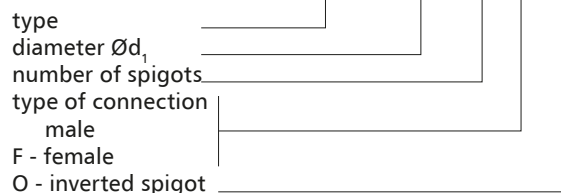
where:

$\varnothing d_1$ - air valve diameter: 80 / 100 / 125 mm

n - number of FLX-HDPE132-52 duct connection spigots

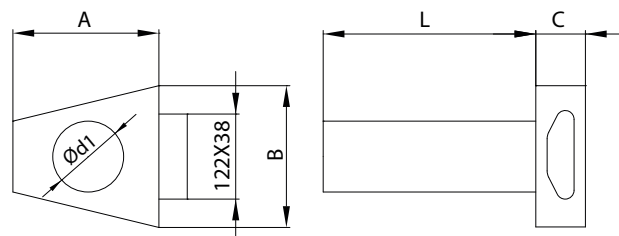
Product code example

Product code: **FLX-PRV - 100 - 1 - F -**

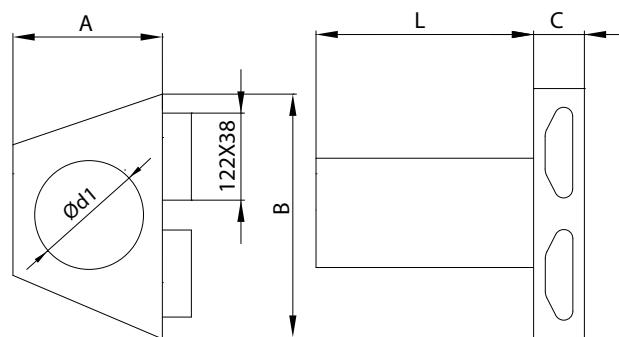


Dimensions

FLX-PRV-1-...-F

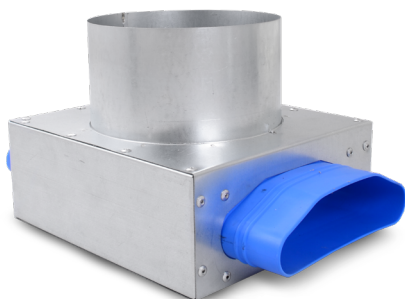


FLX-PRV-2-...-F



Product code	A [mm]	B [mm]	C [mm]	L [mm]	$\varnothing d_1$ [mm]	n [pcs.]
FLX-PRV-080-1	200	200	70	320	80	1
FLX-PRV-100-1	200	200	70	320	100	1
FLX-PRV-125-1	200	200	70	320	125	1
FLX-PRV-080-2	300	300	70	320	80	2
FLX-PRV-100-2	300	300	70	320	100	2
FLX-PRV-125-2	300	300	70	320	125	2

Metal plenum box for air supply and exhaust valves

FLX-PRV-...-1-1**Description**

FLX-PRV-...-1-1 plenum boxes for air valves, with oval connection spigots designed to fit HDPE-132-52 ducting. In this plenum box version 2 oval spigots are installed on the opposite sides of the plenum box.

Available versions: example FLX-PRV- $\varnothing d_1$ -1-1-F-O
 FLX-PRV-125-1-1 male connection spigot $\varnothing d_1$
 FLX-PRV-125-1-1-F female connection spigot $\varnothing d_1$
 FLX-PRV-125-1-1-O male connection $\varnothing d_1$,
 the spigot inverted by 180°

where:

$\varnothing d_1$ - air valve diameter 100 / 125 mm

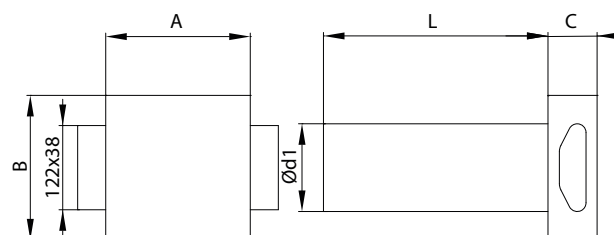
Product code example

Product code: **FLX-PRV - 125 - 1-1 - F -**

type	_____
spigot diameter	_____
number of spigots	_____
type of connection	_____
male	_____
F - female	_____
O - inverted spigot	_____

