

THE SPECIALISTS FOR AIR CONDUCTION

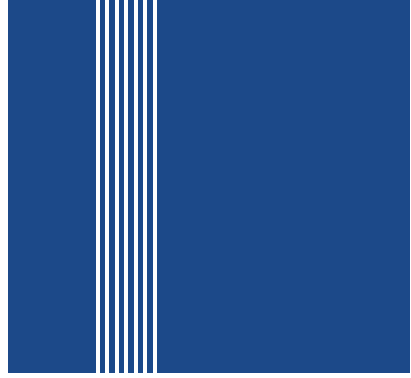


VENTAFLEX®
air duct Classic
for room · facade · roof



LAVANTUS®
VENTAFLEX® air duct
for underground installation

VENTAFLEX®



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VENTAFLEX®

More efficiency in air conduction

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VENTAFLEX®
air duct Classic

for room · facade · roof

Technical specifications
room · facade · roof

Air duct Classic round

Air duct Classic oval

LAVANTUS®

VENTAFLEX® air duct
for underground installation

Technical specifications
underground installation

Air duct for
underground installation

VENTASQUARE Luftkanal

Heat exchanger

THE SPECIALISTS FOR AIR CONDUCTION



VENTAFLEX®
More efficiency in air conduction

Setting standards

in the air conduction technology



VENTAFLEX GmbH & Co.KG is the developer and producer of efficient, pre-insulated air duct systems systems, which are produced on the basis of PUR.

For over 35 years VENTAFLEX® products have been installed in – and under – great building complexes and industrial facilities. According to the modular system standard components are complemented with customized components if necessary. This way the perfect air conduction-solution is developed for every project.

The material makes the difference

Special feature of the product is the material: Polyurethane forms the core of the ducts – and is applied differently in the two product lines. Polyurethane has excellent insulating properties, therefore costly insulation work at the construction site is omitted.

VENTAFLEX® air ducts Classic for room – facade – roof

This air duct system is designed for the installation in rooms, on the roof or for the mounting on facades. The PUR material is additionally coated with a UV-resistant GRP layer.

LAVANTUS® air ducts for underground installation

is an air duct system specially developed for the underground installation with high stability. PUR material is processed to a closed-pored air duct in a patented Rotafusion Method.

Successfully tested

our certifications

We face up to the test!

Whether VENTAFLEX® Classic or LAVANTUS® for underground installation: there is a "letter and seal" for the quality of the air ducts

Vor der Vermarktung müssen sich VENTAFLEX® Produkte umfangreichen Test stellen. Nach dem Durchlaufen verschiedener firmeneigener Prüfverfahren werden unabhängige Institute beauftragt, die Leitungen auf höchste Qualitätsanforderungen zu testen.

Wieder sind es die besonderen Eigenschaften der Luftleitungen aus dem Hause VENTAFLEX®, die sowohl speziell im Hygiene-Bereich und, allgemeiner, in Bezug auf die Dichtigkeit des Systems eine Zertifizierung erlauben.

For further information please download the full TÜV NORD - test report "SEIT/2012/16" on our webpage!

https://www.ventaflex.de/fileadmin/downloads/2017-01-10_16_2012_VENTAFLEX_Bericht_NaM_REV_1.pdf



Dieser Bericht umfasst 11 Seiten.
Die Prüfergebnisse betreffen nicht andere Bauteile als 2. Die Prüfergebnisse von Auslagern aus diesem Bericht ist nicht ohne schriftliche Genehmigung des Auftraggebers gültig.
Auftraggeber: VENTAFLEX GmbH & Co. KG
Auftrag: Dichtheitsprüfung eines Luftkanalsystems in Anlehnung an DIN EN 12337
Prüfungstermin: 10. Januar 2017
Prüfungsort: Essen, NaM, GrV

Ventilation solutions

for room – facade – roof

New construction or renovation – every building and consequently every ventilation project has different requirements. Especially high air consumption needs an optimal air conduction. The insulated VENTAFLEX® system proves its high flexibility in the most different areas of application time and time again. Particularly in those areas with very high demands on hygiene as well.

Air conduction in indoor areas

efficient and discreet

VENTAFLEX® air ducts Classic discreetly fit into every hall architecture for two reasons: thanks to the neutral colouring and the sustainably clean appearance. Even at great big temperature differences of the internal and external air no condensate, which causes corrosion and contamination, occurs with the highly insulated system.



Air conduction in outdoor areas

weather-resistant and light

Due to the temperature resistance of -40°C to $+80^{\circ}\text{C}$ VENTAFLEX® air ducts Classic are suitable for different weather conditions. Moreover the ducts are equipped with solid UV-protection. Another benefit: facades and roof are little loaded because of the low weight of the material.



Air conduction in the hygiene sector

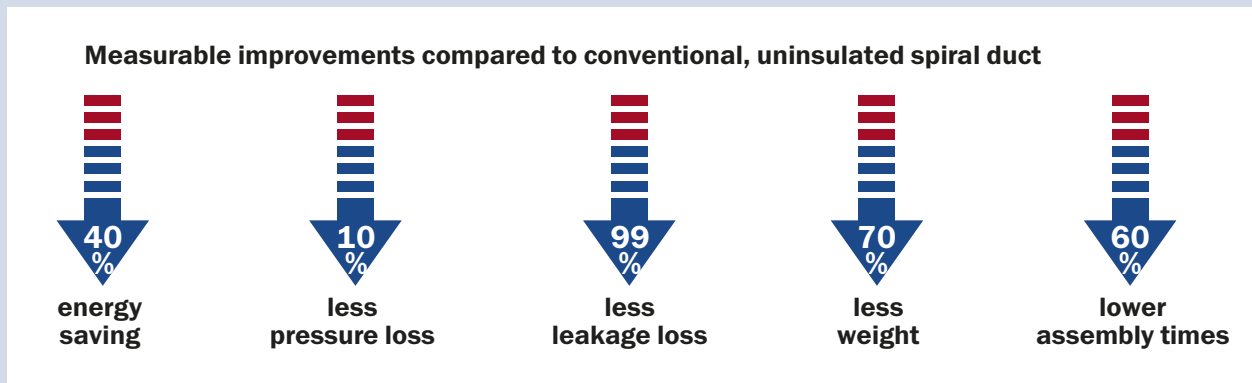
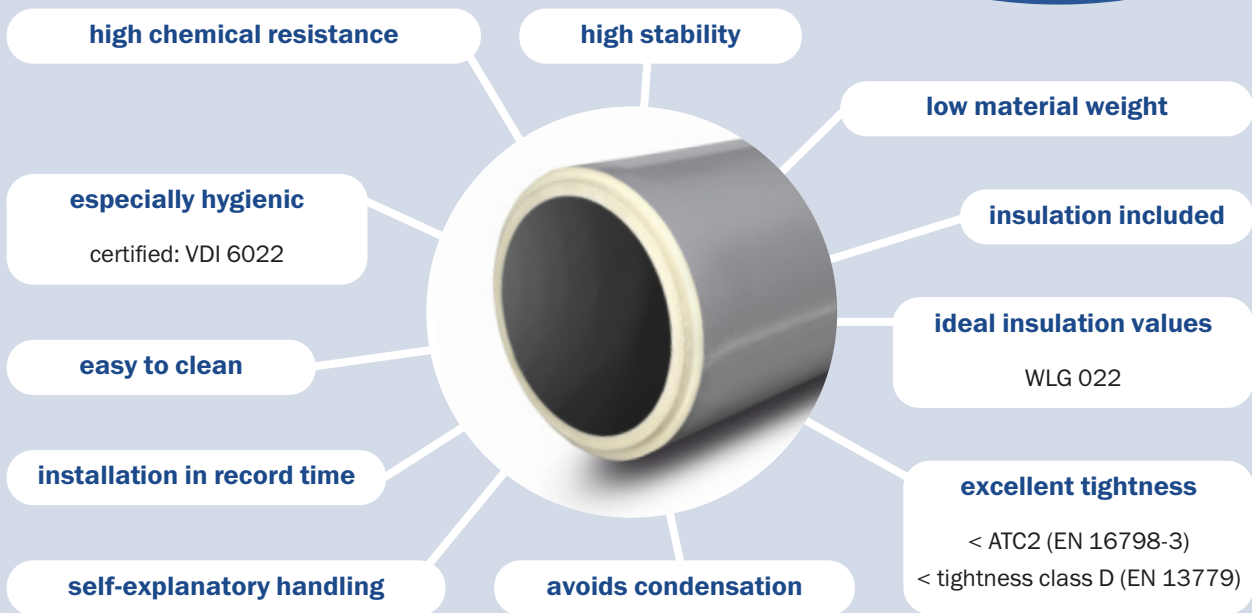
Certified hygienic

The VENTAFLEX® air ducts Classic secure highest hygienic standards especially due to the germ-resistant surfaces, avoidance of condensation to the greatest possible extent because of the exceptional insulation and the easy cleaning because of the smooth surfaces. LAVANTUS® air ducts for underground installation are also free from toxic biocides, fungicides and other coatings that are harmful to health.



At a glance:

The strength of the VENTAFLEX® air duct Classic system
for room – facade – roof



CONCLUSION: It all adds up!

The VENTAFLEX® system Classic saves energy + costs + time
= more efficiency in air guidance

LAVANTUS®

especially developed for the underground installation

Supported by:



Federal Ministry
for Economic Affairs
and Climate Action

To some extent the requirements for a duct for the underground air transport are different to air duct systems which are installed above ground. In order to meet the demands of these differences, we have developed a new patented production process to bring a brand new product to the market: the LAVANTUS® air duct especially for underground installation.



The Rotafusion unit, developed by VENTAFLEX®. The method is patented and the product, LAVANTUS®, is “made in Germany”.

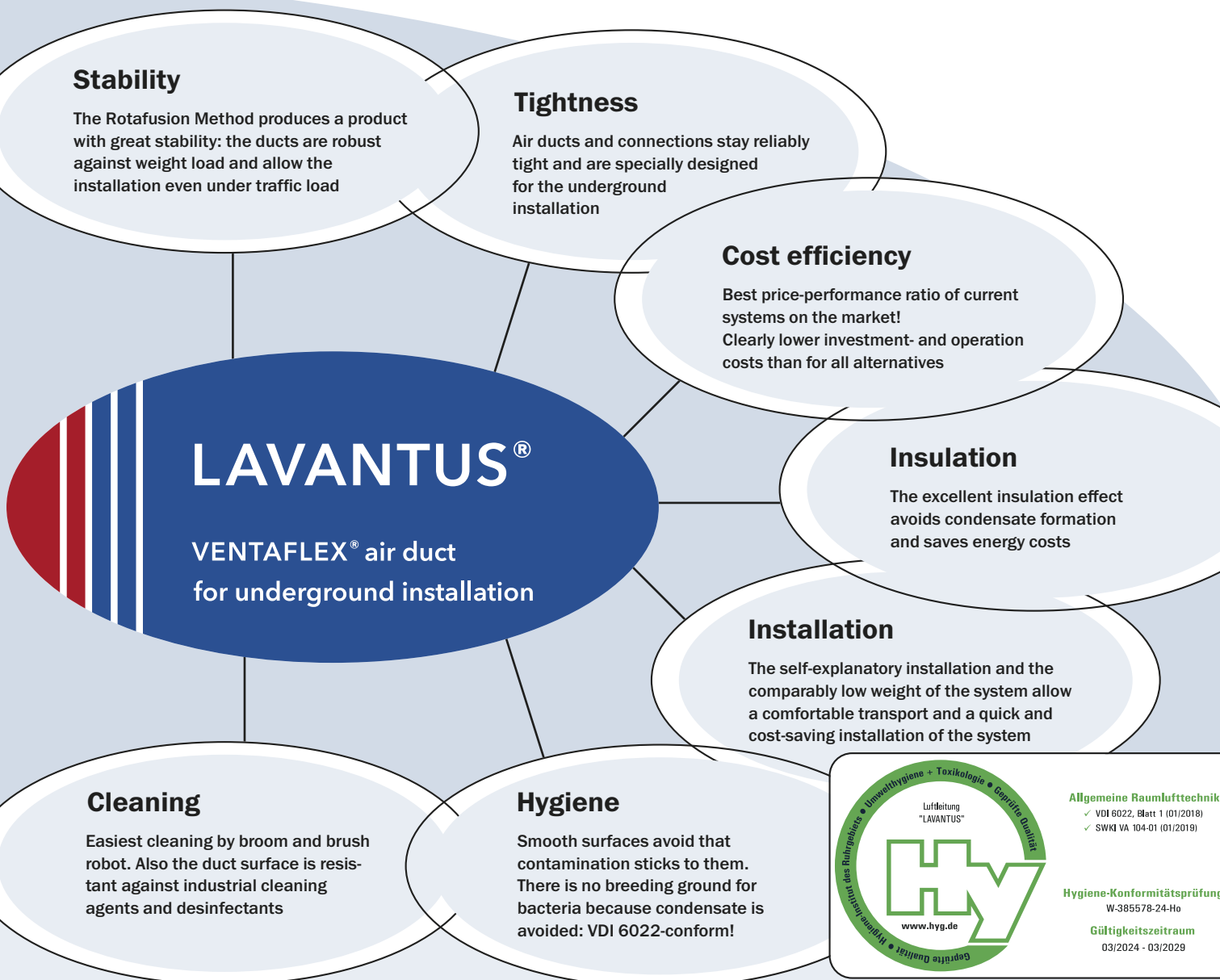
While underground installed air ducts generally have two benefits – they do not take any room in the building and are simply invisible – there are other aspects to consider. Thus the ducts should have great stability and be comfortably installed in the ground at the same time; here e.g. an easily-handled weight is an advantage.

An underground installed system has to work highly reliably, stay tight and clean. Here not only the material of the duct has to fulfill a special task, also the supplies (connecting clamps, wall ducts) have to be thoroughly chosen and tested.

With LAVANTUS® we have designed an air duct for the installation in the ground, which is exactly tailored to the special requirements and has an attractive effect on the cost structure of every construction project. The cost saving is also sustainable: great energy efficiency supports the contemporary economical operation of largely dimensioned AC systems.

At a glance:

benefits of the LAVANTUS® air duct installed underground



Stability

The Rotafusion Method produces a product with great stability: the ducts are robust against weight load and allow the installation even under traffic load

Tightness

Air ducts and connections stay reliably tight and are specially designed for the underground installation

Cost efficiency

Best price-performance ratio of current systems on the market!
 Clearly lower investment- and operation costs than for all alternatives

Insulation

The excellent insulation effect avoids condensate formation and saves energy costs

Installation

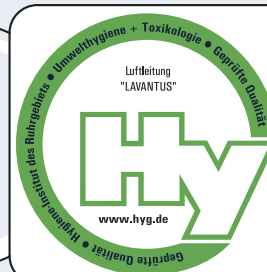
The self-explanatory installation and the comparably low weight of the system allow a comfortable transport and a quick and cost-saving installation of the system

Cleaning

Easiest cleaning by broom and brush robot. Also the duct surface is resistant against industrial cleaning agents and disinfectants

Hygiene

Smooth surfaces avoid that contamination sticks to them. There is no breeding ground for bacteria because condensate is avoided: VDI 6022-conform!



Allgemeine Raumlufttechnik

- ✓ VDI 6022, Blatt 1 (01/2018)
- ✓ SWKI VA 104-01 (01/2019)

Hygiene-Konformitätsprüfung

W-385578-24-Ho

Gültigkeitszeitraum

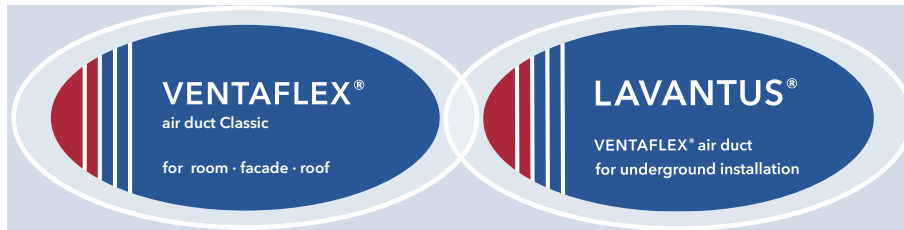
03/2024 - 03/2029

Other features

- no toxic coatings
- free from toxic biocides/fungicides
- solvent-free
- silicone-free
- particularly low in emissions
- corrosion-resistant
- free of halogenated propellants
- no exposed sealing compounds
- no abrasion at the usual air velocities

Components

Customized in-house production

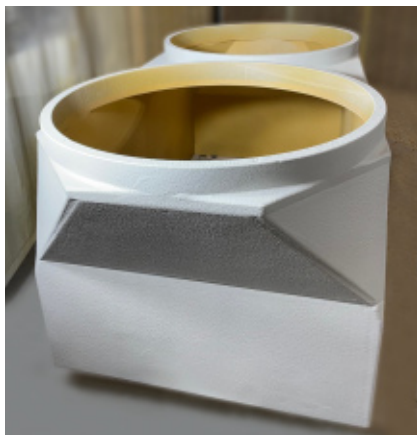
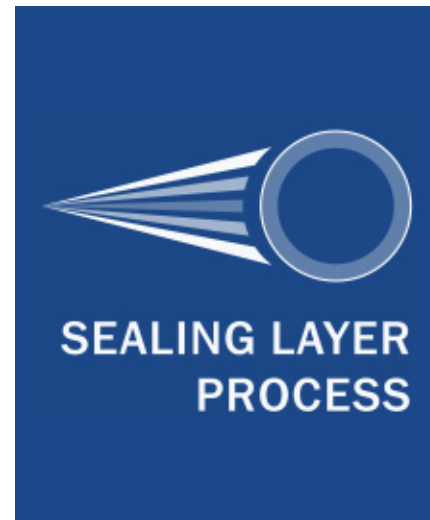


Developed by VENTAFLEX®

The final building block for complete on-site production

Systems with VENTAFLEX® air ducts are known to work perfectly in any application. Whether installed in new or existing buildings, VENTAFLEX® air ducts can be perfectly adapted to the technical and architectural conditions – thanks to individually manufactured special components.

EiVENTAFLEX® has developed a new surface finishing process especially for special components. This means that every custom-made product has the high resistance to chemicals, abrasion and weathering that characterizes all VENTAFLEX® air ducts. Our workpieces leave production with a smooth and even surface – good looks are also important to us!



Everything from one source

Constant availability and on-time delivery

Complete production at the VENTAFLEX® site allows unbeatable time and quality management. The workpieces are completely manufactured by us without any detours and delivered to their place of use.

Your VENTAFLEX® contact person always has a direct influence on production and can therefore respond quickly to your needs: That is our service promise.



The highlight of the new process:

it makes it recyclable

Material purity was a goal on the way to even more sustainability. With the new finishing process, we have found a way to make the production of VENTAFLEX® air ducts more resource-efficient: sorted PUR residues are processed in order to be used as a starting material for the production of new components at VENTAFLEX®.

Active climate protection

due to tightness VENTAFLEX® air ducts

Climate protection is one of the big issues of this time. One important aspect here are possible energy savings potentials. At the VENTAFLEX® air ducts a number of effects are inseparably linked: Ideal hygiene characteristics and effectiveness of the system guarantee an economical operation which complies with the strict requirements – and this with a good environmental conscience.

Avoid germ development ...

According to VDI 6022 Sheet 1, the avoidance of leaks and the prevention of unwanted moisture through ingress or condensation is essential for the supply air quality. All air ducts must be planned and designed in such a way that unintentional mixing of air is avoided. The tighter a duct system is, the more hygienic the air flow and therefore the more hygienic the supplied air.

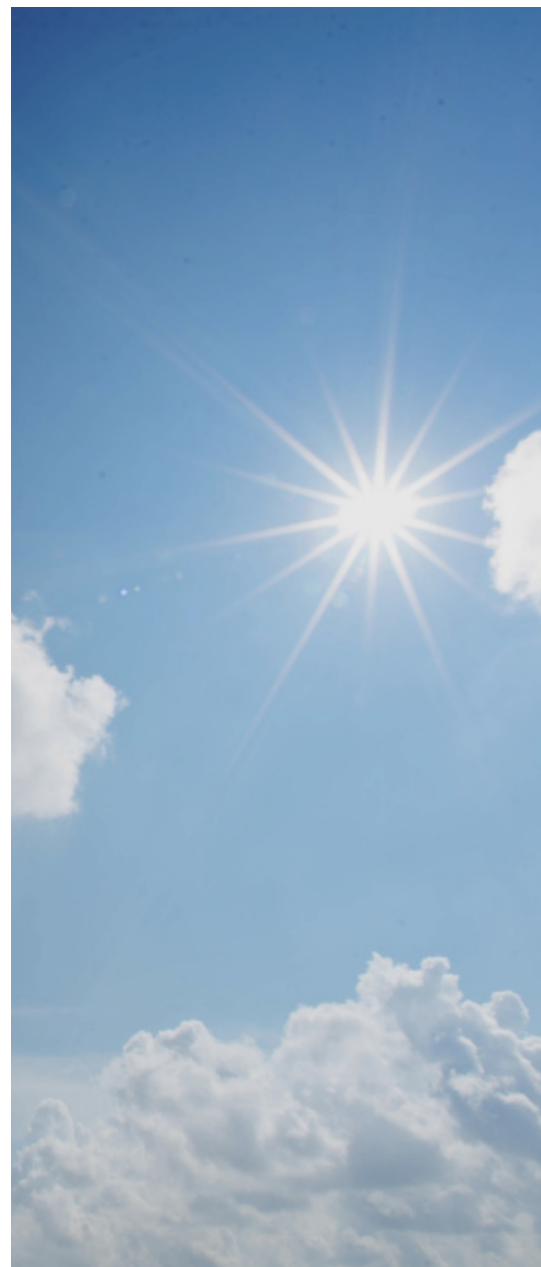
... and save energy

At the same time, tightness is one of the most important aspects when it comes to energy efficiency. For example, a significantly lower fan power is required, which leads to noticeable savings in electricity and therefore operating costs.

The right decision for a good climate:

the VENTAFLEX® system

Air ducts from VENTAFLEX® – both the Classik system above and LAVANTUS® below the floor slab - are an investment in the future in the face of sharply rising energy costs. So it is not only worth calculating when a well thought-out ventilation system will pay for itself in new buildings. A consistent decision in favor of modern technology is also quickly rewarded in old buildings undergoing refurbishment if the ventilation system works cleanly, energy-efficiently and trouble-free.



Detailed information

as up-to-date as our technology

Full knowledge about the material guarantees trouble-free operation of the processing and the perfect function in operation. A supreme discipline at VENTAFLEX® is the pinpoint consultation, which is coordinated with the particular project. If you would like this happens totally non-binding over our website – there you find the clearly sorted and always up-to-date information in our download area. It is worth visiting www.ventaflex.de regularly!



Special application

You would like detailed information about VENTAFLEX® products for the underground installation, the application in the hygiene- or food sector or in connection with a building renovation? Please contact us – we offer individual solutions for your special project requirement.

Current projects

We regularly document where, why and how VENTAFLEX® air ducts have been used in our Practise Reports on our website. On the basis of the described construction projects the flexibility of the system becomes apparent – in the section 'references' you certainly will find some application examples, which comply with your planned project.



Reliable partner

We take service personally

Good contact and trustworthy cooperation is the basis of our success. And we know with how much time pressure projects have to be realized. As a support we thus continuously expand our consulting- and service offer.



Individual implementation and delivery

- transparent calculation
- project-based production
- production of individual components
- support with construction site logistics

Intensive product consulting

Our specialists support you with your planning. We would like to present you the VENTAFLEX® products and system solutions, which are particularly suitable for your project.

Our service for planners:

You have access to many helpful planning tools on www.ventaflex.de:
3D drawings/ BIM library, calculation support and tender specifications.

Your contact person

Contact us! Please come up with questions and suggestions anytime.



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VENTAFLEX®

air duct Classic

for room · facade · roof



VENTAFLEX®

More efficiency in air conduction

Technical specifications

VENTAFLEX® air ducts Classic insulated
Facts and figures for application



Our demand on ourselves Quality management

A good idea only has continuance if it is permanently making progress and research, current legislation and experience are meticulously collected and taken into account during this process. In order to meet the increasing quality standards we apply refined examination procedures at VENTAFLEX® again and again. Thus no component leaves the production without having gone through different company tests. Furthermore one part of the critical review phase are our “Practice Reports”, which show various VENTAFLEX® solutions on the basis of specific projects and have exemplary character for planners.

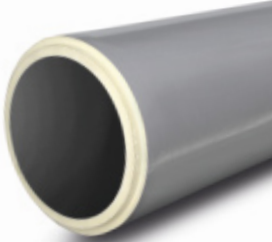


Regular internal quality checks and special certifications by independent institutions guarantee continuous quality of our products and the eligibility for special application areas – e.g. for the hygiene sector.

Argumentation aid

On the basis of documented specifications it is illustrated which advantages VENTAFLEX® air ducts Classic offer at different applications under various conditions.

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- certification	

Quick-check air guidance

Comparison:	VENTAFLEX® air ducts Classic highly insulating PUR rigid foam	Spiral duct stainless steel	Spiral duct galvanized sheet steel
Features of the different air ducts in the building, on the facade or on the roof			
Time saving at installation	●●● finished insulated air ducts	— has to be insulated on-site	— has to be insulated on-site
Tightness	●●● certified*	●●	●●
Chemical resistance	●●●	●	●●●
Thermal protection	●●●	●	●
Weight saving	●●●	●	—
Application in the hygiene sector f.e. food industry, sports facilities, laboratories, hospitals	●●● certified*	—	●●●
Cleaning	●●●	●●	●●

*The VENTAFLEX® air ducts are certified according to EN 16798-3 class ATC2/tightness class D and according to VDI 6022

Legend: ● = average ●● = good ●●● = excellent — = not sufficient or not existent



Check list: planning

By compliance with certain planning principles a construction with VENTAFLEX® air ducts Classic and the consequently resulting order is very easy. If the following information and headwords are considered beforehand, this can be very helpful for the planning and respectively the order.

Planning principles before ordering	Done	
	Yes	No
Match duct system to project		
Break parts list up for VENTAFLEX® molded parts		
Check to what extent the components 2/3 m can be prefabricated at the VENTAFLEX® production. (For duct joints having been sealed at the plant no further connection clamps are required.)		
We recommend to use a compensator for longer duct sections (greater than 15 m).		
For special components (respectively connection ventilation unit to VENTAFLEX® air duct system) like transfer (round to square) an installation drawing has to be made by the contractor.		
VentaSnap connecting clamp: installation instruction has to be taken into account.		

The ventilation system in general	Done	
	Yes	No
Volume flow in the system (in m ³ /h)		
Components of the ducts (single length)	2 m	3 m
Ducts (pieces)	1 m	fitting length
Air velocity max. 10 m/s		

Application roof installation	Done	
	Yes	No
Wind loads	wind zone	speed km/h
VentaFix mounting clamp (pieces)		
Linear expansion (compensator needed, pieces)		
Roof duct (specify roof inclination in degree)		
For the calculation of the statics	(weight advantage e.g. duct ø 920 mm = 16,0 Kg see page 2.1) consideration at the planning of the mounting	

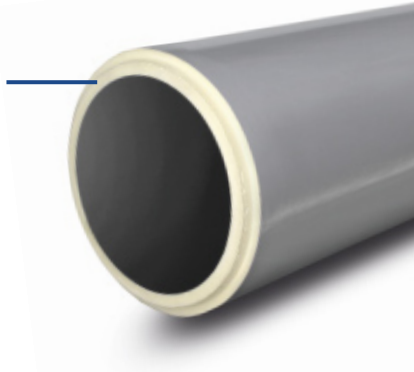


VENTAFLEX® air duct Classic versus conventional insulated duct

Structure and thermal insulation by comparison

VENTAFLEX® air duct Classic

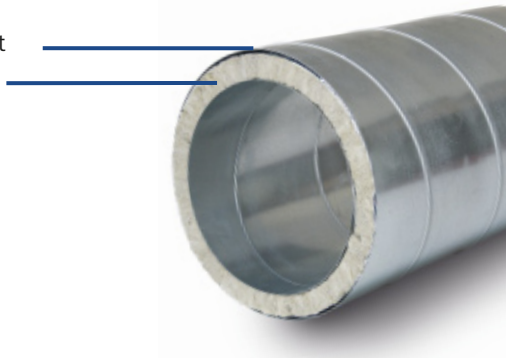
Highly insulated PUR rigid foam, inner- and outer coating with GRP



No corrosion:
visually appealing and durable

Conventional duct

Spiral duct
Rock wool

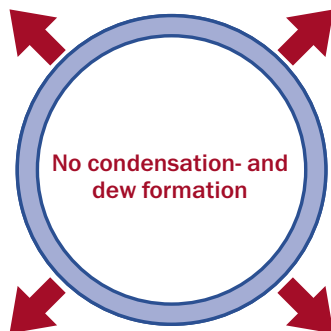


Vulnerable to corrosion:
therefore quickly unsightly and defective

Thermal conductivity by comparison

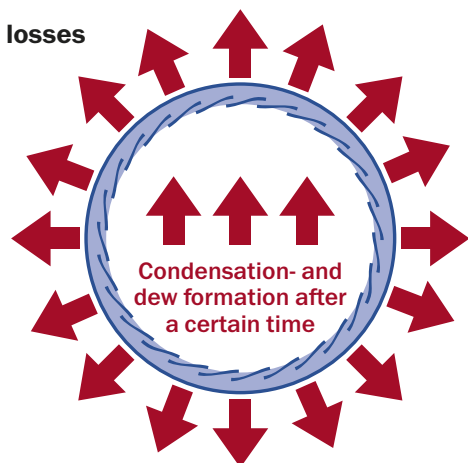
VENTAFLEX® air duct Classic

Above average high insulation values WLG 022 – almost no thermal losses



Conventional duct

High thermal losses





Heat permeability: U-value

The U-value is a measure for the heat transition through a component and is specified in W/(m²K). With the U-value it is also expressed, which thermal output per m² innersurface of the VENTAFLEX® air duct Classic is needed to maintain the temperature in the ventilation system.

