

Ducts and fittings made of EPP

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

About the system



About the system

The EPP duct system is made of expanded polypropylene. The system has a number of design and installation advantages: low weight, quick installation (no additional connectors or screws required), no additional insulation is required since the material itself is already an insulator, easy to cut using hand tools, no thermal bridges. Thermal conductivity: $\lambda=0.039$ [W / m * k]

Dimensions

Ducts and fittings are available in the following diameters (inner): Ø125, Ø160, and Ø200. The ducts are sold in 1000 mm length. The wall thickness is 15mm or 43mm. All ducts and fittings have integrated male-female couplings. The inner diameter of the EPP duct system fits the size of the SPIRAL®System components with male ends.

Installation

The EPP ducts and fittings are connected using a male-female integrated couplings. Each coupling has double (15 mm system) or triple (43 mm system) <fold>, similar to double seals in the SPIRAL®System, thanks to which the system achieves airtightness class class ATC2 (old D) according to EN 17192. EPP is easy to process, each element can be easily cut in half.

Moreover, the EPP system components can be combined and adapted with the male elements of the SPIRAL®System (it's recommended to choose fittings with seals). The ducts fit directly into the connectors of the PremAIR heat recovery units and into the FLX-PLO-R or FLX-PRO-R distribution boxes (manifolds). The EPP duct can also be fitted directly with air intake and exhaust vents, e.g. USLA and USAV.

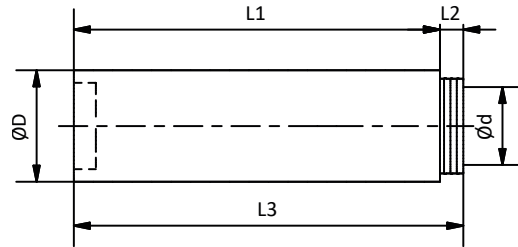
Due to the lightweight design of the elements, the suspension system is practically unnecessary. If additional clamps are needed - standard suspension clamps with the following diameters can be used.

Ventilation ducts made of 15mm thick EPP

EPP-15-SRGL



Dimensions



Description

Round ventilation duct made of expanded polypropylene (EPP). The most important features of the product are: rigid construction, low weight, easy assembly (integrated male-female coupling) and good thermal insulation. EPP ducts, used, for example, as sections of the supply and exhaust ventilation systems with heat recovery, do not require additional insulation. The system eliminates the formation of thermal bridges.

Lenght EPP ducts: 1 m sections
 Diameters: 125, 160 and 200 mm.
 Wall thickness: 15 mm

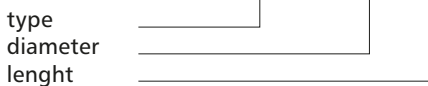
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @ 90Pa
 acc. to PN-EN 17192:2019-01

Available materials:

EPP-15-SRGL-...- EPP (expanded polypropylene)

Product code example:

Product code: **EPP-15-SRGL - 160 - 0100**



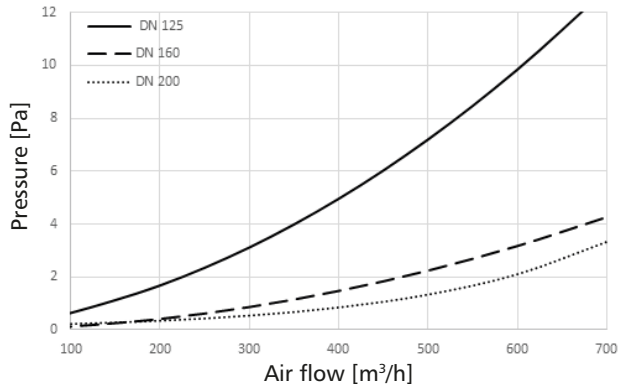
Code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
EPP-15-SRGL-125-0100	125	155	950	50	1000
EPP-15-SRGL-160-0100	160	190	950	50	1000
EPP-15-SRGL-200-0100	200	230	950	50	1000

Ventilation ducts made of 15mm thick EPP

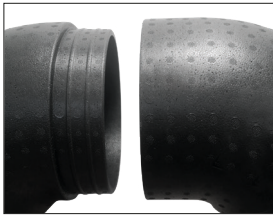
EPP-15-SRGL

Technical data

Pressure loss drops of EPP-15 pipes of different diameters



Assembly method



45° Ventilation bend made of EPP

EPP-15-BPF-45



Description

Ventilation bends 45° made from expanded polypropylene (EPP). Bends are produced in diameters 125, 160 and 200 mm. The standard wall thickness is 15 mm. Each bend has a male-female coupling, the connection method eliminates thermal bridges.



