

flexpipe®plus round and oval ducting system. Arbitrarily combinable.



flexpipe®plus is the further development of the successful flexpipe air distribution system and it combines round and oval ducts in one smart system package with all conceivable round-oval combinations.

The oval duct has the identical hydraulic cross-section and pressure loss as the round duct as well as a point-symmetric design. This results in unique advantages:

- No matter if it's planning and layout or installation and adjustment or maintenance, round and oval pipe behave completely identical.
- Depending on the structural circumstances, the optional change between round and oval ducts is possible using adapters, both in line and away from the distribution box. This provides the greatest possible planning and installation freedom.

- The ideal, economical option can be selected at any time. The space-saving oval duct is mainly used if low installation heights are required.
- The round-oval compatibility results in low parts diversity. The stocking and consultation processes are greatly simplified. The installation is almost intuitive.
- The point-symmetric oval design allows installation from horizontal to vertical without the use of adapters for position correction.

■ **Reference**
 flexpipe® round duct system with ext. Ø 63 mm, int. 52 mm for volume flows up to 20 m³/h see page162

■ flexpipe®plus is available in two designs which can be combined as required:

- FRS 75, round:
 External Ø: 75 mm, internal: 63 mm for volume flows up to 30 m³/h. For installation in concrete ceilings. High ring strength (STIS ≥ 10 kN/m² according to DIN EN 9969). Bending radius horizontal and vertical 150 mm.
- FRS 51, oval:
 51 x 114 mm, for volume flows up to 30 m³/h, ideal for space-saving installation e.g. on unfinished floors or in walls. Bending radius horizontal 300 mm, vertical 200 mm.

■ **Installation, handling, commissioning**

- Ultra-simple planning thanks to identical duct cross-sections and pressure losses.
- Quick installation due to radial, flexible endless installation from the roll.
- Construction site-compliant handling due to its low weight.
- Quick commissioning due to minimal adjustment effort.
- Uniform air distribution.
- Hygienically optimal and easy to clean.

■ **Duct properties and advantages**

- Special round and oval ventilation duct made of hygienically safe PE-HD new material.
- Two-layer design – externally corrugated and internally

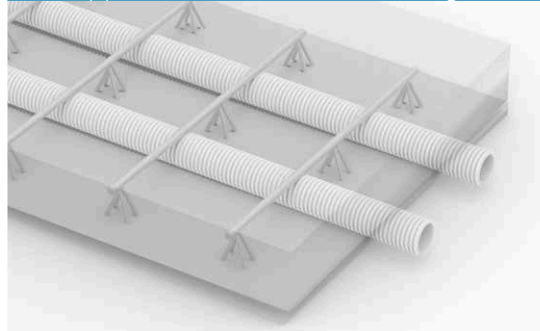
smooth and antistatic. This minimises the pressure losses and prevents flow noises and dirt deposits.

- The extreme horizontal and vertical bending elasticity of both duct geometries minimises the number of necessary moulded parts.
- The point-symmetric design allows the installation of the oval duct from horizontal to vertical, upwards or downwards, without the use of adapters.

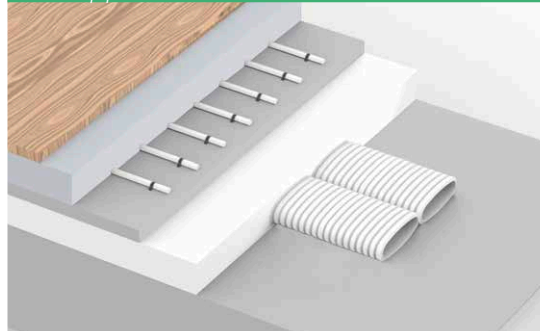
■ **Duct concept, installation**

- Mounting clips on all moulded parts for secure fixation to floors, walls or ceilings.
- Detachable mounting brackets guarantee quick, tear-proof duct fixation to all connection points.
- No additional cross talk silencer due to sound-insulating distribution box.
- Precision-fit seal system on all moulded parts for leak-free air transportation.
- Aerodynamically optimised ceiling and floor boxes as well as wall outlets are available for the use of room-side inlet and outlet elements at the duct ends. These have two parallel duct connections for delivering the volume flows required according to DIN 1946-6 with low pressure loss.

flexpipe®plus round duct in concrete ceiling



flexpipe®plus oval duct on unfinished floor



flexpipe®plus allows any round-oval combination



flexpipe vent. duct round ○

Dimensions in mm

flexpipe vent. duct (bundle = 50 lin. m)

Type	Ref. no.	Dim. in mm
		Ext. Ø Int. Ø
FRS-R 75 ○	02913	75 63
Hygiene duct shutter cover Unit		
FRS-VD 75 ○	02915	10 pcs.