Dimensions

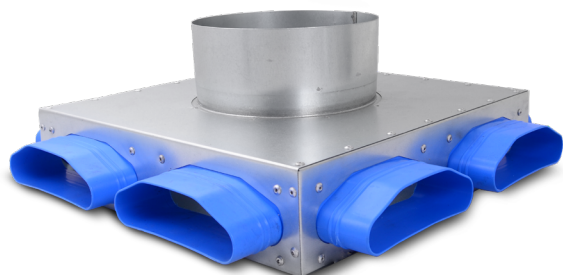
FLX-PRV-1-...-F



Product code	A [mm]	B [mm]	C [mm]	L [mm]	$\varnothing d_1$ [mm]
FLX-PRV-125-1-1	180	160	70	320	125

Distribution box for semi-rigid ducting

FLX-PRV-R



Description

FLX-PRV-R distribution box (manifold) is designed for installation in concrete screed or insulation layer, the distribution box has oval connection spigots that fit FLX-HDPE-132-52 ducting. Depending on the spigot configuration, the distribution box has from 2 to 8 spigots.

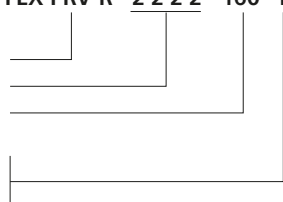
Note:

The connection spigot d_1 is male in the standard version. The diameter d_1 is available as a female connection on request, simply add "F" to the product code.

Product code example

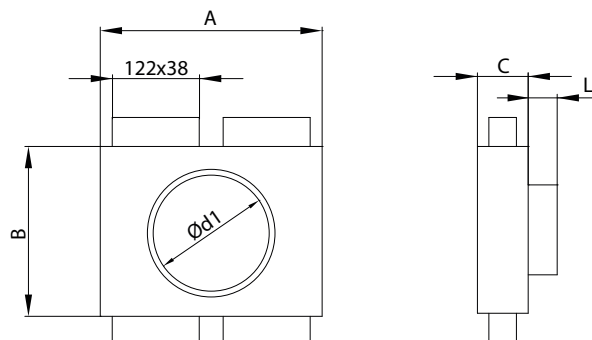
Product code: **FLX-PRV-R - 2-2-2-2 - 160 - F**

type
number of spigots
spigot diameter $\varnothing d_1$
type of connection
male
F - female



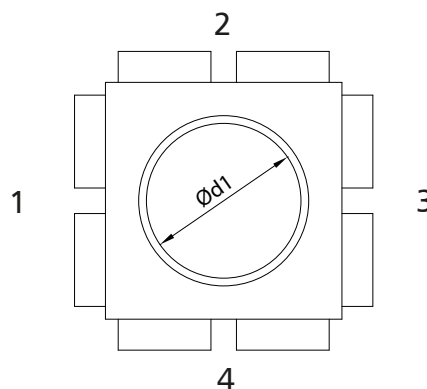
Dimensions

FLX-PRV-R-2-2-0-0-160



Product code	Number of spigots n [pcs.]	$\varnothing d_1$ [mm]	A [mm]	B [mm]	C [mm]	L [mm]
FLX-PRV-R-2-2-2-2-160	8	160	300	300	70	40
FLX-PRV-R-2-2-2-2-200	8	200	300	300	70	40
FLX-PRV-R-2-2-2-0-160	6	160	300	300	70	40
FLX-PRV-R-2-2-2-0-200	6	200	300	300	70	40
FLX-PRV-R-0-2-2-0-160	4	160	300	300	70	40
FLX-PRV-R-0-2-2-0-200	4	200	300	300	70	40
FLX-PRV-R-2-0-2-0-160	4	160	300	200	70	40
FLX-PRV-R-2-0-2-0-200	4	200	300	200	70	40
FLX-PRV-R-2-0-0-0-160	2	160	300	200	70	40
FLX-PRV-R-2-0-0-0-200	2	200	300	200	70	40

How to order: FLX-PLV-R-1-2-3-4- $\varnothing d_1$,



Note!

1-2-3-4 number and configuration of duct connection spigots that fit FLX-HDPE-132-52 ducting

Diameter $\varnothing d_1$ is 160 mm or 200 mm

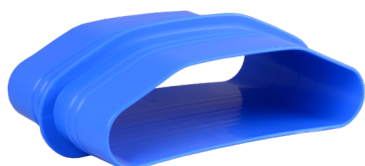
Spigot $\varnothing d_1$ male with a seal (standard)

female - (indicated by "F" in the product code, e.g. FLX-PRV-R-2-2-0-0-160-F)

Z no spigots (DIY solution - cutting at the construction site)

Male coupling for FLX-HDPE-132-52 oval semi-rigid ducting

FLX-VNS



Description

FLX-VNS male couplings are used for joining oval semi-rigid ducts. The plastic couplings are joined with oval ventilation ducting by male connection.