Two 45° bends connect easily into one 90°

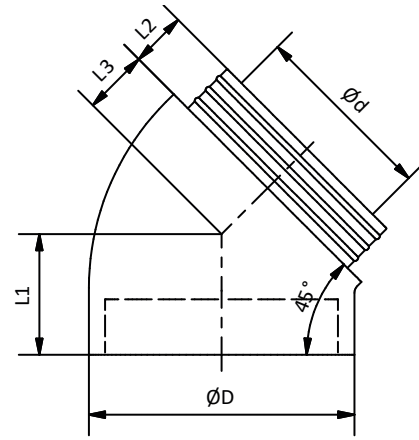
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @ 90Pa
 acc. to PN-EN 17192:2019-01

Available materials:
 EPP-15-BPF-....- EPP (expanded polypropylene)

Example of marking:
 Product code: **EPP-15-BPF - aaa - bbb**

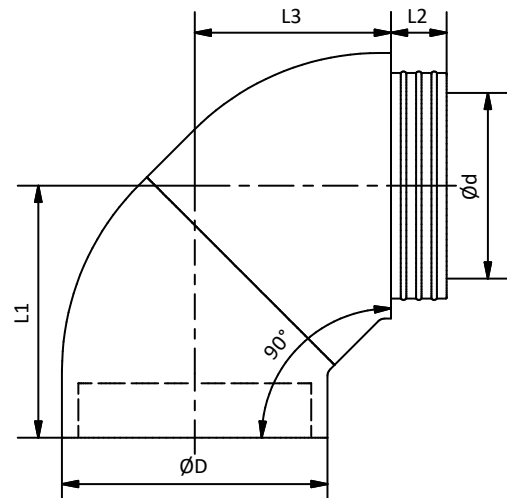
type _____
 diameter Ød _____
 angle _____

Dimensions



Product code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
EPP-15-BPF-125-45	125	155	90	50	40
EPP-15-BPF-160-45	160	190	105	50	55
EPP-55-BPF-200-45	200	230	120	50	70

Bend 90° consisting of two bends 45° - EPP-15-BPF-45



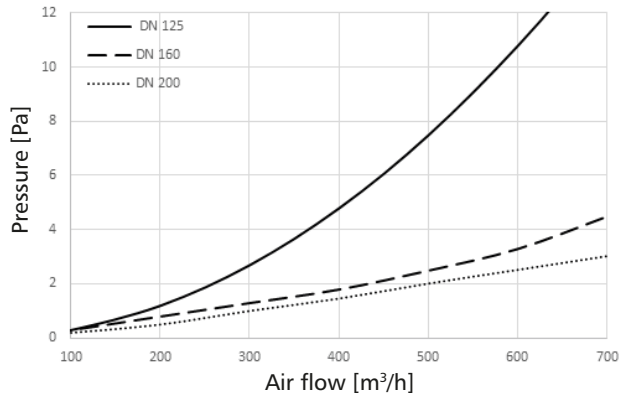
Product code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
2xEPP-15-BPF-125-45	125	155	182	50	132
2xEPP-15-BPF-160-45	160	190	218	50	168
2xEPP-55-BPF-200-45	200	230	255	50	205

45° Ventilation bend made of EPP

EPP-15-BPF-45

Technical data

Pressure loss drops of EPP-15-BPF bends of different diameters



Assembly method



Female coupling made of EPP

EPP-15-MSF



Description

A female-male coupling made of expanded polypropylene (EPP) is used to connect the EPP-15 ducts, when the male part is cut off (e.g. when duct is shortened). The female coupling fits the outer diameter of the 15mm duct. The couplings are produced in 125, 160 and 200mm sizes.

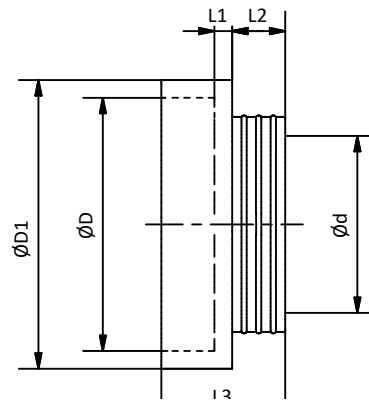
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @ 90 Pa
 acc. to PN-EN 17192:2019-01

Available materials:
 EPP-15-MSF-....- EPP (expanded polypropylene)

Example of marking:
 Product code: EPP-15-MSF - aaa

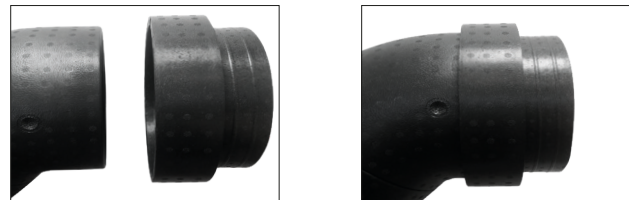
type _____
 diameter Ød _____

Dimensions



Kod	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	ØD ₁ [mm]
EPP-15-MSF-125	125	155	10	50	110	179
EPP-15-MSF-160	160	190	10	50	110	214
EPP-15-MSF-200	200	230	10	50	110	254

Assembly method

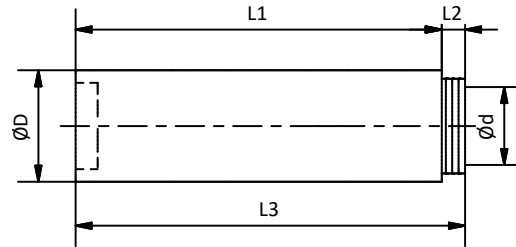


Ventilation ducts made of 43mm thick EPP

EPP-43-SRGL



Dimensions



Description

Round ventilation duct made of expanded polypropylene (EPP). The most important features of the product are: rigid construction, low weight, easy assembly and good thermal insulation. EPP ducts, used, for example, as sections of the supply and exhaust ventilation systems with heat recovery, do not require additional insulation. The system eliminates the formation of thermal bridges.

