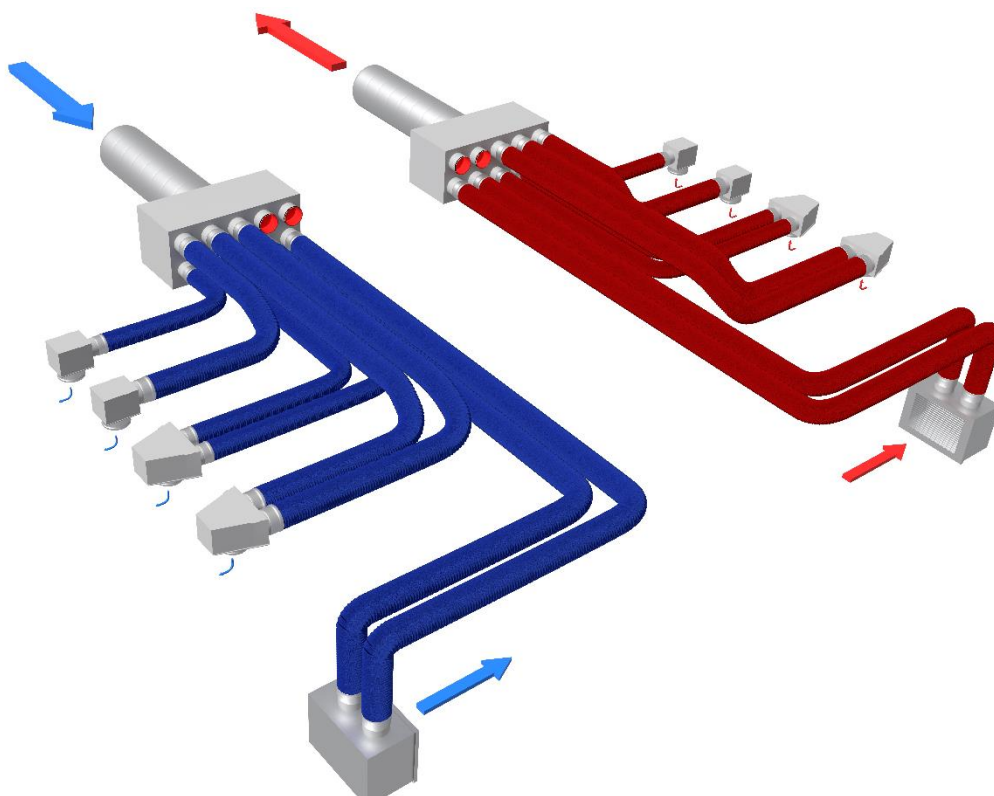


## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

**Smoothdec® the non-metallic semi-rigid duct wall ducting for all new build & renovation applications** consist out of a multiple layers Polypropylene fabric semi-rigid duct wall construction, with a interlocked helix and a **Smartdec® Anti-bacterial & Anti-fungus Inner liner** to create a smooth inner surface with excellent properties.

To minimize the number of **Smoothdec®** semi-rigid ducts, see selection table for alternative larger diameters, matching volumes and pressure loss. For easy overview of the installation use blue for inlet and red for outlet.



### Win-Win on all points:

- ✓ Finally normal HVAC diameters
- ✓ Fits on all standard HVAC connections
- ✓ Cleanable
- ✓ Curves are no longer a problem
- ✓ Easy to handle in cold weather
- ✓ Supplied in manageable rolls

Furthermore:

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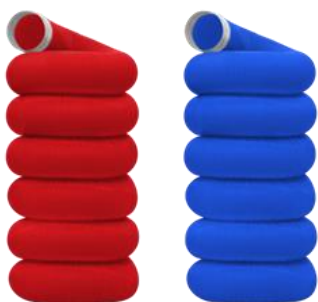
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## SMOOTHDEC®

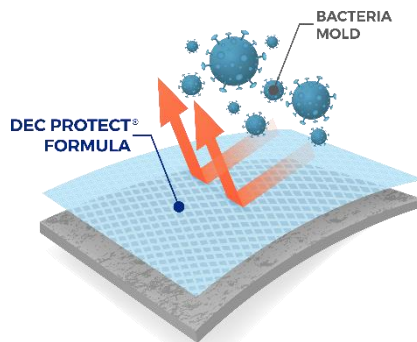
Non-metallic semi-rigid duct wall ducting

### Smoothdec® Anti-microbe treatments:

- ✓ ISO 22196 antimicrobial: 99.9% effectiveness
- ✓ ISO 16869 fungistatic: 99.9% effectiveness
- ✓ Microbial resistance according to ISO 846 Class A and C (Class 0);
- ✓ Microbial resistance conforms VDI 6022;

### Other properties:

- ✓ Less Pressure loss by effective diameter;
- ✓ Connection EN 1506;
- ✓ HVAC uses EN13180;
- ✓ Sound ISO 7235; see overview
- ✓ Ring stiffness EN ISO 9969/EN 17192-8.6; see overview
- ✓ Fire resistance according EN-13501: D-s1,d0;
- ✓ Leakage D/ATC 2 up to +2000Pa;
- ✓ Electric resistance 2.5 R[Ω] - 6.0 R[Ω] per meter duct; see overview, measured both end interlocked wire
- ✓ REACH TUV: passed
- ✓ ROHs TUV: passed



Both sides of each **Smoothdec®** semi-rigid duct is standard fitted according EN1506 with galvanized metal female connection bushes to connected to any male connection according EN1506/EN13180. Also available without any connection bushes.