The smaller the U-value, the better, because less heat is guided through the component

Formular:

$$R = \frac{d}{\lambda}$$

Thermal resistance R unit = (m²K)/W

d = material thickness in meter (m)

= Lambda W/(mK) (thermal conductivity of building materials) WLG

$$U = \frac{1}{R}$$

U-value unit = W/(m²K)

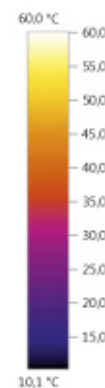
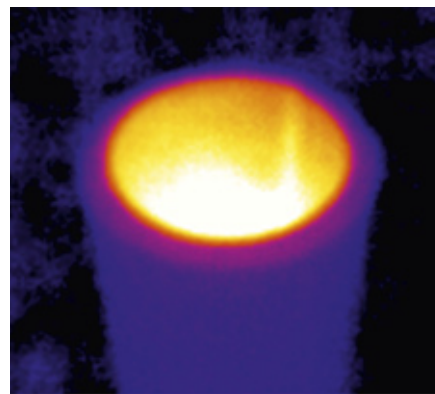
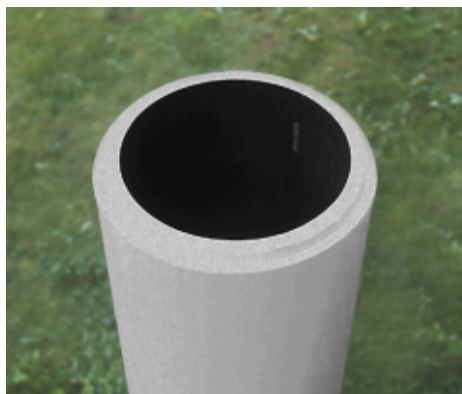
Example:

VENTAFLEX® air duct with a material thickness of 50 mm and thermal conductivity of the building material PUR foam is 0,022 W/(mK)

$$R = \frac{0,05 \text{ m}}{0,022 \text{ W/(mK)}} = \underline{\underline{2,27 \text{ (m}^2\text{K/W)}}}$$

$$U = \frac{1}{2,27 \text{ (m}^2\text{K)/W}} = \underline{\underline{0,44 \text{ W/(m}^2\text{K)}}}$$

The U-value for the VENTAFLEX® ducts with a wall thickness of 50 mm is 0,44 W/(m²K).

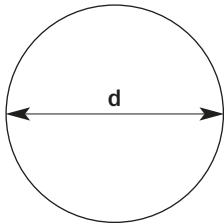


The thermo camera shows the thermal protection of the VENTAFLEX® air ducts Classic. The ducts are made of PUR rigid foam in the core. This makes for ideal insulation values (WLG 022).

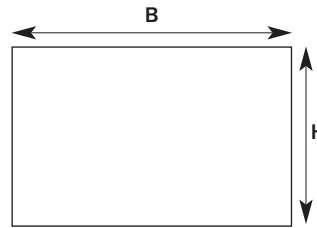


Duct- and sewer frictional loss

1. Calculation of the frictional pressure loss



$$\Delta p_v = \lambda \cdot \frac{L}{d} \cdot \frac{\rho}{2} \cdot w^2$$



$$\Delta p_v = \lambda \cdot \frac{L}{d_h} \cdot \frac{\rho}{2} \cdot w^2$$

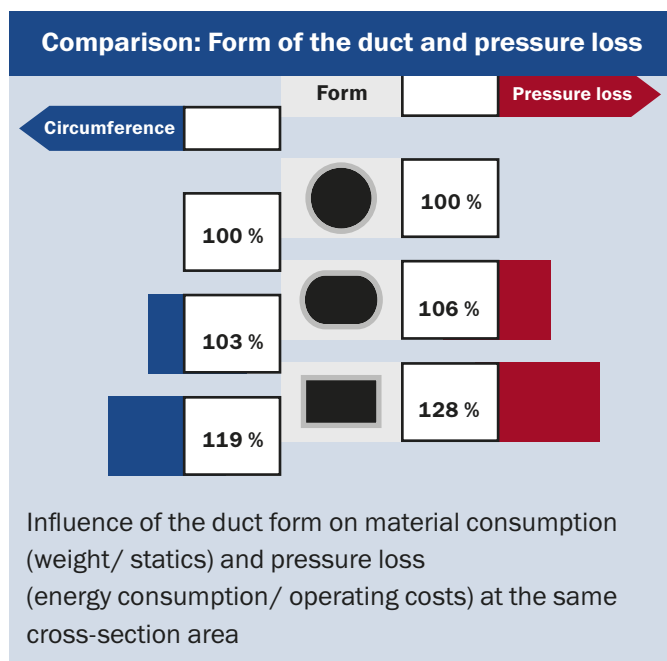
$$d_h = \frac{L \cdot B \cdot H}{B + H}$$

2. Parameters

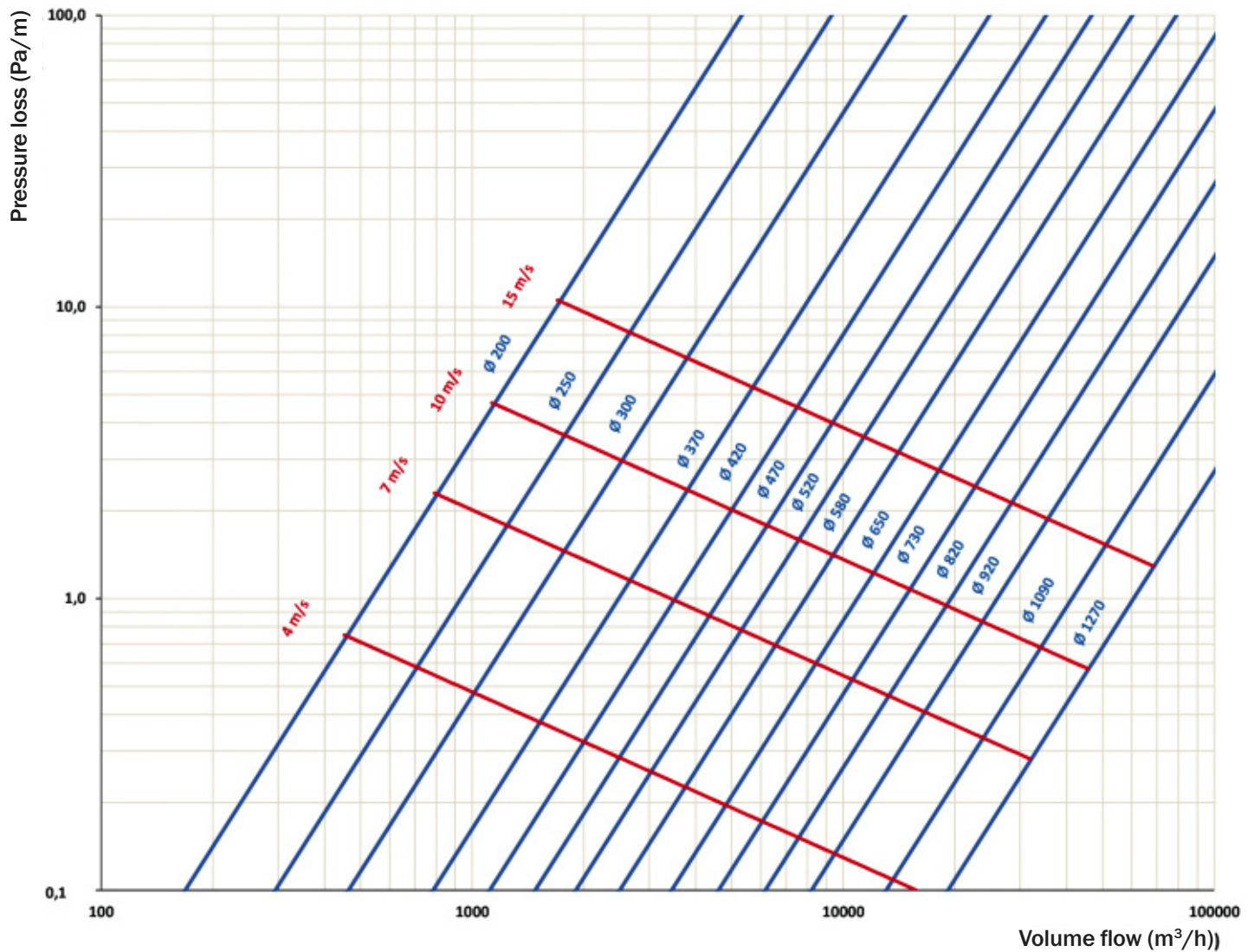
- p = Pressure loss
- λ = coefficient of duct friction (VENTAFLEX® GRP coating ...)
- L = duct length in [m]
- d = diameter respectively dh = hydraulic diameter in[m]
- ρ = air density in [kg/m³]
- w = flow velocity in [m/s]

3. Comparison of the pressure losses

Round and oval air ducts are clearly more streamlined than square air ducts. Thus round air ducts have 20% less surface than square channels with the same performance. Due to lower pressure losses a small fan can be used. When installing VENTAFLEX® air ducts Classic round or oval operating costs are sustainably saved.



Pressure loss



For information regarding other duct forms and molded parts please contact us.

Permitted pressures for VENTAFLEX® Products

Name	Series	Overpressure/pa	Negative pressure/pa
VENTAFLEX® air duct Classic	200 – 900	5.000	5.000
VENTAFLEX® air duct Classic oval	500 – 1250	1.000	1.000
Square air channels		on request	

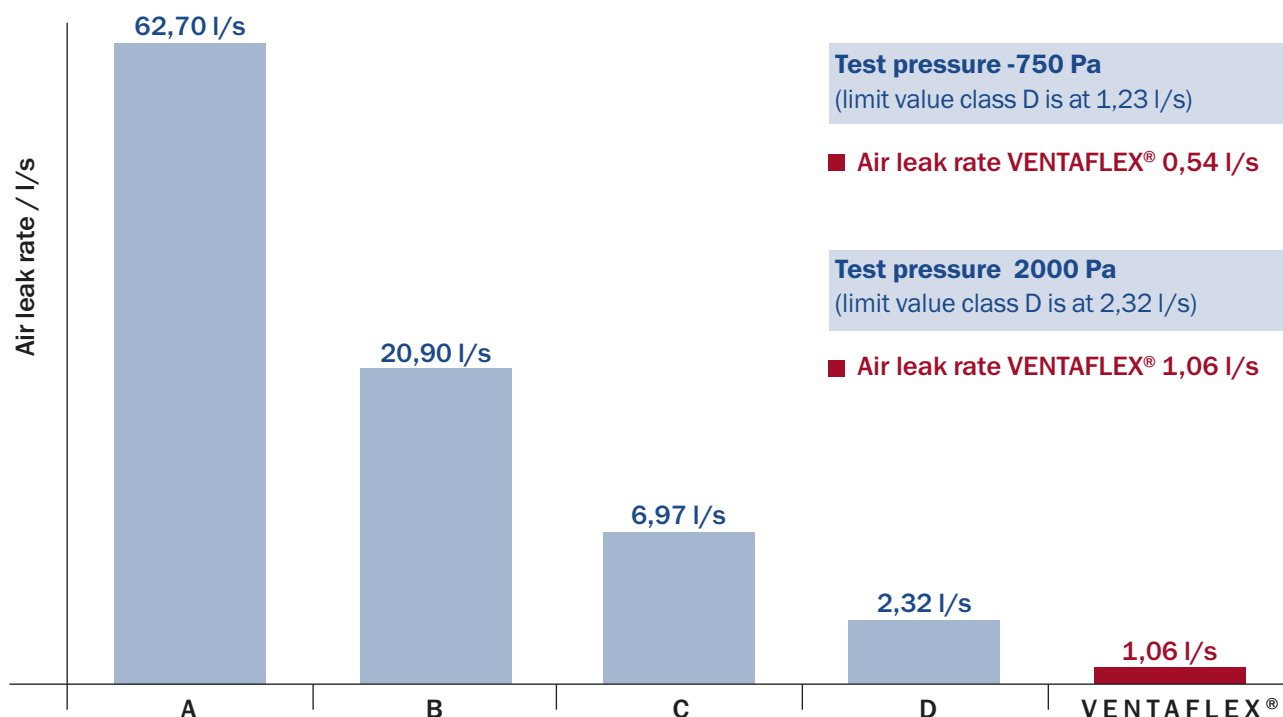


Tightness air duct round

Limit values of the air leak rate according to EN 13779 and EN 16798-3

Air tightness class		Limit value of the air leak rate	Negative for all tightness classes	Positive at tightness class 1	Positive at tightness class 2	Positive at tightness class 3
EN 13779	EN 16798-3					
A	ATC 5	$0,027 \times Pt^{0,65}$	200	400	1000	2000
B	ATC 4	$0,009 \times Pt^{0,65}$	500	400	1000	2000
C	ATC 3	$0,003 \times Pt^{0,65}$	750	400	1000	2000
D	ATC 2	$0,001 \times Pt^{0,65}$	750	400	1000	2000
Air tightness class VENTAFLEX Classic D+		$< 0,0004 \times Pt^{0,65}$	750	400	1000	2000
	ATC 1	$0,00033 \times Pt^{0,65}$	750	400	1000	2000

Leakage test according to EN 12237 examined surface 16,6 m²



The results of VENTAFLEX® air ducts Classic for the limit value class D are more than twice as good as necessary.



Ventilation systems in the hygiene sector

Certifications by the Berlin Institution for air hygiene

For the areas in which cleanliness and easy cleaning play a role – like e.g. in the food processing industry, research, pharmaceutical industry and care facilities, swimming pools or high-tech – VENTAFLEX® ducts Classic show clean room character. They satisfy highest hygienic requirements, especially because of the germ-resistant surfaces, the avoidance of condensate due to exceptionally good insulation and easy cleaning because of the smooth and resistant GRP-surfaces. Many realised big projects from the hygiene sector can be found as Practise Reports on our website.



FURTHER CERTIFICATIONS

- VDI guideline 6022 (D)
- SWKI VA104-01 (CH)
- DIN 1946-4 (D)
- SWKI 99-3 (CH)
- ÖNORM H 6020 (AT)
- VDI 3803 (D)
- ÖNORM H 6021 (AT)
- DIN EN 13779 (EU)

Hygiene-requirements at RLT systems according to VDI 6022

Requirement levels	Packaging ex works	Protection during transportation	Protection at storage at construction site	Cleaning at construction site	Sealing of the air duct opening
Minimum requirement	no	no	yes	yes	yes
Recommendation	yes	yes	yes	yes	yes

Hygiene protection packaging



Upon request our products can additionally be packed with a special self-adhesive foil. The price for this hygiene packaging is available on request.



Durability

Chemical resistance

GRP is resistant against solvents, plasticisers, fuel, mineral oil, diluted acids and alkalis: moreover against the influence of exhaust gases or aggressive industrial atmosphere.

This is only an extract of the substance table – upon request you can get information about further resistances.

Substances (selection, more upon request)	Concentration	Resistance at 20-30 °C
Acetone		○ ○
Ammoniac		● ● ●
Petrol		● ● ●
Grease		● ● ●
Formaldehyde		○ ○
Ocean water		● ● ●
Lactic acid		○ ○
Mineral oil		● ● ●
Sodium Chloride	saturated	● ● ●
Phosphoric acid	10 % aqueous diluted	● ● ●
Turpentine		○ ○
Citric acid		● ● ●

● ● ● resistant ○ ○ conditionally resistant

Further properties

Electrical conductivity	10e -12 S/m
Microbial inertness	certified according to standards VDI 6022
Erosion and emission of particles	certified according to EN 13401

Temperature resistance

PUR rigid foam is characterized by high mechanical strength and good dimensional stability in the building industry for temperature ranges from -40 to +60°C (long-term capacity). A short-term capacity up to +80°C is possible.

Organic resistance

PUR rigid foam does not rot, is mould- and decay resistant and physiologically harmless for the applications coming into question. Polyurethane rigid foam reacts chemically neutral.

Thermal expansion behaviour

Length change = expansion coefficient x initial length x temperature change

Example:

Expansion coefficient Ventaflex duct = 0,00005 1/K
 Initial length = 1000 mm
 Temperature change = 20 K
0,00005 1/K x 1000 mm x 20 K = 1 mm

Expansion 1mm per 1m duct length at 20 °C temperature change

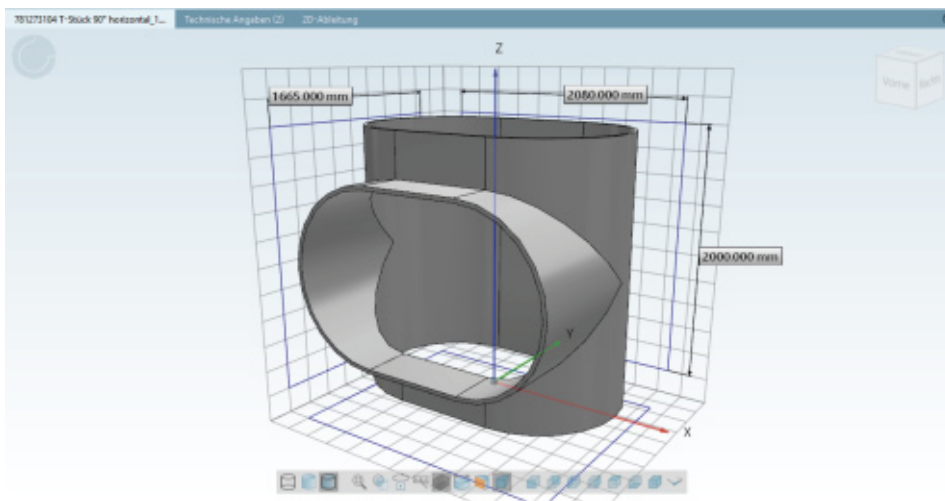
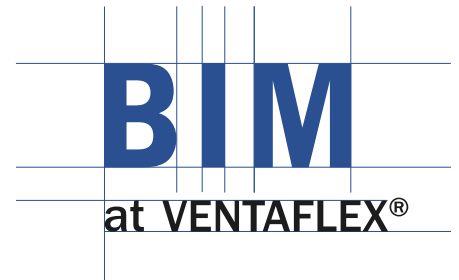


Planning and service

BIM/CAD-models

VENTAFLEX® products now in 3D (Multi CAD product catalog data) – usable for all planners and architects working with BIM

3D CAD-models are available in over 100 different file formats like for example: Revit®, CATIA®, Inventor®, SolidWorks®, Creo Parametric, NX™, AutoCAD® or Solid Edge®

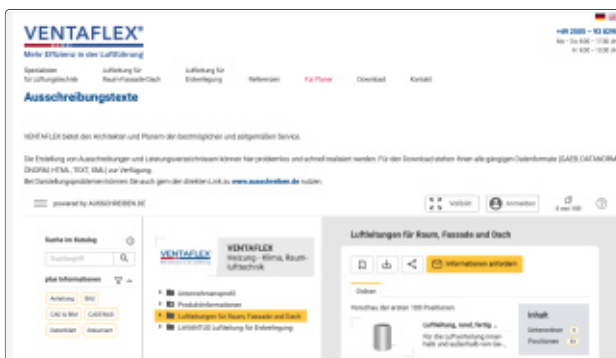


- 3D Multi CAD drawings
- + append points
- + 2D dimensional drawings
- + measurement charts
- + PDF data sheets
- + supplies



Tender documents

The preparation of tenders and specifications can be done comfortably and easily with the templates from the download area.



➔ **So simple and convenient**

Download BIM-compatible drawings + tender texts directly in the "For planners" section of our website: www.ventaflex.de

Any questions?
Personal consulting under +49 (0) 2505 – 93 829-0



Fire protection

Classification of fire behaviour according to DIN EN 13501-1: 2010-01

Classification report 20160939/01 by the MPA Dresden GmbH:
The VENTAFLEX® air ducts Classic have the classification “E”.
A contribution of the VENTAFLEX® system to fire emergence or – expansion is not to be expected when using a suitable firewall or fire dampers.



From the classification report of the fire behaviour for the VENTAFLEX® air ducts Classic it arises that GRP / PU / GRP compounds don't continue to burn independantly and are not dripping. Upon request you can get the complete classification and test report.

Application area

This classification is valid for construction products with a wall thickness of $\geq 49\text{mm}$ as well as for free-standing/ free-hanging applications with a distance of $\geq 80\text{mm}$ to other laminar construction products. Appearing cutting edges respectively joints have to be closed.

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www.ventaflex.de

VENTAFLEX® air duct Classic round



**For interior and exterior installation,
application in the hygiene sector**

The VENTAFLEX® air duct Classic system stands for the efficient transportation of warm and cold air. In buildings, on the roof, underground or in the hygienic area – the innovative VENTAFLEX® Classic system is applicable everywhere. The insulated duct system reduces the installation time up to 60 %. The great energy savings potential of up to 40 % compared to conventionally insulated ventilation systems makes the air ducts of VENTAFLEX® the first choice.

Certifications

- according to EN 12237 tightness class D (complies with EN 16798-3 of class ATC2)
- for the hygiene sector according to VDI 6022

Strong material

The basis of VENTAFLEX® air ducts Classic is PUR rigid foam. The GRP-surfaces are made of fiberglass, polyester resin and additionally with an UV resistant gelcoat cover on the outside. This special material composite gives the ducts an extremely high stability.

Highly insulating

The VENTAFLEX® Classic system has a thermal conductivity of only 0,022 W/mK. This corresponds to thermal conductivity group WLG 022. Consequently a condensation- und dew formation is to be excluded.

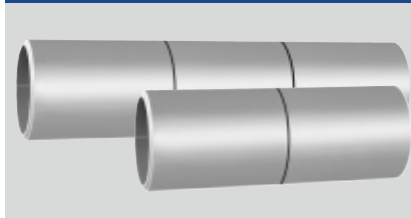
Ultra light

A component with a diameter of 650 mm and 1 m length only weighs 11 kg. In comparison to a galvanized double wall pipe the VENTAFLEX® air duct Classic thus is 70 % lighter. A great advantage not only for the installation, but also for statics and roof loads.

Easier installation

In contrast to spiral ducts, which have to be insulated later, the installation time of the finished insulated VENTAFLEX® air ducts Classic is up to 60 % faster. With our clamp system VentaSnap the air ducts are quickly connected with a long-term tightness.

Prefabricated VENTAFLEX Classic component in 2 m or 3 m length saves valuable working time



Varied design

You receive the VENTAFLEX® air duct Classic system in GRP lightgrey/ RAL 7035 by standard. Alternatives are: aluminum, galvanized sheet steel and GRP in brown/ RAL 8019.

Absolutofony hygienic

Because of the smooth surfaces VENTAFLEX® systems are very easy to clean and fulfill the hygiene requirement of VDI 6022.

Perfectly compatible

A connection to ducts of other producers, e.g. spiral ducts or stainless steel, is easily possible.

Proven fields of application

- industrial-/exhibition halls
- swimming pools/sports facilities
- hotels/gastronomy
- schools/daycare facilities
- hospitals/care facilities
- statically loaded roofs
- food industry
- pharmaceutical industry/research
- HighTech production

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T-piece 45°	2.9
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Y-piece	2.13
Exhaust curve 90°	2.15
Exhaust curve 135°	2.17
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The VENTAFLEX® air duct Classic round



Material

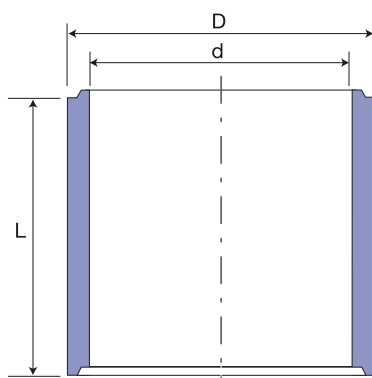
Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)



d = Inside diameter
 D = Outside diameter
 L = Length

series	d mm	D mm	L mm	weight kg	surface insides qm	cross section qm
200	200	260	1000	3,0	0,63	0,03
250	250	310	1000	3,5	0,79	0,05
300	300	360	1000	4,0	0,94	0,07
400	420	510	1000	7,0	1,32	0,14
500	520	620	1000	9,0	1,63	0,21
630	650	750	1000	11,0	2,04	0,33
710	730	790	1000	12,0	2,29	0,42
800	820	910	1000	13,5	2,57	0,53
900	920	1020	1000	16,0	2,89	0,66
1250	1270	1330	1000	18,0	3,99	1,27
1250	1270	1330	1500	28,0	5,98	1,27



series	length mm	item no.
200	1000	102003004
250	1000	102503004
300	1000	103003004
400	1000	104205004
500	1000	105205004
630	1000	106505004
710	1000	107303004
800	1000	108205004
900	1000	109205004
1250	1000	1012703004
1250	1500	1512703004

Prefabricated components 2 meters

series	length mm	item no.
200	2000	122003004
250	2000	122503004
300	2000	123003004
400	2000	124205004
500	2000	125205004
630	2000	126505004
710	2000	127303004
800	2000	128205004
900	2000	129205004
1250	2000	1212703004

Prefabricated components 3 meters

series	length mm	item no.
200	3000	132003004
250	3000	132503004
300	3000	133003004
400	3000	134205004
500	3000	135205004
630	3000	136505004
710	3000	137303004
800	3000	138205004
900	3000	139205004
1250	3000	1312703004

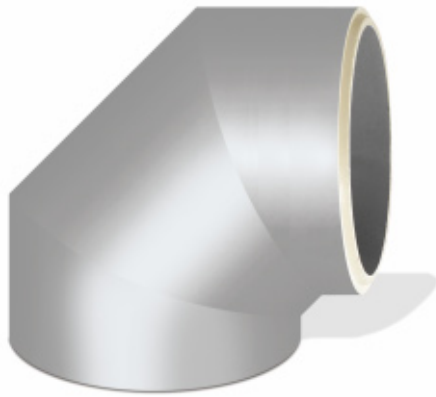
By prefabricating components with 2 or 3 m length valuable installation time can be saved at the construction site



VENTAFLEX®
More efficiency in air conduction



The VENTAFLEX® air duct Classic round Curve 90°



Material

Highly insulating PUR rigid foam

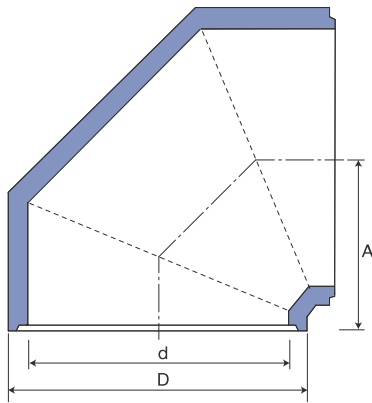
Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

Upon request curves can be produced in any other needed angle.



d = Inside diameter
 D = Outside diameter
 A = Axial dimension/radius
 $H = \text{Height} = \frac{D}{2} + A$



series	d mm	D mm	A mm	H mm	weight kg	surface inside qm	cross section qm
200	200	260	386	498	3,0	0,63	0,03
250	250	310	411	566	3,5	0,79	0,05
300	300	360	436	616	4,0	0,94	0,07
400	420	510	595	850	7,0	1,32	0,14
500	520	620	598	908	9,0	1,63	0,21
630	650	750	602	977	11,0	2,04	0,33
710	730	790	604	1019	12,0	2,29	0,42
800	820	910	607	1062	13,5	2,57	0,53
900	920	1020	610	1120	16,0	2,89	0,66
1250	1270	1330	899	1564	28,0	5,98	1,27

series	item no.
200	902003004
250	902503004
300	903003004
400	904205004
500	905205004
630	906505004
710	907303004
800	908205004
900	909205004
1250	9112703004

Prices are also valid for 46° to 90° curves.



The VENTAFLEX® air duct Classic round Curve 45°



Material

Highly insulating PUR rigid foam

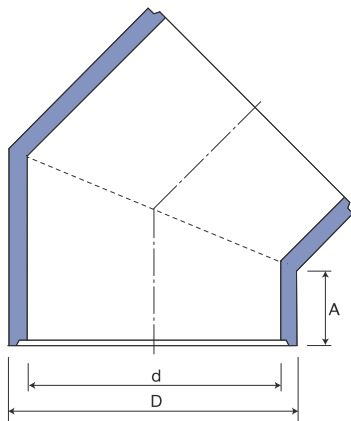
Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

**Upon request curves can be produced
in any other needed angle.**



d = Inside diameter
D = Outside diameter
A = Side length



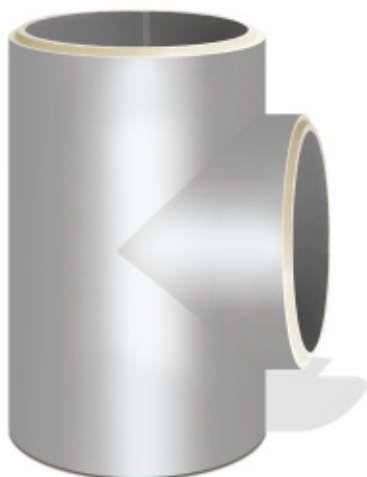
series	d mm	D mm	A mm	weight kg	surface inside qm	cross section qm
200	200	260	150	1,0	0,35	0,03
250	250	310	150	1,5	0,48	0,05
300	300	360	150	2,0	0,62	0,07
400	420	510	392	7,0	1,32	0,14
500	520	620	370	9,0	1,63	0,21
630	650	750	343	11,0	2,04	0,33
710	730	790	326	12,0	2,29	0,42
800	820	910	310	13,5	2,57	0,53
900	920	1020	287	16,0	2,89	0,66
1250	1270	1330	225	18,0	3,98	1,27

series	item no.
200	452003004
250	452503004
300	453003004
400	454205004
500	455205004
630	456505004
710	457303004
800	458205004
900	459205004
1250	4612703004

Prices are also valid for 5° to 45° curves.