Ducts and fittings do not require additional couplings.

Length EPP ducts: 1 m sections
 Diameters: 125, 160 and 200 mm.
 Wall thickness: 43 mm

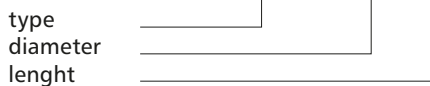
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @110Pa
 acc. to PN-EN 17192:2019-01

Available materials:

EPP-43-SRGL-...- EPP (expanded polypropylene)

Product code example:

Product code: **EPP-43-SRGL - 160 - 0100**



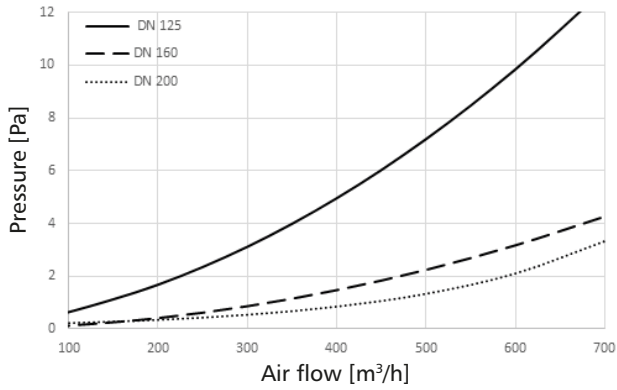
Code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
EPP-43-SRGL-125-0100	125	211	940	60	1000
EPP-43-SRGL-160-0100	160	246	940	60	1000
EPP-43-SRGL-200-0100	200	286	940	60	1000

Ventilation ducts made of 43mm thick EPP

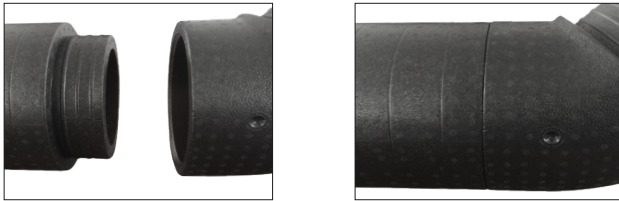
EPP-43-SRGL

Technical data

Pressure loss drops of EPP-43 pipes of different diameters



Assembly method



45° Ventilation bend made of 43mm thick EPP

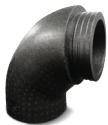
EPP-43-BPF-45



Description

Ventilation bends 45° made from expanded polypropylene (EPP). Bends are produced in diameters 125, 160 and 200mm. The standard wall thickness is 43mm (black colour). The connection method eliminates thermal bridges, no additional couplings are required.

To create a 90° bend two 45° beds can be connected together.



Two 45° bends connect easily into one 90°

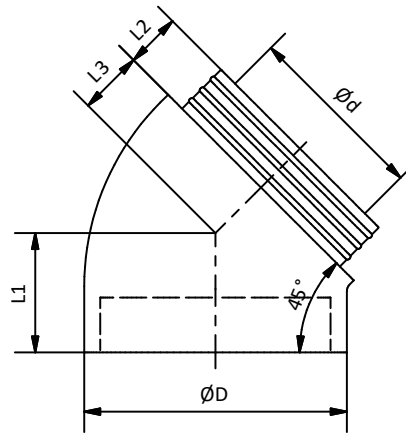
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @ 110 Pa acc. to PN-EN 17192:2019-01

Available materials:
 EPP-43-BPF-..... EPP (expanded polypropylene)

Example of marking:
 Product code: **EPP-43-BPF - 125 - 45**

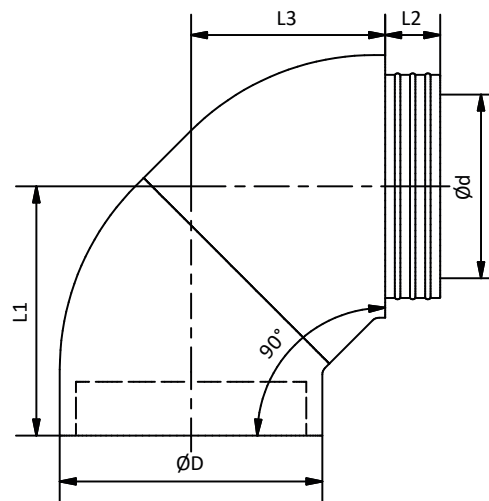
type _____
 diameter Ød _____
 angle _____

Dimensions



Product code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
EPP-43-BPF-125-45	125	211	114	60	54
EPP-43-BPF-160-45	160	246	122	60	62
EPP-43-BPF-200-45	200	286	130	60	70