### APPLICATIONS:

- Residential ventilation;
- Standard ductwork EN 13180;
- Air treatment installations;
- Distribution, plenum boxes;
- Retrofit ventilation channels;

### Unique selling points:

- ✓ Money saver: No special plastic parts needed anymore
- ✓ Easy to insulate according your need, with the DEC's Isosleeve.
- ✓ Easy to transport
- ✓ Easy to install
- ✓ No emissions
- ✓ 100% recyclable

### Specification

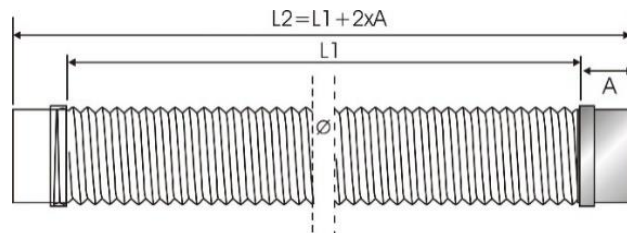
Article code: **CO3SMD(R,B)[Ø] L (with female end connectors)**  
Diameter range: 075-200mm

Article code: **SMD(R,B)[Ø]L (without end connectors)**  
Diameter range: 063-200mm

Color: Red(R), Blue(B)  
Standard length in meter: 0.5, 0.8, 1.0, 1.2, 3, 6 and 10 Meter  
Temperature range: -20°C to 60°C  
Operating pressure: up to 2000Pa  
Min bending radius:  $R = \emptyset$   
Hygienic packaging: Each length is packed individual  
Storage temperature: -10° C / +50° C  
Pressure drop range: -500/+500 Pa

Operating air velocity: Select the aim pressure loss in combination with  $m^3/h$  or  $L/s$   
see pressure loss overviews per meter, 10 meter, 45°, 60° and 90°

Mounting: See mounting instruction



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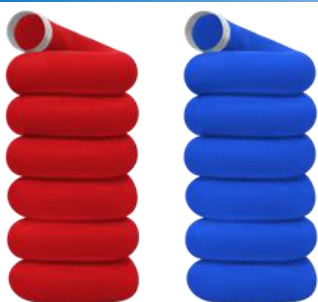
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Installation guide:



### In summary everything you need to build an HVAC system select:

- ✓ **Smoothdec®** diameter according installation space, air volume and aimed pressure loss;
- ✓ **Smoothdec®** color for supply or exhaust air;
- ✓ **Smoothdec®** length;
- ✓ Connectors **[QDRCMMØ]** / and or reducers
- ✓ Brackets **[SBRØ]**, fixate each 2 meter duct work with a SBR bracket
- ✓ HVAC components/ distribution box/plenum box/HR unit/Air valves, see examples;

### In addition to your needs;

- Isosleeve**[DHBØ/L]**; to insulated the **Smoothdec®**;
- Iris damper**[DRISØ]** to control airflow from diam Ø80mm available;
- **[DIN Ø]** can be placed in the male/male connector**[QDRCMMØ]**
- Backdraught shutter **[BDSØ]** can be installed between the 2-females connections
- Airvalves for example**[RONDOØ]** exhaust/supply ; see DEC's Delivery program
- External wall grills ; see DEC program
- **Quadrodec®**
- **Wrapdec®**
- **Greendec®**
- **Smartdec®**

Example of combination **[QDRCMMØ]** male connector housing**[DINØRP]** or **[BDSIØ]** DIN before the connection with the female connector ends of the **Smoothdec®** ductwork



### Connection EN 1506:

D <sub>nom</sub> (mm)	D <sub>female</sub> (mm)	D <sub>male</sub> (mm)	Tol.
063	63.5	62.3	+0 ; -0.5
075	75.5	74.5	+0 ; -0.5
080	80.5	79.3	+0 ; -0.5
090	90.5	89.5	+0 ; -0.5
100	100.5	99.3	+0 ; -0.5
125	125.5	124.3	+0 ; -0.5
160	160.6	159.3	+0 ; -0.6
200	200.7	199.3	+0 ; -0.7



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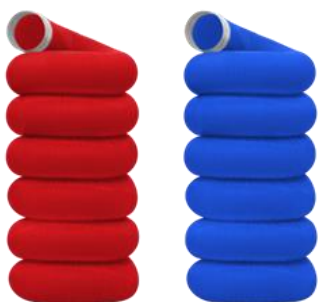
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Resumed:

- **Smoothdec®** finally a semi-flexible duct easy to install based on HVAC EN-13180 dimensions, from which the inside is Smooth and has an enlarged ID for reduced pressure drop and easy cleaning. While the duct wall is bendable and suitable to make elbows instantly from 90°, 60°, 45° degrees
- The semi-flexible ducts can be combined with all standard, fittings and distribution boxes for advanced fastening so no need for special fittings or advanced fastening
- The **Smoothdec®** semi-flexible ducts has an optimum free inner diameter for less pressure drop and fits with its female connection to standard distribution boxes.
- The inner walls of **Smoothdec®** semi-flexible ducts are standard treated with **DECPROTECT™** an anti-bacterial and anti-fungal coating, which provides a hygienic protection against bacteria and mold.
- The **Smoothdec®** semi-flexible ducts can be embedded in the floor see overview matrix for concrete the relation thickness concrete/**Smoothdec®** diameter.

