

# REC FLEX HDPEA

**MORE AIR**

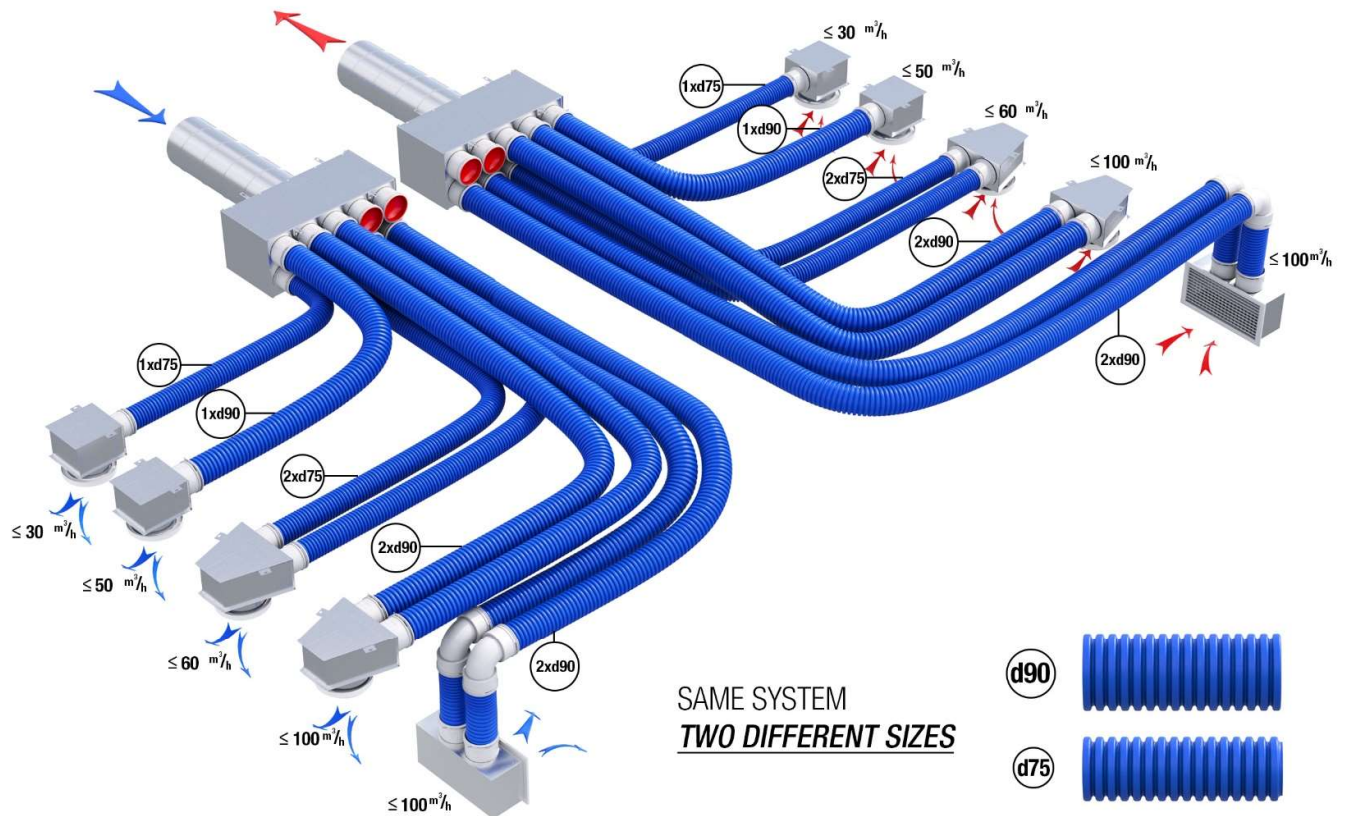
**MORE FLEXIBILITY**



**UAB REC BALTICVENT**

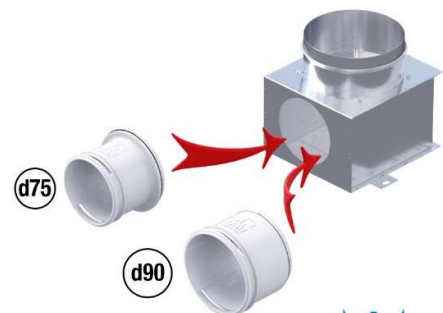
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# GET THE **MAXIMUM** AIR VOLUME WITH **REC FLEX HDPEA** SYSTEM!



## NEW AND IMPROVED

EASY TO USE d75 AND d90



## REC FLEX HDPEA ventilation system

- Easy and simple installation.
- No need to use fittings.
- Manifolds duct system guarantees a balanced air supply and reduces system noise, no telephone effect between rooms.
- The outer profiled wall is made from primary PE-HD.
- The inner smooth wall is made from primary PE-LD with the addition of anti-fungal and anti-bacterial additives, effective biocide zinc pyrithione No. CAS 13463-41-7.
- Outer duct diameter 75mm or 90mm, takes up less space under the ceiling.
- Ducts can be run in concrete structures.
- Only unprocessed polyethylene is used for production.

### Notes

- Blown polypropylene ducts, which do not require additional insulation, or a galvanized sheet metal duct, which must be insulated with 50 mm insulation, are used for the air intake and exhaust of the air handling unit.
- Flexible Aku-Comp silencers are installed in the section between the air handling unit and the air distribution manifold.
- All openings in flexible ducts, diffuser boxes, air distribution manifolds must be sealed before the system is started.
- In rooms with air supply and air extraction, a gap of ~ 1 cm must be left under the door for air movement.
- All natural draft ducts, except rooms without forced mechanical ventilation, must be sealed.
- Precise diffuser mounting locations are agreed with the customer.
- All system installation work must be carried out in accordance with the manufacturer's installation instructions.
- Changes not agreed with the designer are the responsibility of the person who made them.
- After the installation work, balancing the system air volumes is mandatory.
- The air handling unit must be connected to a fire alarm. In the event of a fire, the device must be switched off.