Bend 90° consisting of two bends 45° - EPP-43-BPF-45



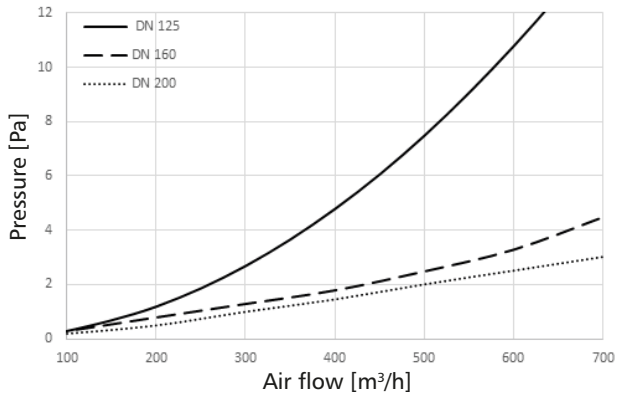
Product code	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
2xEPP-43-BPF-125-45	125	211	232	60	173
2xEPP-43-BPF-160-45	160	246	252	60	192
2xEPP-43-BPF-200-45	200	286	272	60	212

45° Ventilation bend made of 43mm thick EPP

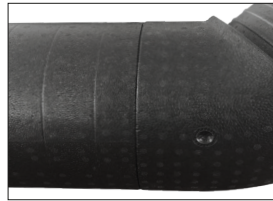
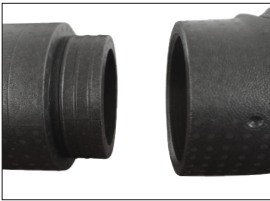
EPP-43-BPF-45

Technical data

Pressure loss drops of EPP-43-BPF bends of different diameters



Assembly method



Female coupling made of 43mm EPP

EPP-43-MSF



Description

Female coupling made of expanded polypropylene (EPP) for connecting 43mm thick ducts. The coupling is used as additional piece, for example when connecting ducts which were cut. Such coupling is put on the outer diameter of a duct. The female couplings are produced in the following diameters: 125, 160 or 200 mm.

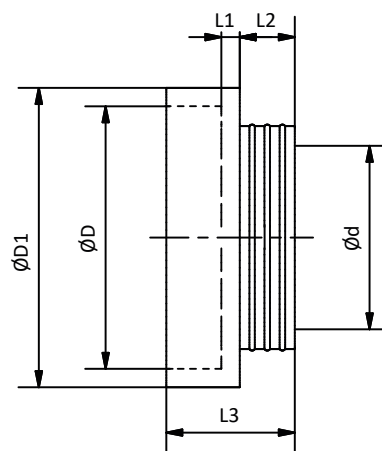
Thermal conductivity: 0.039 W / m*K
 Airtightness class: ATC2 (old D) @ 110 Pa
 acc. to PN-EN 17192:2019-01

Available materials:
 EPP-43-MSF-....- EPP (expanded polypropylene)

Example of marking:
 Product code: **EPP-43-MSF - 200**

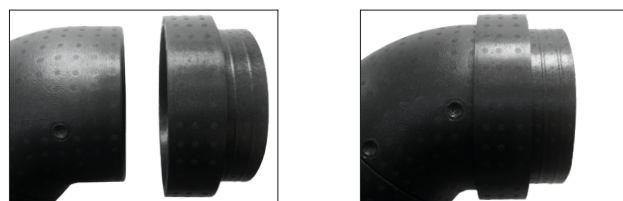
type _____
 diameter Ød _____

Dimensions



Kod	Ød [mm]	ØD [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	ØD ₁ [mm]
EPP-43-MSF-125	125	211	20	60	140	251
EPP-43-MSF-160	160	246	20	60	140	286
EPP-43-MSF-200	200	286	20	60	140	226

Assembly method

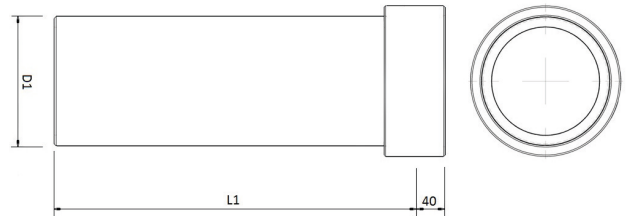


Ventilation ducts made of EPP

EPP-SRGL



Dimensions



Description

Round ventilation duct made of expanded polypropylene (EPP). The most important features of the product are: rigid construction, low weight, easy assembly (female coupling on each element) and good thermal insulation. EPP ducts, used, for example, as sections of the supply and exhaust ventilation systems with heat recovery, do not require additional insulation. The system eliminates the formation of thermal bridges.

EPP ducts are manufactured in 0.5 m and 1 m sections and diameters 125, 150, 160 and 180 mm. The standard wall thickness is 15mm (gray colour). The duct is supplied with one female coupling in the set.

Thermal conductivity: 0.039 W / m * K

Airtightness class: C

Surface roughness: 0.077 mm

Available materials:

EPP-SRGL-...- EPP (expanded polypropylene)

Product code example:

Product code: **EPP-SRGL - 125 - 0100**

type _____
diameter _____
length _____

Product code	Diameter [mm]	Wall thickness [mm]	Length [mm]
EPP-SRGL-125-0050	125	15	500
EPP-SRGL-150-0050	150	15	500
EPP-SRGL-160-0050	160	15	500
EPP-SRGL-180-0050	180	15	500
EPP-SRGL-125-0100	125	15	1000
EPP-SRGL-150-0100	150	15	1000
EPP-SRGL-160-0100	160	15	1000
EPP-SRGL-180-0100	180	15	1000