The VENTAFLEX® air duct Classic round T-piece 90°



Material

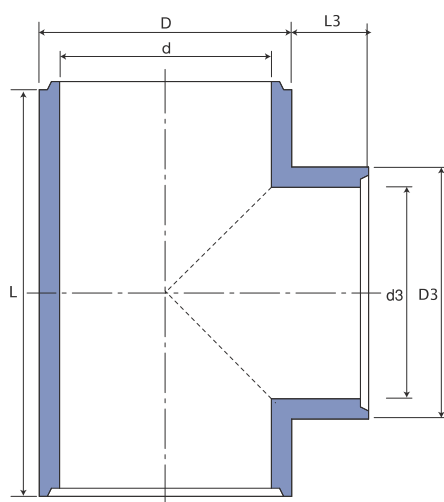
Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)



Upon request T-pieces can be produced in any other needed angle.

- d = Inside diameter
- D = Outside diameter
- d3 = Inside diameter (Outgoing)
- D3 = Outside diameter (Outgoing)
- L = Length (T-piece)
- L3 = Length (Outgoing) = $\frac{L-D3}{2}$

series	d mm	D mm	L mm	weight/kg	surface inside qm	cross section qm
200	200	260	1000	4,0	0,86	0,03
250	250	310	1000	4,0	1,05	0,05
300	300	360	1000	5,0	1,23	0,07
400	420	510	1000	8,5	1,63	0,14
500	520	620	1000	10,5	1,91	0,21
630	650	750	1000	12,0	2,22	0,33
710	730	790	1000	13,0	2,37	0,42
800	820	910	1000	13,0	2,52	0,53
900	920	1020	1200	19,5	3,51	0,66
1250	1270	1330	1500	26,0	5,75	1,27



d mm	d3 mm	item no.
200	200	702003004
250	200	702502003004
250	250	702503004
300	200	703002003004
300	250	703002503004
300	300	703003004
420	200	704202005004
420	250	704202505004
420	300	704203005004
420	420	704205004
520	200	705202005004
520	250	705202505004
520	300	705203005004
520	420	705204205004
520	520	705205004
650	200	706502005004
650	250	706502505004
650	300	706503005004
650	420	706504205004
650	520	706505205004
650	650	706505004
730	200	707302003004
730	250	707302503004
730	300	707303003004
730	420	707304203004
730	520	707305203004
730	650	707306503004
730	730	707303004

d mm	d3 mm	item no.
820	200	708202005004
820	250	708202505004
820	300	708203005004
820	420	708204205004
820	520	708205205004
820	650	708206505004
820	730	708207305004
820	820	708205004
920	200	709202005004
920	250	709202505004
920	300	709203005004
920	420	709204205004
920	520	709205205004
920	650	709206505004
920	730	709207305004
920	820	709208205004
920	920	709205004
1270	200	7012702003004
1270	250	7012702503004
1270	300	7012703003004
1270	420	7012704203004
1270	520	7012705203004
1270	650	7012706503004
1270	730	7012707303004
1270	820	7012708203004
1270	920	7012709203004
1270	1090	70127010903004
1270	1270	7012703004



The VENTAFLEX® air duct Classic round T-piece 45°



Material

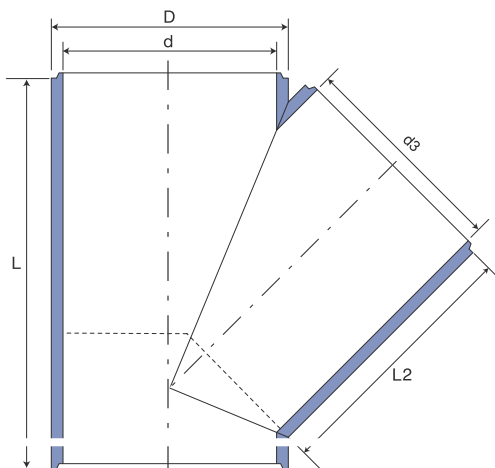
Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)



Upon request T-pieces can be produced in any other needed angle.

- d = Inside diameter
- D = Outside diameter
- L = Length (T-piece)
- L2 = Length (Outgoing)
- d3 = Inside diameter (Outgoing)

series	d mm	D mm	L mm	L2 mm	weight kg	surface inside qm	cross section qm
200	200	260	1000	580	4,5	1,23	0,03
250	250	310	1000	595	5,0	1,46	0,05
300	300	360	1000	620	5,5	1,70	0,07
400	420	510	1000	650	9,0	2,40	0,14
500	520	620	1000	695	12,5	2,92	0,21
630	650	750	1500	1035	23,5	3,53	0,33
710	730	790	1500	1030	24,0	3,91	0,42
800	820	910	1500	1190	28,0	4,29	0,53
900	920	1020	1600	1064	32,0	6,41	0,66
1250	1270	1330	2500	1400	58,0	8,35	1,27



d mm	d3 mm	item no.
200	200	742003004
250	200	742502003004
250	250	742503004
300	200	743002003004
300	250	743002503004
300	300	743003004
420	200	744202005004
420	250	744202505004
420	300	744203005004
420	420	744205004
520	200	745202005004
520	250	745202505004
520	300	745203005004
520	420	745204205004
520	520	745205004
650	200	746502005004
650	250	746502505004
650	300	746503005004
650	420	746504205004
650	520	746505205004
650	650	746505004

d mm	d3 mm	item no.
730	200	747302003004
730	250	747302503004
730	300	747303003004
730	420	747304203004
730	520	747305203004
730	650	747306503004
730	730	747303004
820	200	748202005004
820	250	748202505004
820	300	748203005004
820	420	748204205004
820	520	748205205004
820	650	748206505004
820	730	748207305004
820	820	748205004
920	200	749202005004
920	250	749202505004
920	300	749203005004
920	420	749204205004
920	520	749205205004
920	650	749206505004
920	730	749207305004
920	820	749208205004
920	920	749205004
1270	1270	7412703004



The VENTAFLEX® air duct Classic round Reduction symmetric



Material

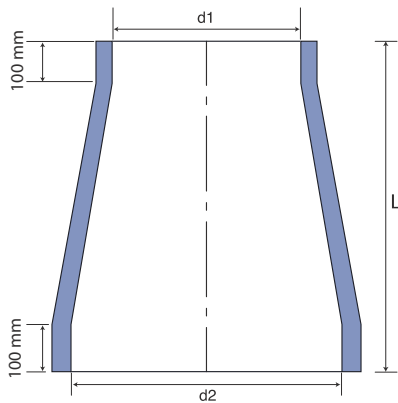
Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)



d1 = Inside diameter big
d2 = Inside diameter small
L = Length



series	d1 mm	d2 mm	L mm	item no.
250/200	250	200	269	432502003004
300/200	300	200	338	433002003004
300/250	300	250	269	433002503004
400/200	420	200	544	434202005004
400/250	420	250	475	434202505004
400/300	420	300	406	434203005004
500/200	520	200	695	435202005004
500/250	520	250	626	435202505004
500/300	520	300	558	435203005004
500/400	520	420	351	435204205004
630/400	650	420	530	436504205004
630/500	650	520	379	436505205004
710/400	730	420	639	437304203004
710/500	730	520	488	437305203004
710/630	730	650	310	437306503004
800/500	820	520	598	438205205004
800/630	820	650	420	438206505004
800/710	820	730	310	438207305004
900/500	920	520	749	439205205004
900/630	920	650	571	439206505004
900/710	920	730	461	439207305004
900/800	920	820	351	439208205004
1250/900	1270	920	950	4312709203004



The VENTAFLEX® air duct Classic round Y-piece



Material

Highly insulating PUR rigid foam

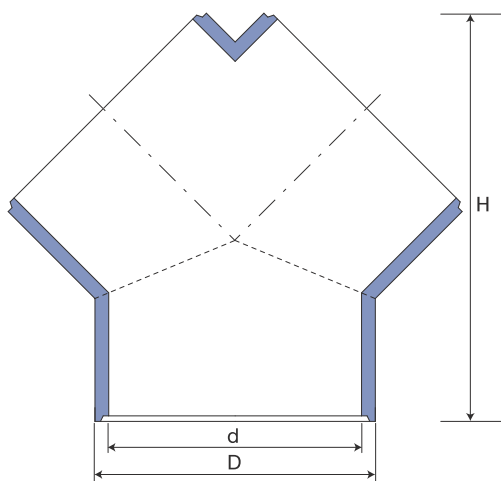
Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

Upon request Y-pieces can be produced in any other needed angle.



d = Inside diameter
D = Outside diameter
H = Height
L = Side length



series	d mm	D mm	L mm	H mm	surface inside qm	weight kg
200	200	260	446	947	0,9	4,5
250	250	310	435	963	1,1	5,0
300	300	360	425	981	1,3	6,0
400	420	510	392	1035	1,7	10,5
500	520	620	372	1073	2,0	13,5
630	650	750	343	1106	2,3	16,5
710	730	790	326	1134	2,5	18,0
800	820	910	310	1166	2,6	30,5
900	920	1020	534	1201	5,0	36,0
1250	1270	1330	475	1752	6,2	40,5

series	item no.
200	8082003004
250	8082503004
300	8083003004
400	8084205004
500	8085205004
630	8086505004
710	8087303004
800	8088205004
900	8089205004
1250	80812703004



The VENTAFLEX® air duct Classic round Exhaust curve 90°



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

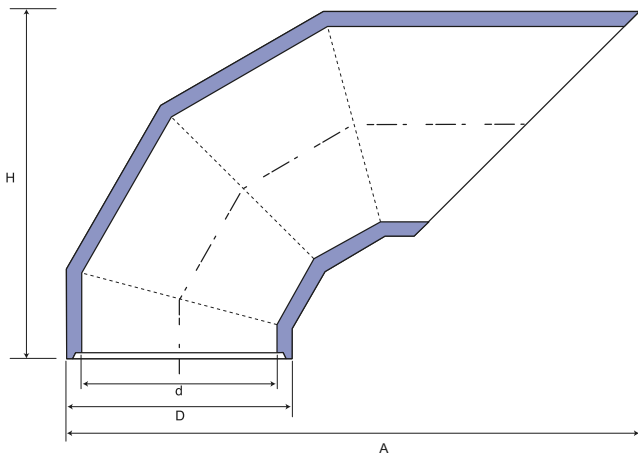
Light grey (RAL 7035)

Grille (included): material/size

Stainless steel V2A

20 x 20 x 1 mm welded

**Upon request curves can be produced
in any other needed angle.**



- d = Inside diameter
- D = Outside diameter
- A = Extension
- H = Height



series	d mm	D mm	H mm	A mm	surface inside qm	weight kg
200	200	260	497	757	0,5	3,2
250	250	310	547	857	0,6	3,8
300	300	360	597	957	0,8	4,5
400	420	510	747	1257	1,4	8,4
500	520	620	857	1477	2,0	12,4
630	650	750	987	1737	2,8	17,2
710	730	790	1067	1897	3,4	19,2
800	820	910	1147	2057	4,1	25,2
900	920	1020	1257	2277	5,0	29,7
1250	1270	1330	1567	2897	8,5	40,4

series	item no.
200	952003004
250	952503004
300	953003004
400	954205004
500	955205004
630	956505004
710	957303004
800	958205004
900	959205004
1250	9512703004



The VENTAFLEX® air duct Classic round Exhaust curve 135°



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

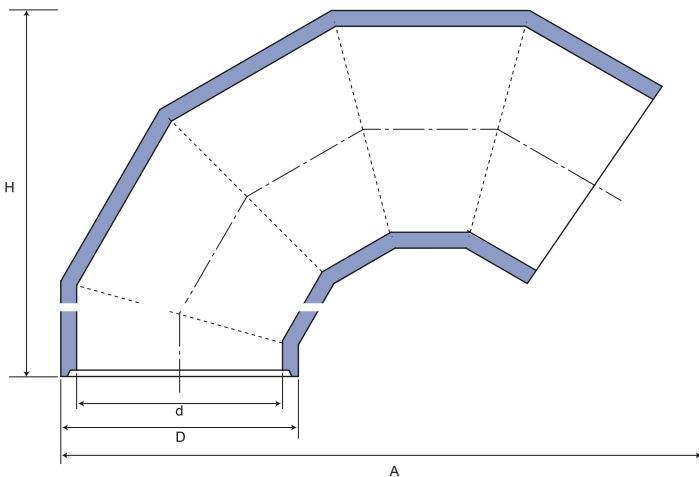
Colour

Light grey (RAL 7035)

Grille (included): material/size

Stainless steel V2A
20 x 20 x 1 mm welded

Upon request curves can be produced
in any other needed angle.



d = Inside diameter
D = Outside diameter
A = Extension
H = Height



series	d mm	D mm	H mm	A mm	surface inside qm	weight kg
200	200	260	530	835	0,6	4,0
250	250	310	581	920	0,8	4,5
300	300	360	633	1005	1,0	5,4
400	420	510	786	1262	1,6	11,5
500	520	620	899	1449	2,2	17,7
630	650	750	1033	1671	3,1	21,3
710	730	790	1115	1808	3,7	24,3
800	820	910	1197	1944	4,4	28,5
900	920	1020	1309	2132	4,6	45,2
1250	1270	1330	1627	2661	8,8	50,6

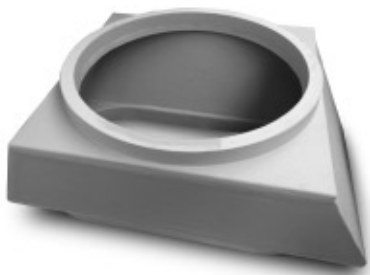
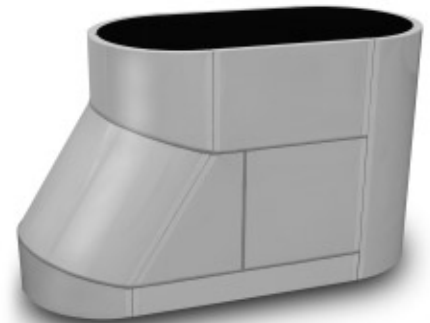
series	item no.
200	962003004
250	962503004
300	963003004
400	964205004
500	965205004
630	966505004
710	967303004
800	968205004
900	969205004
1250	9612703004

Special components

Manufacture for individual projects

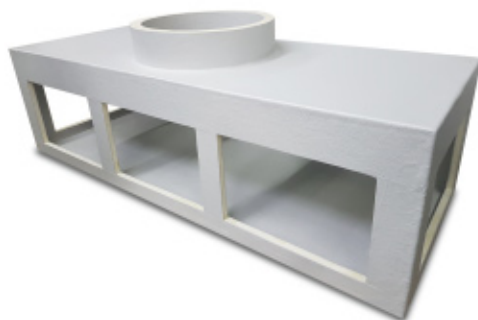
... customized solution!

Round cross section on oval?
Oval on square? The solution comes from VENTAFLEX®:
We manufacture special components, adapting to each system, which neatly connect different duct forms and –sizes with each other.



Functionality and optics

VENTAFLEX® has developed a new surface finishing process especially for special components. This means that every custom-made product has the high resistance to chemicals, abrasion and weathering that characterizes all VENTAFLEX® air ducts. Our workpieces leave production with a smooth and even surface - good looks are also important to us!



Finally recyclable!

Material purity was a goal on the way to even more sustainability: Sorted PUR residues are processed in order to be used as raw material for the production of new components at VENTAFLEX®.

Everything from a single source

The workpieces are manufactured completely by us without any detours and delivered to their place of use – constant availability and punctual delivery are our service promise.

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The VENTAFLEX® Classic Supplies-system

Ideal components –
Customized and multiply tested



“Everything from one provider”!
You find all materials in our supplies to install a complete duct system professionally.

The supplies are – depending on the application – practically combinable. We like to advise you on the ideal combination of your components and the material!



Content	Page
VentaSnap	2.21
VentaFix	2.22
Compensator	2.23
Roof duct	2.24
End cover	2.25
Inspection cover, roof hood	2.26
Hygiene application	2.27



VentaSnap clamp system



The fastest way to connect ducts. With our VentaSnap clamp system from now on you can abandon the glueing in many areas and therefore save valuable installation time.

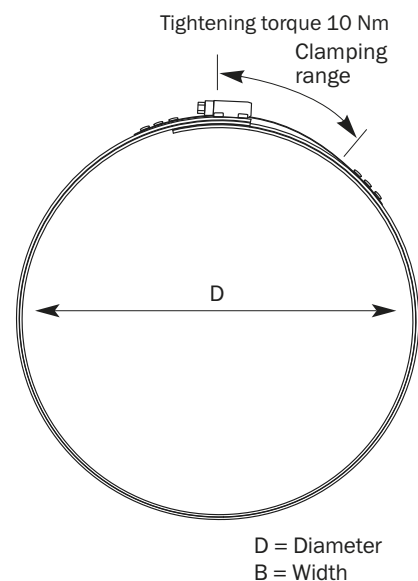
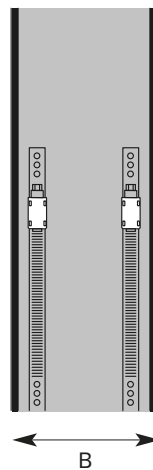
Material
Stainless steel



EPDM gasket insert



Fastening clamp



D = Diameter
B = Width

Connecting clamp made of stainless steel for connection of VENTAFLEX Klassic air ducts round

series	∅ air duct	D mm	B mm	item no.
200	200	260	100	052003020
250	250	310	100	052503020
300	300	360	100	053003020
400	420	510	100	054205020
500	520	620	100	055205020
630	650	750	100	056505020
710	730	790	100	057303020
800	820	910	100	058205020
900	920	1020	100	059205020
1250	1270	1330	100	0512703020

The VentaFix mounting clamp



Proven two-part construction for fixation at the closing flap. Designed for the dimensions of the VENTAFLEX® air duct Classic system. Safe fixing by means of thread rods due to the M10 through holes of the closing flaps. Fullfills the requirements of thermal decoupling.

Material

Stainless steel



Connection of the clamps by means of thread rods
Ø hole of the clamps: 11 mm

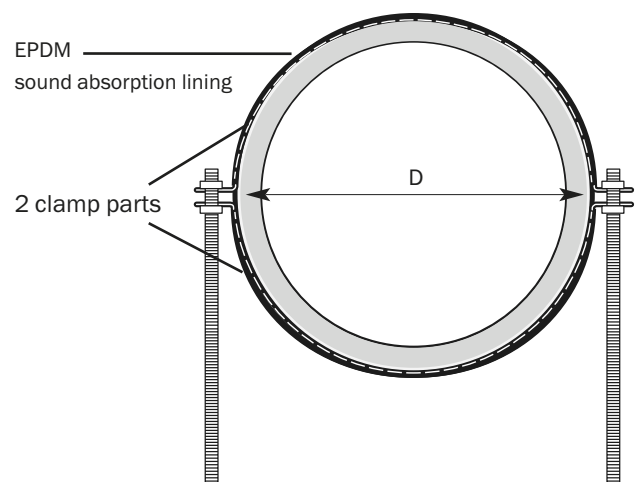


High-quality sound absorption lining

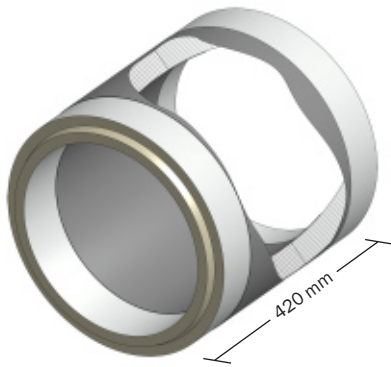
Mounting clamp made of stainless steel

for placing on stands or hanging of VENTAFLEX® air ducts Classic round

series	D mm	item no.
200	260	062003020
250	310	062503020
300	360	063003020
400	510	064205020
500	620	065205020
630	750	066505020
710	790	067303020
800	910	068205020
900	1020	069205020
1250	1330	0612703020



Compensator



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

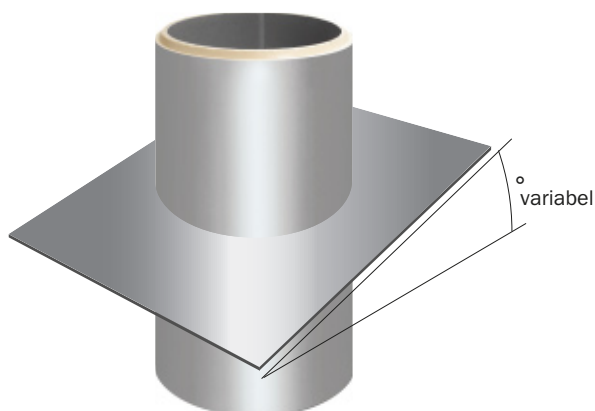
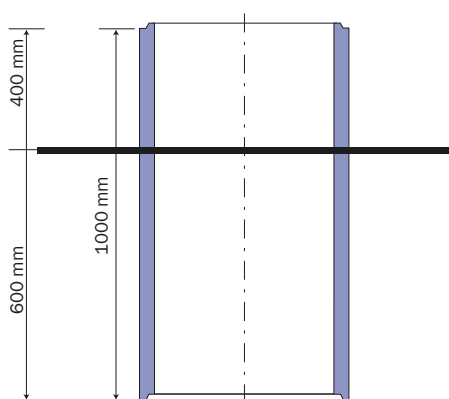
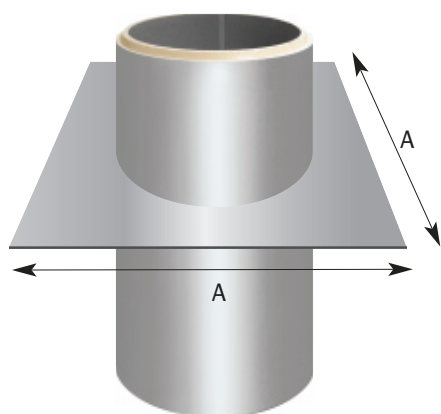
Light grey (RAL 7035)



We recommend using an expansion compensation as of a duct length of 15 m. Not suitable for underground installation.

series	d mm	item no.
200	200	402003004
250	250	402503004
300	300	403003004
400	420	404205004
500	520	405205004
630	650	406505004
710	730	407303004
800	820	408205004
900	920	409205004
1250	1270	4012703004

Roof duct



Application area: everywhere where air ducts are led through roofs and brickwork.

Material

UV-stabilized materials

Dimensions

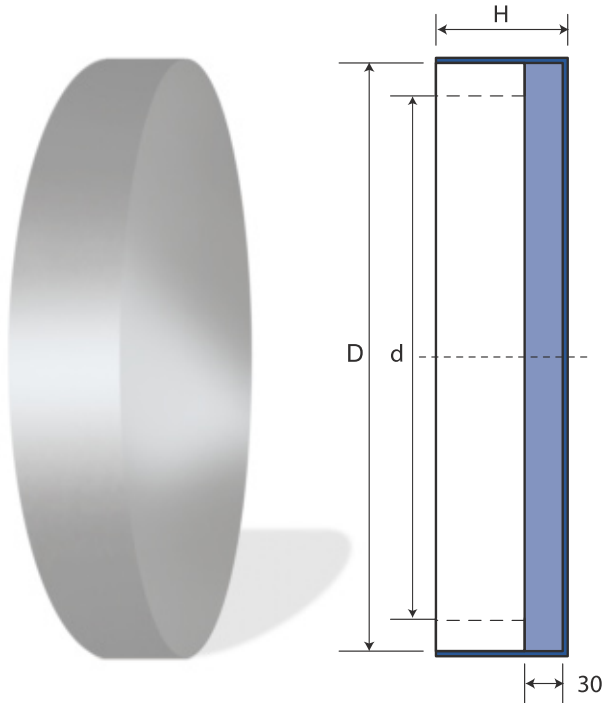
Height of the duct with roof duct is 1000 mm

series	A mm	item no.
200	750	R022003004
250	750	R022503004
300	750	R023003004
400	1000	R024205004
500	1000	R025205004
630	1260	R026505004
710	1720	R027303004
800	1720	R028205004
900	1720	R029205004
1090	1720	R0210903004
1250	1720	R0212703004

If required VENTAFLEX® produces a roof duct according to the angle of the roof inclination.

Price upon request

End cover



Material
 UV-stabilized ASA/ABS and
 highly insulating PUR rigid foam

d = Inside diameter
 D = Outside diameter
 H = Height

series	d mm	D mm	H mm	cross section qm	item no.
200	200	260	100	0,05	202003004
250	250	310	100	0,07	202503004
300	300	360	100	0,10	203003004
400	420	510	100	0,20	204205004
500	520	620	100	0,30	205205004
630	650	750	100	0,44	206505004
710	730	830	100	0,54	207303004
800	820	910	100	0,65	208205004
900	920	1020	100	0,82	209205004
1250	1270	1330	100	1,39	2112703004

Inspection cover



series	cutout dimensions mm	material: galvanized sheet	material: stainless steel
		item no.	item no.
200	100 x 200	252003010	252003020
250	100 x 200	252503010	252503020
300	100 x 200	253003010	253003020
400	200 x 300	254205010	254205020
500	200 x 300	255205010	255205020
630	300 x 400	256505010	256505020
710	300 x 400	257303010	257303020
800	300 x 400	258205010	258205020
900	300 x 400	259205010	259205020
1250	300 x 400	2512702010	2512703020

Roof hood

Material

Glass fiber reinforced polyester

Delivery scope

incl. three-part mounting kit

Standard colour

grey



series	Ø D mm	item no.
200-500	950	245205004
560	1100	245805004
630	1100	246505004
710	1250	247303004
800	1250	248205004
900	1350	249205004
1250	1950	2412703004

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VentaFit-6022



VentaFit-6022 was checked on the requirements on microbial inertness from the VDI 6022 and is certified for it – exactly like our air ducts.

Quantity	Item no.
400 ml	0030015001

Material requirements

The required amount of glue depends on the number of connection points – and of course on the diameter or rather the form of the duct. On the basis of the chart the expected quantity can be calculated, which can be produced by one bag.



Tubular bag press

Especially for tubular bags with 400 ml or 600 ml

Quantity	Item no.
1	0030019001

Hygiene protective packaging

Upon request our products can additionally be packaged with special VDI-conform self-adhesive foil. You receive the costs for this hygiene packaging upon request.



VentaFit adhesive should be used for special hygiene requirements.

Series oval	Inside dimension oval	Number of adhesion- or rather connection points, which can be produced with one tubular bag		Series round
		oval	round	
500	520/770	2	7	250
	520/1020	2		
	520/1270	1		
	520/1520	1		
630	650/900	2	5	400
	650/1150	1		
	650/1400	1		
	650/1650	0,75		
710	730/980	1	4	500
	730/1230	1		
	730/1480	0,75		
	730/1730	0,75		
800	820/1070	1	3	630
	820/1320	0,75		
	820/1570	0,75		
	820/1820	0,5		
900	920/1170	0,75	2	800
	920/1420	0,75		
	920/1670	0,5		
	920/1920	0,5		
1250	1270/1520	0,5	0,5	1250
	1270/1770	0,5		
	1270/2020	0,25		
	1270/2270	0,25		

Attention! When using dangerous respirable dust can occur. Do not breath in the dust! As of 24.08.2023 before an industrial or commercial application an according training has to be made.

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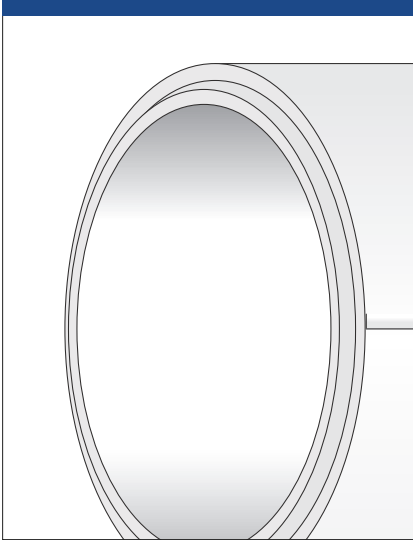
INSTALLATION INSTRUCTION

VENTAFLEX®

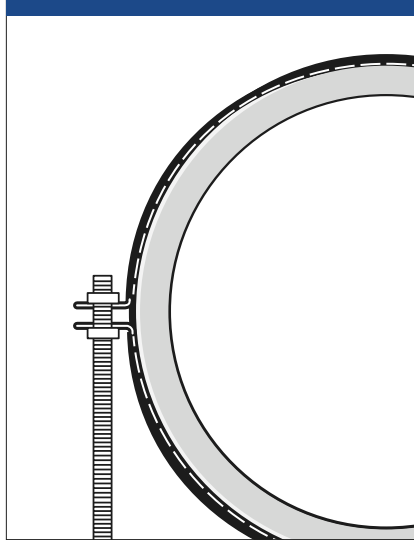
air duct Classic

for room · facade · roof

Air duct Ø 200-1250 mm



VentaFix



VentaSnap, Supplies



VENTAFLEX® AIR DUCT CLASSIC ROUND

Responsibility

The installation instruction for VENTAFLEX® products are a non-binding recommendation which is not legally binding. They are based on construction data and installation experience. An overall responsibility for the system on the part of VENTAFLEX® is not possible, because it solely develops, produces and delivers components and modules for the preparation of ventilation- and heating systems.

Please read this installation instruction carefully before starting the installation und make sure that all necessary materials and tools are ready to be used.



The employer or self-employed person has to make sure that industrial or commercial users of diisocyanate have completed a training for the secure use of it.

Safety note

Installation work may only be done by skilled workers who have sufficient knowledge in

- safety regulations
- accident prevention regulations
- guidelines and recognized rules of the technology (e.g. VDE-provisions, DIN-standards)

because of their professional training, experience und instruction.

The skilled workers must

- be able to assess the assigned work, recognize possible dangers and avoid them
- be authorized to carry out the necessary work and action by those responsible for safety of the plant.