Flexible round duct made of PE-HD, ideal for installation in concrete ceiling. Includes two hygiene duct shutter covers, can also be ordered separately.

flexpipe vent. duct oval ○

flexpipe vent. duct (bundle = 20 lin. m)

Type	Ref. no.	Dim. in mm
		Width Height
FRS-R 51 ○	03850	114 51
Hygiene duct shutter cover Unit		
FRS-VD 51 ○	03866	10 pcs.

Flexible oval duct made of PE-HD, for space-saving installation on unfinished floors, installation in walls or suspended ceilings. Includes two hygiene duct shutter covers, can also be ordered separately.

Cover, seal ring, bracket ○

Connector cover / seal ring / bracket

Type	Ref. no.	Unit
FRS-R 75 ○		
Connector shutter cover with seal ring		
FRS-VDS 75 ○	03855	1 pc.
Seal ring		
FRS-DR 75 ○	02916	10 pcs.
Bracket, detachable		
FRS-FK ○ ○	03854	10 pcs.

Cover, seal ring, bracket ○

Connector cover / seal ring / bracket

Type	Ref. no.	Unit
FRS-R 51 ○		
Connector shutter cover with seal ring		
FRS-VDS 51 ○	03856	1 pc.
Seal ring		
FRS-DR 51 ○	03864	10 pcs.
Bracket, detachable		
FRS-FK ○ ○	03854	10 pcs.

Connecting sleeve ○

Connecting sleeve

Type	Ref. no.
FRS-VM 75 ○	02914

Connecting sleeve for round duct FRS-R 75 with tear-off protection on both sides, made of polyethylene.

Connecting sleeve ○

Connecting sleeve

Type	Ref. no.
FRS-VM 51 ○	03862

Connecting sleeve for oval duct FRS-R 51. With integrated fastening tabs, includes duct mounting brackets (4 pcs.). Made of impact-resistant polypropylene.

Short bend 90° ○

Short bend 90°

Type	Ref. no.
FRS-B 75 ○	02994

Short bend 90° for bending radii < 2 x round duct external diameter. Horizontal and vertical application with tear-off protection on both sides. Made of galvanised steel sheet.

Bend horizontal / vertical ○

Bend horizontal / vertical

Type	Ref. no.
FRS-BH 51 ○	03863
FRS-BV 51 ○	03859

Horizontal or vertical bend 90°. With integrated fastening tabs, includes duct mounting brackets (4 pcs.). Made of impact-resistant polypropylene.

- **Optional possibility to combine round and oval ducts**
- With flexpipe® plus from Helios, you rely on one system and you have the ideal solution at your fingertips at all times, depending on building requirements.
- The ultra-flat (only 51 mm) oval duct is used if low installation heights are required. The proven duct lends itself for direct embedding in concrete ceilings.
- Thanks to the identical hydraulic cross-sections and pressure losses of the two ducts and due to well-conceived system components, round and oval ducts can be combined in any way – both in line and away from the distribution box.



Vertical and horizontal adapters allow any round/oval, oval/oval and round/round combination.



The distribution boxes can be equipped with round and oval single connectors and mixed connectors.

Adapter straight / vertical ○ ○

Adapter straight / vertical

Type	Ref. no.
FRS-ÜG 51-75 ○ ○	03861
Adapter vertical	
FRS-ÜV 51-75 ○ ○	03860

Horizontal and vertical adapter from round duct FRS-R 75 to oval duct FRS-R 51. With integrated fastening tabs, includes duct mounting brackets (4 pcs.). Made of impact-resistant polypropylene.