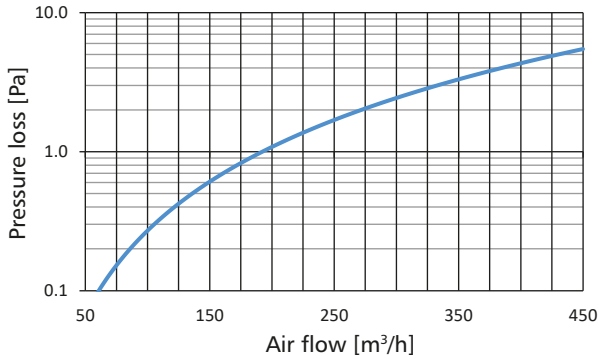
Ventilation ducts made of EPP

EPP-SRGL

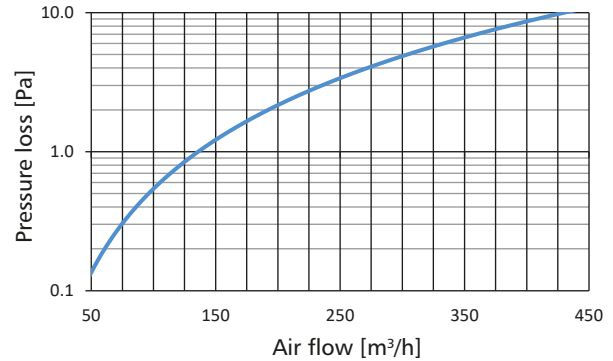
Technical data

Pressure loss chart

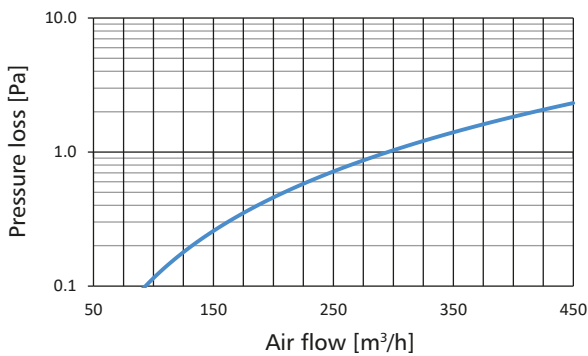
Measurement: **inner diameter: 125mm, length: 0.5m**,
temp: 25°C, P_{atm} : 1004 mBar, ρ (density): 1.173 kg/m³



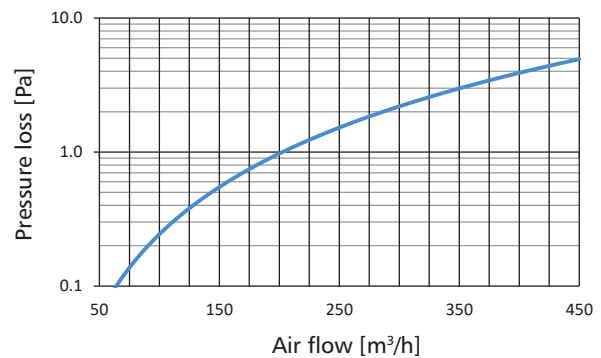
Measurement: **inner diameter: 125mm, length: 1m**,
temp: 25°C, P_{atm} : 1004 mBar, ρ (density): 1.173 kg/m³



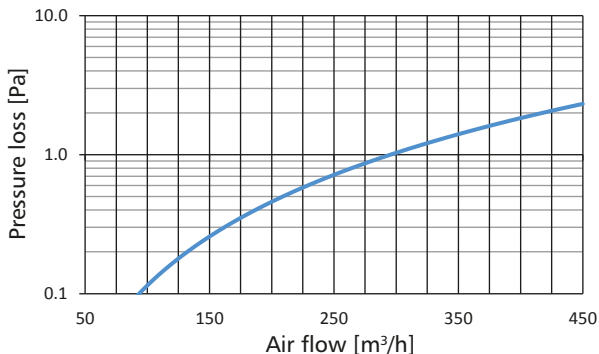
Measurement: **inner diameter: 150mm, length: 0.5m**,
temp: 28.5°C, P_{atm} : 1004 mBar, ρ (density): 1.159 kg/m³



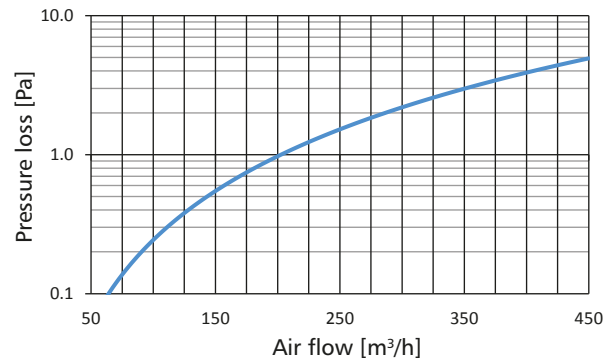
Measurement: **inner diameter: 150mm, length: 1m**,
temp: 28.5°C, P_{atm} : 1004 mBar, ρ (density): 1.159 kg/m³



Measurement: **inner diameter: 160mm, length: 0.5m**,
temp: 30.6°C, P_{atm} : 1004 mBar, ρ (density): 1.151 kg/m³