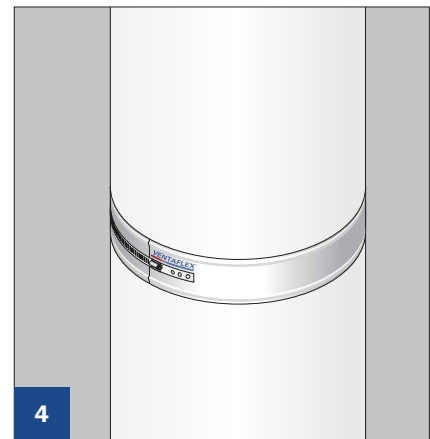
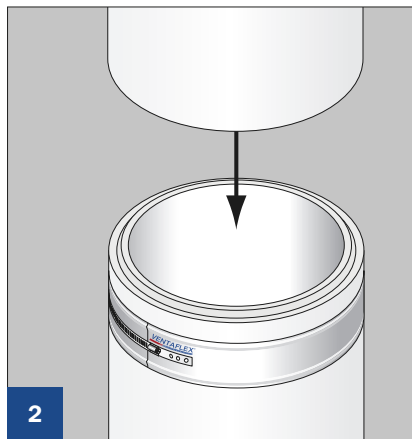
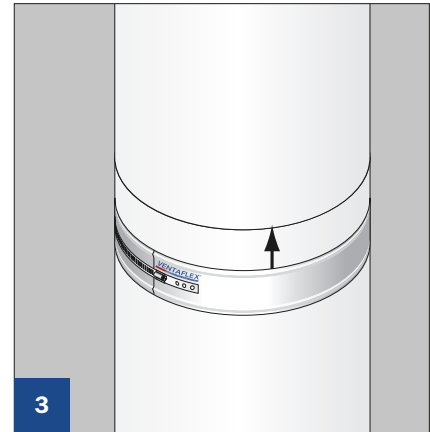
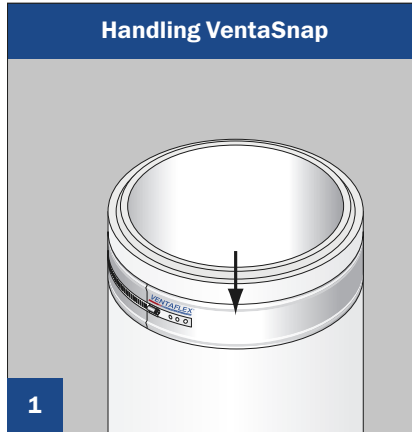
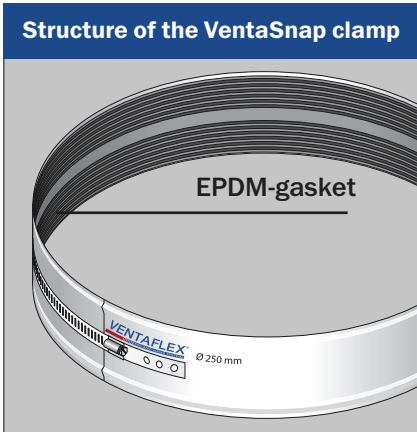
Quick help

If you have any further questions regarding the installation or other VENTAFLEX® products, please contact our hotline or call us under **+49 (0) 25 05 - 93 829 -20**

We will now lead you through the installation step by step.

You find further generally valid information about the processing of VENTAFLEX® air ducts under www.ventaflex.de

Content	Page
VentaSnap	2.29
VentaSnap and glue	2.30
VentaFix	2.31
Roof duct	2.32
Length adjustment	2.33
Compensator	2.34
Transition duct systems	2.35



A VentaSnap clamp is pushed over the VENTAFLEX® air duct Classic. Put a second duct on top of the first one and adjust it so that groove and tongue are joined.

Pull the VentaSnap clamp centered over the connection and screw it together.

The final step is a leak test.

Tip:
Soap can be used to make the pushing easier.

We recommend considering when planning that VENTAFLEX® air duct Classic in components is available with a length of 3 m. This way unnecessary installation effort can possibly be avoided.

Depending on the application area of the duct the sole use of the VentaSnap clamp is enough. However we generally recommend to combine the adhesion with the VentaSnap clamp. In the hygiene sector this is mandatory.

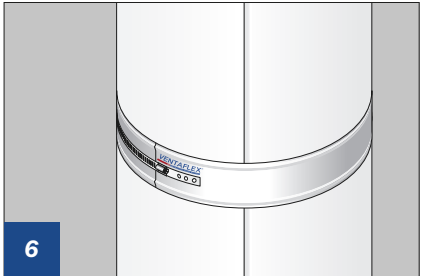
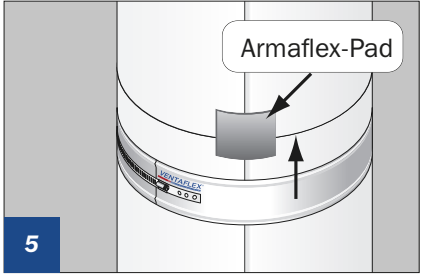
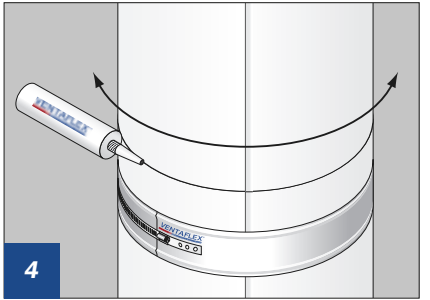
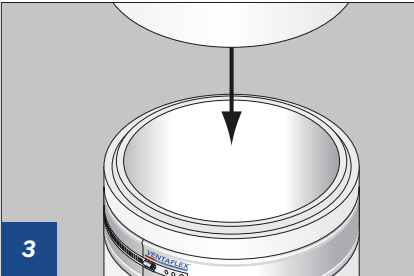
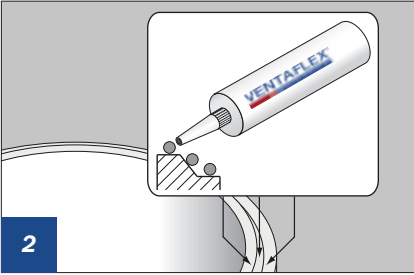
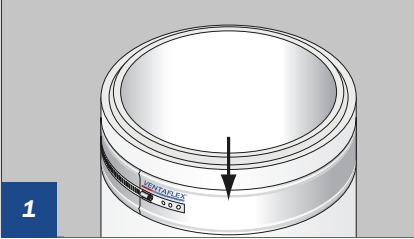
Information about VentaRapid



VentaRapid is a special glue for PUR rigid foam. Ideal results are reached at a processing temperature of 5° C to 35° C. Skin building time is after approx. 30 min. Indications of quantity are found on the cartridge.

Tip:
At low ambient temperature the flowability can be improved by placing the cartridges in a bucket of warm water before handling them or in heated room for storage.

Handling of VentaSnap + glue



A VentaSnap clamp is pushed over the VENTAFLEX® air duct Classic.

Apply the glue circular in three rings. Attention must be paid that all adhesive- and seal surfaces must be freed from dust, grease and other deposits.

The second duct is put on top of the first one until groove and tongue are joined. Spread the glue with pressure by moving the ducts back and forth, subsequently seal the adhesive seam with glue from the outside.

Glue the enclosed Armaflex-Pad on the seam. Pull the VentaSnap clamp centered over the connection and pad and screw it together.

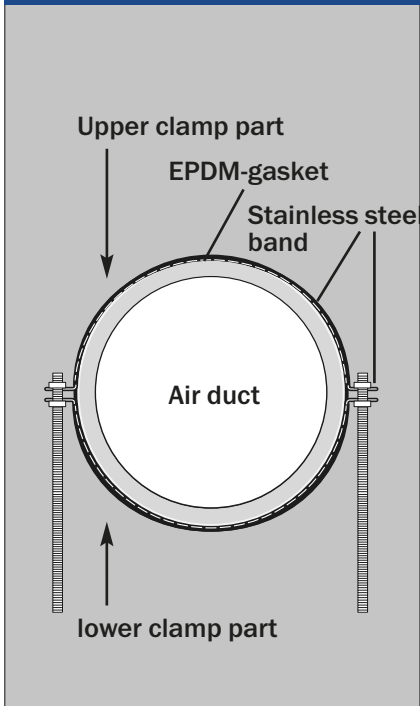
After 12 hours of setting time the glue is hardened.

After this process step we recommend doing a tightness test.

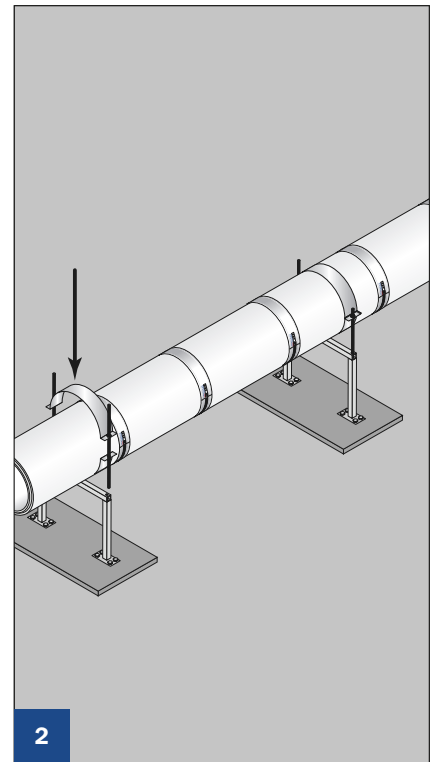
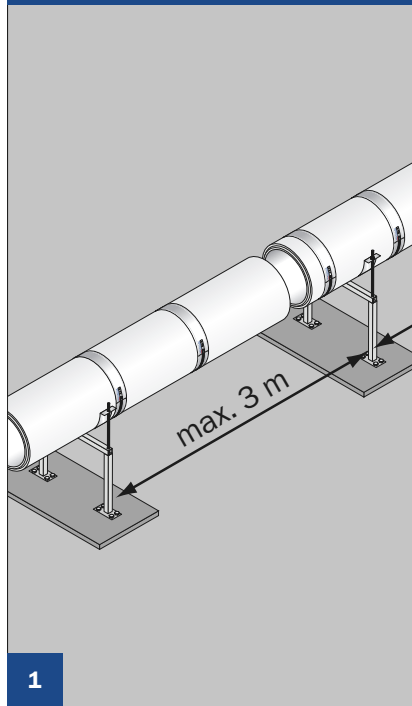
Upon request we additionally offer a tightness test for your special project with VENTAFLEX® air ducts Classic.

The installation instructions are protected by copyright – © VENTAFLEX GmbH & Co. KG

Structure of the VentaFix clamp



Handling VentaFix

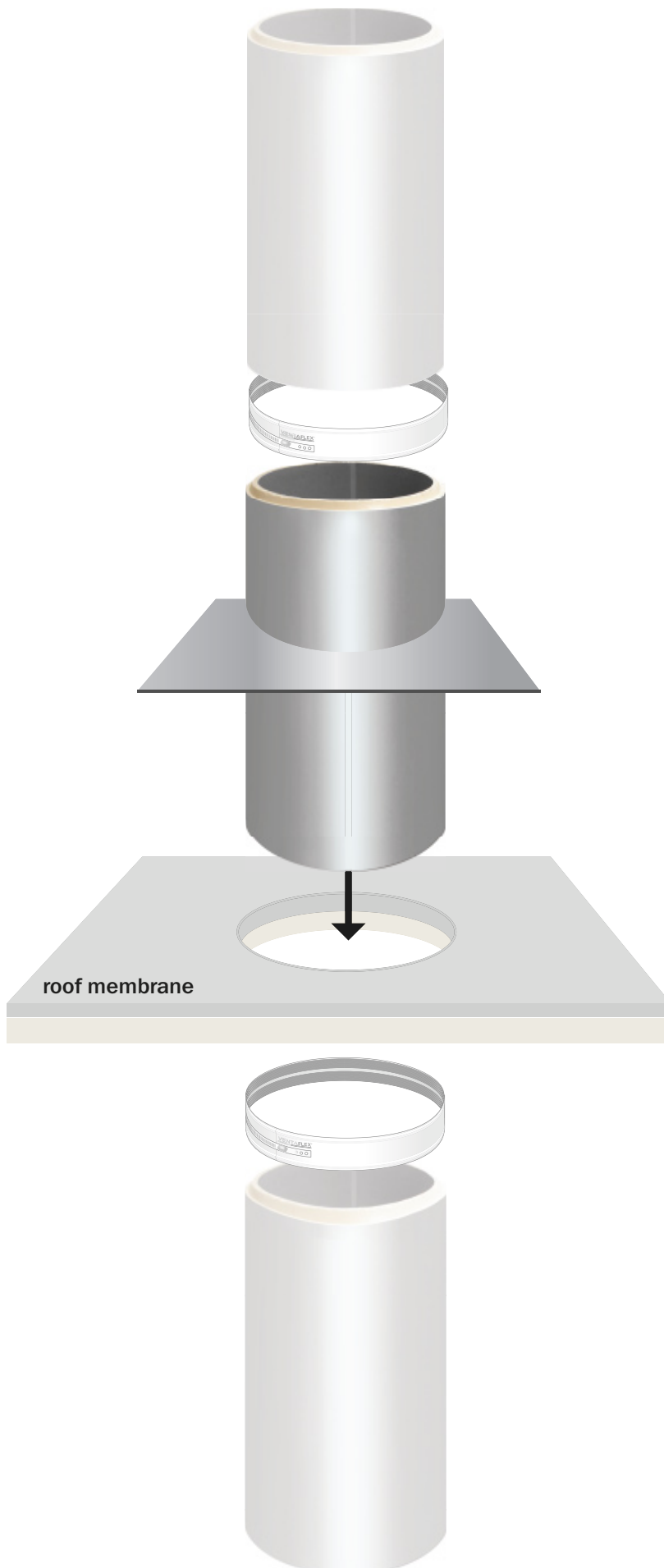


Washed concrete slabs as foundation for the construction avoids the penetration of the roof membrane. We recommend individually reconciling a possible wind load.

Put the components on the lower VentaFix clamp parts. After that connect the duct segments with a VentaSnap clamp as described.

Following that put down the upper VentaFix clamp and screw it together.

The distance between two VentaFix clamps should not exceed 3 m.



1

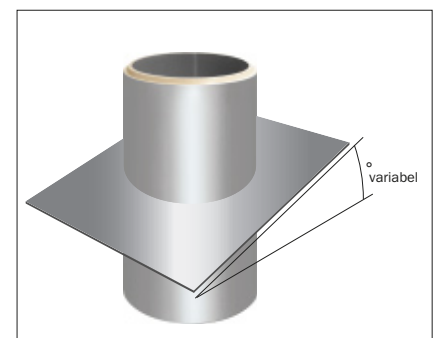
Make roof cut-out

2

Place VENTAFLEX Classic roof duct centered on the opening of the roof membrane, push it through the opening and connect it with the roof membrane generously.

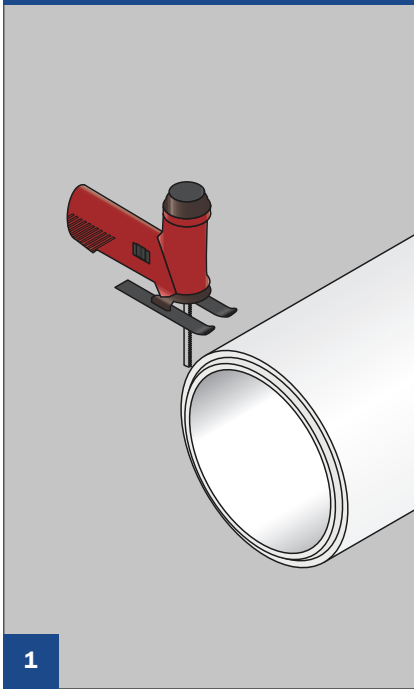
3

Connect the duct segments as shown (see „Installation VentaSnap + adhesion“).



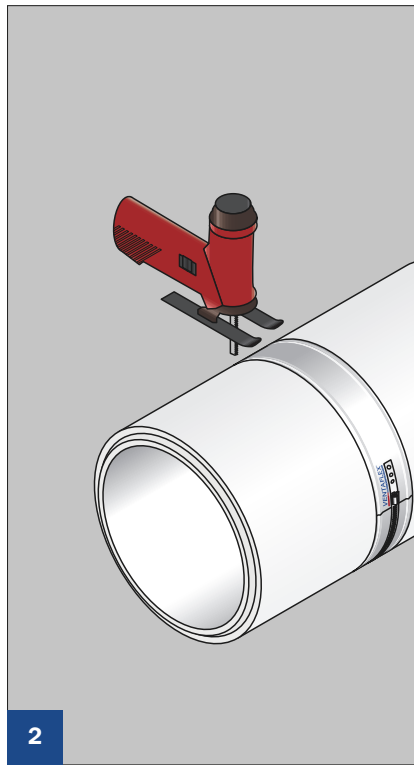
If required VENTAFLEX® produces a roof duct according to the angle of the roof inclination

Generation of exact duct length

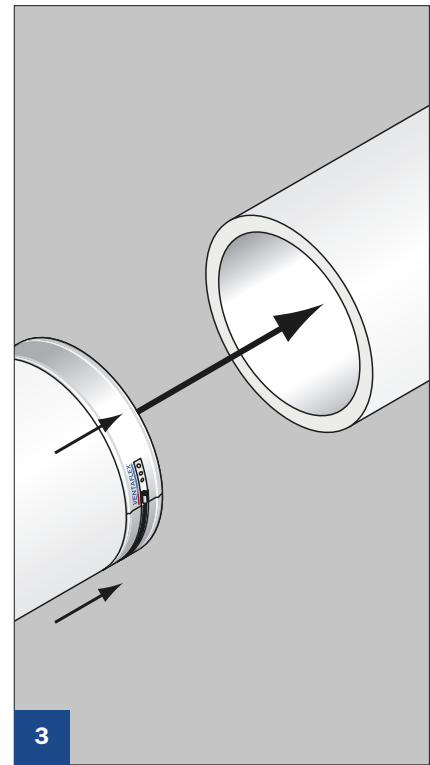


Remove groove or tongue at the connection point of the VENTAFLEX® air duct Classic..

Tip:
We recommend to cut the VENTAFLEX® air duct Classic with a jigsaw with a metal saw blade.

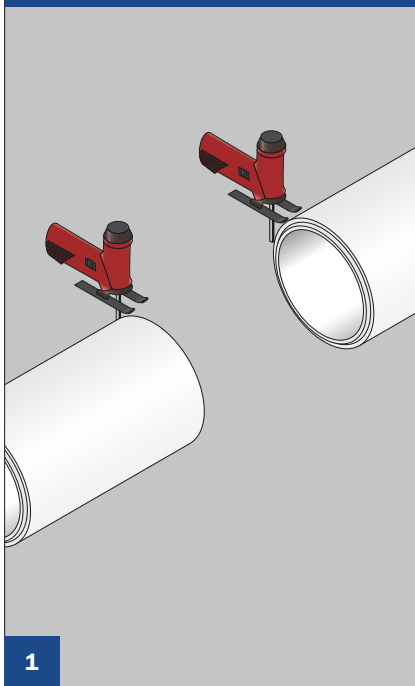


Push a VentaSnap clamp as a stop on the VENTAFLEX® air duct Classic which is to be shortened and tighten it slightly. After that shorten the VENTAFLEX® air duct Classic with the jigsaw.



Apply plenty of glue on the cutting point after shortening (see „Installation VentaSnap + adhesion“). Put both VENTAFLEX® air ducts Classic up to contact and spread the glue with pressure by moving the ducts back and forth. Finally pull the VentaSnap clamp centered over the connection and screw it together.

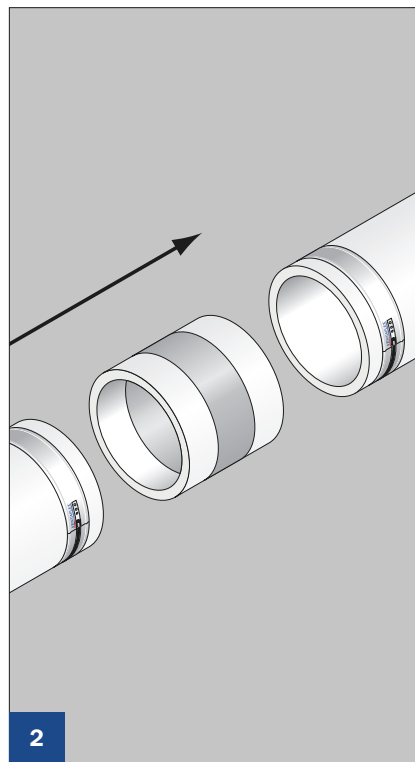
Installation of a compensator for the expansion compensation



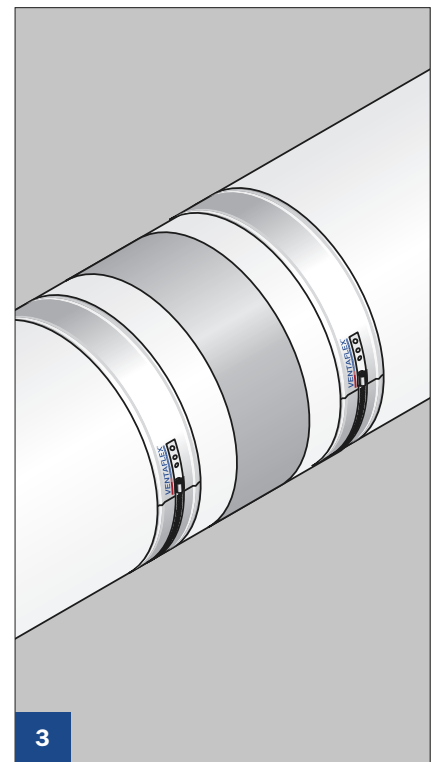
Remove groove or tongue at the connection point of the VENTAFLEX® air duct Classic with a jigsaw, between which the compensator should be inserted.

Tip:

We recommend to cut the VENTAFLEX® air duct Classic with a jigsaw with a metal saw blade.

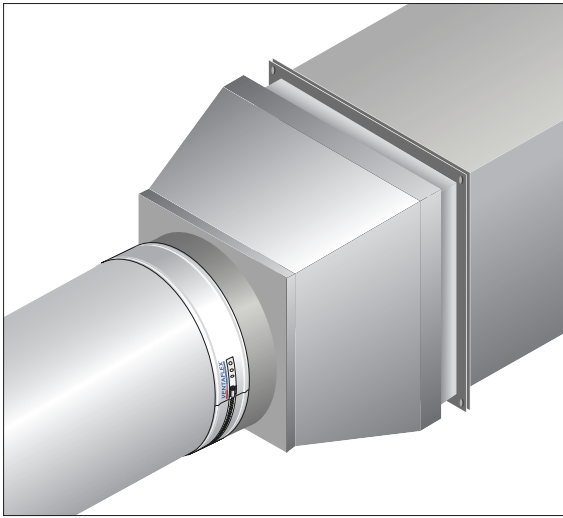


After pushing two VentaSnap clamps on the ends of the VENTAFLEX air ducts Classic, fit in the compensator between the two cutting points.



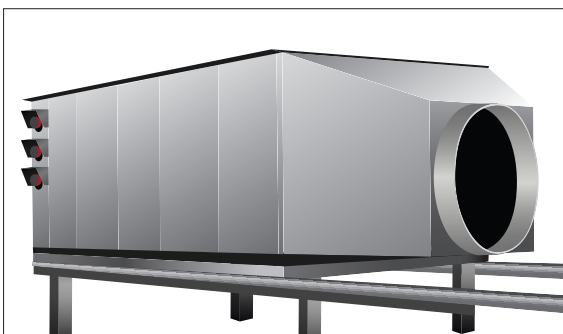
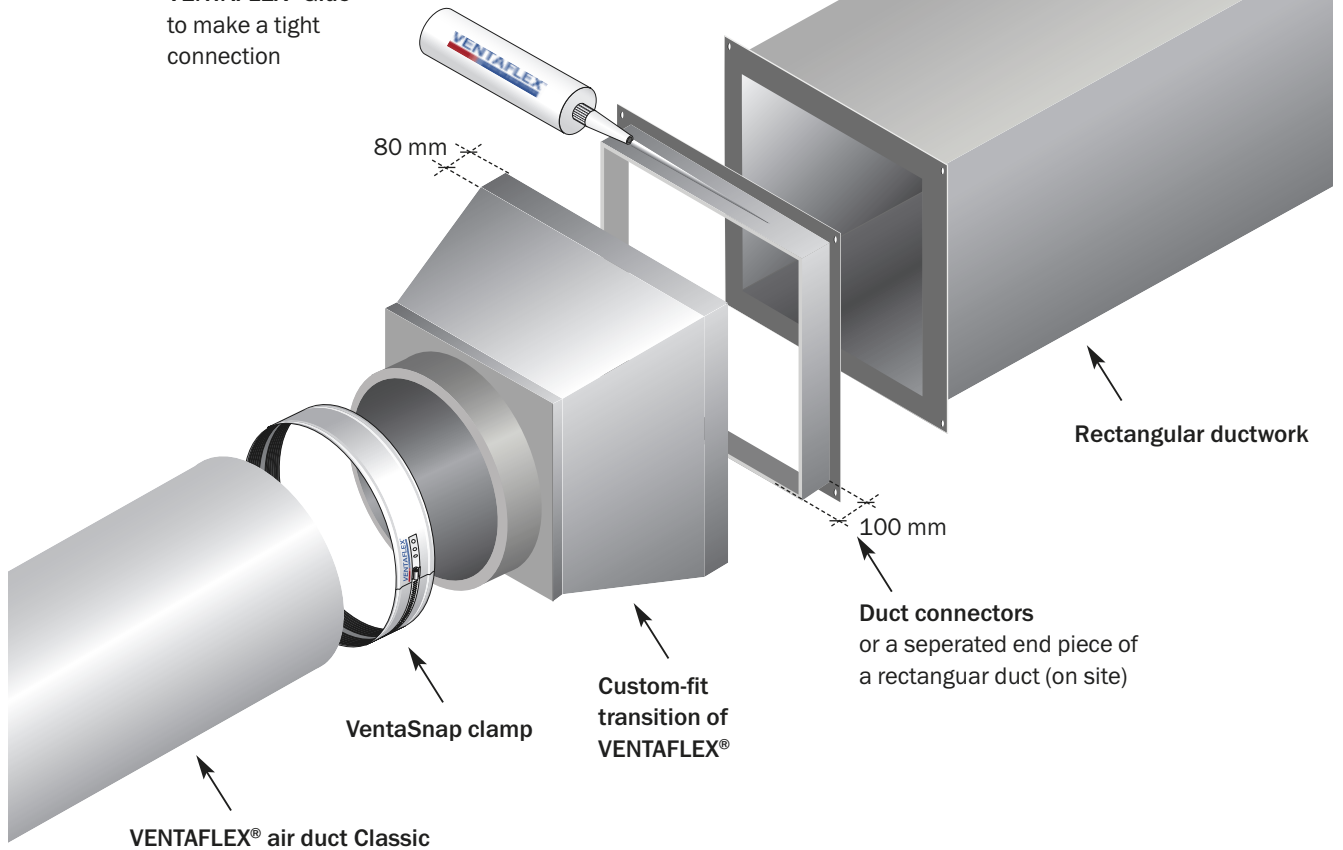
Apply plenty of glue on the cutting point after cutting (see „Installation VentaSnap + adhesion“). Put both VENTAFLEX® air ducts Classic up to contact and spread the glue with pressure by moving the ducts back and forth. Finally pull the VentaSnap clamps over the connecting joints and screw them together.

For air ducts with a length of over 15 m it is necessary to install an expansion compensation.



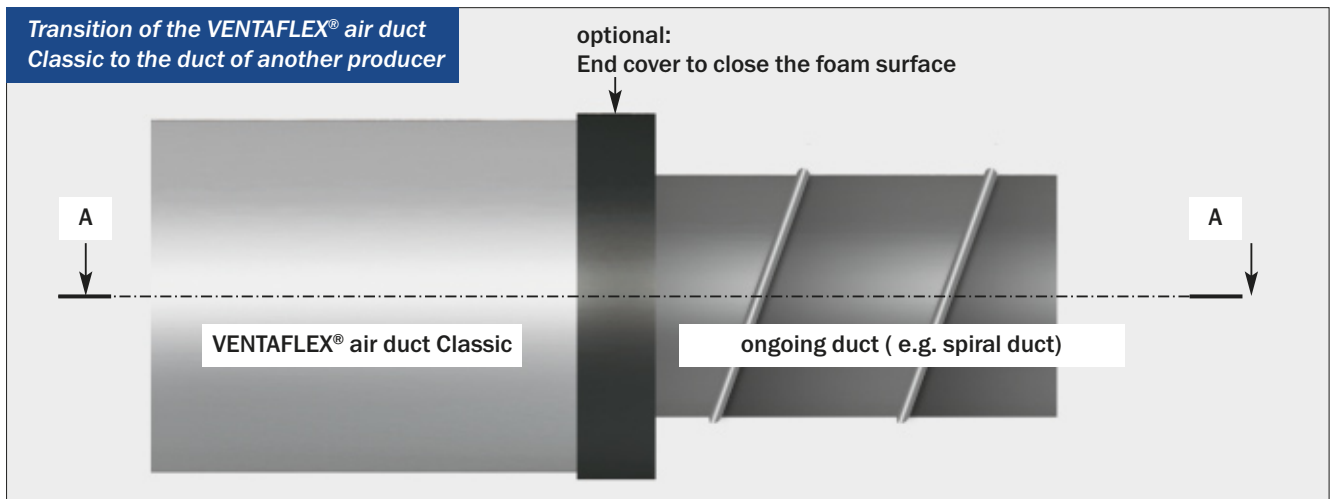
Installation of a tight connection between VENTAFLEX® air duct Classic and rectangular ductwork

Adhesion with VENTAFLEX® Glue to make a tight connection

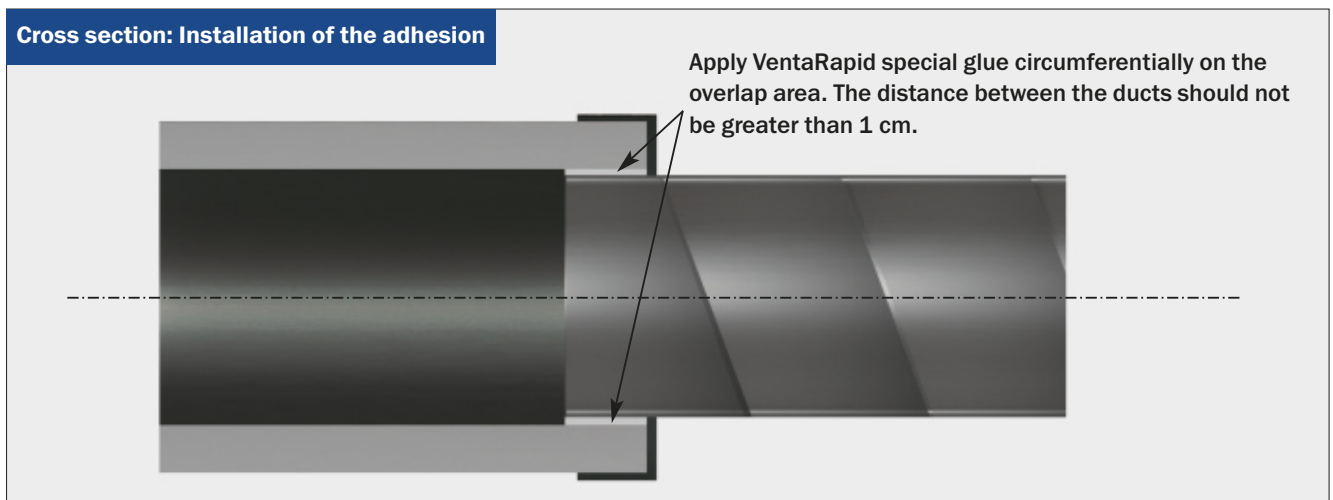


Also suitable as a connection with transition to the correct dimension for the HVAC systems

Transition of the VENTAFLEX® air duct Classic to the duct of another producer



Cross section: Installation of the adhesion



Since the diameters of the ducts of other producers are very often similar to the ducts of the VENTAFLEX® system, absolutely tight connections can be produced uncomplicated. A fitted cut-out end cover – if requested – makes an optically clean completion.