Mounting clip ○ ○

Mounting clip

Type	Ref. no.	Unit
FRS-BS ○ ○	03869	10 pcs.

Mounting clip for round duct FRS-R 75 and oval duct FRS-R 51. For non-slip duct fixation. Made of galvanised steel sheet.

Ceiling/wall box ○

FRS-VDS 75¹
 Core hole Ø 140 mm
 FRS-VD 125¹
 Dim. in mm

Ceiling / wall box

Type	Ø 75 mm	Ref. no.
FRS-DWK 2-75/125	○	03857
Extension for ceilings > 240 mm		
FRS-VV 125	○	03906

Ceiling / wall box for max. 2 round ducts FRS-R 75. For connection of supply / extract air valves DN 125. Height marks can be shortened to fit. Per 1 pc. connector blind cover DN 75, DN 125.
 ¹) Integr. mounting clips, duct mounting brackets (4 pcs.), made of impact-resistant polypropylene.

Ceiling/wall box ○

FRS-VDS 51²
 Core hole Ø 140 mm
 FRS-VD 125²

Ceiling / wall box

Type	114 x 51 mm	Ref. no.
FRS-DWK 2-51/125	○	03858
Extension for ceilings > 240 mm		
FRS-VV 125	○	03906

Ceiling / wall box for max. 2 oval ducts FRS-R 51. For connection of supply / extract air valves DN 125. Height marks can be shortened to fit. Per 1 pc. connector blind cover 51 mm, DN 125.
 ²) Integr. mounting clips, duct mounting brackets (4 pcs.), made of impact-resistant polypropylene.

Multi-floor box ○

FRS-MBK 2-75

Multi-floor box

Type	Ø 75 mm	Ref. no.
FRS-MBK 2-75	○	03872

Multi-floor box for connection of max. 2 round ducts FRS-R 75. Suitable for embedding in concrete ceiling, consists of:
 – Floor box with air volume control insert in robust sheet metal design
 – 2 pcs. connectors (round) and 1 pc. connector cover with seal (round)

Wall/floor box ○

FRS-WBK 2-51

Wall / floor box

Type	114 x 51 mm	Ref. no.
FRS-WBK 2-51	○	03877

Wall / floor box for connection of max. 2 oval ducts FRS-R 51. Installation in walls or on unfinished floor, consists of:
 – Plastic box made of impact-resistant polypropylene with air volume control insert. For use with FRS-WGS or FRS-BGS.
 – 1 pc. connector cover with seal (oval).

Floor grille set ○

FRS-BGS 1

Floor grille set

Type	FRS-BGS 1	Ref. no.
	○	03878

Floor grille set made of stainless steel for multi-floor box FRS-MBK 2-75 and wall / floor box FRS-WBK 2-51, consists of:
 – Grille frame with height adjustment for barrier-free installation in the floor covering
 – Anti-puncture design floor grille
 – Insert filter (replacement filter mats ELF-BGS, Ref. no. 03914, unit = 2 pcs.)

Wall grille set ○

Design 2: 2/2 E
 Design 3: 3/3 E
 * Design 1: FRS-WGS 1/1 E

Wall grille set

Type	FRS-WGS 1	Ref. no.	
	○	03881	white
	○	03882	white
	○	03883	white
	○	03886	Stainl. steel
	○	03892	Stainl. steel
	○	03904	Stainl. steel

Wall grille set with installation frame and insert filter for FRS-WBK 2-51. See p. 110 for grille designs.

Floor box set ○

Floor box
 Floor grille

Floor box set

Type	Ø 75 mm	Ref. no.
FRS-BKGS 2-75	○	09992

Floor box set consists of:
 – 1 pc. floor box for grille connection DN 160
 – 1 pc. floor grille made of brushed stainless steel with adjustable volume flow
 – 1 pc. cover

Wall outlet ○

* FRS-WDV 2-75/100

Wall outlet for valve connection

Type	Ø 75 mm	Ref. no.	Ø D mm
FRS-WDV 2-75/100	○	09621	100
FRS-WDV 2-75/125	○	09622	125

Wall outlet incl. plaster / formwork lid and cover (1 pc.). For connection of supply air or extract air valves DN 100 or DN 125.