### Note that:

- **Smoothdec®** semi-flexible channels made of polypropylene are to be used only for Indoor supply and exhaust air systems.
- To your need **Greendec®** non-woven silencers to be installed between air handling units and distribution boxes.
- All system installation work must be issued in accordance with the manufacturer's, designer and or national legislation, installation instructions.
- Changes in installation that have not been carried out according to the manufacturer's instructions, designer and or national legislation instructions are the responsibility of the person carrying out the installation.
- In connection with start-up, the system must be flow balanced.

### Area's of installation:

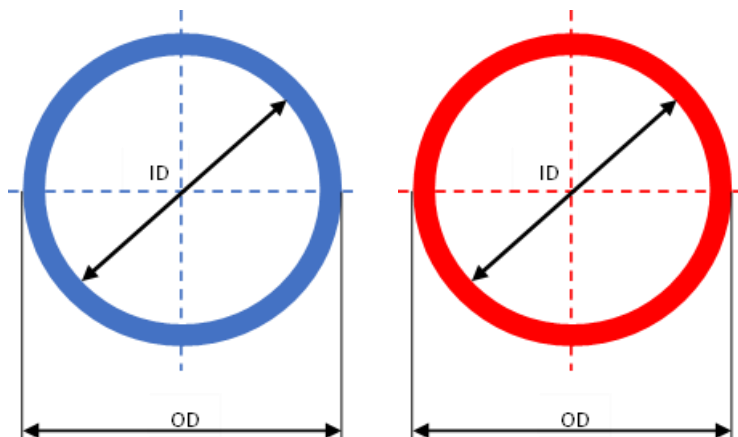
**Smoothdec®** semi-flexible ducts are used only for indoor distribution of air in air distribution systems with the advantage that the diameters are according to EN-13180 to fit at all standard HVAC Ductwork

### Diameters without end connectors !

Smoothdec® semi-flexible ducts: inside dimensions according to EN-13180								
Dn	63	75	80	90	100	125	160	200
Outside[mm]	68.9	80.9	85.9	95.9	106.9	131.9	167.9	207.9
Inside [mm]	66	78	83	93	103	128	164	204
Surface [m2]	0.0034	0.0048	0.0054	0.0068	0.0083	0.0129	0.0211	0.0327

### ID according to EN-13180

For easy use: The Smoothdec is designed to be used with standard HVAC components



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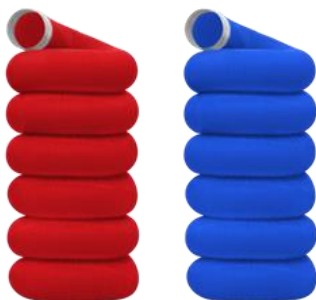
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

Smoothdec weight per 1 meter	
Diameter (mm)	Weight (g)
63	240.20
75	283.74
80	309.14
90	338.18
100	576.62
125	699.28
160	875.30
200	1104.68

### Material:

Manufactured from high-quality polypropylene, which provides good mechanical properties, the inner layer is provided with the **DECPROTECT™** anti-microbe coating

### The properties of Polypropylene include

- Semi rigid
- Good Chemical resistance
- Tough
- Good heat resistance

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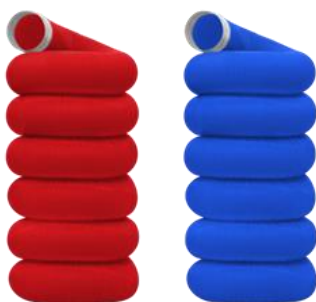
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Quick Selection table per diameter:

#### SMOOTHDEC® SYSTEM

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN75	1	9	33	11	41	14	49
DN75	2	18	65	23	82	27	98
DN75	3	27	98	34	122	41	147

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN80	1	10	37	13	46	15	56
DN80	2	21	74	26	93	31	111
DN80	3	31	111	39	139	46	167

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN90	1	13	46	16	58	19	69
DN90	2	26	93	32	116	39	139
DN90	3	39	139	48	174	58	208

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN100	1	16	58	20	72	24	87
DN100	2	32	115	40	144	48	173
DN100	3	48	173	60	216	72	260

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN125	1	25	90	31	112	37	135
DN125	2	50	180	62	224	75	269
DN125	3	75	269	48	174	112	404

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN160	1	41	147	51	183	61	220
DN160	2	81	293	102	366	122	440
DN160	3	122	440	48	174	183	660

Nominal Ø	velocity	2 m/s		2,5 m/s		3 m/s	
	Nr Duct/volume	L/S	m³/h	L/S	m³/h	L/S	m³/h
DN200	1	63	228	79	286	95	343
DN200	2	127	457	159	571	190	685
DN200	3	190	685	48	174	286	1028

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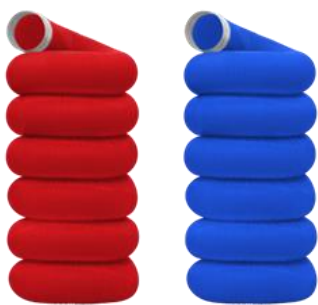
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Pressure drop in relation to volume and Velocity: straight length 1 meter