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www.ventaflex.de



VENTAFLEX® air duct Classic oval



Particularly for great air volumes
at low installation height

The VENTAFLEX® air duct Classic oval is generally applicable where insulation, tightness, weight and hygiene play a role. Thanks to high durability of the GRP-material a reliable operation in the long term is a special advantage of the system – for the interior-, exterior- and hygiene sector.

Certifications

- according to EN 12237 tightness class D (complies with EN 16798-3 of class ATC2)
- for the hygiene sector according to VDI 6022

Strong material

The basis of VENTAFLEX® air ducts is PUR rigid foam. The GRP-surfaces are made of fiberglass, polyester resin and additionally with an UV resistant gelcoat cover on the outside. This special material composite gives the ducts an extremely high stability.

Highly insulating

The VENTAFLEX® system has a thermal conductivity of only 0,022 W/mK. This corresponds to thermal conductivity group WL022. Consequently a condensation- and dew formation is to be excluded.

Especially aerodynamic

The air guidance is significantly more aerodynamic and therefore more efficient due to the oval form and the smooth surface compared to conventional square air channels.

Perfectly compatible

A connection to ducts of other producers, e.g. spiral ducts or stainless steel, is easily possible.

Additional safety instructions

The employer or self-employed person must ensure that industrial or professional users of diisocyanates have successfully completed safe use training.

Ultra light

The VENTAFLEX® air duct Classic has a weight saving up to 70 % compared to a comparable insulated air channel at same length. The weight allows the application on statically loaded roofs.

Absolutely hygienic

Because of the smooth surfaces VENTAFLEX® systems are very easy to clean and fulfill the hygiene requirement of VDI 6022. Due to the high chemical resistance the use of conventional industrial cleaners is absolutely unproblematic.

Space optimized and individually adapted

Everywhere where the installation height is limited and a round cross section can not be installed, the VENTAFLEX® air duct Classic is the right choice. Due to the modular system the air ducts can be perfectly adapted to the requirements.

Variable planning

The VENTAFLEX® standard product range offers the planner wide possibilities in his project planning: Ducts of the series 500-1250, curves, T-pieces, reductions and much more. The special thing about it are the highly variable moulded parts, which are produced according to requirement and planning.

Proven fields of application

- industrial-/exhibition halls
- swimming pools/sports facilities
- hotels/gastronomy
- schools/daycare facilities
- hospitals/care facilities
- statically loaded roofs
- food industry
- pharmaceutical industry/research
- highTech production

The structure of a VENTAFLEX Classic air duct oval: The width of the duct is adaptable thanks to the modular principle – up to 2270 mm



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Personal consulting at VENTAFLEX® under +49 (0) 2505 – 93 829-0



The VENTAFLEX® air duct Classic oval



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

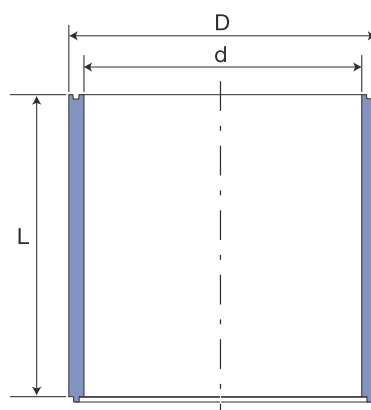
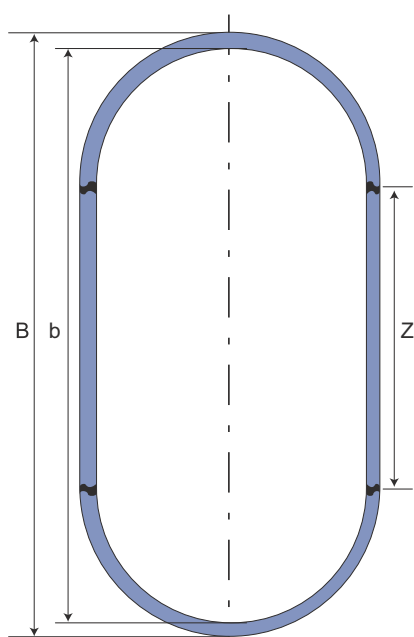
Light grey (RAL 7035)

series	Z mm	d mm	d mm	b mm	b mm	L mm	weight kg/piece	surface qm	free cross section qm
500	250	520	580	770	830	1000	8,2	2,13	0,34
	500	520	580	1020	1080	1000	10,0	2,64	0,47
	750	520	580	1270	1330	1000	11,8	3,14	0,60
	1000	520	580	1520	1580	1000	13,5	3,64	0,73
630	250	650	710	900	960	1000	9,7	2,55	0,49
	500	650	710	1150	1210	1000	11,4	3,05	0,66
	750	650	710	1400	1460	1000	13,2	3,55	0,82
	1000	650	710	1650	1710	1000	15,0	4,05	0,98
710	250	730	790	980	1040	1000	10,6	2,80	0,60
	500	730	790	1230	1290	1000	12,3	3,30	0,78
	750	730	790	1480	1540	1000	14,1	3,80	0,97
	1000	730	790	1730	1790	1000	15,9	4,30	1,15
800	250	820	880	1070	1130	1000	11,6	3,08	0,73
	500	820	880	1320	1380	1000	13,3	3,59	0,94
	750	820	880	1570	1630	1000	15,1	4,09	1,14
	1000	820	880	1820	1880	1000	16,9	4,59	1,35
900	250	920	980	1170	1230	1000	12,7	3,40	0,89
	500	920	980	1420	1480	1000	14,4	3,90	1,12
	750	920	980	1670	1730	1000	16,2	4,40	1,35
	1000	920	980	1920	1980	1000	18,0	4,90	1,58
1250	250	1270	1330	1520	1580	1000	16,6	4,50	1,58
	500	1270	1330	1770	1830	1000	18,3	5,00	1,90
	750	1270	1330	2020	2080	1000	20,1	5,50	2,22
	1000	1270	1330	2270	2330	1000	21,9	6,00	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	185203004
	810	520/1020	185213004
	840	520/1270	185223004
	860	520/1520	185233004
630	950	650/900	186503004
	990	650/1150	186513004
	1030	650/1400	186523004
	1050	650/1650	186533004
710	1070	730/980	187303004
	1110	730/1230	187313004
	1140	730/1480	187323004
	1170	730/1730	187333004
800	1190	820/1070	188203004
	1240	820/1320	188213004
	1270	820/1570	188223004
	1300	820/1820	188233004
900	1330	920/1170	189203004
	1380	920/1420	189213004
	1410	920/1670	189223004
	1440	920/1920	189233004
1250	1820	1270/1520	1812703004
	1870	1270/1770	1812713004
	1910	1270/2020	1812723004
	1950	1270/2270	1812733004

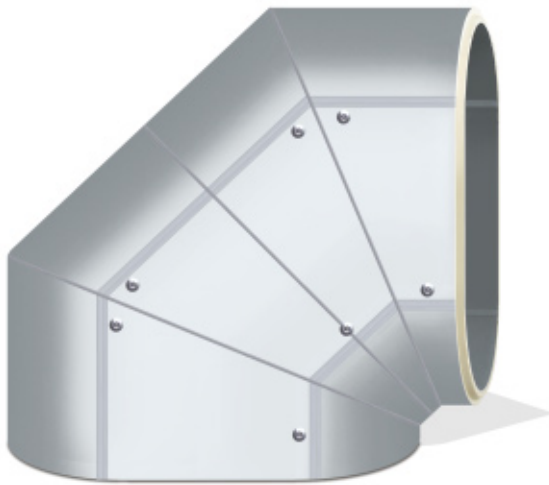


d = Inside diameter
 D = Outside diameter
 L = Length
 B = Width (outside)
 b = Width (inside)
 Z = Intermediate piece

VENTAFLEX®
 More efficiency in air conduction



The VENTAFLEX® air duct Classic oval Curve 90° vertical



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

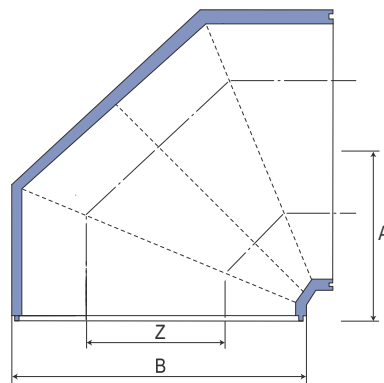
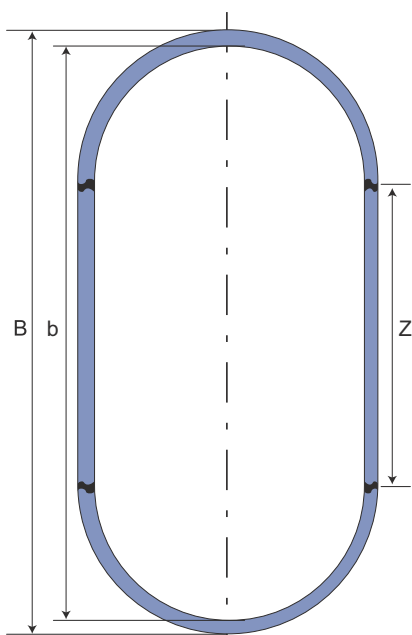
**Upon request curves can be produced
in any other needed angle**

series	Z mm	d mm	d mm	b mm	b mm	axial dimension A	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	1207	16,4	4,28	0,34
	500	520	580	1020	1080	1207	20,0	5,28	0,47
	750	520	580	1270	1330	1207	23,6	6,28	0,60
	1000	520	580	1520	1580	1207	27,0	7,28	0,73
630	250	650	710	900	960	1207	19,4	5,10	0,49
	500	650	710	1150	1210	1207	22,8	6,10	0,66
	750	650	710	1400	1460	1207	26,4	7,10	0,82
	1000	650	710	1650	1710	1207	30,0	8,10	0,98
710	250	730	790	980	1040	1207	21,2	5,60	0,60
	500	730	790	1230	1290	1207	24,6	6,60	0,78
	750	730	790	1480	1540	1207	28,2	7,60	0,97
	1000	730	790	1730	1790	1207	31,8	8,60	1,15
800	250	820	880	1070	1130	1207	23,2	6,18	0,73
	500	820	880	1320	1380	1207	26,6	7,18	0,94
	750	820	880	1570	1630	1207	30,2	8,16	1,14
	1000	820	880	1820	1880	1207	33,8	9,18	1,35
900	250	920	980	1170	1230	1207	25,4	6,80	0,89
	500	920	980	1420	1480	1207	28,8	7,80	1,12
	750	920	980	1670	1730	1207	32,4	8,80	1,35
	1000	920	980	1920	1980	1810	54,0	14,70	1,58
1250	250	1270	1330	1520	1580	1207	33,2	9,00	1,58
	500	1270	1330	1770	1830	1207	36,6	10,00	1,90
	750	1270	1330	2020	2080	1811	60,3	16,50	2,22
	1000	1270	1330	2270	2330	1811	65,7	18,00	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	945203004
	810	520/1020	945213004
	840	520/1270	945223004
	860	520/1520	945233004
630	950	650/900	946503004
	990	650/1150	946513004
	1030	650/1400	946523004
	1050	650/1650	946533004
710	1070	730/980	947303004
	1110	730/1230	947313004
	1140	730/1480	947323004
	1170	730/1730	947333004
800	1190	820/1070	948203004
	1240	820/1320	948213004
	1270	820/1570	948223004
	1300	820/1820	948233004
900	1330	920/1170	949203004
	1380	920/1420	949213004
	1410	920/1670	949223004
	1440	920/1920	949233004
1250	1820	1270/1520	9412703004
	1870	1270/1770	9412713004
	1910	1270/2020	9412723004
	1950	1270/2270	9412733004

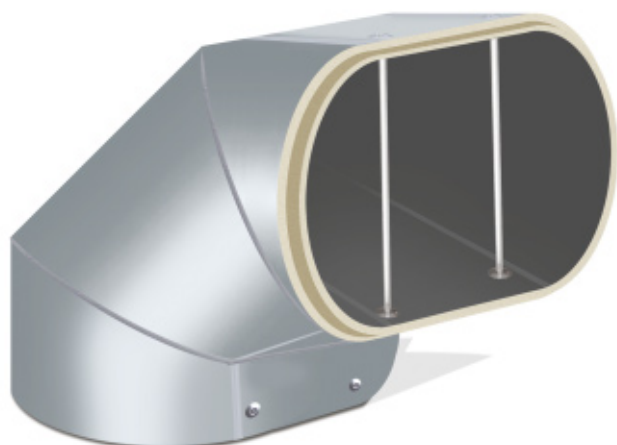


d = Inside diameter
 D = Outside diameter
 B = Width (outside)
 b = Width (inside)
 Z = Intermediate piece
 A = Axial dimension

VENTAFLEX®
 More efficiency in air conduction



The VENTAFLEX® air duct Classic oval Curve 90° horizontal



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

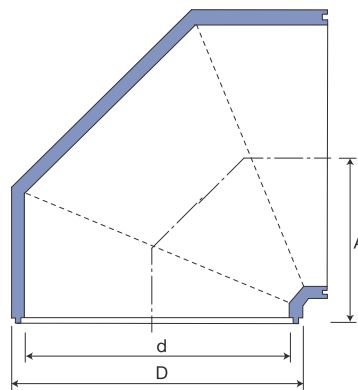
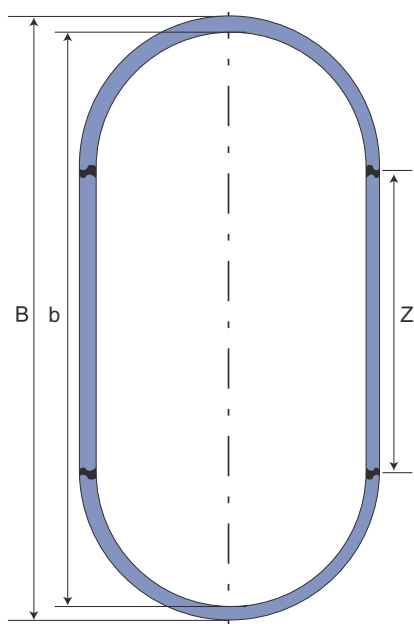
**Upon request curves can be produced
in any other needed angle**

series	Z mm	d mm	d mm	b mm	b mm	axial dimension A	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	598	8,2	2,13	0,34
	500	520	580	1020	1080	598	10,0	2,64	0,47
	750	520	580	1270	1330	598	11,8	3,14	0,60
	1000	520	580	1520	1580	598	13,5	3,64	0,73
630	250	650	710	900	960	602	9,7	2,55	0,49
	500	650	710	1150	1210	602	11,4	3,05	0,66
	750	650	710	1400	1460	602	13,2	3,55	0,82
	1000	650	710	1650	1710	602	15,0	4,05	0,98
710	250	730	790	980	1040	604	10,6	2,80	0,60
	500	730	790	1230	1290	604	12,3	3,30	0,78
	750	730	790	1480	1540	604	14,1	3,80	0,97
	1000	730	790	1730	1790	604	15,9	4,30	1,15
800	250	820	880	1070	1130	607	11,6	3,08	0,73
	500	820	880	1320	1380	607	13,3	3,59	0,94
	750	820	880	1570	1630	607	15,1	4,09	1,14
	1000	820	880	1820	1880	607	16,9	4,59	1,35
900	250	920	980	1170	1230	610	12,7	3,40	0,89
	500	920	980	1420	1480	610	14,4	3,90	1,12
	750	920	980	1670	1730	610	16,2	4,40	1,35
	1000	920	980	1920	1980	610	18,0	4,90	1,58
1250	250	1270	1330	1520	1580	899	16,6	6,75	1,58
	500	1270	1330	1770	1830	899	18,3	7,50	1,90
	750	1270	1330	2020	2080	899	20,1	8,25	2,22
	1000	1270	1330	2270	2330	899	21,9	9,00	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	945203104
	810	520/1020	945213104
	840	520/1270	945223104
	860	520/1520	945233104
630	950	650/900	946503104
	990	650/1150	946513104
	1030	650/1400	946523104
	1050	650/1650	946533104
710	1070	730/980	947303104
	1110	730/1230	947313104
	1140	730/1480	947323104
	1170	730/1730	947333104
800	1190	820/1070	948203104
	1240	820/1320	948213104
	1270	820/1570	948223104
	1300	820/1820	948233104
900	1330	920/1170	949203104
	1380	920/1420	949213104
	1410	920/1670	949223104
	1440	920/1920	949233104
1250	1820	1270/1520	9412703104
	1870	1270/1770	9412713104
	1910	1270/2020	9412723104
	1950	1270/2270	9412733104

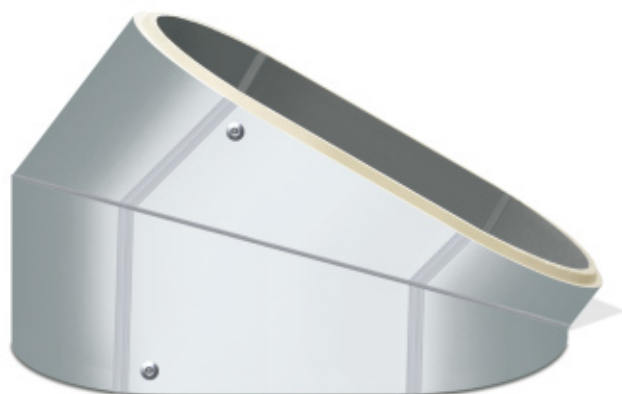


- d = Inside diameter
- D = Outside diameter
- B = Width (outside)
- b = Width (inside)
- Z = Intermediate piece
- A = Axial dimension

VENTAFLEX®
More efficiency in air conduction



The VENTAFLEX® air duct Classic oval Curve 45° vertical



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

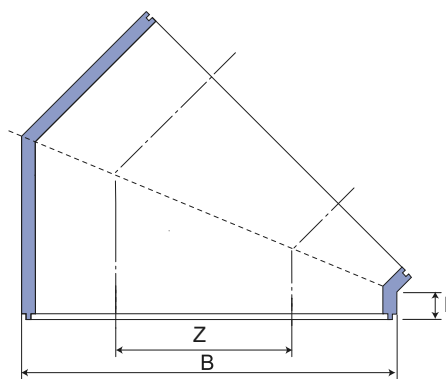
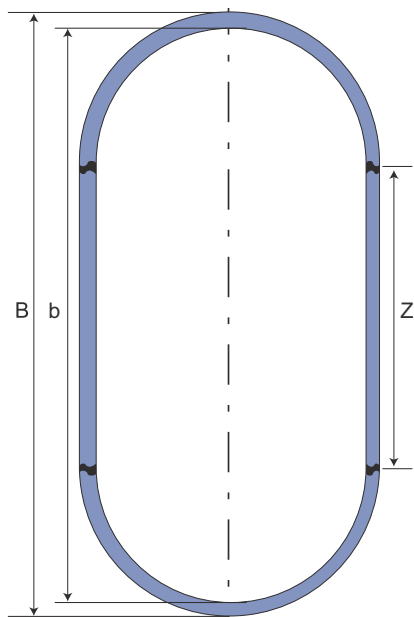
**Upon request curves can be produced
in any other needed angle**

series	Z mm	d mm	d mm	b mm	b mm	L side length	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	328	8,2	2,13	0,34
	500	520	580	1020	1080	276	10,0	2,64	0,47
	750	520	580	1270	1330	225	11,8	3,14	0,60
	1000	520	580	1520	1580	173	13,5	3,64	0,73
630	250	650	710	900	960	301	9,7	2,55	0,49
	500	650	710	1150	1210	249	11,4	3,05	0,66
	750	650	710	1400	1460	198	13,2	3,55	0,82
	1000	650	710	1650	1710	145	15,0	4,05	0,98
710	250	730	790	980	1040	285	10,6	2,80	0,60
	500	730	790	1230	1290	233	12,3	3,30	0,78
	750	730	790	1480	1540	181	14,1	3,80	0,97
	1000	730	790	1730	1790	129	15,9	4,30	1,15
800	250	820	880	1070	1130	266	11,6	3,08	0,73
	500	820	880	1320	1380	214	13,3	3,59	0,94
	750	820	880	1570	1630	162	15,1	4,09	1,14
	1000	820	880	1820	1880	111	16,9	4,59	1,35
900	250	920	980	1170	1230	245	12,7	3,40	0,89
	500	920	980	1420	1480	193	14,4	3,90	1,12
	750	920	980	1670	1730	142	16,2	4,40	1,35
	1000	920	980	1920	1980	340	27,0	7,35	1,58
1250	250	1270	1330	1520	1580	173	16,6	4,50	1,58
	500	1270	1330	1770	1830	121	18,3	5,00	1,90
	750	1270	1330	2020	2080	319	30,2	8,25	2,22
	1000	1270	1330	2270	2330	267	32,9	9,00	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	445203004
	810	520/1020	445213004
	840	520/1270	445223004
	860	520/1520	445233004
630	950	650/900	446503004
	990	650/1150	446513004
	1030	650/1400	446523004
	1050	650/1650	446533004
710	1070	730/980	447303004
	1110	730/1230	447313004
	1140	730/1480	447323004
	1170	730/1730	447333004
800	1190	820/1070	448203004
	1240	820/1320	448213004
	1270	820/1570	448223004
	1300	820/1820	448233004
900	1330	920/1170	449203004
	1380	920/1420	449213004
	1410	920/1670	449223004
	1440	920/1920	449233004
1250	1820	1270/1520	4412703004
	1870	1270/1770	4412713004
	1910	1270/2020	4412723004
	1950	1270/2270	4412733004

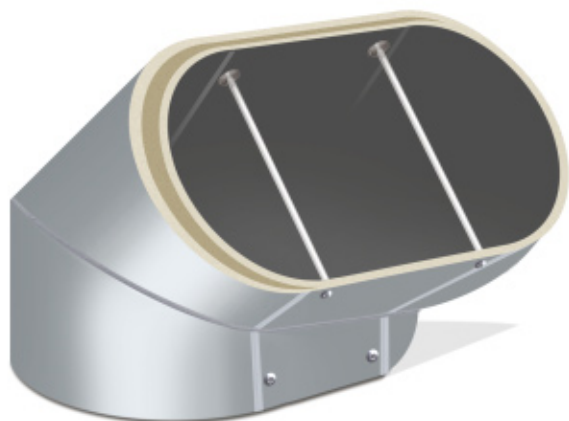


d = Inside diameter
 D = Outside diameter
 B = Width (outside)
 b = Width (inside)
 Z = Intermediate piece
 L = Side length

VENTAFLEX®
 More efficiency in air conduction



The VENTAFLEX® air duct Classic oval Curve 45° horizontal



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

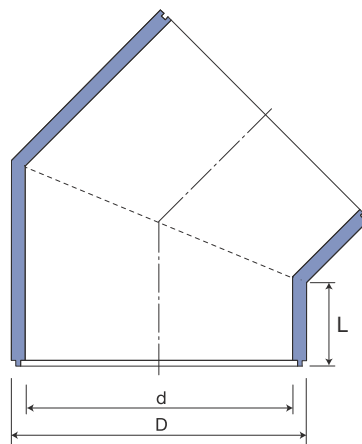
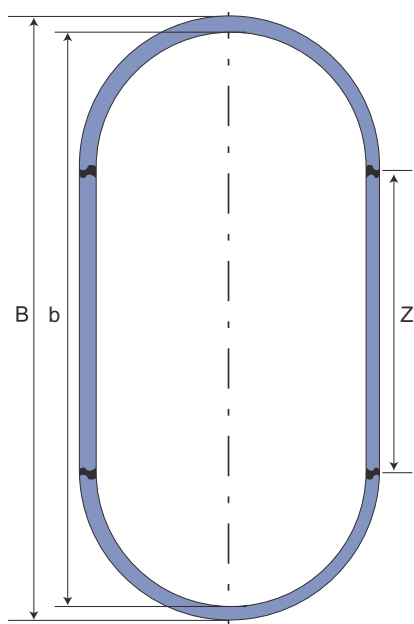
**Upon request curves can be produced
in any other needed angle**

series	Z mm	d mm	d mm	b mm	b mm	L side length	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	370	8,2	2,13	0,34
	500	520	580	1020	1080	370	10,0	2,64	0,47
	750	520	580	1270	1330	370	11,8	3,14	0,60
	1000	520	580	1520	1580	370	13,5	3,64	0,73
630	250	650	710	900	960	343	9,7	2,55	0,49
	500	650	710	1150	1210	343	11,4	3,05	0,66
	750	650	710	1400	1460	343	13,2	3,55	0,82
	1000	650	710	1650	1710	343	15,0	4,05	0,98
710	250	730	790	980	1040	326	10,6	2,80	0,60
	500	730	790	1230	1290	326	12,3	3,30	0,78
	750	730	790	1480	1540	326	14,1	3,80	0,97
	1000	730	790	1730	1790	326	15,9	4,30	1,15
800	250	820	880	1070	1130	310	11,6	3,08	0,73
	500	820	880	1320	1380	310	13,3	3,59	0,94
	750	820	880	1570	1630	310	15,1	4,09	1,14
	1000	820	880	1820	1880	310	16,9	4,59	1,35
900	250	920	980	1170	1230	287	12,7	3,40	0,89
	500	920	980	1420	1480	287	14,4	3,90	1,12
	750	920	980	1670	1730	287	16,2	4,40	1,35
	1000	920	980	1920	1980	287	18,0	4,90	1,58
1250	250	1270	1330	1520	1580	225	16,6	4,50	1,58
	500	1270	1330	1770	1830	225	18,3	5,00	1,90
	750	1270	1330	2020	2080	225	20,1	5,50	2,22
	1000	1270	1330	2270	2330	225	21,9	6,00	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	445203104
	810	520/1020	445213104
	840	520/1270	445223104
	860	520/1520	445233104
630	950	650/900	446503104
	990	650/1150	446513104
	1030	650/1400	446523104
	1050	650/1650	446533104
710	1070	730/980	447303104
	1110	730/1230	447313104
	1140	730/1480	447323104
	1170	730/1730	447333104
800	1190	820/1070	448203104
	1240	820/1320	448213104
	1270	820/1570	448223104
	1300	820/1820	448233104
900	1330	920/1170	449203104
	1380	920/1420	449213104
	1410	920/1670	449223104
	1440	920/1920	449233104
1250	1820	1270/1520	4412703104
	1870	1270/1770	4412713104
	1910	1270/2020	4412723104
	1950	1270/2270	4412733104

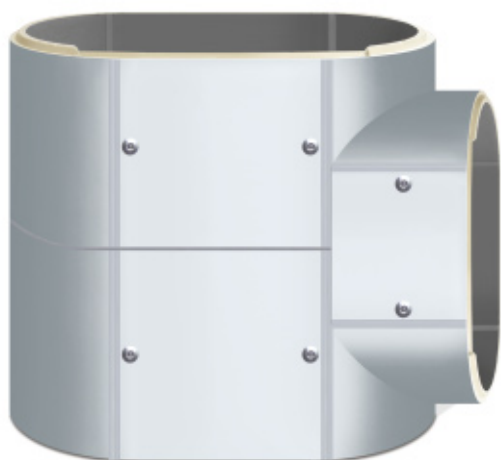


- d = Inside diameter
- D = Outside diameter
- B = Width (outside)
- b = Width (inside)
- Z = Intermediate piece
- L = Side length