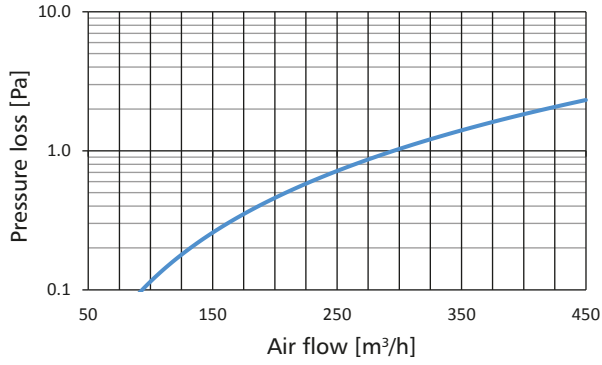
Measurement: **inner diameter: 160mm, length: 1m**,
temp: 30.6°C, P_{atm} : 1004 mBar, ρ (density): 1.151 kg/m³



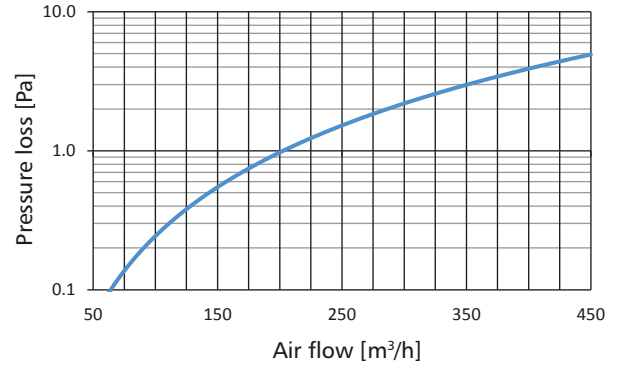
Ventilation ducts made of EPP

EPP-SRGL

Measurement: inner diameter: 180mm, length: 0,5m, temp: 33.8°C, P_{atm} : 1004 mBar, ρ (density): 1.139 kg/m³



Measurement: inner diameter: 180mm, length: 1m, temp: 33.8°C, P_{atm} : 1004 mBar, ρ (density): 1.139 kg/m³



90° Ventilation bend made of EPP

EPP-BPF-90



Description

90° ventilation bend made of expanded polypropylene (EPP). Bends are produced in diameters 125, 150, 160 and 180mm. The standard wall thickness is 15mm (gray). Each bend is delivered with one female coupling in the set, the connection method eliminates thermal bridges. The 90° bend can be cut in half along the extrusion, forming two 45° bends (an additional EPP-MSF may be needed).

Thermal conductivity: 0.039 W / m * K

Airtightness class: C

Surface roughness: 0.077 mm

Available materials:

EPP-BPF-....- EPP (expanded polypropylene)

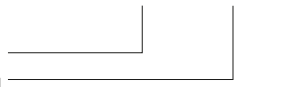
Example of marking:

Product code: **EPP-BPF - aaa - bbb**

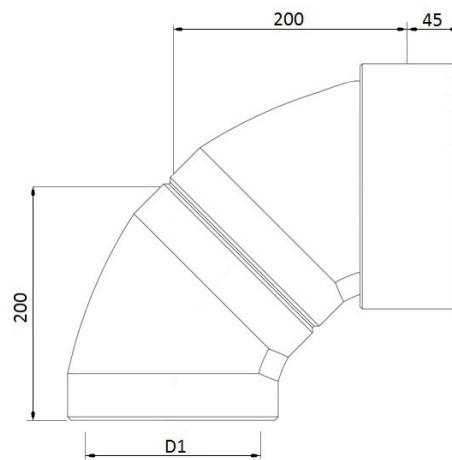
type

diameter Ød₁

angle



Dimensions



Product code	Diameter [mm]	Wall thickness [mm]
EPP-BPF-125-90	125	15
EPP-BPF-150-90	150	15
EPP-BPF-160-90	160	15
EPP-BPF-180-90	180	15