# Contents

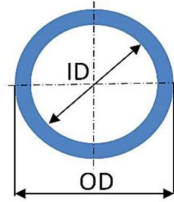
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## REC FLEX HDPEA flexible duct

### Operation:

REC FLEX HDPEA flexible duct is used for air supply and exhaust in ventilation and conditioning systems.

### Dimension:



Product code	OD, mm	ID, mm
REC FLEX HDPEA - 75	75	63
REC FLEX HDPEA - 90	90	75

### Material:

The outer profiled wall is made from primary PE-HD.

The inner smooth wall is made from primary PE-LD with the addition of anti-fungal and anti-bacterial additives, effective biocide zinc pyrithione No. CAS 13463-41-7

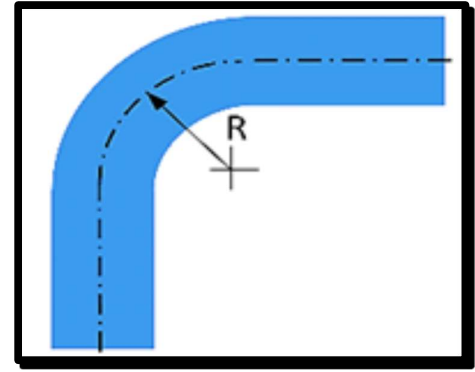
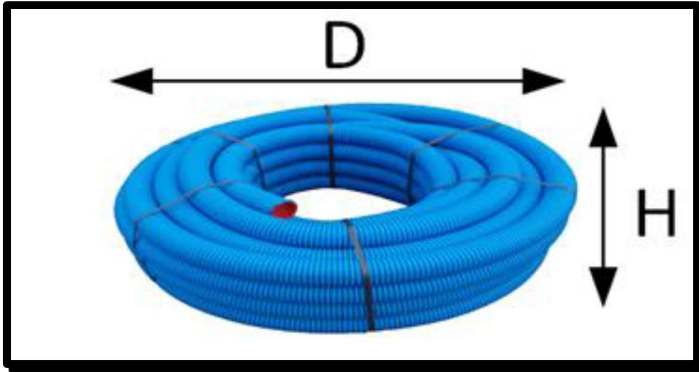
### Legislation:

The input raw materials do not contain dangerous substances in accordance with regulation (EC) No.1907/2006 (REACH) and comply with Regulation 2011/65/EU (RoHS) on the content of lead, cadmium, mercury and hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalates (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalates (DBP) and Diisobutyl phthalates (DIBP).

### Properties:

Quantity	Value	Unit	Comment
Roll length	50 ± 0,5	m	
Weight d75	300	g/m	
Weight d90	420	g/m	
Bending radius d75	0,29	m	
Bending radius d90	0,33	m	
Reaction to fire class	E	/	EN 13501-1
Ring stiffness	10	kN/m <sup>2</sup>	EN ISO 9969
Resistance to external pressure min.	200	N	EN 17192, 3%, 200mm, 2mm/min
Biocidal effect R%	>99	%	ISO 22196
Evaluation of the action of microorganism	A / C	/	EN ISO 846
Air tightness class	D, ATC 2	m <sup>3</sup> · s <sup>-1</sup> · m <sup>-2</sup>	EN 17192, -2000/+2000 (Pa)
Operating pressure range	-500/+500	Pa	EN 17192
Installation / handling temperature	-5/+50	°C	
Operating temperature	-20/+50	°C	EN 17192, STL-20 to STH +50
Antistatic properties	1,0·10 <sup>14</sup>	Ω	IEC 93
Packaging dimensions d75	1.15 x 0.39	m	D x H see picture
Packaging dimensions d90	1.35 x 0.45	m	D x H see picture





**Manufacturing quality:**

Manufacture is certified according to EN ISO 9001/2016.

**Identification:**

Product identification: product type-manufacturer-production order number.

Information may be given on the caps on a label, by lettering on the tube, or a combination of both methods.

**Storage:**

We recommend storage in a horizontal position up to a height of max. 2.8 m, for max. 3 months.

Storage temperature -40/+60 (°C).

Must be protected from direct sunlight.

The pallet packing is protected by UV stabilized stretch foil with perforated top cover (allows the air flow the pallets in order to reduce the temperature inside).

When loading, unloading or handling it is essential to prevent any mechanical damage or distortion of the plastic ducts.

Dimensions of the standard packaging see picture.