VENTAFLEX®
More efficiency in air conduction



The VENTAFLEX® air duct Classic oval T-piece 90° vertical



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

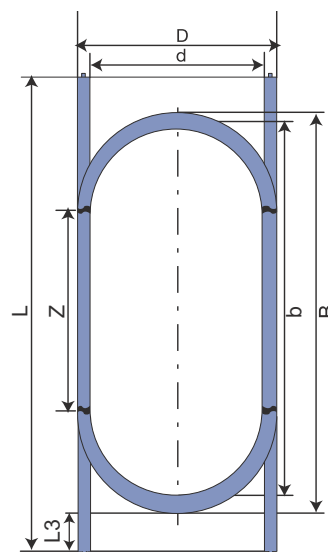
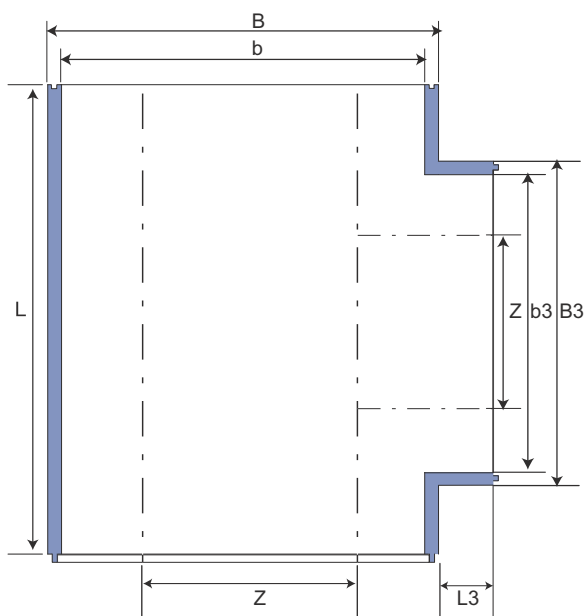
Upon request T-pieces can be produced in any other needed angle

series	Z mm	d mm	d mm	b mm	b mm	L mm	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	1000	12,3	1,65	0,34
	500	520	580	1020	1080	1500	20,0	3,27	0,47
	750	520	580	1270	1330	1500	23,6	4,72	0,60
	1000	520	580	1520	1580	2000	33,8	7,73	0,73
630	250	650	710	900	960	1500	19,4	4,30	0,49
	500	650	710	1150	1210	1500	22,8	4,73	0,66
	750	650	710	1400	1460	2000	33,0	7,69	0,82
	1000	650	710	1650	1710	2000	37,5	8,24	0,98
710	250	730	790	980	1040	1500	21,2	4,58	0,60
	500	730	790	1230	1290	1500	24,6	4,95	0,78
	750	730	790	1480	1540	2000	35,3	8,03	0,97
	1000	730	790	1730	1790	2000	39,8	8,52	1,15
800	250	820	880	1070	1130	1500	23,2	4,87	0,73
	500	820	880	1320	1380	2000	33,3	7,85	0,94
	750	820	880	1570	1630	2000	37,8	9,22	1,14
	1000	820	880	1820	1880	2500	47,5	12,24	1,35
900	250	920	980	1170	1230	1500	25,4	5,15	0,89
	500	920	980	1420	1480	2000	36,0	8,26	1,12
	750	920	980	1670	1730	2000	40,5	8,75	1,35
	1000	920	980	1920	1980	2500	54,0	13,73	1,58
1250	250	1270	1330	1520	1580	2000	41,5	9,18	1,58
	500	1270	1330	1770	1830	2000	45,75	9,50	1,90
	750	1270	1330	2020	2080	2500	60,3	13,81	2,22
	1000	1270	1330	2270	2330	2500	65,7	14,25	2,54

Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	785203004
	810	520/1020	785213004
	840	520/1270	785223004
	860	520/1520	785233004
630	950	650/900	786503004
	990	650/1150	786513004
	1030	650/1400	786523004
	1050	650/1650	786533004
710	1070	730/980	787303004
	1110	730/1230	787313004
	1140	730/1480	787323004
	1170	730/1730	787333004
800	1190	820/1070	788203004
	1240	820/1320	788213004
	1270	820/1570	788223004
	1300	820/1820	788233004
900	1330	920/1170	789203004
	1380	920/1420	789213004
	1410	920/1670	789223004
	1440	920/1920	789233004
1250	1820	1270/1520	7812703004
	1870	1270/1770	7812713004
	1910	1270/2020	7812723004
	1950	1270/2270	7812733004



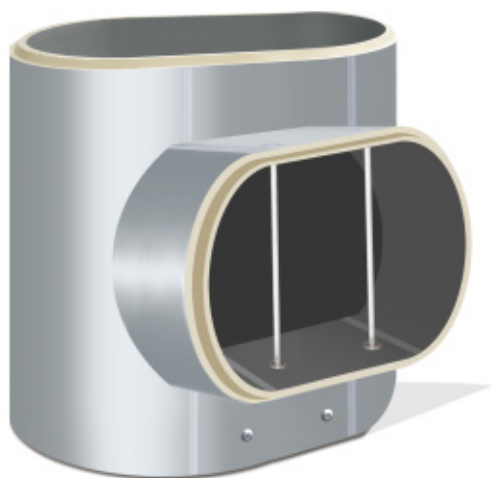
d = Inside diameter
 D = Outside diameter
 B = Width (outside)
 b = Width (inside)

Z = Intermediate piece
 L = Length (T-piece)
 $L3 = \text{Length (Outgoing)} = \frac{L - B3}{2}$

VENTAFLEX®
 More efficiency in air conduction



The VENTAFLEX® air duct Classic oval T-piece 90° horizontal



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

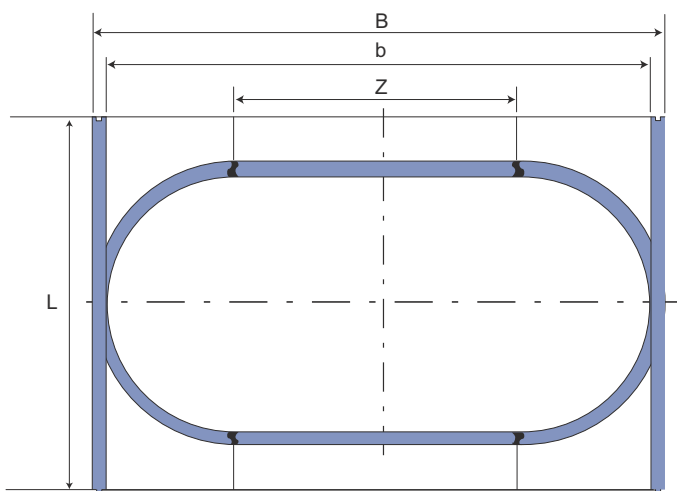
Upon request T-pieces can be produced in any other needed angle

series	Z mm	d mm	d mm	b mm	b mm	L mm	weight kg/piece	surface qm	cross section
500	250	520	580	770	830	1000	7,4	2,12	0,34
	500	520	580	1020	1080	1000	10,0	2,85	0,47
	750	520	580	1270	1330	1000	11,7	3,33	0,60
	1000	520	580	1520	1580	1000	13,3	3,81	0,73
630	250	650	710	900	960	1000	9,1	2,60	0,49
	500	650	710	1150	1210	1000	10,6	3,02	0,66
	750	650	710	1400	1460	1000	12,0	3,44	0,82
	1000	650	710	1650	1710	1000	13,5	3,85	0,98
710	250	730	790	980	1040	1500	16,8	4,81	0,60
	500	730	790	1230	1290	1500	17,6	5,04	0,78
	750	730	790	1480	1540	1500	22,1	6,31	0,97
	1000	730	790	1730	1790	1500	24,7	7,07	1,15
800	250	820	880	1070	1130	1500	17,9	5,12	0,73
	500	820	880	1320	1380	1500	20,4	5,83	0,94
	750	820	880	1570	1630	1500	22,9	6,53	1,14
	1000	820	880	1820	1880	1500	25,3	7,24	1,35
900	250	920	980	1170	1230	1500	19,0	5,42	0,89
	500	920	980	1420	1480	1500	21,3	6,08	1,12
	750	920	980	1670	1730	1500	23,6	6,74	1,35
	1000	920	980	1920	1980	1500	25,9	7,39	1,58
1250	250	1270	1330	1520	1580	2000	33,4	9,54	1,58
	500	1270	1330	1770	1830	2000	36,40	10,40	1,90
	750	1270	1330	2020	2080	2000	39,4	11,25	2,22
	1000	1270	1330	2270	2330	2000	42,4	12,11	2,54

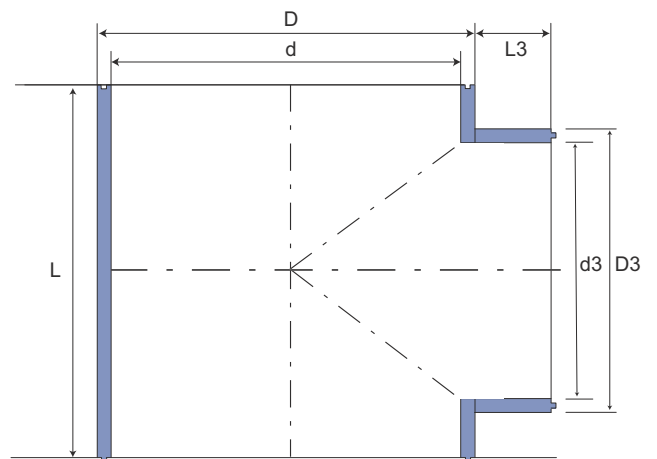
Weight indication without reinforcement



series	d*hyd mm	inner dimensions	item no.
500	770	520/770	785203104
	810	520/1020	785213104
	840	520/1270	785223104
	860	520/1520	785233104
630	950	650/900	786503104
	990	650/1150	786513104
	1030	650/1400	786523104
	1050	650/1650	786533104
710	1070	730/980	787303104
	1110	730/1230	787313104
	1140	730/1480	787323104
	1170	730/1730	787333104
800	1190	820/1070	788203104
	1240	820/1320	788213104
	1270	820/1570	788223104
	1300	820/1820	788233104
900	1330	920/1170	789203104
	1380	920/1420	789213104
	1410	920/1670	789223104
	1440	920/1920	789233104
1250	1820	1270/1520	7812703104
	1870	1270/1770	7812713104
	1910	1270/2020	7812723104
	1950	1270/2270	7812733104



Front view



Side view

d = Inside diameter
 D = Outside diameter
 B = Width (outside)
 b = Width (inside)

Z = Intermediate piece
 L = Length (T-piece)
 $L3 = \text{Length (Outgoing)} = \frac{L - D3}{2}$

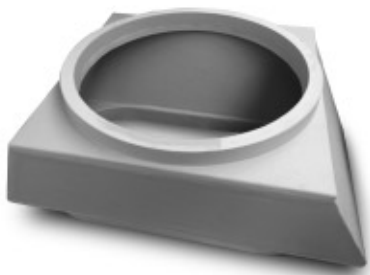
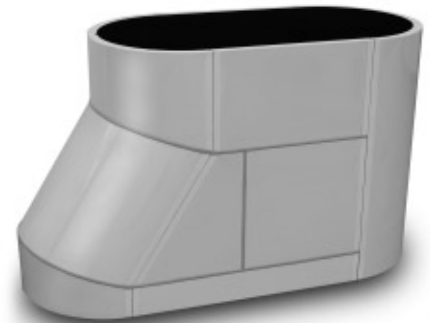
VENTAFLEX®
 More efficiency in air conduction

Special components

Manufacture for individual projects

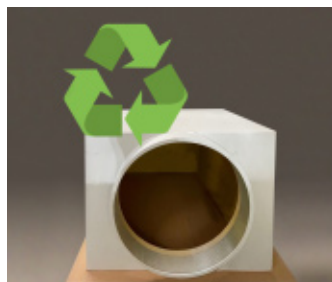
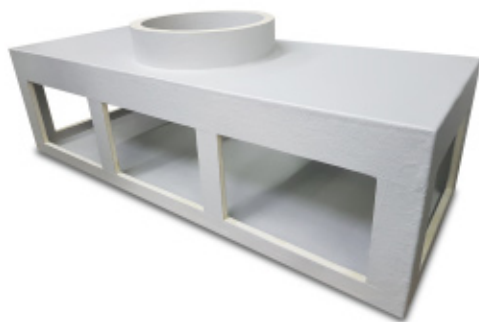
... customized solution!

Round cross section on oval?
 Oval on square? The solution comes from VENTAFLEX®:
 We manufacture special components, adapting to each system, which neatly connect different duct forms and –sizes with each other.



Functionality and optics

VENTAFLEX® has developed a new surface finishing process especially for special components. This means that every custom-made product has the high resistance to chemicals, abrasion and weathering that characterizes all VENTAFLEX® air ducts. Our workpieces leave production with a smooth and even surface - good looks are also important to us!



Finally recyclable!

Material purity was a goal on the way to even more sustainability: Sorted PUR residues are processed in order to be used as raw material for the production of new components at VENTAFLEX®.

Everything from a single source

The workpieces are manufactured completely by us without any detours and delivered to their place of use – constant availability and punctual delivery are our service promise.

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VENTAFLEX Classic supplies-system oval

Optimized components –
Customized and multiply tested



“Everything from one provider”!
You find all materials in our
supplies to install a complete
duct system professionally.

The supplies are – depending on
the application – functionally
combinable. We like to advise you
on the ideal combination of your
components and the material!



Inhalte	Seite
VENTAFLEX® oval-clamp	3.17
Oval-compensator	3.18
VentaRapid	3.19

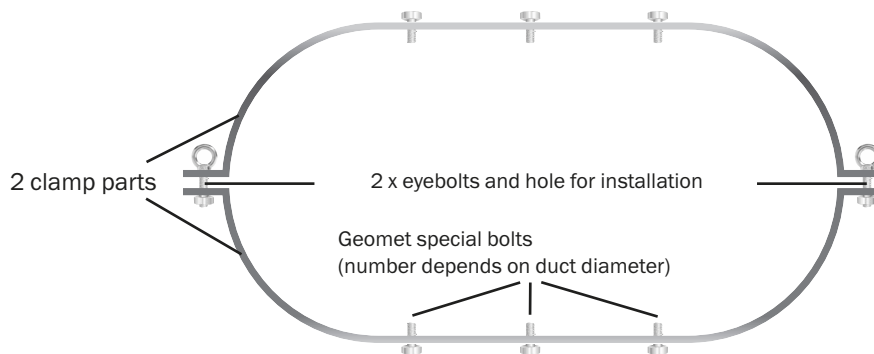




VENTAFLEX® Classic oval-clamp

For the connection of air ducts oval with the installation option of placing on stands or hanging.

Material
Stainless steel

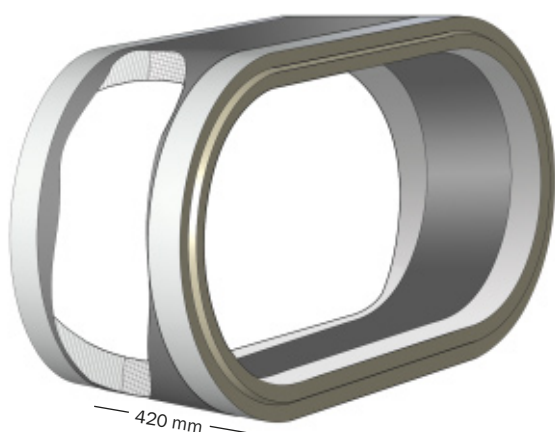


Please pay attention to the processing information. Additionally an adhesion with the special glue VentaRapid or VentaFit has to be made.

for ducts with the measures Ø mm	item no.
Ø 520 x 770/30	4245203000
Ø 520 x 1.020/30	4245213000
Ø 520 x 1.270/30	4245223000
Ø 520 x 1520/30	4245233000
Ø 650 x 900/30	4246503000
Ø 650 x 1.150/30	4246513000
Ø 650 x 1.400/30	4246523000
Ø 650 x 1.650/30	4246533000
Ø 730 x 980/30	4247303000
Ø 730 x 1.230/30	4247313000
Ø 730 x 1.480/30	4247323000
Ø 730 x 1.730/30	4247333000
Ø 820 x 1.070/30	4248203000
Ø 820 x 1.320/30	4248213000
Ø 820 x 1.570/30	4248223000
Ø 820 x 1.820/30	4248233000
Ø 920 x 1.170/30	4249203000
Ø 920 x 1.420/30	4249213000
Ø 920 x 1.670/30	4249223000
Ø 920 x 1.920/30	4249233000
Ø 1270 x 1.520/30	42412703000
Ø 1270 x 1.770/30	42412713000
Ø 1270 x 2.020/30	42412723000
Ø 1270 x 2.270/30	42412733000



Oval-compensator



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

Light grey (RAL 7035)

We recommend using an expansion compensation as of a duct length of 15 m.

series	Z mm	d mm	item no.
500	250	520	845203004
	500	520	845213004
	750	520	845223004
	1000	520	845233004
630	250	650	846503004
	500	650	846513004
	750	650	846523004
	1000	650	846533004
710	250	730	847303004
	500	730	847313004
	750	730	847323004
	1000	730	847333004
800	250	820	848203004
	500	820	848213004
	750	820	848223004
	1000	820	848233004
900	250	920	849203004
	500	920	849213004
	750	920	849223004
	1000	920	849233004
1250	250	1270	8412703004
	500	1270	8412713004
	750	1270	8412723004
	1000	1270	8412733004



VentaRapid



VentaRapid is a special developed glue for the adhesion of VENTAFLEX® air ducts Classic. The inner- and outer sealing of connection points is easily possible as well.

quantity	item no.
600 ml	0030015004

Material requirements (right chart)

The required amount of glue depends on the number of connection points – and of course on the diameter or rather the form of the duct. On the basis of the chart the expected quantity can be calculated, which can be produced by one bag.

Attention! When using dangerous respirable dust can occur. Do not breath in the dust! As of 24.08.2023 before an industrial or commercial application an according training has to be made.

series	inside dimensions	Number of adhesion- or rather connection points, which can be produced with one tubular bag	
		Venta Rapid	VentaFit
500	520/770	4	2
	520/1020	4	2
	520/1270	2	1
	520/1520	2	1
630	650/900	4	2
	650/1150	2	1
	650/1400	2	1
	650/1650	1	0,75
710	730/980	2	1
	730/1230	2	1
	730/1480	1	0,75
	730/1730	1	0,75
800	820/1070	2	1
	820/1320	1	0,75
	820/1570	1	0,75
	820/1820	1	0,5
900	920/1170	1	0,75
	920/1420	1	0,75
	920/1670	1	0,5
	920/1920	1	0,5
1250	1270/1520	0,75	0,5
	1270/1770	0,75	0,5
	1270/2020	0,5	0,25
	1270/2270	0,5	0,25

Tubular bag press



Especially for tubular bags with 400 ml or 600 ml

quantity	item no.
1	0030019001

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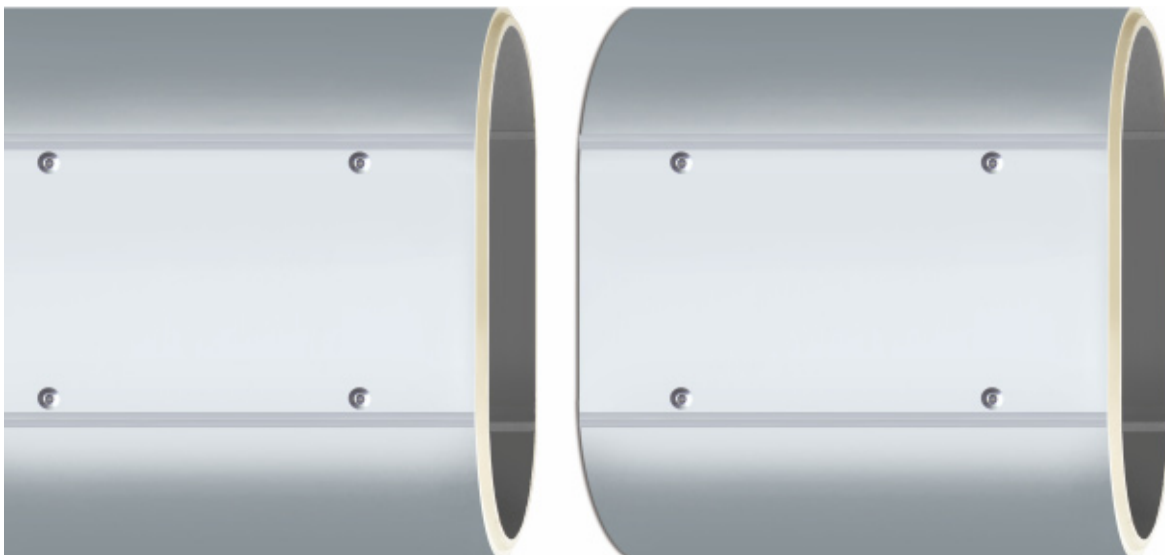
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www.ventaflex.de

INSTALLATION INSTRUCTION

VENTAFLEX®

air duct Classic

for room · facade · roof



VENTAFLEX® AIR DUCT CLASSIC OVAL

Responsibility

The installation instruction for VENTAFLEX® products are a non-binding recommendation which is not legally binding. They are based on construction data and installation experience. An overall responsibility for the system on the part of VENTAFLEX® is not possible, because it solely develops, produces and delivers components and modules for the preparation of ventilation- and heating systems.

Please read this installation instruction carefully before starting the installation und make sure that all necessary materials and tools are ready to be used.

Safety note

Installation work may only be done by skilled workers who have sufficient knowledge in

- safety regulations
- accident prevention regulations
- guidelines and recognized rules of the technology (e.g. VDE-provisions, DIN-standards) because of their professional training, experience und instruction.

The skilled workers must

- be able to assess the assigned work, recognize possible dangers and avoid them
- be authorized to carry out the necessary work and action by those responsible for safety of the plant.

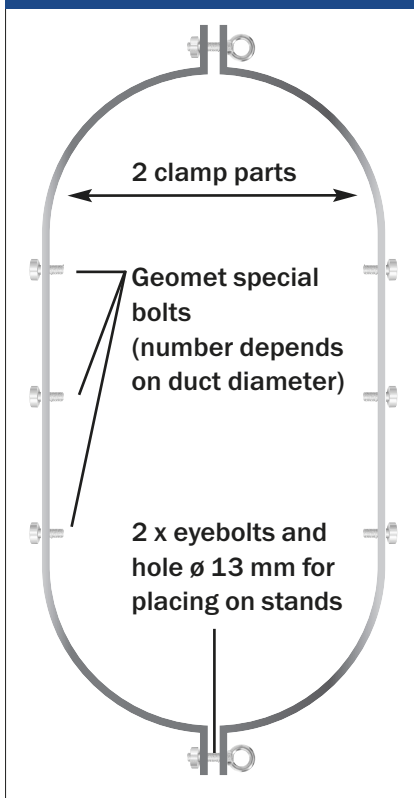
Quick help

If you have any further questions regarding the installation or other VENTAFLEX® products, please contact our hotline or call us under **+49 (0) 25 05 - 93 829 -20**. We will now lead you through the installation step by step.

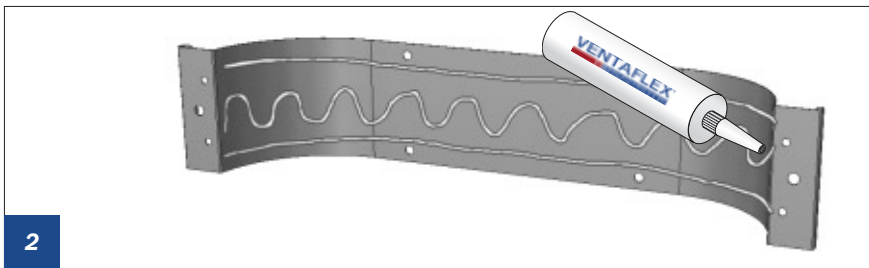
You find further generally valid information about the processing of VENTAFLEX® air ducts under www.ventaflex.de

The employer or self-employed person has to make sure that industrial or commercial users of diisocyanate have completed a training for the secure use of it.

Structure oval-clamp



Installation VENTAFLEX® Classic oval clamp



VentaRapid is a special glue for PUR rigid foam. Ideal results are reached at a processing temperature of 5° C to 35° C. Skin building time is after approx. 20 min. Indications of quantity are found on the cartridge.

Tip:

At low ambient temperature the flowability can be improved by placing the cartridges in a bucket of warm water before handling them.

Apply the adhesive all around the various levels of the joint. Ensure that all bonding and sealing surfaces are free of dust, grease and other deposits. Place a second duct on top of the first and align until the tongue and groove interlock. Then seal the glued seams from the outside with adhesive and apply it generously across the width of the clamp.

Place the VENTAFLEX® Classic oval clamps around the joint. Tighten the eye bolts on the sides and press them firmly onto the adhesive surface, then fit the special screws into all the existing drill holes in the clamps and screw them into the duct.

For the mounting of the VENTAFLEX® Classic oval clamps only use the specifically developed Geomet special bolts to maintain the tightness of the duct.

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LAVANTUS[®]

VENTAFLEX[®] air duct
for underground installation

VENTAFLEX[®]
PATENTED
TECHNOLOGY

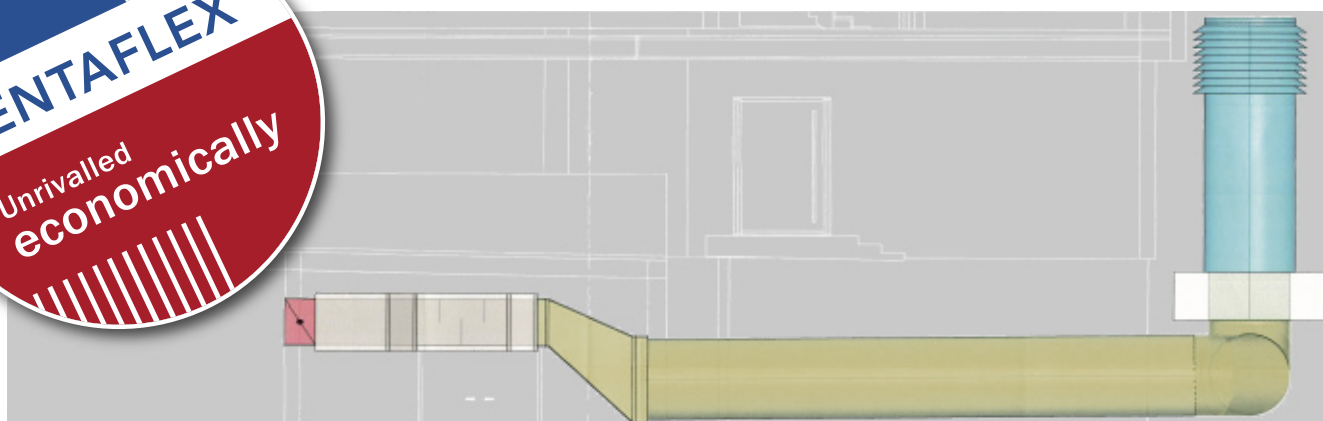
... pur PUR:
100 % material purity

VENTAFLEX[®]

More efficiency in air conduction

Technical specifications

LAVANTUS® air ducts for underground installation – facts and figures for application



Our demand on ourselves Quality management

A good idea only has continuance if it is permanently making progress and research, current legislation and experience are meticulously collected and taken into account during this process. In order to meet the increasing quality standards we apply refined examination procedures at VENTAFLEX® again and again. Thus no component leaves the production without having gone through different company tests. Furthermore one part of the critical review phase are our “Practice Reports”, which show various VENTAFLEX® solutions on the basis of specific projects and have exemplary character for planners.




Regular internal quality checks and special certifications by independent institutions guarantee continuous quality of our products and the eligibility for special application areas – e.g. for the hygiene sector.

Argumentation aid

On the basis of documented specifications it is illustrated which advantages LAVANTUS® air ducts offer at different applications under various conditions.

Inhalte	Seite
Quick-Check	4.2
- advantage to conventional duct	
Checkliste	4.3
- standardized planning aid	
Thermal protection-insulation value	4.4
Pressure loss	4.5
- graphic for quick lay-out	
Tightness of components	4.6
Hygiene properties	4.7
- certification	
Chemical resistance	4.8
- and other properties	
Planning and service	4.9
- BIM and tender documents	

Quick-check air guidance

COMPARISON:	LAVANTUS® air duct highly insulated rigid foam	Concrete pipe	Plastic pipe PP or PVC
Ducts that are used for air conduction in the ground.			
Specification	Specifically made for underground air conduction	Originally for the transport of waste water	Originally for the transport of waste water
Time saving at installation	●●● fast and solid connection of 3 m ducts with LavantusGrip clamp	— has to be put together custom-fitted with heavy machinery	●● glued, welded, or put together
Weight saving	●●●	—	●●
Thermal protection	●●● pre-insulated air duct	— uninsulated	— uninsulated
Stability	●●	●●●	●
Prevention of condensate	●●●	—	—
Application in hygiene sensitive areas	●●● microbially inert surface	—	●
Staining/surface	●●● smooth and closed-pored	— rough and open	●● smooth

Legend: ● = average ●● = good ●●● = excellent — = not sufficient or not existent



Checklist: planning

By compliance with certain planning principles a construction with LAVANTUS® air ducts and the consequently resulting order is very easy. If the following information and keywords are considered beforehand, this can be very helpful for the planning and respectively the order.

Planning principles before ordering	Done	
	yes	No
Match duct system to building project		
Select diameter (-> link to the calculation tool)	-> Volume flow in the system (m ³ /h) -> Air velocity	
Explode parts list with VENTAFLEX® molded parts		
Special components (or connection of ventilation units - towers to the VENTAFLEX® duct system) such as transitions(round to square) must be provided by the customer.		
Wall duct, wall collar or annular space seal		
Connection of ducts/molded parts LavantusGrip cuff		
Individual statics calculation (in the execution planning)		
Buoyancy protection for groundwater		
Placement in the ground (with at least 30 cm bedding and covering with filling sand)		
Distance between the ducts (min. distance 50 cm)		
Backfilling with filling sand		
Leak test		
Cleaning the ventilation system before commissioning (VDI 6022)		



Heat permeability: U-value

The U-value is a measure for the heat transition through a component and is specified in W/(m²K). With the U-value it is also expressed, which thermal output per m² innersurface of the LAVANTUS® air duct is needed to maintain the temperature in the ventilation system.

