

Ref. no.: 2 / 5 / 8

Aero-Flex duct system

FLEXIBLE DUCT VERSIONS



for all needs of the ventilation technology

 **Aero - ALUFLEX duct**

 **Aero - ALUSTRETCH duct**

 **Aero - FLEX duct in stainless steel**



**AEROTECHNIK
SIEGWART**

Aerotechnik E. Siegwart GmbH
Untere Hofwiesen • D-66299 Friedrichsthal
 + 49 (0) 6897/859-0 •  +49 (0) 6897/859-150
www.aerotechnik.de • info@aerotechnik.de

Advantages and construction details Aero-Flex duct system

Aero - ALUFLEX duct

Ref. no. 2

is suitable for all needs of the ventilation technology. **According to an approved production process, the duct is made out of two-ply aluminium strip, at the points of overlapping out of three-ply aluminium strip.**

This execution fulfils the requirements of DIN EN 13180 in case of low pressure loss. The technical data and the classification according to DIN can be seen in the chart on page 3. The production process helps to avoid material accumulation and enables clean separating by means of simple cutting tools, such as knives, for example.

Aero - FLEX duct

Ref. no. 8

made from stainless steel material no. 1.4436, **is manufactured according to the above mentioned production process, however out of single-layer strip and at the points of overlapping out of two-ply strip.**

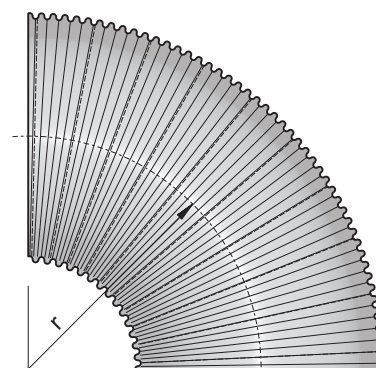
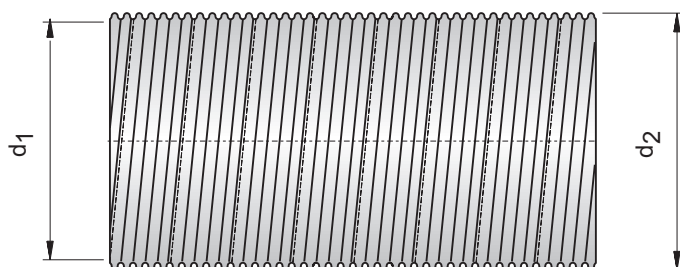
Aero - ALUSTRETCH duct

Ref. no. 5

is a **two-ply Aero-ALUFLEX duct, compressed to a length of about 1170 / 2000 mm.** It is extendable to an effective length of 5000 mm. The advantages of the compressed duct are its high stability and the low space requirement as far as transport and storage are concerned.

Ref. no.: 2

Aero - Flex duct



Bending radius
 $r_{\min} = d_2$

Nominal width d_1 [mm]	Outside diameter d_2 [mm]	Tolerance [mm]	Peak compression strength		Bending moment [Nm]	Sag [mm]	Force required for upsetting on 0,9 x length [N]	Resiliency [%]	Classification according to DIN EN 13180 -
			*Spiral duct according to DIN 24145 [N/100mm]	Aero-FLEX-duct ref. no. 2 [N/100mm]					
63	69	+1,0 -0,0	180	330	3	51	66	98	C
71	77		160	328	3	48	70	98	C
80	86		145	322	4	42	73	98	C
90	96		112	320	4	39	78	98	C
100	106		270	310	5	36	82	98	C
112	118		240	295	6	32	88	98	C
125	131		220	285	7	28	95	98	C
140	146	+1,5 -0,0	200	270	8	24	100	98	C
150	156		190	258	9	21	105	98	C
160	166		180	245	10	17	110	98	C
180	186		165	220	12	14	115	98	C
200	206		100	200	14	12	125	98	C
224	230		80	155	17	11	135	98	B
250	256	+2,0 -0,0	60	135	20	10	150	98	B
280	286		45	100	24	9	190	98	B
300	306		150	95	27	8	205	98	B
315	321		143	90	30	8	220	98	B
355	362		120	95	34	4	250	98	B
400	407		100	85	50	7	270	98	B
450	457	+2,5 -0,0	Manufacturing according to specific request						
500	507								

* comparative value

Material: Pure aluminium according to DIN EN ISO 11666 or aluminium forgeable alloy according to DIN EN 573-3

Execution: double-ply, at the points of overlapping three-ply

Behaviour in fire: non combustible according to DIN 4102 class A1

Resistance to fracture: up to a nominal width of 200 > 10 bending cycles, over a nominal width of 200 > 7 bending cycles