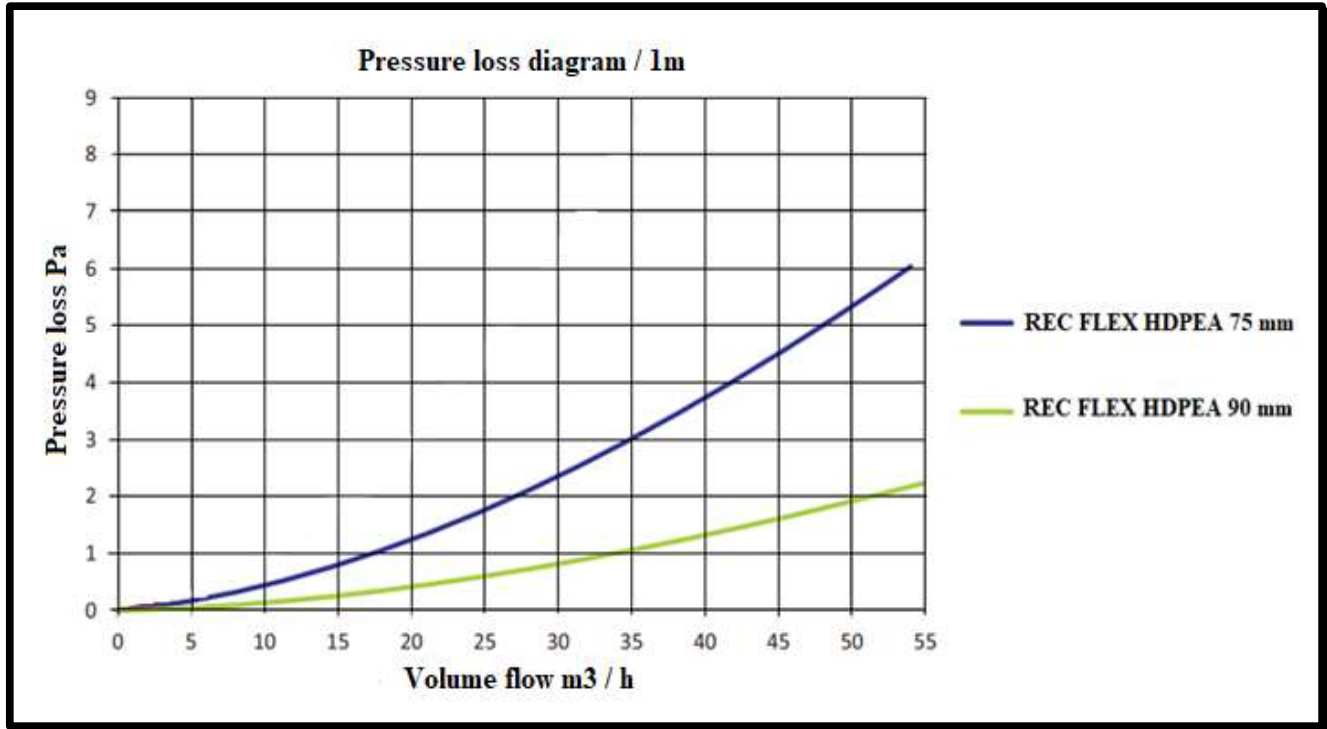
**Recommendations for design, installation**

Recommended air velocity up to 3m/s.

Distance between duct fixation elements max. 1m.



## REC FLEX HDPEA pressure loss diagram



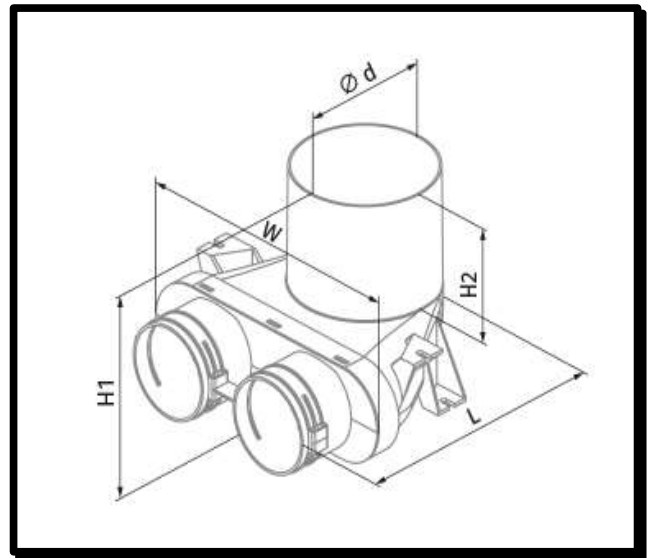
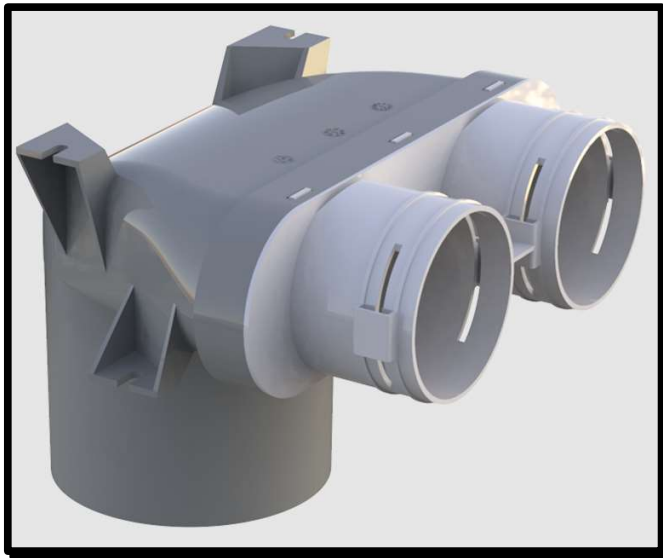
REC FLEX HDPEA 75 mm			
Number of ducts	Air speed		
	2 m/s	2,5 m/s	3m/s
<b>O</b>	21,0 m <sup>3</sup> /h	26,3 m <sup>3</sup> /h	31,6 m <sup>3</sup> /h
<b>OO</b>	42,0 m <sup>3</sup> /h	52,6 m <sup>3</sup> /h	63,2 m <sup>3</sup> /h
<b>OOO</b>	63,0 m <sup>3</sup> /h	78,9 m <sup>3</sup> /h	94,8 m <sup>3</sup> /h