Wall outlet set ○

Wall outlet set, straight

Type	Ø 75 mm	Ref. no.
FRS-WDS 2-75	○	09994

Wall outlet set consists of:
 – Wall outlet with sliding connector
 – Wall outlet white (FK-WA 200 W), 250 x 103 mm
 – 1 pc. cover

Basic set package ○

Basic set package

Type	FRS-RP 75	Ref. no.	Ø D mm
	○	09397	75

flexpipe basic set package consists of:
 – 3 pcs. FRS-R 75 (Ref. no. 02913)
 – 2 pcs. FRS-VK 10-75/160 (Ref. no. 03847)
 – 8 pcs. FRS-DWK 2-75/125 (Ref. no. 03857)
 – 7 pcs. FRS-B 75 (Ref. no. 02994)
 – 7 pcs. FRS-VM 75 (Ref. no. 02914)
 – 4 units FRS-DR 75 (Ref. no. 02916)
 – 1 units FRS-VD 75 (Ref. no. 02915)
 – 1 pcs. cold shrink tape KSB (Ref. no. 09343)

By choosing the Helios basic set package, you can save
 – money due to the discounted package price.
 – time, because everything is included to get started right away. There is no need for time consuming, annoying additional trips because little things are missing.

¹) Cover with integrated seal FRS-VDS 75, Ref. no. 03855 and -VD 125, Ref. no. 03865. Cover can be used for the connector or duct connection opening on distribution box.

²) Cover with integrated seal FRS-VDS 51, Ref. no. 03856 and -VD 125, Ref. no. 03865. Can also be used as cover for the connector or duct connection opening on distribution box.

Multi-distribution box 4+1x

Dim. in mm

Multi-distribution box ¹⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-MVK 4+1-75/125	03843	125

For universal installation in/on unfinished concrete flooring. With height-adjustable mounting brackets. Duct connection DN 125 optionally horizontal or vertical. 10 connection options for up to 5 ventilation ducts FRS-R 75. With sound-absorbing cladding and large inspection opening.

Multi-distribution box 4+1x

Multi-distribution box 4+1x ¹⁾

Type	Ref. no.	Ø NW mm
Type 114 x 51 mm		
FRS-MVK 4+1-51/125	03841	125

For universal installation on unfinished concrete flooring. With height-adjustable mounting brackets. Duct connection DN 125 optionally horizontal or vertical. 10 connection options for up to 5 oval ventilation ducts FRS-R 51. With sound-absorbing cladding and large inspection opening.

Multi-distribution box 5+2x

Fig.: FRS-MVK 5+2-75/160

Multi-distribution box 5+2x ¹⁾

Type	No.	Ø NW mm
Type Ø 75 mm		
FRS-MVK 5+2-75/160	03836	160
FRS-MVK 5+2-75/160 H	03835	160

For universal installation in/on unfinished concrete flooring. With height-adjustable mounting brackets. Duct connection DN 160 optionally horizontal or vertical. Type FRS-MVK 5+2-75/160 H with 380 mm casing height and 3 x duct connection DN 160. 12 connection options for up to 7 ventilation ducts FRS-R 75.

Multi-distribution box 5+2x

Multi-distribution box 5+2x ¹⁾

Type	Ref. no.	Ø NW mm
Type 114 x 51 mm		
FRS-MVK 5+2-51/160	03838	160

For universal installation on unfinished concrete flooring or as floor distributor. With height-adjustable mounting brackets. Duct connection DN 160 optionally horizontal or vertical. 12 connection options for up to 7 oval ventilation ducts FRS-R 51. With sound-absorbing cladding and large inspection opening.

Distribution box 10x

Distribution box 10-75 ²⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-VK 10-75/160	03847	160

20 connection options for up to 10 ventilation ducts FRS-R 75. Can be installed as straight distributor, 90° distributor or combined. Mixed setup with oval connectors possible (Type FRS-ES 51, Ref. no. 03851). With sound-absorbing cladding and large inspection opening.