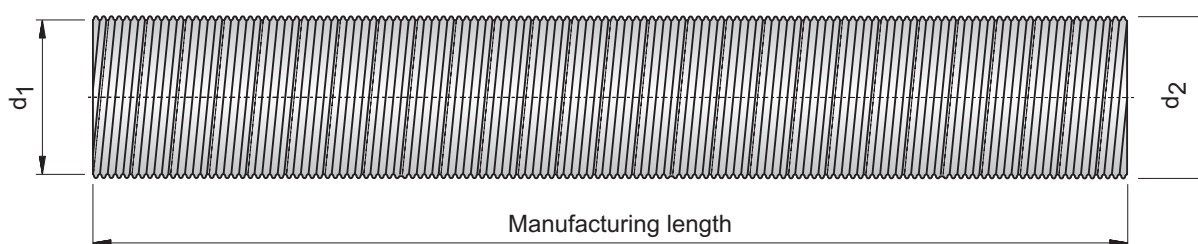
Leakage loss: cycles < 0,4 x 10⁻⁴ m³ / m²s when the over pressure is 1.000 Pa



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Aero - Flex duct



section nominale d ₁ [mm]	ø extérieur d ₂ [mm]	Prix / m	
		No. de réf. 2	No. de réf. 8
40	46	-	-
45	51	-	-
50	56	-	-
63	69	-	-
71	77	-	-
75	81	-	-
80	86	-	-
100	106	-	-
125	131	-	-
140	146	-	-
150	156	-	-
160	166	-	-
180	186	-	-
200	206	-	-
224	230	-	-
250	256	-	-
280	286	-	-
300	306	-	-
315	321	-	-
355	362	-	-
400	407	-	-
450	457	-	-
500	507	-	-

not storable, production on request (alternatively order - no. 5)

Prices on request

Prices on request

For diameters 75 - 315 we recommend our Alustretch-duct order no. 5 instead of order no. 2, available immediately.

Material:

Ref. no. 2 aluminium,

max. temperature use in continuous operation 90°C and for short duration 120°C

Ref. no. 8 stainless steel, material no. 1.4435 or similar, maximum temperature use in continuous operation 200°C and for short duration 300°C

Manufacturing length: Ref. no. 2 ø 40 - ø 63: Minimum order quantity 1 bunch each 10 m

ø 71 - ø 500: 6 m
fixed lengths to be agreed

Ref. no. 8 Minimum length 10 m, MOQ 15 pcs

Execution:

Ref. no. 2 **two-layer**, at the points of **overlapping three-layer not compressed, not extendable**
Ref. no. 8 **single-layer**, at the points of **overlapping two-layer, not compressed, not extendable**

Behaviour in fire:

non combustible according to DIN 4102 class A1

Specifications:

Aero-ALUFLEX duct, ref. no. 2, made from taped aluminium strip, execution according to DIN EN 13180 non combustible according to DIN 4102 class A1.

Nominal width: _____ mm

Length: _____ mm

Manufacturer: Aerotechnik E. Siegwart GmbH
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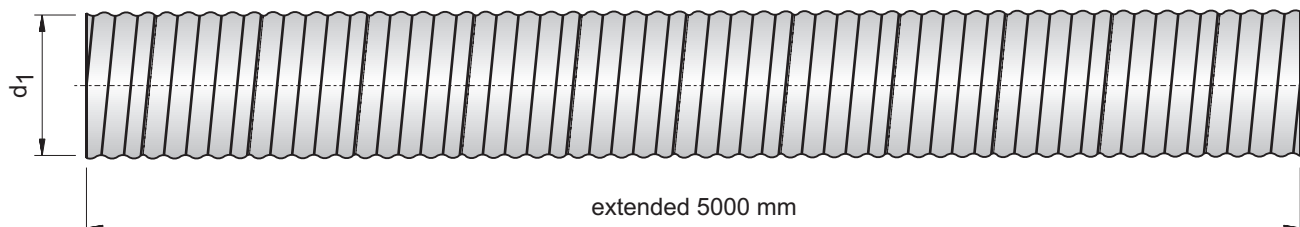
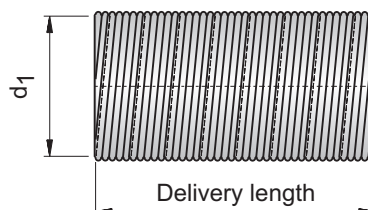
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Ref. no.: 5

Aero - Alustretch duct

Delivery length

ø 80 - 250 mm = 1170 mm
ø 280 - 315 mm = 2000 mm



Nominal width d_1 [mm]	Price/ piece	Comparative price/meter run in case of extension to 5 m
75	-	-
80	-	-
90	-	-
100	-	-
112	-	-
125	-	-
140	-	-
150	-	-
160	-	-
180	-	-
200	-	-
224	-	-
250	-	-
280	-	-
300	-	-
315	-	-
not in stock, on the spot		

Material: Pure aluminium according to DIN EN ISO 11666 or aluminium forgeable alloy according to DIN EN 573-3

Temperature use: in continuous operation 90°C and for short duration 120°C

Behaviour in fire: non combustible according to DIN 4102 class A1

Specifications: Aero-ALUSTRETCH duct, ref. no. 5, made from taped aluminium strip, **compressed to a length of 1170 / 2000 mm, extendable up to about 5000 mm**, non combustible according to DIN 4102 class A1.