REC FLEX HDPEA 90 mm			
Number of ducts	Air speed		
	2 m/s	2,5 m/s	3m/s
<b>O</b>	31,8 m <sup>3</sup> /h	39,8 m <sup>3</sup> /h	47,7 m <sup>3</sup> /h
<b>OO</b>	63,6 m <sup>3</sup> /h	79,6 m <sup>3</sup> /h	95,4 m <sup>3</sup> /h
<b>OOO</b>	95,4 m <sup>3</sup> /h	119,4 m <sup>3</sup> /h	143,1 m <sup>3</sup> /h

## LDL-P 125 75/90x2 plastic diffuser connection box

### Operation:

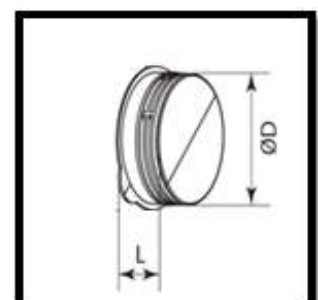
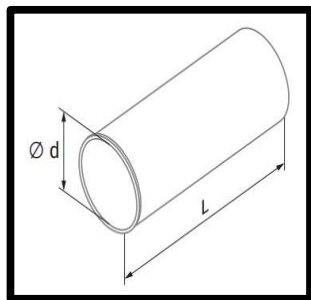
The LDL-P diffuser connection box is used to connect the diffusers to the HDPEA duct system. Rubber gaskets RE 75/90 must be used to ensure the tightness of the joint.



### Dimensions:

Product code	W	H1	H2	L	Ø d
LDL-P 125-75x2	266	183	100	243	127
LDL-P 125-90x2	266	183	100	243	127

### LDL-P accessories:



### Dimensions:

Tipas	L	Ø D
LDL-PB prailgintuvas	302	127
PL 75 aklė	32	75
PL 90 aklė	32	90

### Construction:

Made of polypropylene PP with thermoplastic (SEBS).



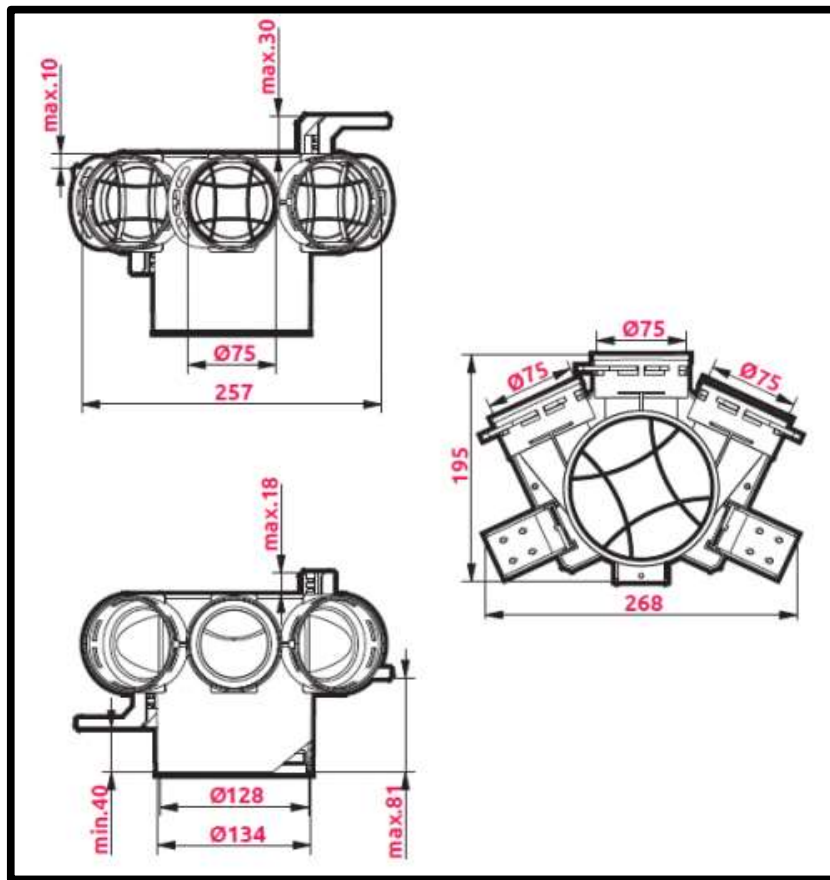
## LDL-P 125 75x3 plastic diffuser connection box

### Operation:

The LDL-P diffuser connection box is used to connect the diffusers to the HDPEA duct system. Rubber gaskets RE 75 must be used to ensure the tightness of the joint.



### Dimensions:



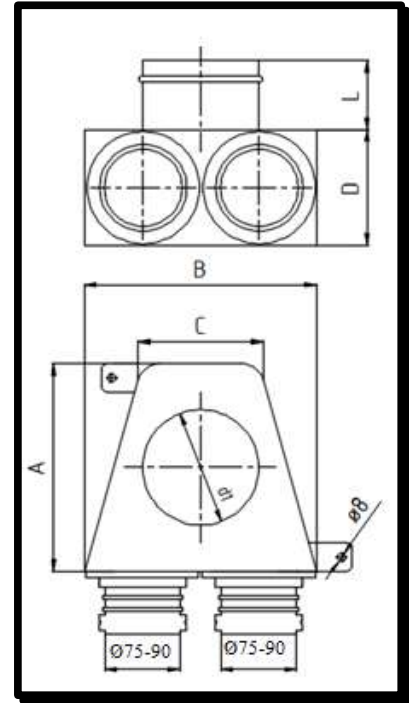
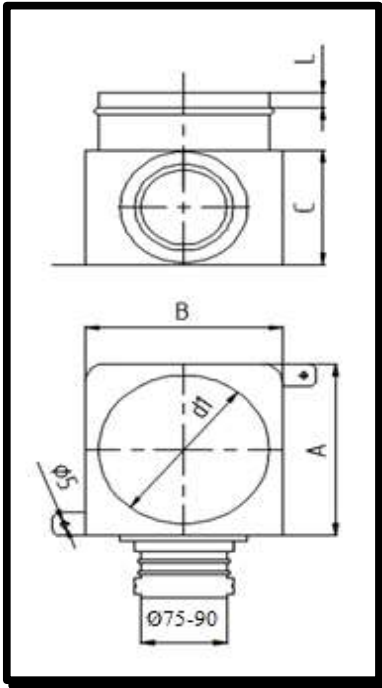
### Construction:

