AIRFLEX PRO SPECIFICATION

	Airflex Pro Round
Inner Diameter	63 mm
Outer Diameter	75 mm
Duct Thickness	6 mm
Max. Air Volume (allowed)	30 m^3 / h
Max. Air Velocity (allowed)	2.7 m / s
Max. Pressure Drop (allowed)	3 Pa /m
Noise Absorption (of distribution boxes)	>15 dB according to DIN EN ISO 11820
Material	"Outside Polyethylene PE-HD, Inside Polyethylene PE-LD, antistatic, antibacterial, non-toxic"
Fire Rating	B2, normally inflammable according to DIN 4102
Crushability	13 ≥ kN / m^2
Operation Conditions	from -5°C to +90°C
Inside Bending Radius	153 mm
Length Per Coil	50 m
Connection With Sealing Ring	air- and watertight according to DIN EN 1610
Part No: 50 m coil	**9041130**

Airflex Pro Round

	Airflex Pro Elliptical
Inner Diameter	102 x 39 mm
Outer Diameter	114 x 51 mm
Duct Thickness	6 mm
Max. Air Volume (allowed)	30 m^3 /h
Max. Air Velocity (allowed)	2.7 m / s
Max. Pressure Drop (allowed)	3 Pa /m
Noise Absorption (of distribution boxes)	N/A
Material	"Outside Polyethylene PE-HD, Inside Polyethylene PE-LD, antistatic, antibacterial, non-toxic"
Fire Rating	DIN 4102-4 Class B2 & EN 13501-1 Class E
Crushability	≥13 kN / m^2
Operation Conditions	from -5°C to +90°C
Inside Bending Radius	Horizontal: 342 mm / 200 mm Vertical
Length Per Coil	20 m
Connection With Sealing Ring	air- and watertight according to DIN EN 1610
Part No: 20 m coil	**90000255**

Airflex Pro Elliptical

	Duct Clips
Part No: Round Duct (Pack of 10)	**90000352**
Part No: Elliptical Duct (Pack of 10)	**90000353**
	Spare Holding Clips
Part No: Pack of 10	**90000261**
	Packet of Sealing Rings
Part No: Round (Pack of 10)	**9041133**
Part No: Elliptical (Pack of 10)	**90000254**


Duct Clip - Round and Elliptical


Spare Holding Clips


Sealing Ring Round

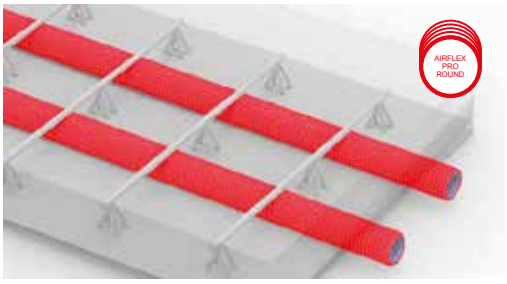

Sealing Ring Elliptical

CONCRETE APPLICATION

INSTALLATION IN CONCRETE SCREEDS

The durable, ribbed outer skin of Airflex Pro offers excellent flexibility, strength and compressibility, up to 13Kn/m². These properties make it ideally suited for embedding straight into concrete screed without distortion, which ensures predicted airflow rates through ducts are maintained.

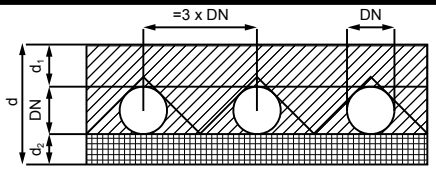
Having an inherently small bend radius (as little as 150mm. See page 11) allows for an easy and cost-efficient duct layout design. It is recommended that the duct is held in position by tying it to nearby rebar grids or by using Airflows unique duct clips, at a maximum spacing distance of 750mm. All joints should be taped up, stopping any ingress of screed or concrete into the joint.



INSTALLATION ON CONCRETE SURFACES

Airflex Pro elliptical ducting perfectly complements Airflex Pro round. Its small cross-sectional dimensions of 51 x 114mm, make it suited to shallow construction depths within walls and floors, including insulation base layers, where the Airflex Pro round profile is too large. There is also no restriction on whether the duct is placed horizontally or vertically, it works in any plane.