Dimensions																
Outside [mm]	68.9	80.9	85.9	95.9	106.9	131.9	167.9	207.9								
Inside [mm]	66	78	83	93	103	128	164	204								
Surface [m <sup>2</sup> ]	0.0034	0.0048	0.0054	0.0068	0.0083	0.0129	0.0211	0.0327								
Dn	63	75	80	90	100	125	160	200								
Radius [mm]	0	0	0	0	0	0	0	0								
Zeta [-]	1	1	1	1	1	1	1	1								
length	1	1	1	1	1	1	1	1								
Qv [m <sup>3</sup> /h]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]
0	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.446	0.00	0.314	0.0001	0.276	0.0001	0.218	0.00003	0.177	0.00002	0.113	0.00001	0.069	0.000002	0.044	0.0000005
10	0.891	0.00	0.629	0.001	0.553	0.001	0.437	0.0003	0.354	0.0002	0.226	0.00005	0.138	0.00001	0.088	0.000004
15	1.34	0.01	0.943	0.002	0.83	0.002	0.655	0.001	0.531	0.001	0.340	0.0002	0.207	0.00004	0.133	0.00001
20	1.782	0.01	1.258	0.006	1.105	0.004	0.873	0.002	0.707	0.001	0.453	0.0004	0.276	0.0001	0.177	0.00003
25	2.228	0.03	1.572	0.011	1.382	0.008	1.092	0.004	0.884	0.003	0.566	0.001	0.345	0.0002	0.221	0.00007
30	2.673	0.05	1.886	0.020	1.658	0.014	1.310	0.008	1.061	0.004	0.679	0.001	0.414	0.0004	0.265	0.00011
35	3.119	0.08	2.201	0.032	1.934	0.023	1.528	0.012	1.238	0.007	0.792	0.002	0.484	0.001	0.309	0.00018
40	3.564	0.12	2.515	0.048	2.210	0.034	1.747	0.018	1.415	0.010	0.905	0.003	0.553	0.001	0.354	0.00027
45	4.010	0.17	2.829	0.068	2.487	0.049	1.965	0.026	1.592	0.015	1.019	0.005	0.622	0.001	0.398	0.00039
50	4.456	0.24	3.144	0.094	2.763	0.067	2.183	0.036	1.768	0.021	1.132	0.006	0.691	0.002	0.442	0.001
55	4.901	0.31	3.458	0.126	3.039	0.089	2.402	0.048	1.945	0.028	1.245	0.009	0.760	0.002	0.486	0.001
60	5.347	0.41	3.773	0.164	3.316	0.117	2.620	0.063	2.122	0.036	1.358	0.011	0.829	0.003	0.531	0.001
65	5.792	0.52	4.087	0.209	3.592	0.149	2.838	0.080	2.299	0.046	1.471	0.014	0.898	0.004	0.575	0.001
70	6.238	0.65	4.401	0.262	3.868	0.186	3.056	0.100	2.476	0.058	1.584	0.018	0.967	0.005	0.619	0.001
85	7.574	1.18	5.344	0.472	4.697	0.336	3.711	0.181	3.006	0.104	1.924	0.032	1.174	0.009	0.752	0.003
90	8.020	1.41	5.659	0.562	4.974	0.400	3.930	0.215	3.183	0.124	2.037	0.038	1.243	0.010	0.796	0.003
95	8.465	1.66	5.973	0.662	5.250	0.471	4.148	0.254	3.360	0.146	2.150	0.045	1.312	0.012	0.840	0.004
100	8.911	1.94	6.288	0.774	5.526	0.551	4.366	0.296	3.537	0.170	2.264	0.053	1.382	0.014	0.884	0.004
105	9.357	2.25	6.602	0.897	5.803	0.639	4.585	0.344	3.714	0.197	2.377	0.061	1.451	0.017	0.928	0.005
115	10.248	2.96	7.231	1.183	6.355	0.843	5.021	0.453	4.067	0.260	2.603	0.080	1.589	0.022	1.017	0.007
120	10.693	3.37	7.545	1.347	6.631	0.959	5.240	0.516	4.244	0.296	2.716	0.092	1.658	0.025	1.061	0.008
125	11.139	3.82	7.860	1.525	6.908	1.086	5.458	0.584	4.421	0.335	2.829	0.104	1.727	0.028	1.105	0.009
130	11.584	4.30	8.174	1.718	7.184	1.223	5.676	0.658	4.598	0.378	2.943	0.117	1.796	0.032	1.149	0.010
135	12.030	4.82	8.488	1.927	7.460	1.372	5.895	0.738	4.775	0.424	3.056	0.131	1.865	0.036	1.194	0.011
140	12.475	5.39	8.803	2.152	7.737	1.532	6.113	0.824	4.951	0.473	3.169	0.146	1.934	0.040	1.238	0.012
150	13.367	6.65	9.431	2.655	8.289	1.890	6.550	1.017	5.305	0.584	3.395	0.180	2.072	0.049	1.326	0.015
175	15.594	10.62	11.003	4.243	9.671	3.021	7.641	1.625	6.189	0.933	3.961	0.288	2.418	0.079	1.547	0.024
200	17.822	15.94	12.575	6.368	11.052	4.534	8.733	2.439	7.074	1.401	4.527	0.433	2.763	0.118	1.768	0.036
250	22.278	31.43	15.719	12.551	13.816	8.936	10.916	4.807	8.842	2.761	5.659	0.853	3.454	0.233	2.210	0.072

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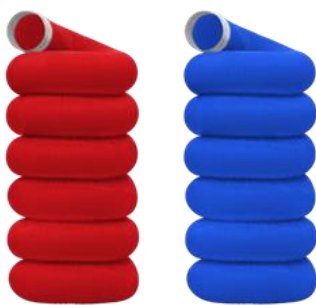
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Pressure drop in relation to volume and Velocity: 45°