Made of polypropylene PP with thermoplastic (SEBS)

## LDL 125-75/90 x 1 / x 2 diffuser connection box

### Operation:

The LDL diffuser connection box is used to connect the diffusers to the HDPEA duct system. Rubber gaskets RE 75, RE 90 must be used to ensure a tight seal. D75 or d90 ducts can be connected to the same LDL box.



### Dimensions:

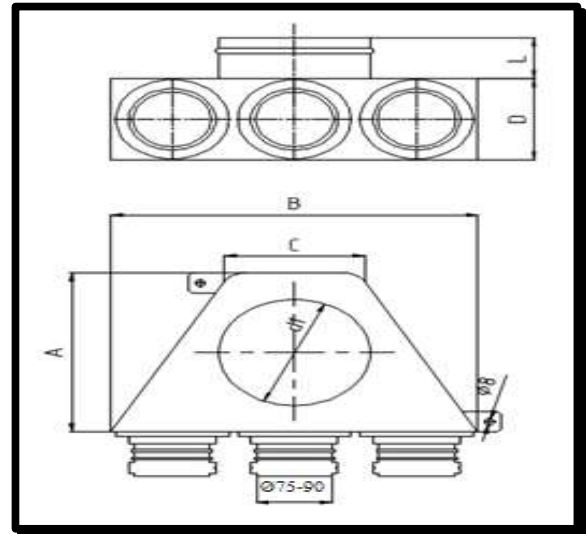
Product code	A	B	C	D	L	d1	Product code	A	B	C	L	d1
LDL 125-75 x1	180	200	100	100	50	125	LDL 125-75 x 2	150	150	100	50	125
LDL 125-90 x1	180	200	100	100	50	125	LDL 125-90 x 2	150	150	100	50	125

### Construction:

Made of galvanized sheet steel Zn 275

## LDL 125-75/90 x 3 diffuser connection box

The LDL diffuser connection box is used to connect the diffusers to the HDPEA duct system. Rubber gaskets RE 75, RE90 must be used to ensure the tightness of the connection. D75 or d90 ducts can be connected to the same box.



### Dimensions:

Product code	A	B	C	D	L	d1
LDL 125-75x3	195	315	110	100	50	125
LDL 125-90x3	195	315	110	100	50	125

### Construction:

Made of galvanized sheet steel Zn 275

## LDL diffuser box pressure selection table



Supply air						
LDL diffuser	m3/h	Pa	m3/h	Pa	m3/h	Pa
LDL 125-75x1	10	1	20	2	30	4
LDL 125-75x2	20	1	40	2	60	4,5
LDL 125-75x3	30	1	60	2,5	90	5,5
LDL 125-90x1	15	1	30	2	45	4,5
LDL 125-90x2	30	1	60	2	90	6
Extract air						
LDL diffuser	m3/h	Pa	m3/h	Pa	m3/h	Pa
LDL 125-75x1	10	1	20	1,5	30	4
LDL 125-75x2	20	1	40	1,5	60	2
LDL 125-75x3	30	1	60	1,5	90	3
LDL 125-90x1	15	1	30	1	45	6
LDL 125-90x2	30	1	60	1	90	6

### Construction:

Made of galvanized sheet steel ZN 275

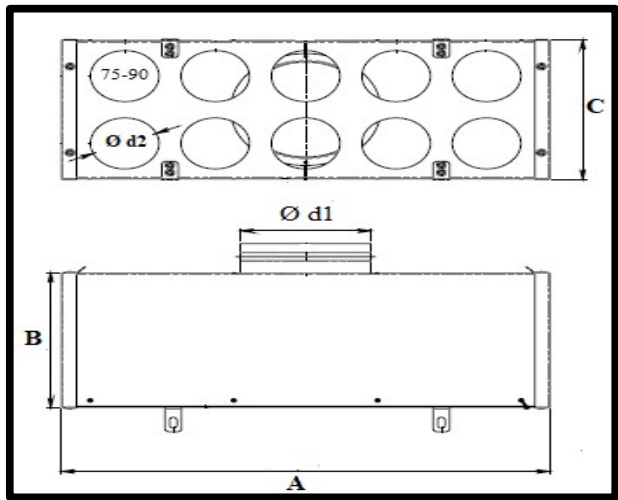
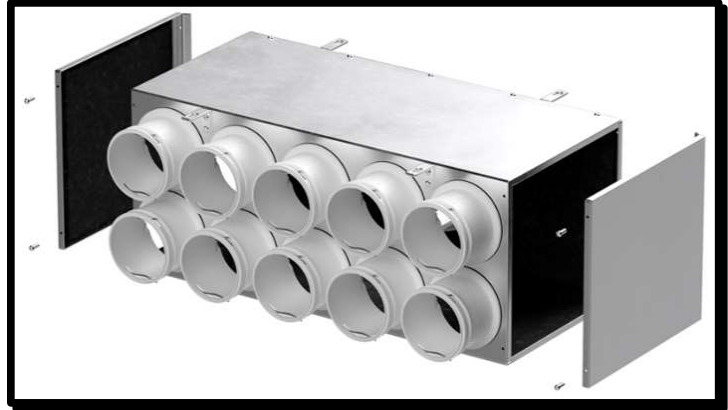
## LFT air distribution manifold

### Operation:

LFT air distribution manifold used for air supply / exhaust from the premises. D75 or d90 ducts can be connected to the same terminal by replacing FP 75 or FP 90 the flanges. When connecting REC Flex HDPEA ducts, rubber gaskets RE 75, RE90 must be used to ensure the tightness of the connection. LFT-I air distribution manifold, which is additionally insulated 9 mm from the inside with synthetic rubber foam insulation REC FLEX G.