The smaller the U-value, the better, because less heat is guided through the component

Formular:

$$R = \frac{d}{\lambda}$$

Thermal resistance R unit = (m²K)/W

d = material thickness in meter (m)

= Lambda W/(mK) (thermal conductivity of building materials) WLG

$$U = \frac{1}{R}$$

U-value unit = W/(m²K)

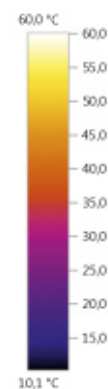
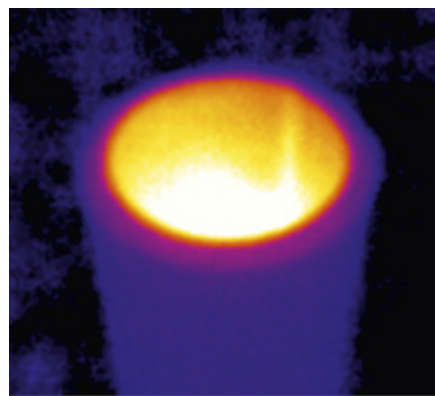
Example:

LAVANTUS® air duct with a material thickness of 50 mm and thermal conductivity of the building material PUR foam is 0,024 W/(mK)

$$R = \frac{0,05 \text{ m}}{0,024 \text{ W/(mK)}} = \underline{\underline{2,08 \text{ (m}^2\text{K/W)}}}$$

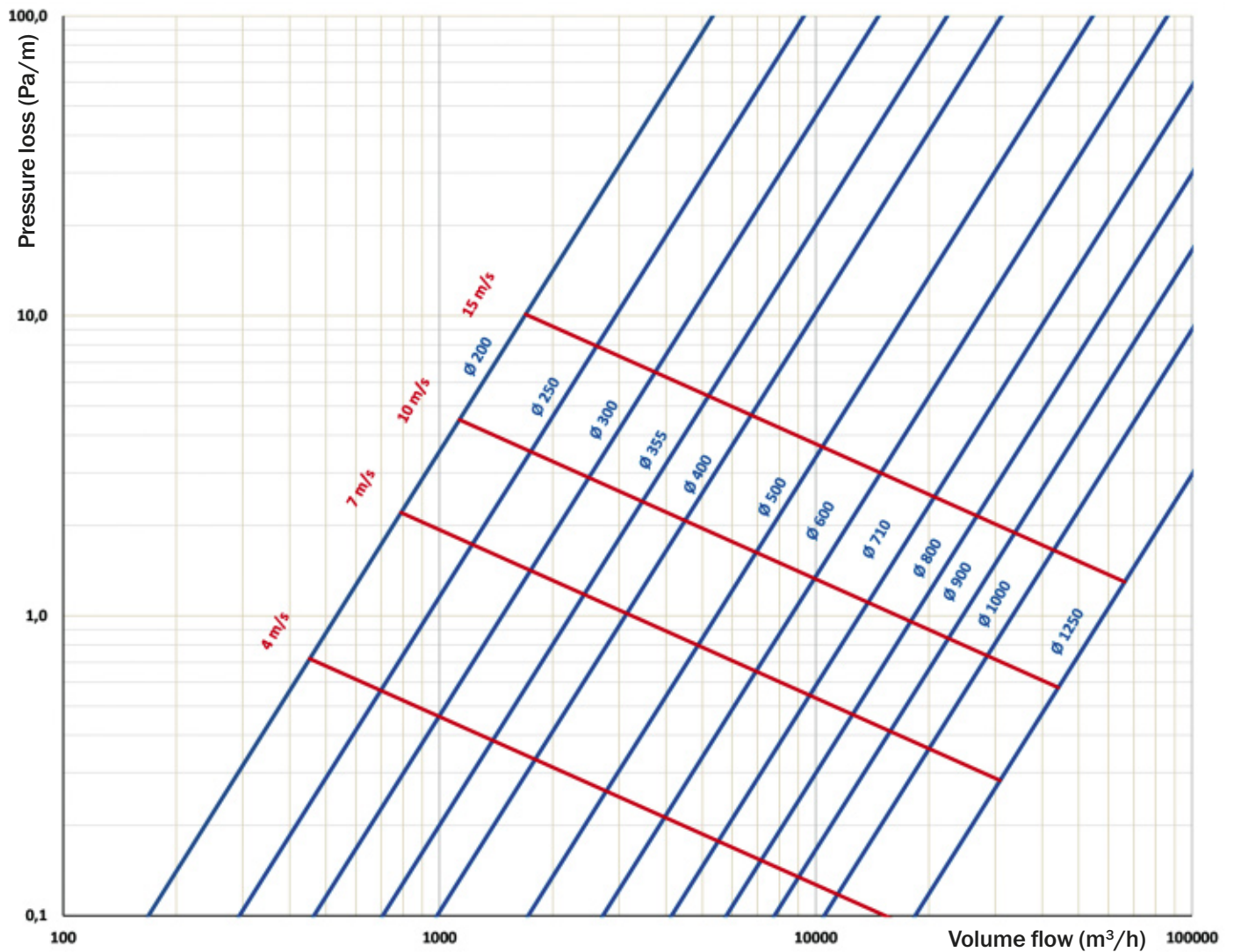
$$U = \frac{1}{2,08 \text{ (m}^2\text{K/W)}} = \underline{\underline{0,48 \text{ W/(m}^2\text{K)}}}$$

The U-value for the LAVANTUS® ducts with a wall thickness of 50 mm is 0,48 W/(m²K).



The thermo camera shows the thermal protection of the LAVANTUS® air ducts. The ducts are made of PUR rigid foam in the core. This makes for ideal insulation values (WLG 024).

Pressure loss



For information on other duct types and fittings, please contact us.

Permitted pressures for LAVANTUS®

Name	Series	Overpressure/pa	Negative pressure/pa
LAVANTUS® air ducts	200 – 1270	5.000	5.000



Technical data on the tightness of LAVANTUS® components

LavantusGrip-cuff

LAVANTUS® components reliably seal the air duct system and are impermeable to pressurized water when installed correctly. In the case of pressurized water, a static verification is required, particularly with regard to buoyancy.

LAVANTUS® air ducts		LAVANTUS® Grip-cuff		
nominal diameter mm	outside diameter mm	width mm	outside pressure bar	tightening torque Nm
200	270	265	359	13
250	320	315	409	13
300	370	365	459	13
355	455	450	544	13
400	500	495	589	13
500	600	595	689	13
600	700	695	789	13
710	810	805	899	13
800	900	895	989	13
900	1000	995	1089	13
1000	1100	1095	1189	13
1250	1370	1365	1459	13

Ring seal

LAVANTUS® air ducts		LAVANTUS® ring seal			
nominal diameter mm	outside diameter mm	d mm	D (core drilling) mm	pressure level bar	tightening torque Nm
200	270	282	350	5	8
250	320	324	400	5	8
300	370	376	500	5	22
355	455	465	600	5	8
400	500	516	600	5	8
500	600	606	700	5	22
600	700	708	800	5	26
710	810	818	900	5	26
800	900	908	1000	5	26
900	1000	1008	1100	5	26
1000	1100	1108	1200	5	26
1250	1370	1378	1500	5	26

Wall collar

LAVANTUS® air ducts		LAVANTUS® wall collar			
nominal diameter mm	outside diameter mm	D1 inner dimension mm	D2 external dimension mm	pressure level bar	tightening torque Nm
200	270	265	359	8	13
250	320	315	409	8	13
300	370	365	459	8	13
355	455	450	544	8	13
400	500	495	589	8	13
500	600	595	689	8	13
600	700	695	789	8	13
710	810	805	899	8	13
800	900	895	989	8	13
900	1000	995	1089	8	13
1000	1100	1095	1189	8	13
1250	1370	1365	1459	8	13



LAVANTUS® air ducts in the hygiene sector



Certification by the Hygiene Institute of the Ruhr region

For areas where cleanliness and easy cleaning play a role - such as in the food processing industry, research, pharmaceuticals and care, swimming pools or high-tech - LAVANTUS® underground air ducts have a clean room character. They meet the highest hygienic requirements, particularly due to the germ-repellent surfaces, the prevention of condensation thanks to the exceptional insulation and the ease of cleaning due to the smooth, solid technical surfaces.

LAVANTUS® air ducts are free from toxic biocides and fungicides and are microbially inert in accordance with DIN EN ISO 846, meaning that no mold or bacterial growth occurs. There are also no harmful emissions and the air ducts are free from any other coatings.



FURTHER CERTIFICATIONS

- VDI 6022
- SWKI VA104-01
- DIN EN ISO 846
- DIN EN 15780
- DIN EN 12097
- DIN EN 13403

Numerous large-scale projects implemented in the hygiene can be found as practice reports on our website.

Hygiene-requirements at RLT systems according to VDI 6022

Requirement levels	Packaging ex works	Protection during transportation	Protection at storage at construction site	Cleaning at construction site	Sealing of the air duct opening
Minimum requirement	no	no	yes	yes	yes
Recommendation	yes	yes	yes	yes	yes

Hygiene protection packaging



Upon request our products can additionally be packed with a special self-adhesive foil. The price for this hygiene packaging is available on request.

Durability

Chemical resistance

The chemical resistance of PUR/PIR rigid foam (unlaminated) to building materials and chemical substances was determined at a test temperature of 20°C.

This is only an extract of the substance table – upon request you can get information about further resistances.

Building materials / Chemical substances	Behavior of PUR/PIR rigid foam
Lime / plaster / cement	● ● ●
Bitumen	● ● ●
Cold bitumen and water-based building filler	● ● ●
Adhesive bitumen cold adhesive	○ ○
Hot bitumen	○ ○
Cold bitumen and building filler with solvents	○ ○
Silicone oil	● ● ●
Soaps	● ● ●
Sea water	● ● ●
Hydrochloric acid / sulphuric acid / nitric acid / caustic soda (10% each)	● ● ●
Ammonium hydroxide (conc.)	● ● ●
Ammonia water	● ● ●
Regular gasoline / diesel power / mixture	● ● ●
Toluene / chlorobenzene	○ ○
Monostyrene	○ ○
Ethyl alcohol	○ ○
Acetone / ethyl acetate	○ ○

● ● ● beständig ○ ○ bedingt beständig

Further properties

Electrical conductivity	10e -12 S/m
Microbial inertness	certified according to standards VDI 6022
Erosion and emission of particles	certified according to EN 13401

Temperature resistance

PUR rigid foam is characterized by high mechanical strength and good dimensional stability in the building industry for temperature ranges from -30°C bis +90°C (Long-term exposure). A short-term capacity up to +150°C is possible.

Organic resistance

PUR rigid foam does not rot, is mould- and decay resistant and physiologically harmless for the applications coming into question. Polyurethane rigid foam reacts chemically neutral.

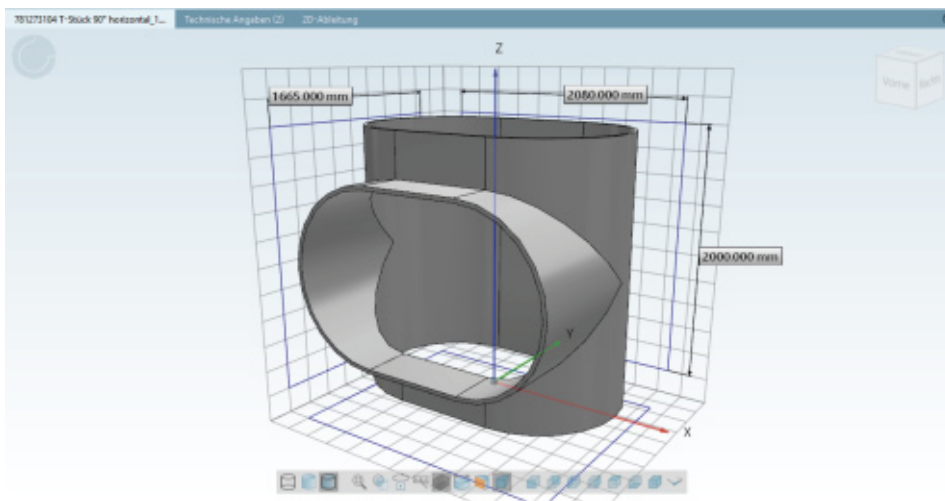
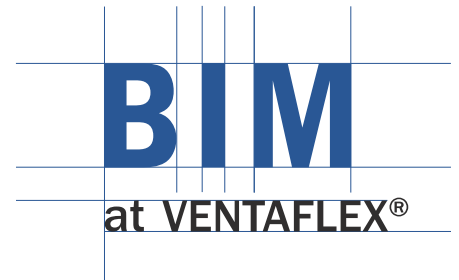
The LAVANTUS® underground air duct is free from toxic biocides, fungicides and toxic coatings.

Planning and service

BIM/CAD-models

VENTAFLEX® products now in 3D (Multi CAD product catalog data) – usable for all planners and architects working with BIM

3D CAD-models are available in over 100 different file formats like for example: Revit®, CATIA®, Inventor®, SolidWorks®, Creo Parametric, NX™, AutoCAD® or Solid Edge®

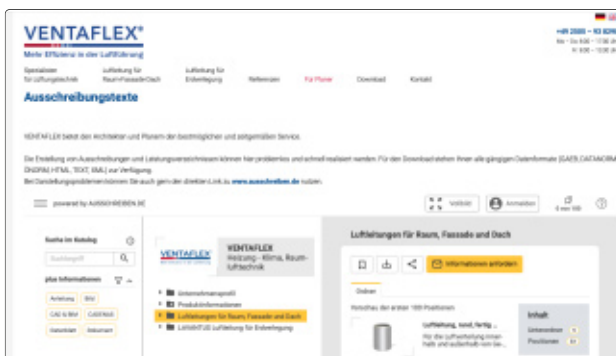


3D Multi CAD drawings
+ append points
+ 2D dimensional drawings
+ measurement charts
+ PDF data sheets
+ supplies



Tender documents

The preparation of tenders and specifications can be done comfortably and easily with the templates from the download area.



➔ So simple and convenient

Download BIM-compatible drawings + tender texts directly in the "For planners" section of our website: www.ventaflex.de

Any questions?

Personal consulting under +49 (0) 2505 – 93 829-0

PRODUCT RANGE

LAVANTUS®

VENTAFLEX® air duct
for underground installation



LAVANTUS® – AIR DUCT ESPECIALLY FOR UNDERGROUND INSTALLATION

Strong material

The basis of the LAVANTUS® air duct installed underground is PUR rigid foam, which allows big weight and traffic loads.

Economic in purchasing

LAVANTUS® air ducts are also a clever alternative to conventional insulated underground systems in the procurement. Thus the LAVANTUS® underground duct is cheaper over the corresponding sewer pipe for the big diameters as of series 630.

Easy installation

The special LAVANTUS® material is lighter than the common underground installed ducts. The weight advantage makes an easy and quick installation without any heavy device possible.

Tight due to special supplies

Especially hidden underground connections should be blindly reliable. The LavantusGrip-cuff guarantees perfect tightness of the ground ducts when correctly installed.

! Please pay attention to the instruction installation!

Content	Page
Air duct round	5.1
Curve 90°	5.2
Curve 45°	5.3
T-piece 90°	5.4
T-piece 45°	5.6
Y-piece	5.8
Reduction symmetric	5.9

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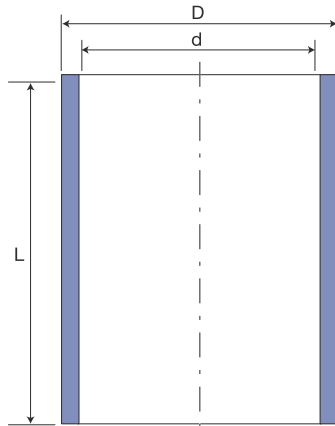
LAVANTUS®

underground installed air duct



Material

highly insulating PUR rigid foam



d = nominal diameter
D = Outside diameter
L = Length



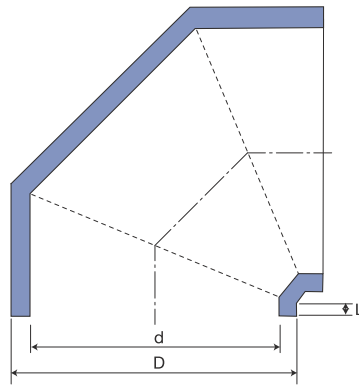
nominal diameter d mm	D mm	L mm	surface inside qm	free cross section qm	weight kg
200	270	3000	0,63	0,03	13
250	320	3000	0,79	0,05	15,7
300	370	3000	0,94	0,07	18,4
355	455	3000	1,12	0,10	26,0
400	500	3000	1,26	0,13	28,8
500	600	3000	1,57	0,20	35,2
600	700	3000	1,88	0,28	41,5
710	810	3000	2,23	0,40	48,5
800	900	3000	2,51	0,50	54,2
900	1000	3000	2,83	0,64	60,5
1000	1100	3000	3,14	0,79	66,8
1250	1370	3000	3,93	1,23	91,3

nominal diameter	item no.
200	L132003502
250	L132503502
300	L133003502
355	L133555002
400	L134005002
500	L135005002
600	L136005002
710	L137105002
800	L138005002
900	L139005002
1000	L1310005002
1250	L1312506002

LAVANTUS® underground installed air duct

Curve 90°

Upon request curves can be produced
in any other needed angle



d = nominal diameter
D = Outside diameter



nominal diameter d mm	D mm	L mm	free cross section qm	weight kg
200	270	175	0,03	2,94
250	320	175	0,05	3,77
300	370	175	0,07	4,67
355	455	175	0,10	7,21
400	500	175	0,13	8,34
500	600	175	0,20	11,17
600	700	175	0,28	14,32
710	810	175	0,40	18,2
800	900	175	0,50	21,69
900	1000	175	0,64	25,88
1000	1100	175	0,79	30,42
1250	1370	175	1,23	47,88

nominal diameter	item no.
200	L902003502
250	L902503502
300	L903003502
355	L903555002
400	L904005002
500	L905005002
600	L906005002
710	L907105002
800	L908005002
900	L909005002
1000	L9010005002
1250	L9012506002

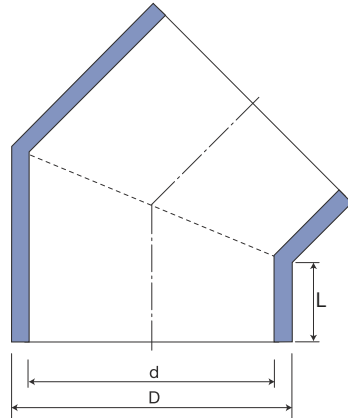
Prices also apply to 46° to 90° curves.

LAVANTUS® underground installed air duct

Curve 45°

Upon request curves can be produced
in any other needed angle

d = nominal diameter
D = Outside diameter
L = Side length



nominal diameter d mm	D mm	L mm	surface inside qm	free cross section qm	weight kg
200	270	175	0,29	0,03	2,78
250	320	175	0,38	0,05	3,57
300	370	175	0,48	0,07	3,09
355	455	175	0,60	0,10	4,66
400	500	175	0,70	0,13	5,35
500	600	175	0,94	0,20	7,02
600	700	175	1,21	0,28	8,85
710	810	175	1,53	0,40	11,08
800	900	175	1,82	0,50	13,05
900	1000	175	2,16	0,64	15,4
1000	1100	175	2,53	0,79	17,93
1250	1370	175	3,57	1,23	27,65

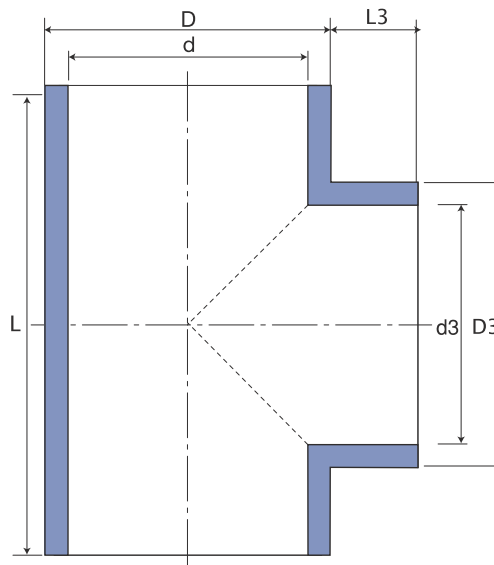
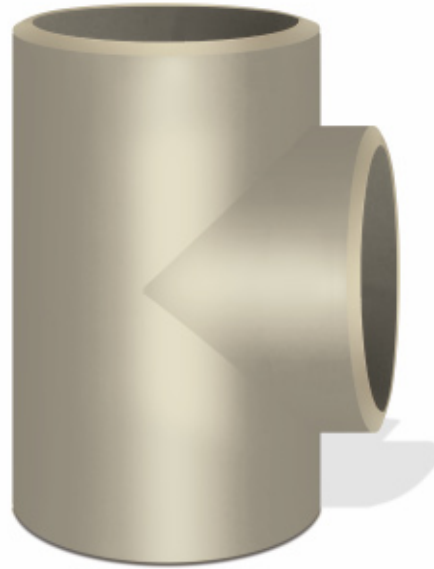
nominal diameter	item no.
200	L452003502
250	L452503502
300	L453003502
355	L453555002
400	L454005002
500	L455005002
600	L456005002
710	L457105002
800	L458005002
900	L459005002
1000	L4510005002
1250	L4512506002

Prices also apply to 5° to 45° curves.

LAVANTUS® underground installed air duct

T-piece 90°

Upon request curves T-pieces can
be produced with other outgoing



d = nominal diameter
D = Outside diameter
L = Length T-piece
L3 = Length outgoing
d3 = Inside diameter (outgoing)
D3 = Outside diameter (outgoing)

nominal diameter d mm	D mm	L mm	L3 mm	surface inside qm	free cross-section qm	weight kg
200	270	620	175	0,50	0,03	4,03
250	320	670	175	0,66	0,05	5,26
300	370	720	175	0,84	0,07	6,62
355	455	805	175	1,09	0,10	10,47
400	500	850	175	1,29	0,13	12,24
500	600	950	175	1,77	0,20	16,72
600	700	1050	175	2,31	0,28	21,79
710	810	1160	175	2,98	0,40	28,13
800	900	1250	175	3,58	0,50	33,88
900	1000	1350	175	4,31	0,64	40,84
1000	1100	1450	175	5,11	0,79	48,65
1250	1370	1720	175	7,44	1,23	77,61

d	d3	item no.
200	200	L702003502
250	200	L702502003502
250	250	L702503502
300	200	L703002003502
300	250	L703002503502
300	300	L703003502
355	200	L703552005002
355	250	L703552505002
355	300	L703553005002
355	355	L703555002
400	200	L704002005002
400	250	L704002505002
400	300	L704003005002
400	355	L704003555002
400	400	L704005002
500	200	L705002005002
500	250	L705002505002
500	300	L705003005002
500	355	L705003555002
500	400	L705004005002
500	500	L705005002
600	200	L706002005002
600	250	L706002505002
600	300	L706003005002
600	355	L706003555002
600	400	L706004005002
600	500	L706005005002
600	600	L706005002
710	200	L707102005002
710	250	L707102505002
710	300	L707103005002
710	355	L707103555002
710	400	L707104005002
710	500	L707105005002
710	600	L707106005002
710	710	L707105002

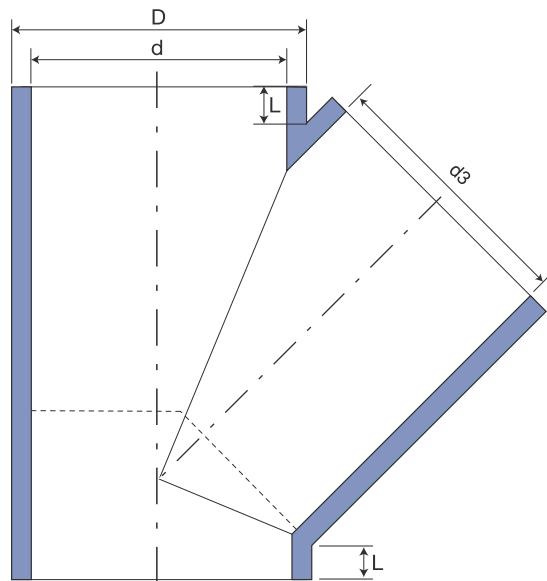
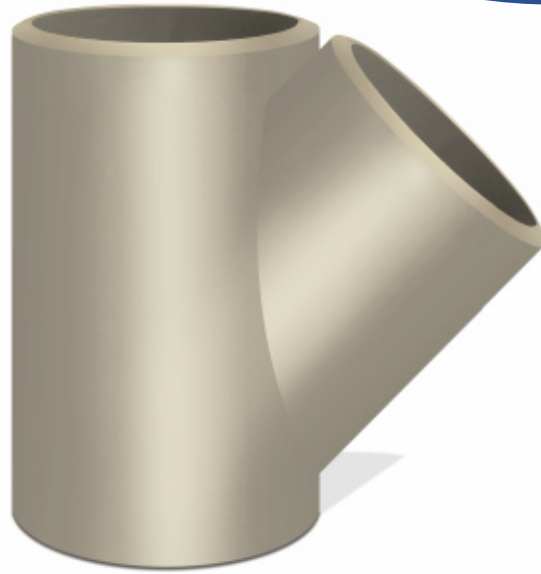
d	d3	item no.
800	200	L708002005002
800	250	L708002505002
800	300	L708003005002
800	355	L708003555002
800	400	L708004005002
800	500	L708005005002
800	600	L708006005002
800	710	L708007105002
800	800	L708005002
900	200	L709002005002
900	250	L709002505002
900	300	L709003005002
900	355	L709003555002
900	400	L709004005002
900	500	L709005005002
900	600	L709006005002
900	710	L709007105002
900	800	L709008005002
900	900	L709005002
1000	200	L7010002005002
1000	250	L7010002505002
1000	300	L7010003005002
1000	355	L7010003555002
1000	400	L7010004005002
1000	500	L7010005005002
1000	600	L7010006005002
1000	710	L7010007105002
1000	800	L7010008005002
1000	900	L7010009005002
1000	1000	L7010005002
1250	1250 *	L7012506002

*other outgoing possible on request

LAVANTUS® underground installed air duct

T-piece 45°

Upon request curves T-pieces can
be produced with other outgoings



d = nominal diameter
D = Outside diameter
d3 = nominal diameter outgoing

nominal diameter d mm	D mm	L mm	free cross section qm	weight kg
200	300	175	0,03	6,34
250	350	175	0,05	8,4
300	400	175	0,07	10,71
355	455	175	0,10	17,22
400	500	175	0,13	20,3
500	600	175	0,20	28,13
600	700	175	0,28	37,07
710	810	175	0,40	48,35
800	900	175	0,50	58,64
900	1000	175	0,64	71,16
1000	1100	175	0,79	84,86
1250	1370	175	1,23	137,51

d	d3	item no.
200	200	L742002003502
250	200	L742502003502
250	250	L742503502
300	200	L743002003502
300	250	L743002503502
300	300	L743003502
355	200	L743552005002
355	250	L743552505002
355	300	L743553005002
355	355	L743555002
400	200	L744002005002
400	250	L744002505002
400	300	L744003005002
400	355	L744003555002
400	400	L744005002
500	200	L745002005002
500	250	L745002505002
500	300	L745003005002
500	355	L745003555002
500	400	L745004005002
500	500	L745005002
600	200	L746002005002
600	250	L746002505002
600	300	L746003005002
600	355	L746003555002
600	400	L746004005002
600	500	L746005005002
600	600	L746005002
710	200	L747102005002
710	250	L747102505002
710	300	L747103005002
710	355	L747103555002
710	400	L747104005002
710	500	L747105005002
710	600	L747106005002
710	710	L747105002

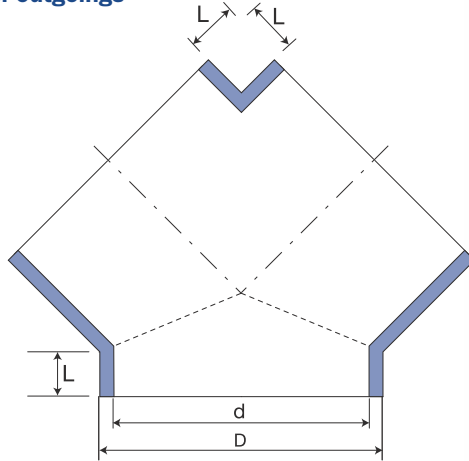
d	d3	item no.
800	200	L748002005002
800	250	L748002505002
800	300	L748003005002
800	355	L748003555002
800	400	L748004005002
800	500	L748005005002
800	600	L748006005002
800	710	L748007105002
800	800	L748005002
900	200	L749002005002
900	250	L749002505002
900	300	L749003005002
900	355	L749003555002
900	400	L749004005002
900	500	L749005005002
900	600	L749006005002
900	710	L749007105002
900	800	L749008005002
900	900	L749005002
1000	200	L7410002005002
1000	250	L7410002505002
1000	300	L7410003005002
1000	355	L7410003555002
1000	400	L7410004005002
1000	500	L7410005005002
1000	600	L7410006005002
1000	710	L7410007105002
1000	800	L7410008005002
1000	900	L7410009005002
1000	1000	L7410005002
1250	1250 *	L7412506002

*other outgoing possible on request

LAVANTUS® underground installed air duct

Y-piece

Upon request curves Y-pieces can be produced with other outgoings



d = nominal diameter
D = Outside diameter

nominal diameter d mm	D mm	L mm	free cross section qm	weight kg
200	270	175	0,06	3,69
250	320	175	0,08	4,77
300	370	175	0,11	5,96
355	455	175	0,16	9,31
400	500	175	0,20	10,83
500	600	175	0,28	14,66
600	700	175	0,38	18,95
710	810	175	0,52	24,29
800	900	175	0,64	29,11
900	1000	175	0,79	34,93
1000	1100	175	0,95	41,24
1250	1370	175	1,47	65,57

nominal diameter	item no.
200	L802003502
250	L802503502
300	L803003502
355	L803555002
400	L804005002
500	L805005002
600	L806005002
710	L807105002
800	L808005002
900	L809005002
1000	L8010005002
1250	L8012506002

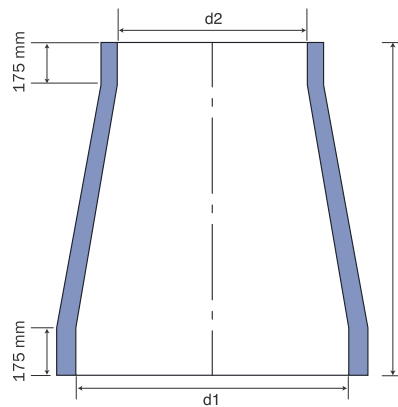
Reduction
symmetric

LAVANTUS®

VENTAFLEX® air duct
for underground installation

LAVANTUS® underground installed air duct

Reduction symmetric



L = Total length cone
d1 = nominal diameter (width)
d2 = nominal diameter (narrow)

nominal diameter d mm	d1	d2	L mm	item no.
250/200	250	200	411	L432502003502
300/200	300	200	471	L433002003502
300/250	300	250	411	L433002503502
355/200	355	200	538	L433552005002
355/250	355	250	477	L433552505002
355/300	355	300	417	L433553005002
400/200	400	200	592	L434002005002
400/250	400	250	531	L434002505002
400/300	400	300	471	L434003005002
400/355	400	355	405	L434003555002
500/200	500	200	713	L435002005002
500/250	500	250	652	L435002505002
500/300	500	300	592	L435003005002
500/355	500	355	525	L435003555002
500/400	500	400	471	L435004005002

Reduction
symmetric

LAVANTUS®

VENTAFLEX® air duct
for underground installation

nominal diameter d mm	d1	d2	L mm	item no.
600/200	600	200	833	L436002005002
600/250	600	250	773	L436002505002
600/300	600	300	712	L436003005002
600/355	600	355	646	L436003555002
600/400	600	400	592	L436004005002
600/500	600	500	471	L436005005002
710/200	710	200	966	L437102005002
710/250	710	250	906	L437102505002
710/300	710	300	845	L437103005002
710/355	710	355	779	L437103555002
710/400	710	400	697	L437104005002
710/500	710	500	604	L437105005002
710/600	710	600	483	L437106005002
800/200	800	200	1075	L438002005002
800/250	800	250	1014	L438002505002
800/300	800	300	954	L438003005002
800/355	800	355	887	L438003555002
800/400	800	400	833	L438004005002
800/500	800	500	712	L438005005002
800/600	800	600	592	L438006005002
800/710	800	710	459	L438007105002
900/200	900	200	1195	L439002005002
900/250	900	250	1135	L439002505002
900/300	900	300	1074	L439003005002
900/355	900	355	1008	L439003555002
900/400	900	400	954	L439004005002
900/500	900	500	833	L439005005002
900/600	900	600	712	L439006005002
900/710	900	710	580	L439007105002
900/800	900	800	471	L439008005002
1000/200	1000	200	1316	L4310002005002
1000/250	1000	250	1256	L4310002505002
1000/300	1000	300	1195	L4310003005002
1000/355	1000	355	1129	L4310003555002
1000/400	1000	400	1075	L4310004005002
1000/500	1000	500	954	L4310005005002
1000/600	1000	600	833	L4310006005002
1000/710	1000	710	700	L4310007005002
1000/800	1000	800	592	L4310008005002
1000/900	1000	900	471	L4310009005002
1250/1000	1250	1000 *		L43125010006002

*other nominal diameter possible on request

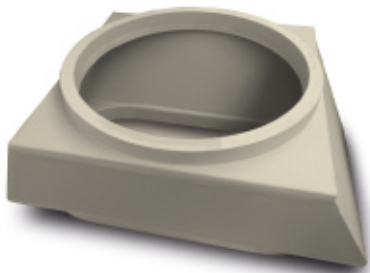
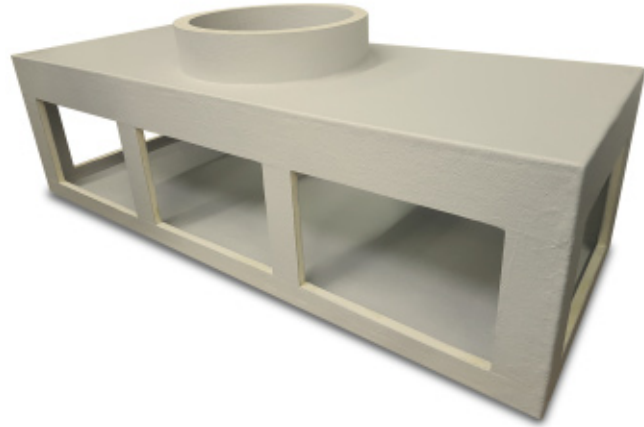
Special components

Manufacture for individual projects

... customized solution!