Nominal width: _____mm

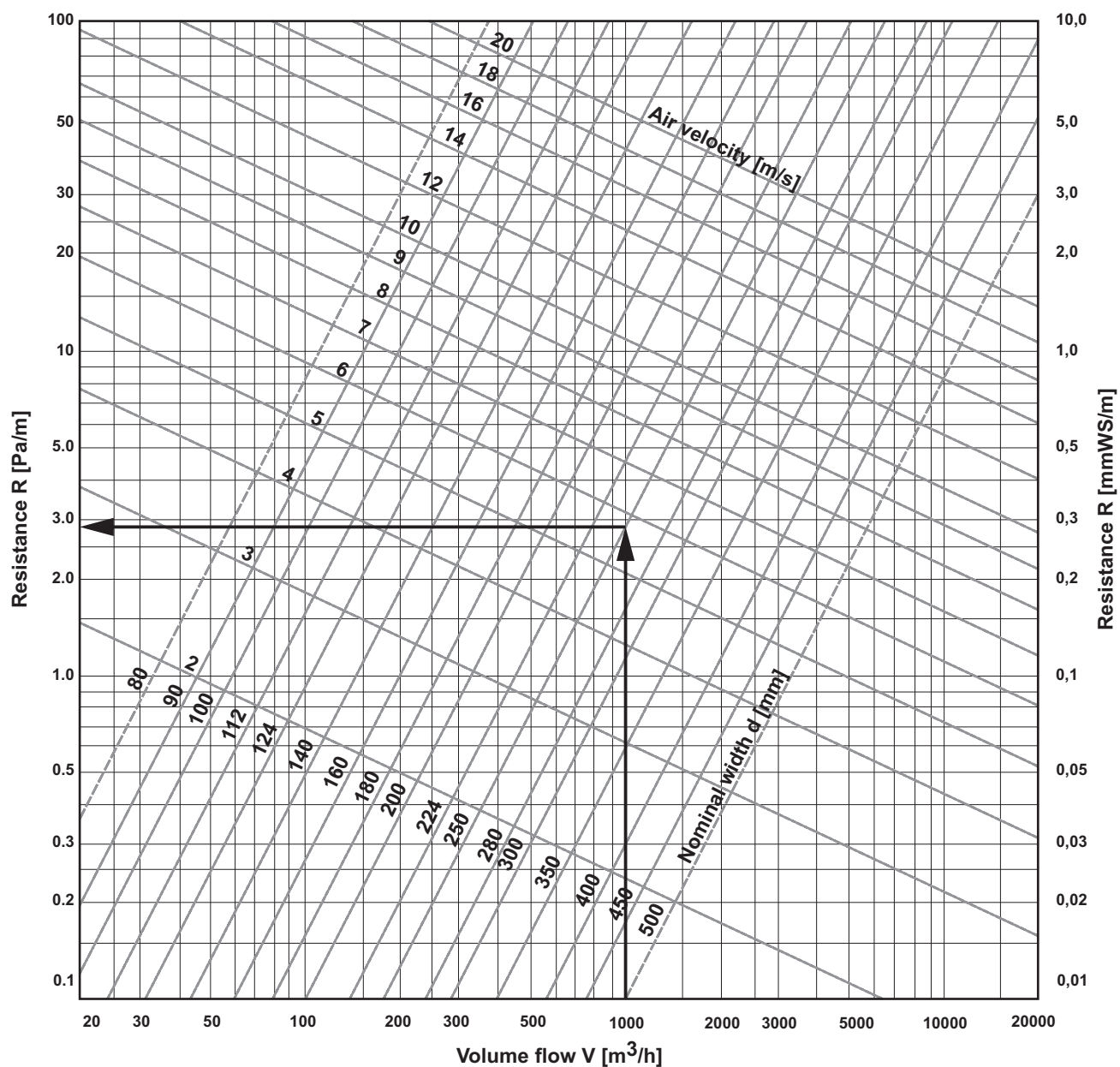
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Duct friction chart



Example: $V = 1000 \text{ m}^3/\text{h}$; duct NW 250 mm $\rightarrow$ 2,9 Pa/m

Valid for air of a temperature of $+20^\circ\text{C}$ and the thickness of $1,2 \text{ kg/m}^3$
Resistance determined x correction factor = actual resistance

Temperature ($^\circ\text{C}$)	-20	± 0	20	40	60	80	100	120
Correction factor	1,158	1,073	1	0,936	0,88	0,83	0,785	0,746

ALUFLEX bend: Resistance approx. 2 x resistance of the plain ended pipe bend of the same dimensions.



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