### REC FLEX G insulation properties:

- prevents the growth of bacteria, microorganisms and mold
- has good thermal insulation properties
- high resistance to vapor diffusion
- does not emit dust and fibers
- corrosion resistant
- thickness 6 mm



- Easy-to-replace plastic precision-diameter duct connection branches
- Branch with double rubber gasket for duct connection
- Internal air distributor made of perforated sheet metal, in 12 and more branch collectors
- Sealed joints
- Reliable duct fastening with wire clamps
- Collector mounting brackets made of 2mm steel
- Easy-to-remove service hatches on both sides
- Easy to clean surfaces: galvanized sheet metal or 6mm rubber insulation (closed pores prevent contaminants from entering the insulation)

### Dimension:

Product code	A	B	C	L	d1	d2	n
LFT 160-75/90x5	563	220	150	50	125	75/90	5
LFT 160-75/90x6	355	220	215	50	160	75/90	6
LFT 160-75/90x8	458	220	215	50	160	75/90	8
LFT 160-75/90x10	565	220	215	50	160	75/90	10
LFT 160-75/90x12	670	220	215	50	160	75/90	12
LFT 200-75/90x14	775	220	215	50	200	75/90	14
LFT 200-75/90x16	880	220	215	50	200	75/90	16

### Construction:

Made of galvanized sheet steel ZN 275

## LFT air distribution manifold pressure selection table

Supply air								
LFT manifold	m3/h	Pa	m3/h	Pa	m3/h	Pa	m3/h	Pa
LFT 125-75 x 5	50	1	100	4	150	10	-	-
LFT 160-75 x 6	60	2	120	6	180	10	-	-
LFT 160-75 x 8	80	2	160	6	240	13	-	-
LFT 160-75 x 10	100	2	200	6	300	14	-	-
LFT 160-75 x 12	120	2	240	7	360	9	-	-
LFT 200-75 x 14	140	2	280	7	420	10	-	-
LFT 200-75 x 16	160	2,5	320	8,5	480	17	-	-
LFT 125-90 x 5	50	1	100	4	150	10	225	12
LFT 160-90 x 6	60	1,5	120	3,5	180	5	270	14
LFT 160-90 x 8	80	1	160	3,5	240	8	360	22
LFT 160-90 x 10	100	2	200	4	300	7	450	15
LFT 160-90 x 12	120	2	240	4	360	6	540	15
LFT 200-90 x 14	140	2	280	6	420	13	630	30
LFT 200-90 x 16	160	2	320	8	480	19	720	35

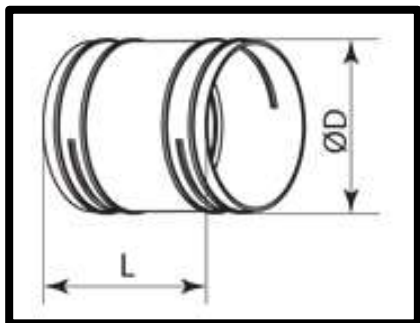
Extract air								
LFT manifold	m3/h	Pa	m3/h	Pa	m3/h	Pa	m3/h	Pa
LFT 125-75 x 5	50	1	100	3	150	9	-	-
LFT 160-75 x 6	60	1	120	5	180	9	-	-
LFT 160-75 x 8	80	1	160	5	240	12	-	-
LFT 160-75 x 10	100	1	200	5	300	13	-	-
LFT 160-75 x 12	120	1	240	6	360	8	-	-
LFT 200-75 x 14	140	1	280	6	420	9	-	-
LFT 200-75 x 16	160	1,5	320	7,5	480	16	-	-
LFT 125-90 x 5	50	1	100	3	150	9	225	11
LFT 160-90 x 6	60	1	120	2	180	4	270	12
LFT 160-90 x 8	80	1	160	2,5	240	8	360	19
LFT 160-90 x 10	100	1	200	3	300	6	450	13
LFT 160-90 x 12	120	1	240	3	360	5	540	13
LFT 200-90 x 14	140	1	280	5	420	12	630	25
LFT 200-90 x 16	160	1	320	7	480	18	720	30

## MF plastic coupling for HDPEA ducts

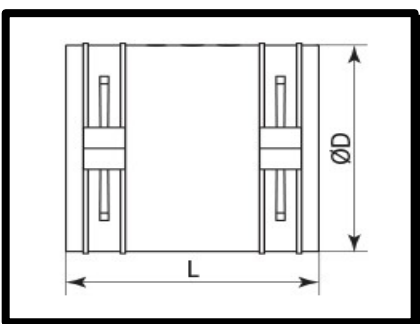
### Operation:

The MF plastic coupling is used to connect the two HDPEA ducts. Rubber gaskets RE 75 or RE 90 must be used to ensure the tightness of the connection, depending on the diameter of the duct to be connected. The clamps ensure the stability of the duct when installed with the coupling.