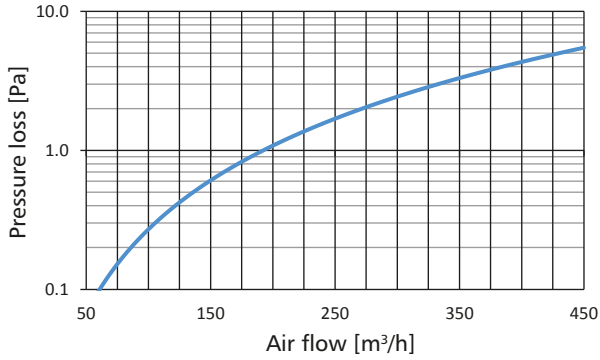
90° Ventilation bend made of EPP

EPP-BPF-90

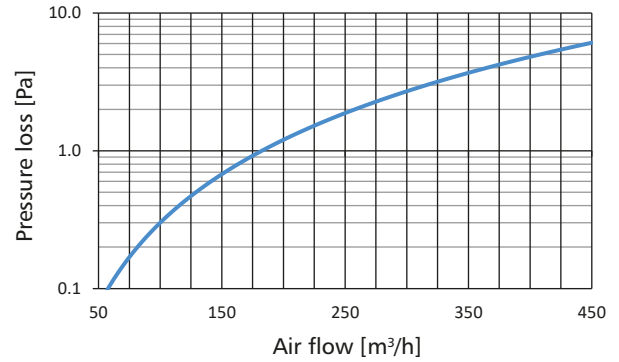
Technical data

Pressure loss chart

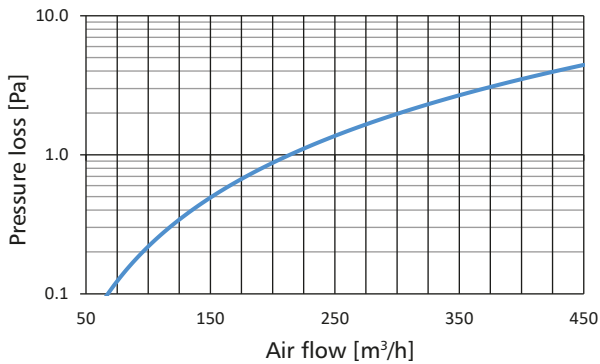
Measurement: **inner diameter: 125mm, angle: 90°**,
temp: 25°C, P_{atm} : 1004 mBar, ρ (density): 1.173 kg/m³



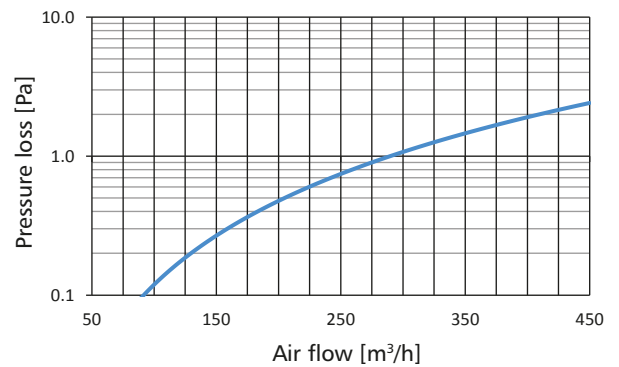
Measurement: **inner diameter: 150mm, angle: 90°**,
temp: 28.9°C, P_{atm} : 1004 mBar, ρ (density): 1.158 kg/m³



Measurement: **inner diameter: 160mm, angle: 90°**,
temp: 32°C, P_{atm} : 1004 mBar, ρ (density): 1.146 kg/m³



Measurement: **inner diameter: 180mm, angle: 90°**,
temp: 27.4°C, P_{atm} : 1015 mBar, ρ (density): 1.176 kg/m³



45° Ventilation bend made of EPP

EPP-BPF-45



Description

Ventilation bends 45° made from expanded polypropylene (EPP). Bends are produced in diameters 125, 150, 160 and 180mm. The standard wall thickness is 15mm (gray). Each bend is delivered with one female coupling in the set, the connection method eliminates thermal bridges.

Thermal conductivity: 0.039 W / m * K

Airtightness class: C

Surface roughness: 0.077 mm

Available materials:

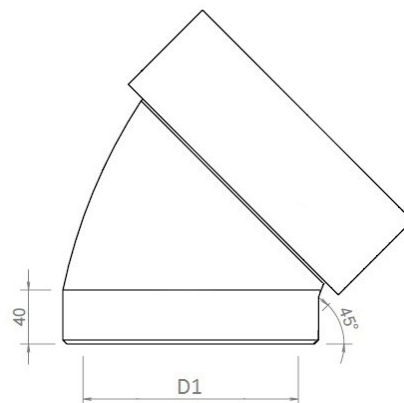
EPP-BPF-....- EPP (expanded polypropylene)

Example of marking:

Product code: EPP-BPF - aaa - bbb

type _____
diameter Ød₁ _____
angle _____

Dimensions



Product code	Diameter [mm]	Wall thickness [mm]
EPP-BPF-125-45	125	15
EPP-BPF-150-45	150	15
EPP-BPF-160-45	160	15
EPP-BPF-180-45	180	15