Dimensions																	
Outside [mm]	68.9		80.9		85.9		95.9		106.9		131.9		167.9		207.9		
Inside [mm]	66		78		83		93		103		128		164		204		
Surface [m2]	0.0034		0.0048		0.0054		0.0068		0.0083		0.0129		0.0211		0.0327		
Dn	63		75		80		90		100		125		160		200		
Radius [mm]	45		45		45		45		45		45		45		45		
Zeta [-] bend																	
Qv[m3/h]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
5	0.446	0.0002	0.314	0.00010	0.276	0.00007	0.218	0.00004	0.177	0.00002	0.113	0.00001	0.069	0.000002	0.044	0.000001	
10	0.891	0.002	0.629	0.001	0.553	0.001	0.437	0.00030	0.354	0.00017	0.226	0.00005	0.138	0.00001	0.088	0.000005	
15	1.34	0.00678	0.943	0.00271	0.829	0.00193	0.655	0.00104	0.531	0.00060	0.340	0.00018	0.207	0.00005	0.133	0.00002	
20	1.782	0.016	1.258	0.006	1.105	0.005	0.873	0.002	0.707	0.001	0.453	0.00044	0.276	0.00012	0.177	0.00004	
25	2.228	0.032	1.572	0.013	1.382	0.009	1.092	0.005	0.884	0.003	0.566	0.001	0.345	0.00024	0.221	0.00007	
30	2.673	0.056	1.886	0.022	1.658	0.016	1.310	0.009	1.061	0.005	0.679	0.002	0.414	0.00041	0.265	0.00013	
35	3.119	0.089	2.201	0.036	1.934	0.025	1.528	0.014	1.238	0.008	0.792	0.002	0.484	0.001	0.309	0.00020	
40	3.564	0.134	2.515	0.053	2.210	0.038	1.747	0.020	1.415	0.012	0.905	0.004	0.553	0.001	0.354	0.00031	
45	4.010	0.191	2.829	0.076	2.487	0.054	1.965	0.029	1.592	0.017	1.019	0.005	0.622	0.001	0.398	0.00044	
50	4.456	0.264	3.144	0.105	2.763	0.075	2.183	0.040	1.768	0.023	1.132	0.007	0.691	0.002	0.442	0.001	
55	4.901	0.352	3.458	0.141	3.039	0.100	2.402	0.054	1.945	0.031	1.245	0.010	0.760	0.003	0.486	0.001	
60	5.347	0.459	3.773	0.183	3.316	0.131	2.620	0.070	2.122	0.040	1.358	0.012	0.829	0.003	0.531	0.001	
65	5.792	0.586	4.087	0.234	3.592	0.167	2.838	0.090	2.299	0.051	1.471	0.016	0.898	0.004	0.575	0.001	
70	6.238	0.734	4.401	0.293	3.868	0.209	3.056	0.112	2.476	0.064	1.584	0.020	0.967	0.005	0.619	0.002	
85	7.574	1.324	5.344	0.529	4.697	0.377	3.711	0.203	3.006	0.116	1.924	0.036	1.174	0.010	0.752	0.003	
90	8.020	1.576	5.659	0.629	4.974	0.448	3.930	0.241	3.183	0.138	2.037	0.043	1.243	0.012	0.796	0.004	
95	8.465	1.857	5.973	0.742	5.250	0.528	4.148	0.284	3.360	0.163	2.150	0.050	1.312	0.014	0.840	0.004	
100	8.911	2.171	6.288	0.867	5.526	0.617	4.366	0.332	3.537	0.191	2.264	0.059	1.382	0.016	0.884	0.005	
105	9.357	2.518	6.602	1.006	5.803	0.716	4.585	0.385	3.714	0.221	2.377	0.068	1.451	0.019	0.928	0.006	
115	10.248	3.320	7.231	1.326	6.355	0.944	5.021	0.508	4.067	0.292	2.603	0.090	1.589	0.025	1.017	0.008	
120	10.693	3.779	7.545	1.509	6.631	1.075	5.240	0.578	4.244	0.332	2.716	0.103	1.658	0.028	1.061	0.009	
125	11.139	4.279	7.860	1.709	6.908	1.217	5.458	0.655	4.421	0.376	2.829	0.116	1.727	0.032	1.105	0.010	
130	11.584	4.821	8.174	1.925	7.184	1.371	5.676	0.737	4.598	0.423	2.943	0.131	1.796	0.036	1.149	0.011	
135	12.030	5.407	8.488	2.160	7.460	1.538	5.895	0.827	4.775	0.475	3.056	0.147	1.865	0.040	1.194	0.012	
140	12.475	6.039	8.803	2.412	7.737	1.717	6.113	0.924	4.951	0.531	3.169	0.164	1.934	0.045	1.238	0.014	
150	13.367	7.449	9.431	2.975	8.289	2.118	6.550	1.139	5.305	0.654	3.395	0.202	2.072	0.055	1.326	0.017	
175	15.594	11.904	11.003	4.754	9.671	3.385	7.641	1.821	6.189	1.046	3.961	0.323	2.418	0.088	1.547	0.027	
200	17.822	17.867	12.575	7.136	11.052	5.081	8.733	2.733	7.074	1.570	4.527	0.485	2.763	0.132	1.768	0.041	
250	22.278	35.217	15.719	14.066	13.816	10.014	10.916	5.387	8.842	3.094	5.659	0.956	3.454	0.261	2.210	0.081	

#### LIABILITY:

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#### TRADEMARKS:

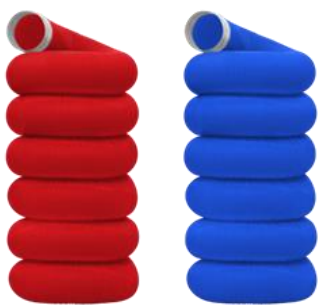
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#### RESTRICTIONS:

The ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.







## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Pressure drop in relation to volume and Velocity: 60°

Dimensions																
Outside [mm]	68.9	80.9	85.9	95.9	106.9	131.9	167.9	207.9								
Inside [mm]	66	78	83	93	103	128	164	204								
Surface [m <sup>2</sup> ]	0.0034	0.0048	0.0054	0.0068	0.0083	0.0129	0.0211	0.0327								
Dn	63	75	80	90	100	125	160	200								
Radius [mm]	60	60	60	60	60	60	60	60								
Zeta [-] bend																
Qv [m <sup>3</sup> /h]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]	v [m/s]	Δp [Pa]
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.446	0.0003	0.314	0.00010	0.276	0.00007	0.218	0.00004	0.177	0.00002	0.113	0.00001	0.069	0.000002	0.044	0.000001
10	0.891	0.002	0.629	0.001	0.553	0.001	0.437	0.00032	0.354	0.0002	0.226	0.0001	0.138	0.00002	0.088	0.000005
15	1.337	0.007	0.943	0.003	0.829	0.002	0.655	0.001	0.531	0.001	0.340	0.0002	0.207	0.00005	0.133	0.000016
20	1.782	0.017	1.258	0.007	1.105	0.005	0.873	0.003	0.707	0.001	0.453	0.0005	0.276	0.00013	0.177	0.00004
25	2.228	0.034	1.572	0.013	1.382	0.010	1.092	0.005	0.884	0.003	0.566	0.001	0.345	0.00025	0.221	0.00008
30	2.673	0.058	1.886	0.023	1.658	0.017	1.310	0.009	1.061	0.005	0.679	0.002	0.414	0.00043	0.265	0.00013
35	3.119	0.093	2.201	0.037	1.934	0.027	1.528	0.014	1.238	0.008	0.792	0.003	0.484	0.001	0.309	0.00021
40	3.564	0.140	2.515	0.056	2.210	0.040	1.747	0.021	1.415	0.012	0.905	0.004	0.553	0.001	0.354	0.00032
45	4.010	0.201	2.829	0.080	2.487	0.057	1.965	0.031	1.592	0.018	1.019	0.005	0.622	0.001	0.398	0.00046
50	4.456	0.276	3.144	0.110	2.763	0.079	2.183	0.042	1.768	0.024	1.132	0.007	0.691	0.002	0.442	0.001
55	4.901	0.369	3.458	0.147	3.039	0.105	2.402	0.056	1.945	0.032	1.245	0.010	0.760	0.003	0.486	0.001
60	5.347	0.481	3.773	0.192	3.316	0.137	2.620	0.074	2.122	0.042	1.358	0.013	0.829	0.004	0.531	0.001
65	5.792	0.614	4.087	0.245	3.592	0.175	2.838	0.094	2.299	0.054	1.471	0.017	0.898	0.005	0.575	0.001
70	6.238	0.769	4.401	0.307	3.868	0.219	3.056	0.118	2.476	0.068	1.584	0.021	0.967	0.006	0.619	0.002
85	7.574	1.388	5.344	0.554	4.697	0.395	3.711	0.212	3.006	0.122	1.924	0.038	1.174	0.010	0.752	0.003
90	8.020	1.651	5.659	0.659	4.974	0.469	3.930	0.253	3.183	0.145	2.037	0.045	1.243	0.012	0.796	0.004
95	8.465	1.946	5.973	0.777	5.250	0.553	4.148	0.298	3.360	0.171	2.150	0.053	1.312	0.014	0.840	0.004
100	8.911	2.274	6.288	0.908	5.526	0.647	4.366	0.348	3.537	0.200	2.264	0.062	1.382	0.017	0.884	0.005
105	9.357	2.638	6.602	1.054	5.803	0.750	4.585	0.404	3.714	0.232	2.377	0.072	1.451	0.020	0.928	0.006
115	10.248	3.479	7.231	1.390	6.355	0.989	5.021	0.532	4.067	0.306	2.603	0.094	1.589	0.026	1.017	0.008
120	10.693	3.960	7.545	1.581	6.631	1.126	5.240	0.606	4.244	0.348	2.716	0.107	1.658	0.029	1.061	0.009
125	11.139	4.483	7.860	1.791	6.908	1.275	5.458	0.686	4.421	0.394	2.829	0.122	1.727	0.033	1.105	0.010
130	11.584	5.051	8.174	2.017	7.184	1.436	5.676	0.773	4.598	0.444	2.943	0.137	1.796	0.037	1.149	0.012
135	12.030	5.665	8.488	2.263	7.460	1.611	5.895	0.867	4.775	0.498	3.056	0.154	1.865	0.042	1.194	0.013
140	12.475	6.328	8.803	2.527	7.737	1.799	6.113	0.968	4.951	0.556	3.169	0.172	1.934	0.047	1.238	0.014
150	13.367	7.805	9.431	3.117	8.289	2.219	6.550	1.194	5.305	0.686	3.395	0.212	2.072	0.058	1.326	0.018
175	15.594	12.472	11.003	4.981	9.671	3.547	7.641	1.908	6.189	1.096	3.961	0.338	2.418	0.092	1.547	0.029
200	17.822	18.720	12.575	7.477	11.052	5.323	8.733	2.864	7.074	1.644	4.527	0.508	2.763	0.139	1.768	0.043
250	22.278	36.898	15.719	14.737	13.816	10.492	10.916	5.644	8.842	3.241	5.659	1.001	3.454	0.273	2.210	0.084