### HDPEA d75



### HDPEA d90



### Dimension:

Product code	D (mm)	L
MF 75	75	95
MF 90	90	150

### Material:

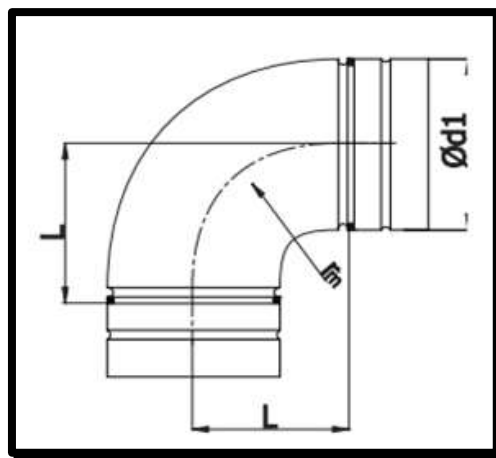
Plastic made of PP

## B 75/90 bend for HDPEA ducts

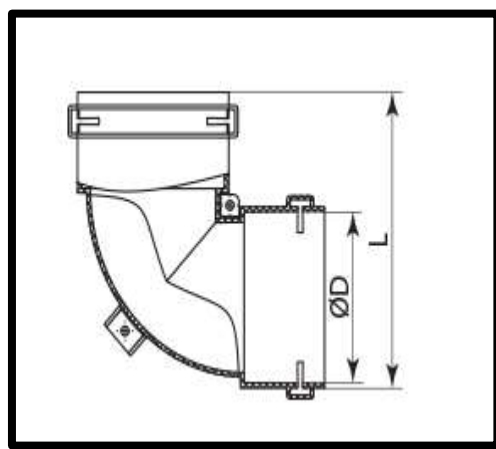
### Operation:

The B 75/90 bend is used to connect two HDPEA ducts at an angle of 90°. Rubber gaskets RE 75/90 must be used to ensure the tightness of the connection.

### B75



### B90



### Dimensions

Product code	d1 (mm)	L
B 75	75	100
B 90	90	100
$r_m = 1 \times d_1$		



### Construction

B75 - made of galvanized sheet steel ZN 275

B90 - made of polypropylene PP with thermoplastic (SEBS)



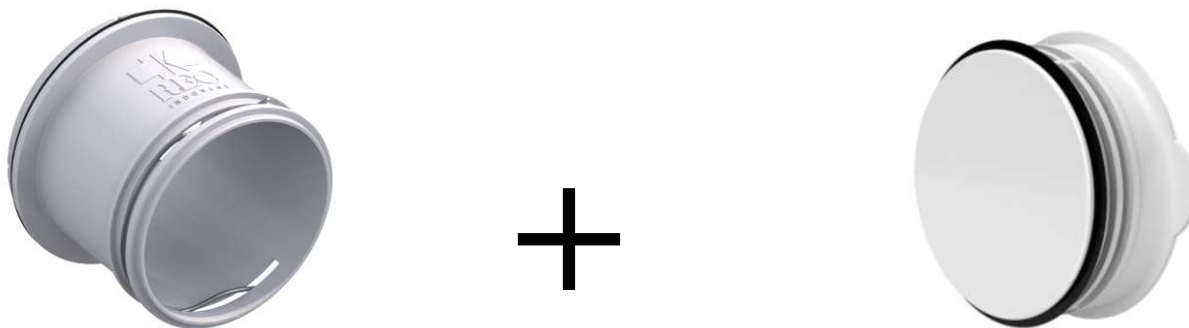
## PL plastic end cap

### Operation:

Plastic blind PL is used to blindly and tightly close unused branches of the diffuser connection box and air distribution manifold.



### Montage:



### Dimensions:

Product code	D (mm)
PL 75	75
PL 90	90

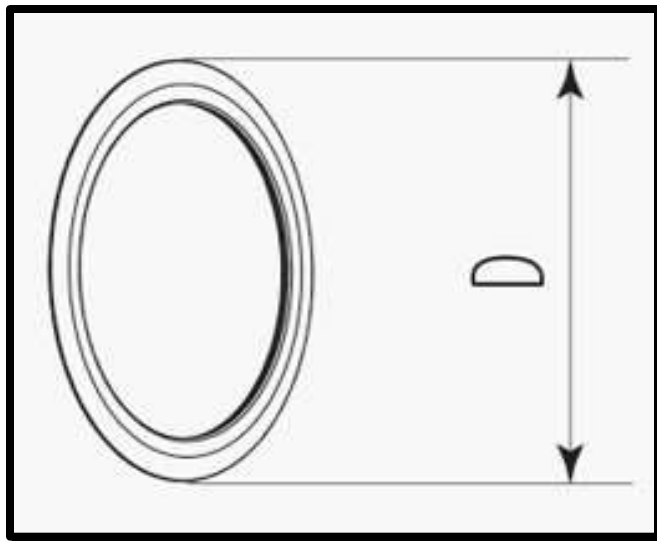
### Construction:

Made of polypropylene PP with thermoplastic (SEBS)

## RE rubber gasket for REC FLEX HDPEA ducts

### Operation:

Rubber gasket RE used for sealing REC FLEX HDPEA duct connections with diffuser connection boxes LDL, LDL-P and air distribution manifolds LFT, dampers RRD, couplings MF.