Note: Airflex Pro elliptical is only suitable to be laid under concrete floor screed up to 35mm thick (See: Typical Airflex Pro elliptical installation in basic concrete ceiling) . For applications where the depth of concrete / screed is deeper, Airflex Pro round should be used. See chart below:

Design Features	Property Type								
	Single Family Home			Buildings upto 5 x Storeys F30 - A			Buildings upto 5 x Storeys F90 - A		
	d_1	d_2	d_3	d_1	d_2	d_3	d_1	d_2	d_3
Minimum over cover*	50 mm			50 mm			50 mm		
Minimum shortfall		50 mm			80 mm			100 mm	
Minimum distance between pipes			DN			DN			DN
Recommended minimum cover thickness without consideration of cable crossing	d = 180 mm			d = 220 mm			d = 240 mm		
Recommended minimum cover thickness including cable crossing	d = 200 mm			d = 240 mm			d = 260 mm		

DN = Duct diameter or see manufactures instructions
* = Value has only an installation of a floating screed with a minimum thickness of 25 mm
Data in the table are also valid in the case of leaching in local areas

Accepted load on Airflex Pro Round Duct + 13 Kn / m^2
Load = force area
Load for 1 m^3 concrete = 2400 Kg (average) x 1 m^2 = 2400 Kg / m^2
Mass = Density x Volume =2400 x 1 m^3 = 2400 Kg / m^3
Force = (Density x Volume) x Gravity = (2400 x 1) x 9.81
Height of concrete =1300 N / m^2
2400 x 1 x 9.81 = 0.552 metres

BRE PRODUCT CHARACTERISTICS DATABASE LISTED

SAP Q ELIGIBLE

Airflex Pro has been assessed by the Building Research Establishment (BRE), an independent product testing organisation, and listed in the Product Characteristics Database in the semi rigid ducting category.

For use with Standard Assessment Procedure protocols as defined in SAP Q which state that semi rigid ducting (unjointed) has at least an equal or better performance than equivalent rigid ducting.

SAP Q ELIGIBLE TESTING RESULTS

Product Tested	Test Sample A
Serial number of product test	XYZ
MVHR to outside grille duct sizes and type	K+1 & K+2 - 125 mm diameter rigid plastic K+3 upwards - 150 mm diameter rigid plastic
Duct sizes and types used for supply and exhaust	K+1 & K+2 - 125 mm diameter rigid plastic + Semi rigid 75 mm diameter round K+3 upwards - 150 mm diameter rigid plastic + Semi rigid 75 mm diameter round
Results of leakage tests	
Internal leakage	Nil
External leakage	Nil

RESULTS AT MAXIMUM FLOW RATE CONDITION

Exhaust Terminal Configuration	Fan Speed Setting	Total Supply Flow Rate (l / s)	Total Exhaust Flow Rate (l / s)
Kitchen + 1 additional wet rooms	100% variable	15.0	15.0
Kitchen + 2 additional wet rooms	100% variable	21.0	21.0
Kitchen + 3 additional wet rooms	100% variable	27.0	27.0
Kitchen + 4 additional wet rooms	100% variable	33.0	33.0
Kitchen + 5 additional wet rooms	100% variable	39.0	39.0
Kitchen + 6 additional wet rooms	100% variable	45.0	45.0
Kitchen + 7 additional wet rooms	100% variable	51.0	51.0

RESULTS AT MINIMUM FLOW RATE CONDITION

Exhaust Terminal Configuration	Fan Speed Setting	Total Supply Flow Rate (l / s)	Total Exhaust Flow Rate (l / s)	Specific Fan Power (W / l / s)	Heat Recovery Efficiency (%)
Kitchen + 1 additional wet rooms	100% variable	15.0	15.0	0.63	-
Kitchen + 2 additional wet rooms	100% variable	21.0	21.0	0.62	-
Kitchen + 3 additional wet rooms	100% variable	27.0	27.0	0.61	-
Kitchen + 4 additional wet rooms	100% variable	33.0	33.0	0.67	-
Kitchen + 5 additional wet rooms	100% variable	39.0	39.0	0.77	-
Kitchen + 6 additional wet rooms	100% variable	45.0	45.0	0.87	-
Kitchen + 7 additional wet rooms	100% variable	51.0	51.0	1.04	-