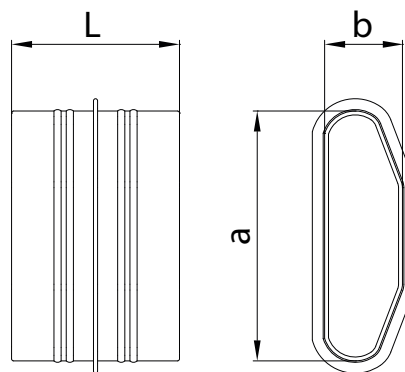
They connect long duct section of the domestic ventilation system with heat recovery.

Product code example

Product code: **FLX-VNS**

type _____

Dimensions

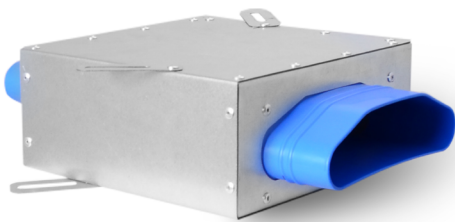


Product code	a [mm]	b [mm]	L [mm]
FLX-VNS	122	38	80

The coupling fits the FLX-HDPE-132-52 ducting.

Inverted male coupling for FLX-HDPE-132-52 oval ducting

FLX-VODS



Description

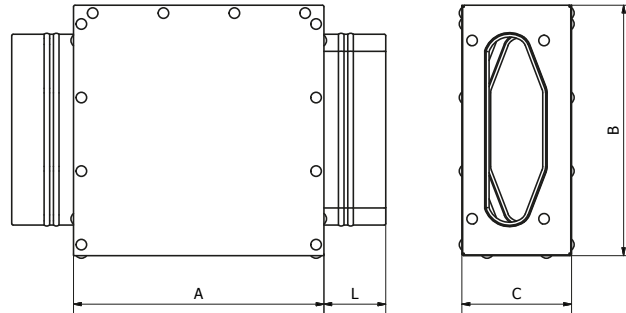
FLX-VODS inverted male coupling for oval semi-rigid ducting. The inverted male coupling joins oval ducting and inverts the profile of one of the ducts. This solution comes in handy when a plenum box for air supply diffusers need to be connected with the intake upward, or when for some reason ductwork must be installed with the profile upside down.

Product code example

Product code: **FLX-VODS**

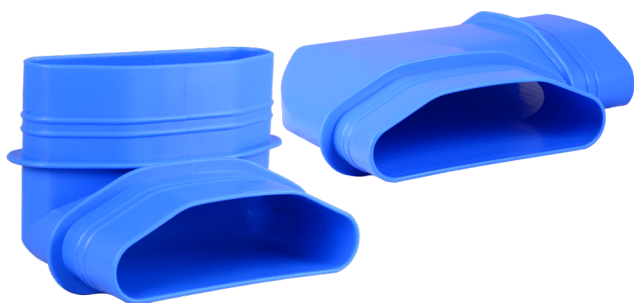
type _____

Dimensions



Product code	A [mm]	B [mm]	C [mm]	L [mm]
FLX-VODS-1-1	180	160	70	40

Plastic elbow for oval semi-rigid ducting **FLX-VBH/FLX-VBW**



Description

FLX-VBH/FLX-VBW oval plastic elbow have male ends to connect with HDPE semi-rigid oval ducts sized 132-52 mm.



FLX-VBH horizontal elbow 90°: helps with a very complex routing of ductwork bends which would be impossible to make using only ducting.



FLX-VBW elbow: enables quick turn upwards of the conducted installation - which is necessary, for example, when running ducts along the floor and then the walls of the room.

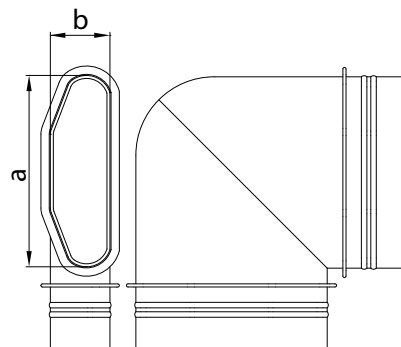
Product code example

Product code: **FLX-VBH**

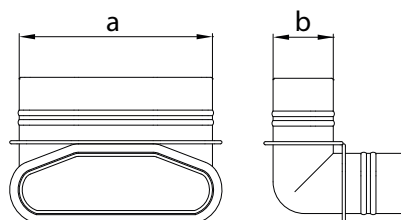
type _____

Dimensions

FLX-VBH



FLX-VBW



Product code	a [mm]	b [mm]
FLX-VBH	122	38
FLX-VBW	122	38

Technical data

Pressure loss chart for a 90° elbow