### Dimensions:

Product code	D (mm)
RE 75	79
RE 90	94

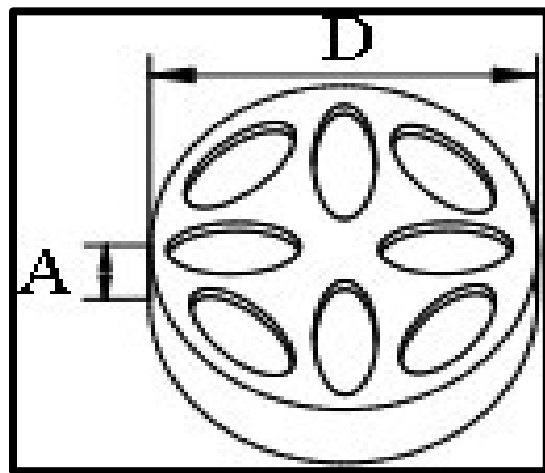
### Material:

EPDM rubber

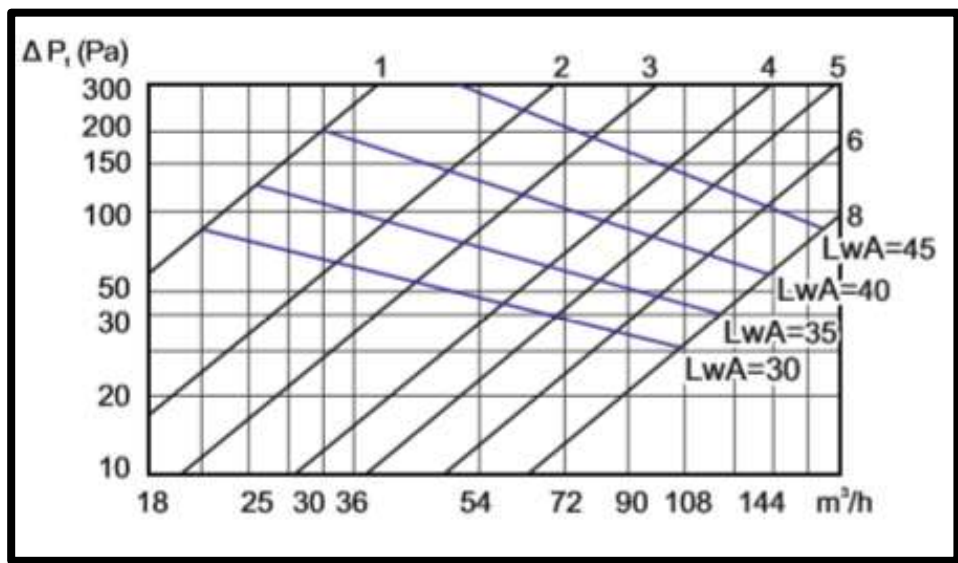
## INNO-PU valves for air flow regulation and sound insulation

### Operation:

INNO-PU valve used for air flow regulation and sound insulation in diffuser connection boxes LDL, LDL-P.



### Number of openings:



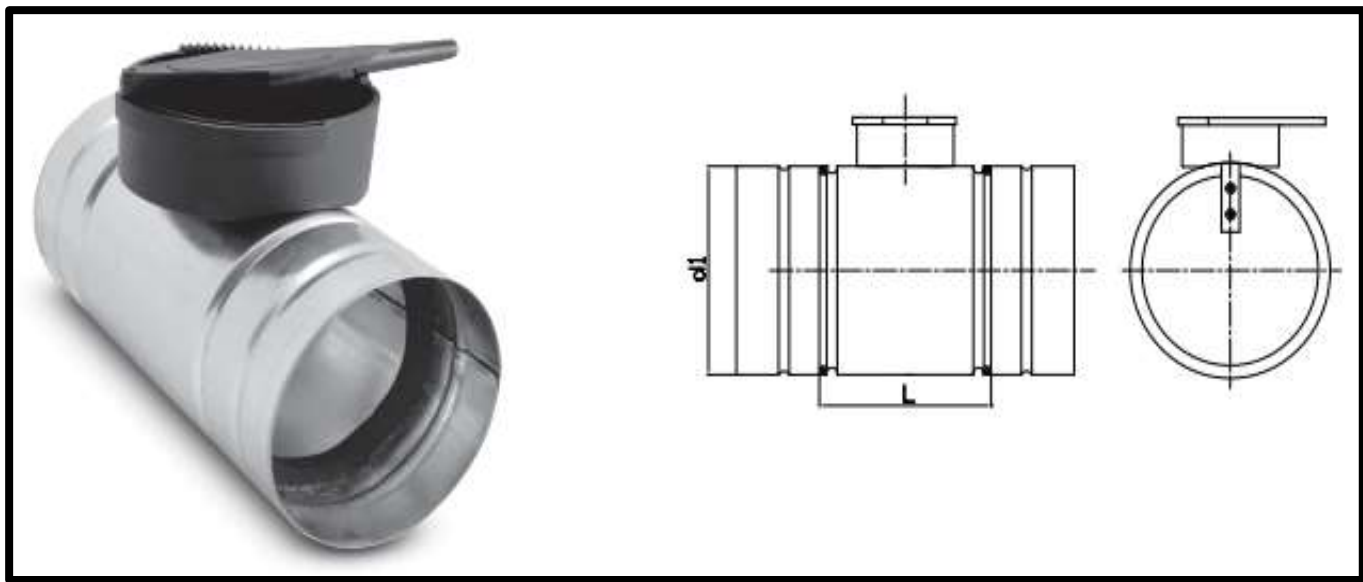
### Dimensions:

Product code	D (mm)	A (mm)
INNO-100-PU	100	50
INNO-125-PU	125	50
INNO-160-PU	160	50
INNO-200-PU	200	50

## RRD damper for air flow regulation

### Operation:

RRD damper is used for air flow regulation, closing angle from 0 to 90°, installed in a flexible d75 or d90 REC FLEX HDPEA duct.



### Dimension:

Product code	d1	L
RRD 75	75	110
RRD 90	90	110

### Construction:

Made of galvanized sheet steel ZN 275

### Material:

Plastic made of PP

# EPS system