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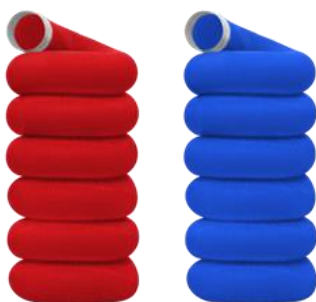
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Pressure drop in relation to volume and Velocity: 90°

Dimensions																	
Outside [mm]	68.9		80.9		85.9		95.9		106.9		131.9		167.9		207.9		
Inside [mm]	66		78		83		93		103		128		164		204		
Surface [m2]	0.0034		0.0048		0.0054		0.0068		0.0083		0.0129		0.0211		0.0327		
Dn	63		75		80		90		100		125		160		200		
Radius [mm]	90		90		90		90		90		90		90		90		
Zeta [-] bend																	
Qv[m3/h]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	v[m/s]	Δp[Pa]	
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
5	0.446	0.00028	0.314	0.00011	0.276	0.00008	0.218	0.00004	0.177	0.00002	0.113	0.00001	0.069	0.000002	0.044	0.000001	
10	0.891	0.002	0.629	0.001	0.553	0.001	0.437	0.00035	0.354	0.00020	0.226	0.00006	0.138	0.00002	0.088	0.00001	
15	1.337	0.008	0.943	0.003	0.829	0.002	0.655	0.001	0.531	0.001	0.340	0.00022	0.207	0.00006	0.133	0.00002	
20	1.782	0.019	1.258	0.008	1.105	0.005	0.873	0.003	0.707	0.002	0.453	0.001	0.276	0.00014	0.177	0.00004	
25	2.228	0.038	1.572	0.015	1.382	0.011	1.092	0.006	0.884	0.003	0.566	0.001	0.345	0.00028	0.221	0.00009	
30	2.673	0.066	1.886	0.026	1.658	0.019	1.310	0.010	1.061	0.006	0.679	0.002	0.414	0.00048	0.265	0.00015	
35	3.119	0.105	2.201	0.042	1.934	0.030	1.528	0.016	1.238	0.009	0.792	0.003	0.484	0.001	0.309	0.00024	
40	3.564	0.157	2.515	0.063	2.210	0.045	1.747	0.024	1.415	0.014	0.905	0.004	0.553	0.001	0.354	0.00036	
45	4.010	0.225	2.829	0.090	2.487	0.064	1.965	0.034	1.592	0.020	1.019	0.006	0.622	0.002	0.398	0.001	
50	4.456	0.310	3.144	0.124	2.763	0.088	2.183	0.047	1.768	0.027	1.132	0.008	0.691	0.002	0.442	0.001	
55	4.901	0.414	3.458	0.165	3.039	0.118	2.402	0.063	1.945	0.036	1.245	0.011	0.760	0.003	0.486	0.001	
60	5.347	0.539	3.773	0.215	3.316	0.153	2.620	0.082	2.122	0.047	1.358	0.015	0.829	0.004	0.531	0.001	
65	5.792	0.688	4.087	0.275	3.592	0.196	2.838	0.105	2.299	0.060	1.471	0.019	0.898	0.005	0.575	0.002	
70	6.238	0.862	4.401	0.344	3.868	0.245	3.056	0.132	2.476	0.076	1.584	0.023	0.967	0.006	0.619	0.002	
85	7.574	1.555	5.344	0.621	4.697	0.442	3.711	0.238	3.006	0.137	1.924	0.042	1.174	0.012	0.752	0.004	
90	8.020	1.850	5.659	0.739	4.974	0.526	3.930	0.283	3.183	0.163	2.037	0.050	1.243	0.014	0.796	0.004	
95	8.465	2.181	5.973	0.871	5.250	0.620	4.148	0.334	3.360	0.192	2.150	0.059	1.312	0.016	0.840	0.005	
100	8.911	2.549	6.288	1.018	5.526	0.725	4.366	0.390	3.537	0.224	2.264	0.069	1.382	0.019	0.884	0.006	
105	9.357	2.957	6.602	1.181	5.803	0.841	4.585	0.452	3.714	0.260	2.377	0.080	1.451	0.022	0.928	0.007	
115	10.248	3.899	7.231	1.557	6.355	1.109	5.021	0.596	4.067	0.342	2.603	0.106	1.589	0.029	1.017	0.009	
120	10.693	4.437	7.545	1.772	6.631	1.262	5.240	0.679	4.244	0.390	2.716	0.120	1.658	0.033	1.061	0.010	
125	11.139	5.024	7.860	2.007	6.908	1.429	5.458	0.769	4.421	0.441	2.829	0.136	1.727	0.037	1.105	0.011	
130	11.584	5.660	8.174	2.261	7.184	1.610	5.676	0.866	4.598	0.497	2.943	0.154	1.796	0.042	1.149	0.013	
135	12.030	6.349	8.488	2.536	7.460	1.805	5.895	0.971	4.775	0.558	3.056	0.172	1.865	0.047	1.194	0.015	
140	12.475	7.091	8.803	2.832	7.737	2.016	6.113	1.085	4.951	0.623	3.169	0.192	1.934	0.052	1.238	0.016	
150	13.367	8.747	9.431	3.493	8.289	2.487	6.550	1.338	5.305	0.768	3.395	0.237	2.072	0.065	1.326	0.020	
175	15.594	13.977	11.003	5.583	9.671	3.975	7.641	2.138	6.189	1.228	3.961	0.379	2.418	0.103	1.547	0.032	
200	17.822	20.979	12.575	8.379	11.052	5.965	8.733	3.209	7.074	1.843	4.527	0.569	2.763	0.155	1.768	0.048	
250	22.278	41.351	15.719	16.515	13.816	11.758	10.916	6.325	8.842	3.633	5.659	1.122	3.454	0.306	2.210	0.095	