Distribution box 10x

Distribution box 10-51 ²⁾

Type	Ref. no.	Ø NW mm
Type 114 x 51 mm		
FRS-VK 10-51/160	03849	160

20 connection options for up to 10 oval ventilation ducts FRS-R 51. Can be installed as straight distributor, 90° distributor or combined. Mixed setup with round connectors possible (Type FRS-ES 75, Ref. no. 03852). With sound-absorbing cladding and large inspection opening.

Flat distribution box 6x

Distribution box 6-75, flat design ¹⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-FVK 6-75/125	03845	125

For connection of up to 6 ventilation ducts FRS-R 75. Installation as straight distributor. Mixed setup with oval connectors possible (Type FRS-ES 51, Ref. no. 03851). With sound-absorbing cladding and large inspection opening.

Distribution box 6x

Distribution box 6-75 ¹⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-VK 6-75/125	03846	125

12 connection options for up to 6 ventilation ducts FRS-R 75. Can be installed as straight distributor, 90° distributor or combined. Mixed setup with oval connectors possible (Type FRS-ES 51, Ref. no. 03851). With sound-absorbing cladding and large inspection opening.

Distribution box 15x

Distribution box 15-75 ²⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-VK 15-75/180	03848	180

30 connection options for up to 15 ventilation ducts FRS-R 75. Can be installed as straight distributor, 90° distributor or combined. Mixed setup with oval connectors possible (Type FRS-ES 51, Ref. no. 03851). With sound-absorbing cladding and large inspection opening.

Connector, cover

Connector, bayonet cap

Type	Ref. no.	Unit
Connector, Ø 75 mm		
FRS-ES 75	03852	1 pc.
Connector, 114 x 51 mm		
FRS-ES 51	03851	1 pc.
Bayonet cap		
FRS-VDB	03853	1 pc.

Additional connectors for connection of round ventilation duct FRS-R 75 or oval ventilation duct FRS-R 51 to distribution box. Easy and variable positioning using bayonet closure. Tight-closing, includes duct mounting brackets (2 pcs.), made of impact-resistant polypropylene. Bayonet cap for the connector openings on the distribution box.

Combination distribution box

Fig.: Type L

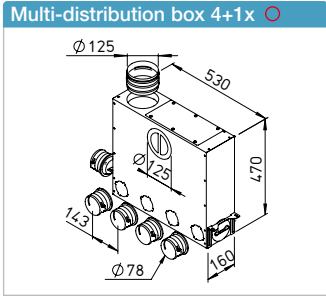
Combination distribution box ¹⁾

Type	Ref. no.	Ø NW mm
Type Ø 75 mm		
FRS-KVK 6-75/125 L*	03873	125
FRS-KVK 6-75/125 R*	03874	125

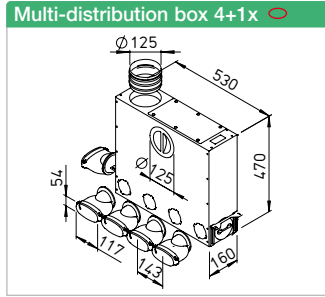
* Supply air connection on left or right. Compact distribution box, ideal for adjoining extract air rooms. 2 x DN 100 for direct insertion of extract air valves DLV (see accessories). Supply air distribution via connection of up to 6 ventilation ducts FRS-R 75.

¹⁾ incl. 2 pcs. connector cover.

²⁾ incl. 4 pcs. connector cover.

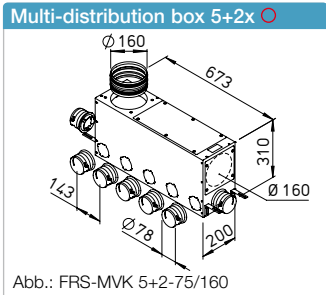


Multi-distribution box 4+1x Ø 75 mm
 No. Ø NW mm
FRS-MVK 4+1-75/125 ○ 03843 125

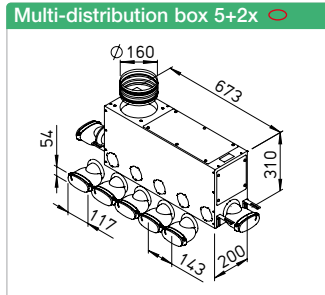


Multi-distribution box 4+1x 114 x 51 mm
 No. Ø NW mm
FRS-MVK 4+1-51/125 ○ 03841 125