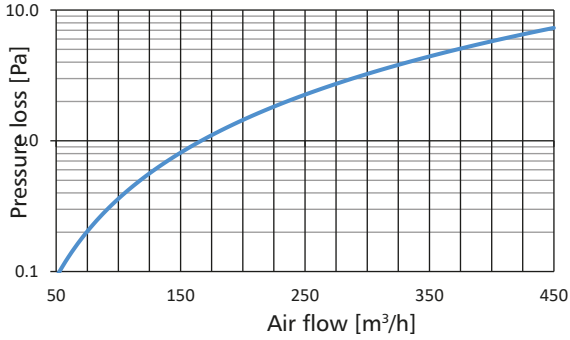
45° Ventilation bend made of EPP

EPP-BPF-45

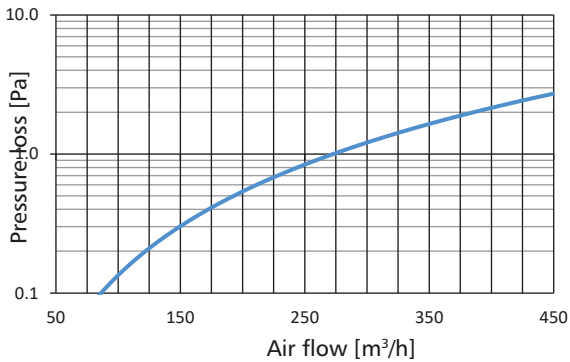
Technical data

Pressure loss chart

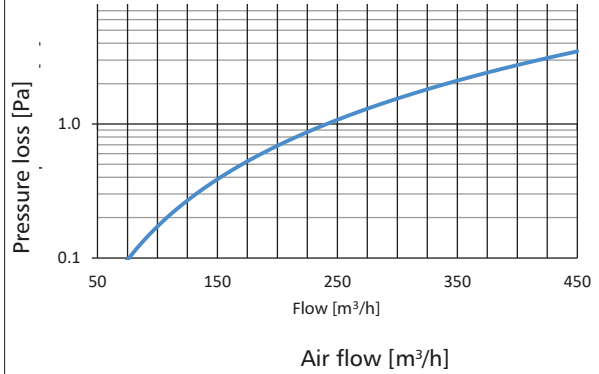
Measurement: **inner diameter: 125mm, angle: 45°**,
temp: 24.8°C, P_{atm} : 1004 mBar, ρ (density): 1.174 kg/m³



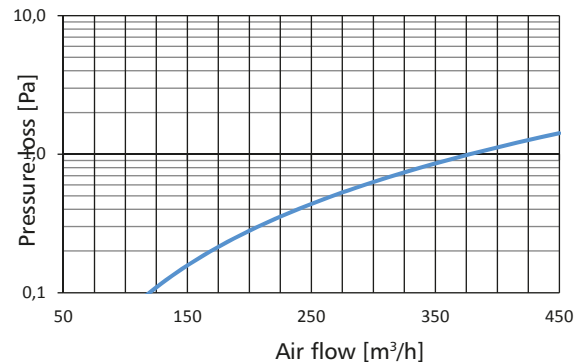
Measurement: **inner diameter: 160mm, angle: 45°**,
temp: 28.2°C, P_{atm} : 1015 mBar, ρ (density): 1.173 kg/m³



Measurement: **inner diameter: 150mm, angle: 45°**,
temp: 28.5°C, P_{atm} : 1004 mBar, ρ (density): 1.159 kg/m³



Measurement: **inner diameter: 180mm, angle: 45°**,
temp: 27.8°C, P_{atm} : 1015 mBar, ρ (density): 1.175 kg/m³



Female coupling made of EPP

EPP-MSF



Description

Female coupling made of expanded polypropylene (EPP) for connecting ducts and fittings. The coupling is used to connect all elements of the EPP duct system: duct+duct, duct+fitting, fitting+fitting.

The female couplings are produced in the following diameters: 125, 150, 160 and 180mm.

Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:

EPP-MSF-....- EPP (expanded polypropylene)

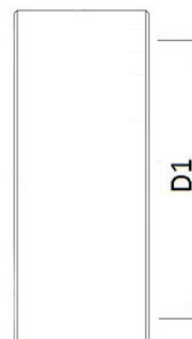
Example of marking:

Product code: EPP-MSF - aaa

type

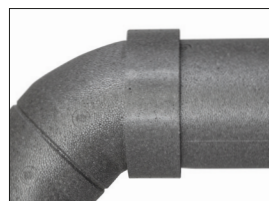
diameter Ød₁

Dimensions



Product code	Diameter [mm]	Wall thickness [mm]
EPP-MSF-125	125	15
EPP-MSF-150	150	15
EPP-MSF-160	160	15
EPP-MSF-180	180	15

Assembly method



One-piece suspension ring

CLRU



Description

Instalacja wentylacji składająca się z kanałów i kształtek z EPP jest bardzo lekka i wytrzymała. Jeśli znajdzie potrzeba podwieszenie instalacji lub jej przymocowania można użyć do tego standardowych obejm jednoczęściowych CLRU. Górna część – uszy skręcane są ze sobą za pomocą śruby stalowej i nakrętki.

Available materials:

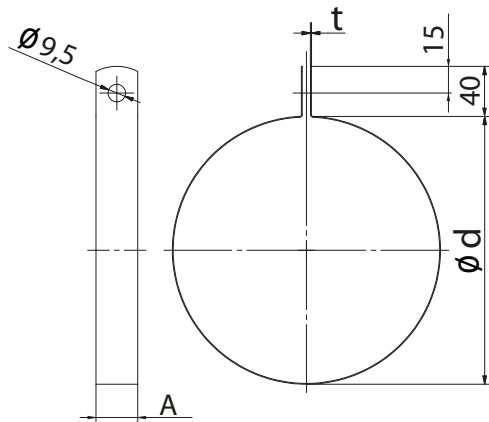
- CLRU-...-... - galvanized steel sheet
- CLRU-K-...-... - 1.4301/304 stainless steel sheet
- CLRU-K-...-...-316L - 1.4404/316L stainless steel sheet, molybdenum-enriched

Example of marking:

Product code: **CLRU - 160 - 120**

type _____
 $\varnothing d_1$ _____
 thickness t _____

Dimensions



$\varnothing d$ [mm]	A [mm]	t [mm]	A [mm]	t [mm]
125	25	2,0	30	1,2
150	25	2,0	30	1,2
160	25	2,0	30	1,2
180	25	2,0	30	1,2

Assembly method