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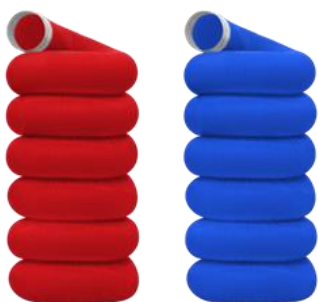
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The ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ALUDEC ducts suitable for transporting air with a high concentration of acid and base.



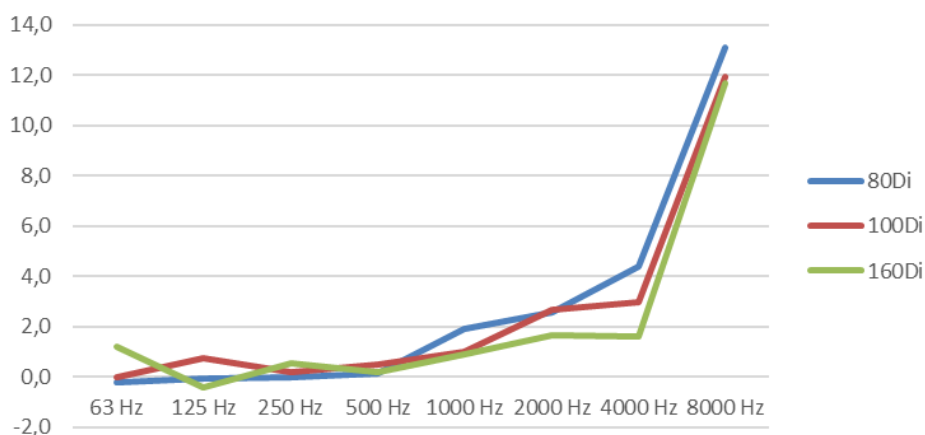


## SMOOTHDEC®

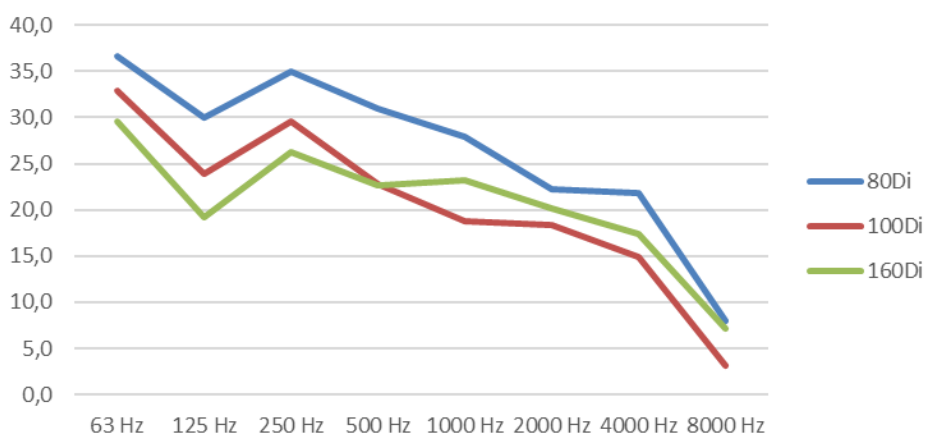
Non-metallic semi-rigid duct wall ducting

### Acoustical results: ISO 7235

Insertion loss  
L = 5000 mm



Transmission loss  
L = 5000 mm



#### LIABILITY:

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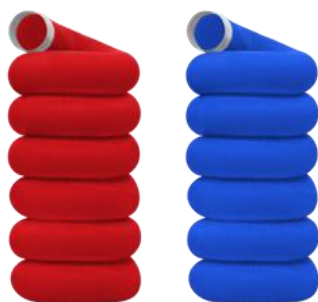
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## SMOOTHDEC®

Non-metallic semi-rigid duct wall ducting

### Ring stiffness ISO 9969 result

Ø (mm)	52	65	75	82	90	102	127	133	140	160	203
A (m2)	0,0104	0,013	0,015	0,0164	0,018	0,0204	0,0254	0,0266	0,028	0,032	0,0406
Medium load (kg)	8	8,9	9,7	10,6	10,3	10,3	10,6	10,6	10,7	11	11,5
Concrete height (mm)	300	250	250	250	200	200	150	150	150	130	100

Density of concrete	2500	kg/m3
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### Electrical resistance measured over the interlocked

Ø [mm]	L [m]	R [Ω]
63	10	31
75	10	36
82	10	40
90	10	43
100	10	30
125	10	38
160	10	48
200	10	60

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