Frequency	Insertion loss	Cross-talk loss
Hz	dB	dB
125	23.5	30.6
250	24.2	25.3
500	19.3	18.3
1000	28.7	25.3
2000	30.8	39.0
4000	36.6	42.9
8000	38.3	40.8

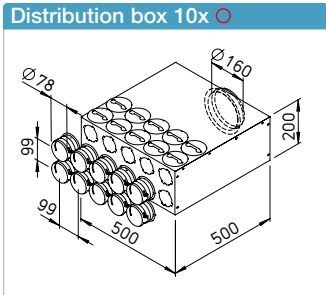


Multi-distribution box 5+2x Ø 75 mm
 No. Ø NW mm
FRS-MVK 5+2-75/160 ○ 03836 160
FRS-MVK 5+2-75/160 H ○ 03835 160

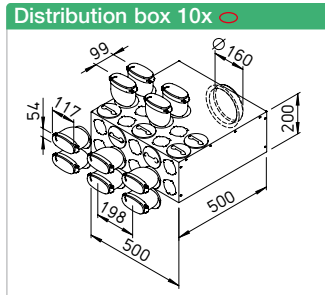


Multi-distribution box 5+2x 114 x 51 mm
 No. Ø NW mm
FRS-MVK 5+2-51/160 ○ 03838 160

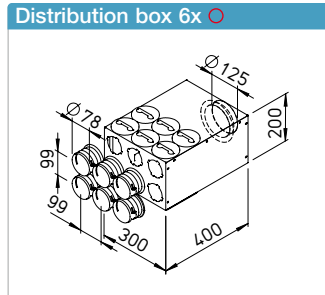
Frequency	Insertion loss	Cross-talk loss
Hz	dB	dB
125	21.0	28.8
250	16.5	24.7
500	24.6	28.0
1000	36.3	34.4
2000	35.2	40.2
4000	43.8	45.0
8000	46.1	41.1



Distribution box 10x Ø 75 mm
 No. Ø NW mm
FRS-VK 10-75/160 ○ 03847 160

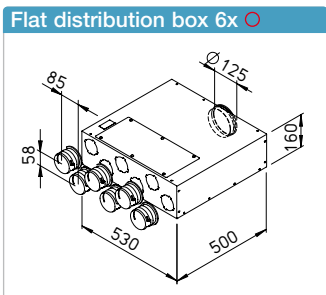


Distribution box 10x 114 x 51 mm
 No. Ø NW mm
FRS-VK 10-51/160 ○ 03849 160



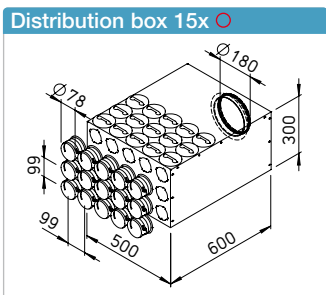
Distribution box 6x Ø 75 mm
 No. Ø NW mm
FRS-VK 6-75/125 ○ 03846 125

Frequency	Insertion loss	Cross-talk loss
Hz	dB	dB
125	23.0	34.4
250	21.8	33.1
500	36.2	27.4
1000	29.4	26.9
2000	28.9	38.7
4000	34.4	44.2
8000	36.1	44.0



Flat distribution box 6x Ø 75 mm
 No. Ø NW mm
FRS-FVK 6-75/125 ○ 03845 125

Frequency	Insertion loss	Cross-talk loss
Hz	dB	dB
125	22.6	27.4
250	21.3	21.4
500	27.7	20.4
1000	28.8	20.2
2000	30.6	33.6
4000	42.6	40.1
8000	43.2	40.2



Distribution box 15x Ø 75 mm
 No. Ø NW mm
FRS-VK 15-75/180 ○ 03848 180

Frequency	Insertion loss	Cross-talk loss
Hz	dB	dB
125	26.8	30.9
250	19.4	30.2
500	28.4	25.3
1000	25.4	29.0
2000	30.8	39.8
4000	34.7	49.1
8000	34.9	53.0

Measured in accordance with DIN EN ISO 7235 and DIN EN ISO 11820.