



MATERIAL



BACTERIOSTATIC

# Ventilation duct

VFG75, VFB75, VFG90, VFB90

The VFG ducts are used to transport air in mechanical ventilation systems. They are characterised by very high flexibility, which allows for free shaping of their course, bending and adjustment to the installation conditions, without the need of using additional connectors and fittings. The duct design provides a mechanical compressive strength of more than 450 N, which allows them to be poured over with structural concrete. The double-walled duct design with partially closed air voids suppresses the noise caused by air flowing inside the duct and provides thermal insulation. The VFG75 ducts have an antibacterial internal coating containing silver in the amount of 150 ppm in the polymer matrix so it does not migrate, ionise or elute. The use of silver ensures a long-lasting bactericidal effect regardless of the air temperature and humidity and prevents bacteria from developing defence mechanisms.

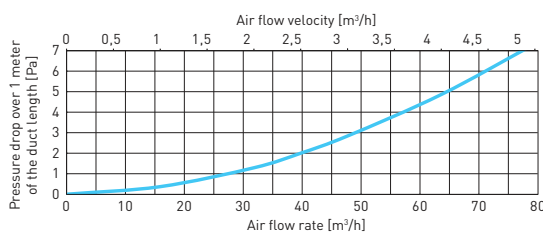
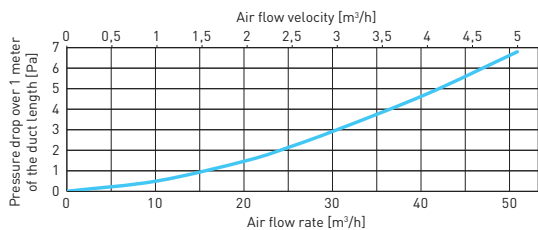
The inner layer also has an antistatic effect, which reduces the settling and accumulation of dust in the ducts. A smooth inner surface allows for high air flows with low-pressure losses contributing to the low energy intensity of the entire system. It also makes it easier to clean the ducts if needed.

The ergonomically shaped VNK cutter with a replaceable blade is used for cutting ducts.



duct characteristics	VFG75, VFG90	VFB75, VFB90
compression strength	(PN-EN 61386-241):450 N	
impact resistance	(PN-EN 61386-241): Normal (N)	
bending strength	flexible	
flammability	yes	
antibacterial effect after 24h	61-92%	none
outer layer – material	modified polyethylene (HDPE-mod)	
outer layer – colour	transparent	
inner layer – material	modified polyethylene (mod-LDPE), antistatic, antibacterial layer – silver 150 ppm	modified polyethylene (mod-LDPE)
inner layer – colour	green	blue
unit packaging	50 lm	

## AIR FLOW CHARACTERISTICS



Air flow velocity	VFB/VFG 75			VFB/VFG 90		
	2 [m/s]	2,5 [m/s]	3 [m/s]	2 [m/s]	2,5 [m/s]	3 [m/s]
Air flow rate [m³/h] – 1 duct	20,4	25,5	30,5	31,8	39,8	47,7
Air flow rate [m³/h] – 2 ducts	40,7	50,9	61,1	63,6	79,6	95,4
Air flow rate [m³/h] – 3 ducts	61,1	76,4	91,6	95,4	119,4	143,1

Duct length	Pressure drop [Pa]			Pressure drop [Pa]		
	2 [m/s]	2,5 [m/s]	3 [m/s]	2 [m/s]	2,5 [m/s]	3 [m/s]
1 lm	1,5	2,2	3,0	1,3	2	2,8
2 lm	3,0	3,5	6,0	2,6	3,5	5,7
4 lm	6,0	8,8	12,0	5,2	8	11,4
6 lm	9,0	13,2	18,0	7,7	12	17
8 lm	12,0	17,6	24,0	10,3	16	22,7
10 lm	15,0	22,0	30,0	12,9	20	28,4
12 lm	18,0	26,4	36,0	15,5	24	34,1
14 lm	21,0	30,8	42,0	18,1	28	39,8
16 lm	24,0	35,2	48,0	20,6	32	45,4
18 lm	27,0	39,6	54,0	23,2	36	51,1
20 lm	30,0	44,0	60,0	25,8	40	56,8

Nominal dimension DN (mm)	Inner diameter (mm)	Outer diameter (mm)	Minimum bending radius (above 100°C) (m)	Lengths of sections (m)
75	61	76,2	0,17	50
90	76	91,2	0,17	50