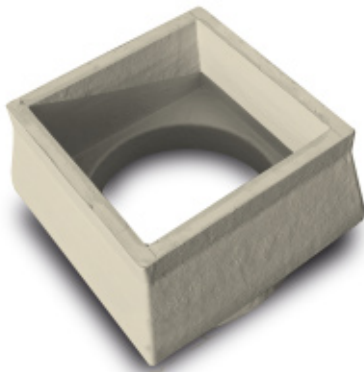
Round cross section on oval? Oval on square? The solution comes from VENTAFLEX®:

We manufacture special components, adapting to each system, which neatly connect different duct forms and –sizes with each other.



Functionality and optics

VENTAFLEX® has developed a new surface finishing process especially for special components. This means that every custom-made product has the high resistance to chemicals, abrasion and weathering that characterizes all VENTAFLEX® air ducts. Our workpieces leave production with a smooth and even surface - good looks are also important to us!



Finally recyclable!

Material purity was a goal on the way to even more sustainability: Sorted PUR residues are processed in order to be used as raw material for the production of new components at VENTAFLEX®.

Everything from a single source

The workpieces are manufactured completely by us without any detours and delivered to their place of use – constant availability and punctual delivery are our service promise.

VENTAFLEX GmbH & Co. KG

Siemensstraße 46

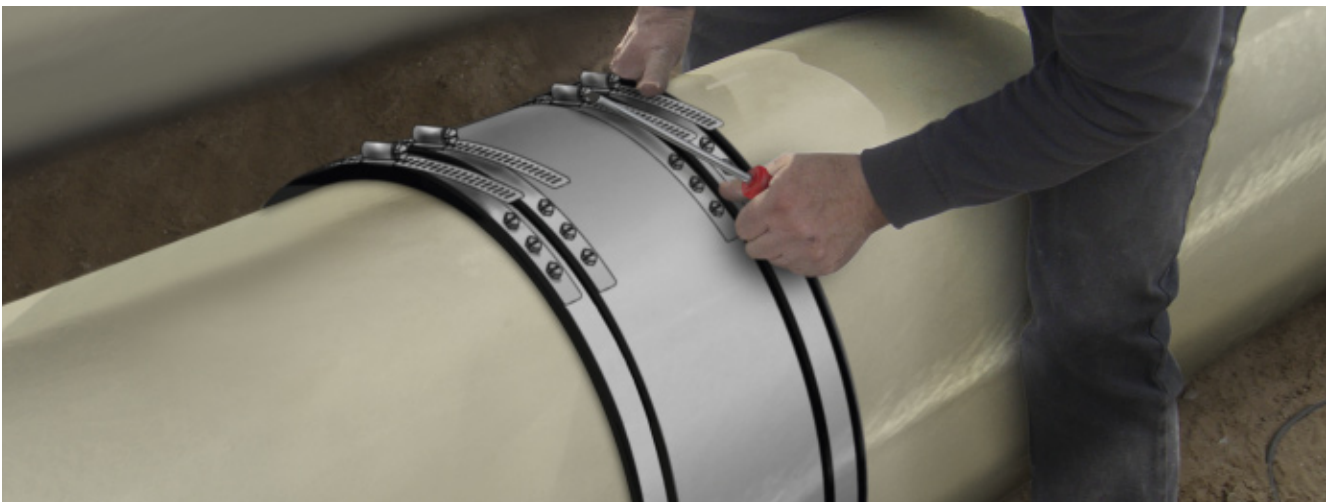
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info@ventaflex.de

www.ventaflex.de



LAVANTUS® AIR DUCT FOR UNDERGROUND INSTALLATION SUPPLIES

“Everything from one provider”!
You find all materials in our supplies to install a complete duct system professionally.

The supplies are – depending on the application – functionally combinable. We like to advise you on the ideal combination of your components and the material!

Content	Page
LavantusGrip-cuff	5.13
Ring seal	5.14
Wall collar	5.15
End stopper	5.16
Closing ring	5.17

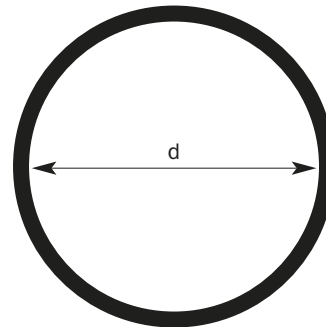
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LAVANTUS® Supplies

LavantusGrip-cuff

A stable, tight connection of the LAVANTUS® air ducts.

The LavantusGrip cuff is TÜV tested up to 1 bar.



Duct diameter and the according size of the LavantusGrip-cuff

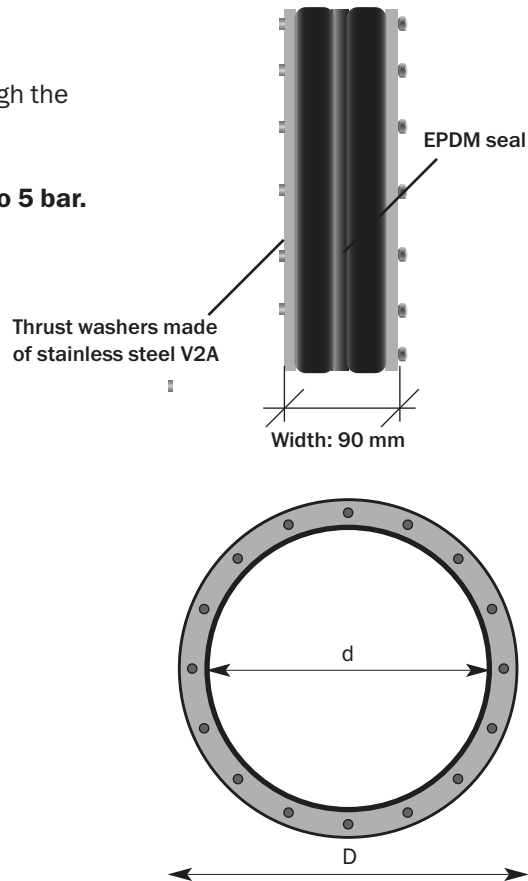
LAVANTUS® – underground installed air ducts		LavantusGrip cuff, width 190 mm	
nominal diameter mm	outside diameter mm	d mm	item no.
200	270	275	L052003520
250	320	325	L052503520
300	370	375	L053003520
355	455	460	L053555020
400	500	505	L054005020
500	600	605	L055005020
600	700	705	L056005020
710	810	815	L057105020
800	900	905	L058005020
900	1000	1005	L059005020
1000	1100	1105	L0510005020
1250	1370	1375	L0512506020

LAVANTUS® Supplies

Ring seal

The clean solution to run the air duct through the brickwork, walls and floor plate.

The LavantusGrip cuff is TÜV tested up to 5 bar.



Duct diameter and the according size of the ring seal

LAVANTUS® – underground installed air ducts		LAVANTUS® ring seal		
nominal diameter mm	outside diameter mm	d mm	D (core drilling) mm	item no.
200	270	282	350	L012003502
250	320	324	400	L012503502
300	370	376	500	L013003502
355	455	465	600	L013555002
400	500	516	600	L014005002
500	600	606	700	L015005002
600	700	708	800	L016005002
710	810	818	900	L017105002
800	900	908	1000	L018005002
900	1000	1008	1100	L019005002
1000	1100	1108	1200	L0110005002
1250	1370	1378	1500	L0112506002

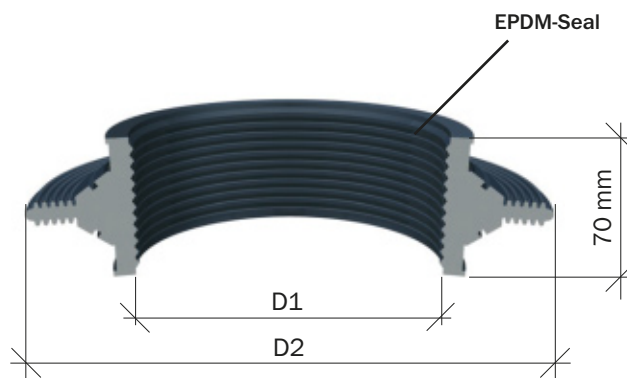
LAVANTUS® Supplies

Wall collar

The clean solution to run the air duct through the brickwork, walls and floor plate

Tightening straps are included.

The wall collar is TÜV tested up to 8 bar.



Duct diameter and the according size of the LAVANTUS® wall collar

LAVANTUS® – underground installed air ducts		LAVANTUS® wall collar		
nominal diameter d mm	D mm	D1 mm	D2 mm	item no.
200	270	265	359	L032003520
250	320	315	409	L032503520
300	370	365	459	L033003520
355	455	450	544	L033555020
400	500	495	589	L034005020
500	600	595	689	L035005020
600	700	695	789	L036005020
710	810	805	899	L037105020
800	900	895	989	L038005020
900	1000	995	1089	L039005020
1000	1100	1095	1189	L0310005020
1250	1370	1365	1459	L0312506020

LAVANTUS® Supplies

End stopper



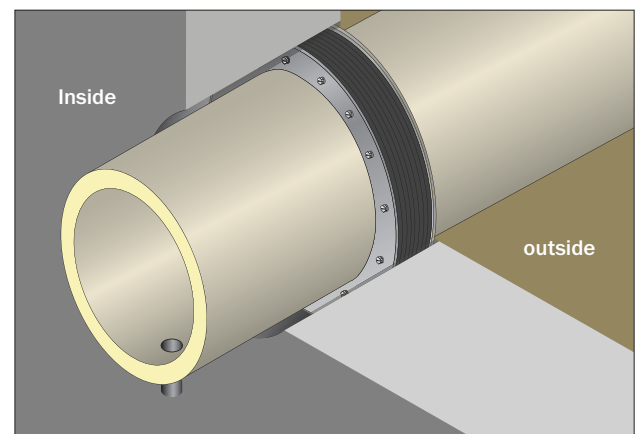
d = nominal diameter (Inside diameter)
D = outside diameter

Duct diameter and the according size of the end stopper

LAVANTUS® – underground installed air ducts		End stopper		
nominal diameter d mm	D mm	d mm	D mm	item no.
200	270	197	275	L202003502
250	320	247	325	L202503502
300	370	297	375	L203003502
355	455	352	460	L203555002
400	500	397	505	L204005002
500	600	497	605	L205005002
600	700	597	705	L206005002
710	810	707	815	L207105002
800	900	797	905	L208005002
900	1000	897	1005	L209005002
1000	1100	997	1105	L2010005002

Service: condensate drain

If the question of a condensate drain should be considered, a hole can be inserted for a HT-duct or a stainless steel drain outlet in the desired dimension and position upon request. The appropriate HT-duct or stainless steel drain outlet can also be pasted into the hole upon request.



LAVANTUS® Supplies

Closing ring



d = nominal diameter (Inside diameter)
D = outside diameter

Duct diameter and the according size of the closing ring

LAVANTUS® – underground installed air ducts		Closing ring		
nominal diameter d mm	D mm	d mm	D mm	item no.
200	270	197	275	L212003502
250	320	247	325	L212503502
300	370	297	375	L213003502
355	455	352	460	L213555002
400	500	397	505	L214005002
500	600	497	605	L215005002
600	700	597	705	L216005002
710	810	707	815	L217105002
800	900	797	905	L218005002
900	1000	897	1005	L219005002
1000	1100	997	1105	L2110005002

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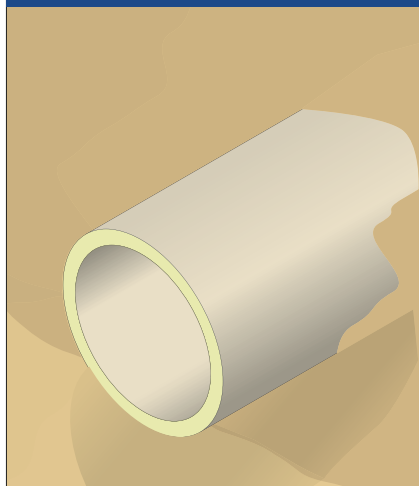
www.ventaflex.de

INSTALLATION INSTRUCTION

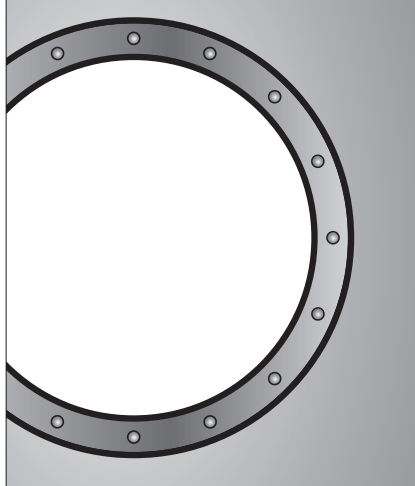
LAVANTUS®

VENTAFLEX® air duct
for underground installation

LAVANTUS® for
underground installation



Ring seal



LavantusGrip-cuff



Responsibility

The installation instruction for VENTAFLEX® products is a non-binding recommendation which is not legally binding. They are based on construction data and installation experience.

An overall responsibility for the system on the part of VENTAFLEX® is not possible, because it solely develops, produces and delivers components and modules for the preparation of ventilation and heating systems.

Please read this installation instruction carefully before beginning with the installation and make sure that all needed material and tools are laid out ready.



The employer or self-employed person has to make sure that industrial or commercial users of diisocyanate have completed a training for the secure use of it.

Safety note

Installation work may only be done by skilled workers who have sufficient knowledge

- safety regulations
- accident prevention regulations
- guidelines and recognized rules of the technology (e.g. VDE-provisions, DIN-standards)

because of their professional training, experience und instruction. The skilled workers must

- be able to assess the assigned work, recognize possible dangers and avoid them
- be authorized to carry out the necessary work and action by those responsible for safety of the plant.

Quick help

If you have any further questions regarding the installation or other VENTAFLEX® products, please contact our hotline or call us under **0 25 05 - 93 829 -20**

We will now lead you through the installation step by step.

Further general information for the processing of VENTAFLEX® air ducts can be found on www.ventaflex.de

Content	Page
Underground installation	5.19
LavantusGrip-cuff	5.20
Length adjustment	5.21
Ring seal	5.22
Wall collar/end stopper	5.25
Transition to rectangular duct work	5.27
Transition to other duct work	5.28
Installation ventilation tower	5.29

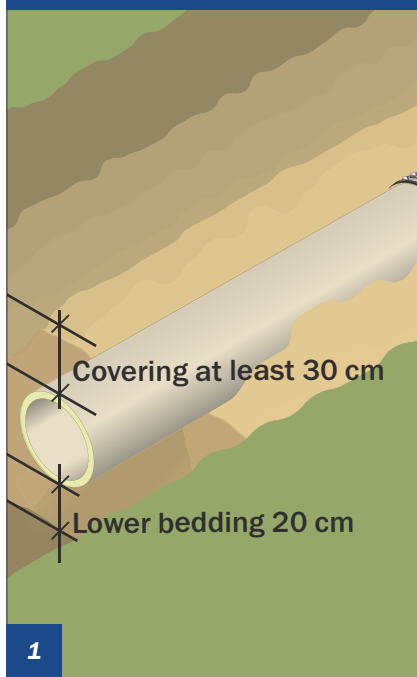
Personal consulting: +49 2505 – 93 829 0



We recommend to have a statics calculation carried out by our engineering office individually for your construction project with LAVANTUS® air ducts.

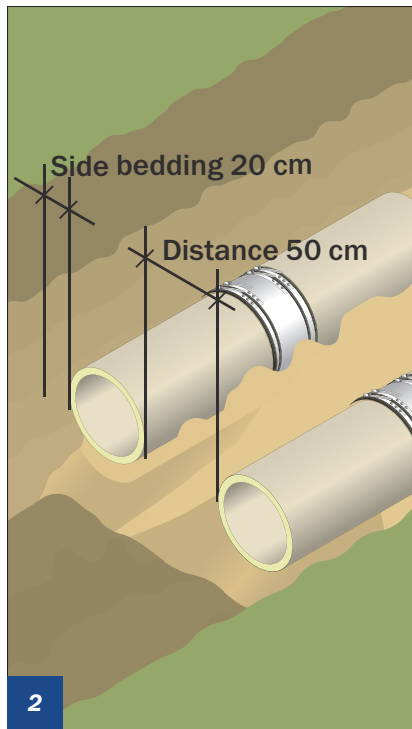
At constant exterior water pressure the application must be made in consultation with VENTAFLEX®.

Example underground installation



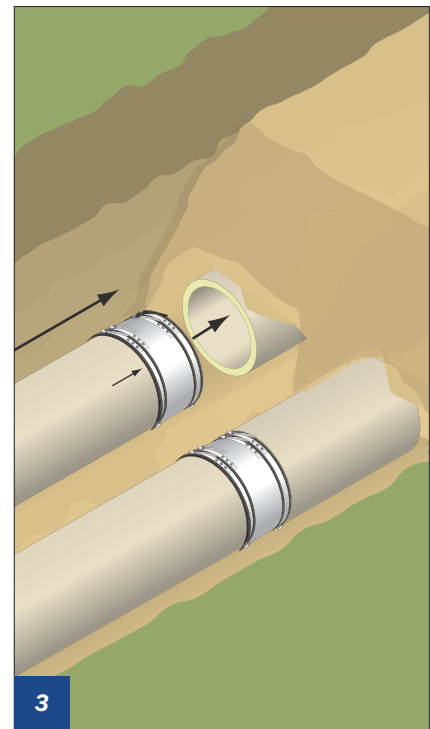
Before installation a ditch must be made which guarantees a 20 cm support and a covering of at least 30 cm of filling sand.

The stated values are reference values. It is recommended to make a separate static because of the different local conditions.



With parallel installation of the LAVANTUS® air ducts a distance of 50 cm is to be kept so that the gusset material can be brought in properly.

An installation above one another principally has to be checked in advance.



Connect the LAVANTUS® air duct with the LavantusGrip-cuff (see p. 5.20).

The last step before backfilling the trench is a leak test.

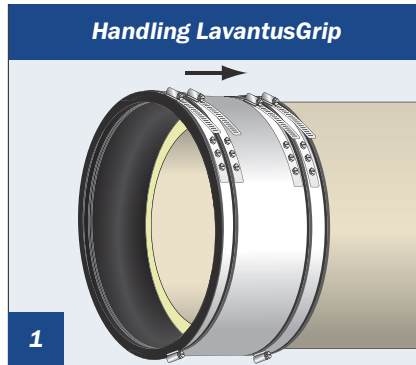
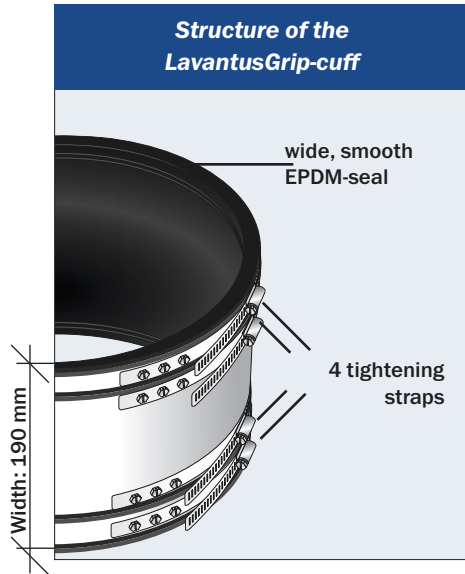
Backfill the ditch with filling sand and compress carefully.

It is important to mark the backfilled duct ditch sufficiently so that it is not damaged by heavy construction machinery.



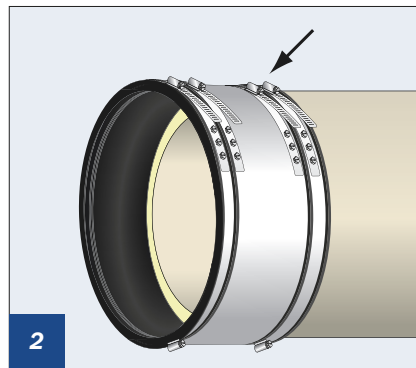
LAVANTUS®

VENTAFLEX® air duct
for underground installation



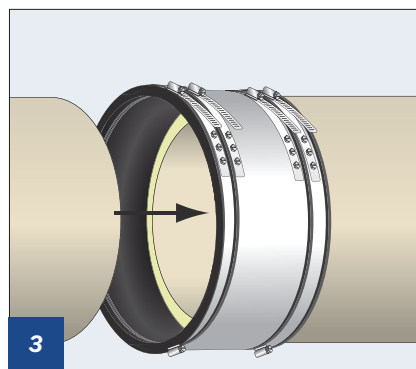
A LavantusGrip-cuff is slid half over the first air duct.

Tip:
Lubricants can be used to make the sliding easier.

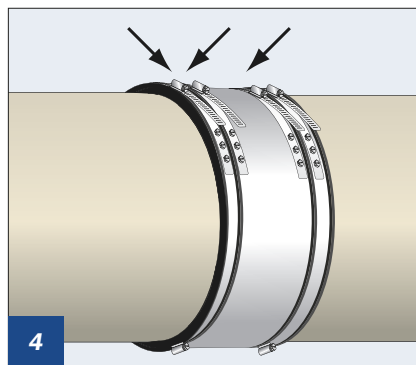


Now tighten the outer tensioning strap.

Now the first two tightening straps are tightened.



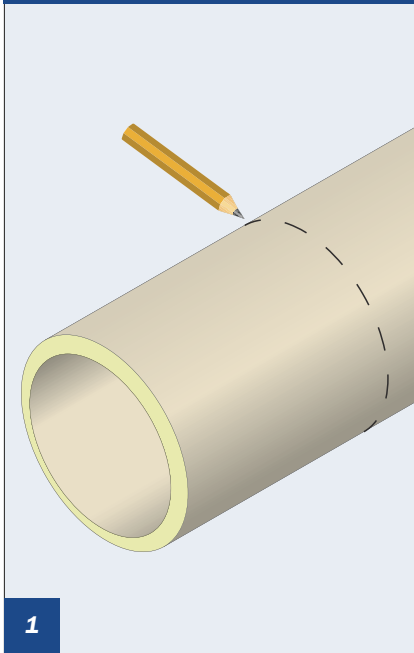
After that the second duct is slid into the cuff ...



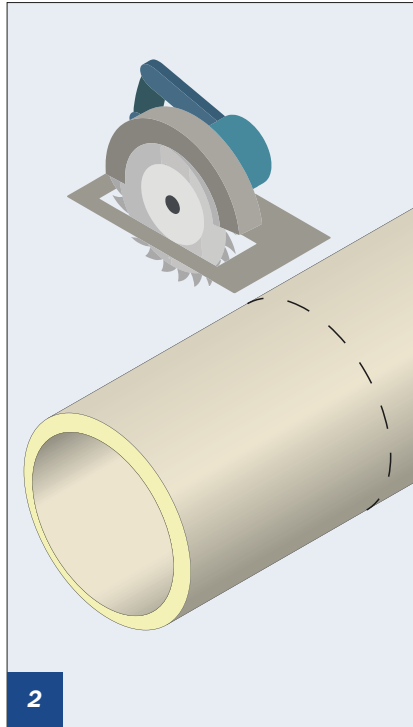
Tighten the outer tensioning strap first before tightening the middle strap evenly in a criss-cross pattern to ensure even tension.

... and the other 2 tightening straps are tightened.

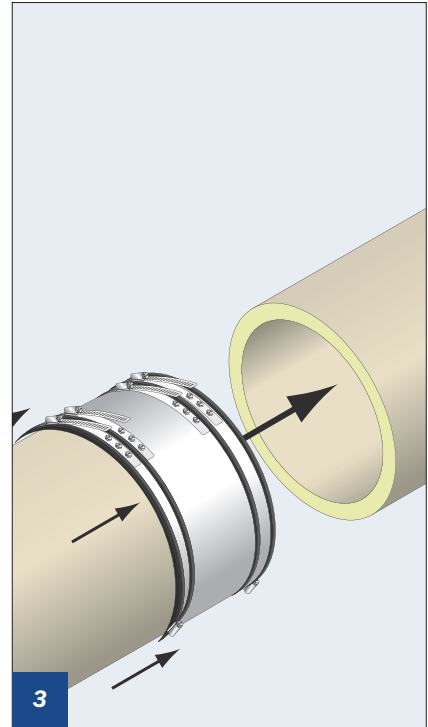
Creation of custom-fit duct lengths



1
Mark the duct where it should be cut.

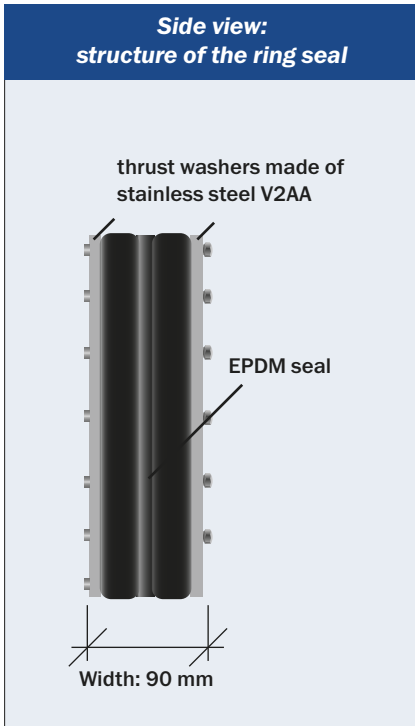


2
Cut the duct with a jig- or circular saw.

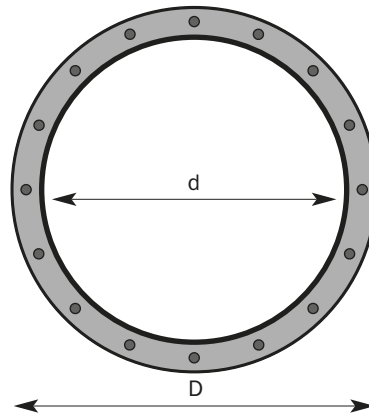


3
After cutting connect the LAVANTUS® air duct with the LavantusGrip-cuff (see p. 5.20).

Tip:
We recommend to cut the LAVANTUS® air duct with a saw with a plastic saw blade.

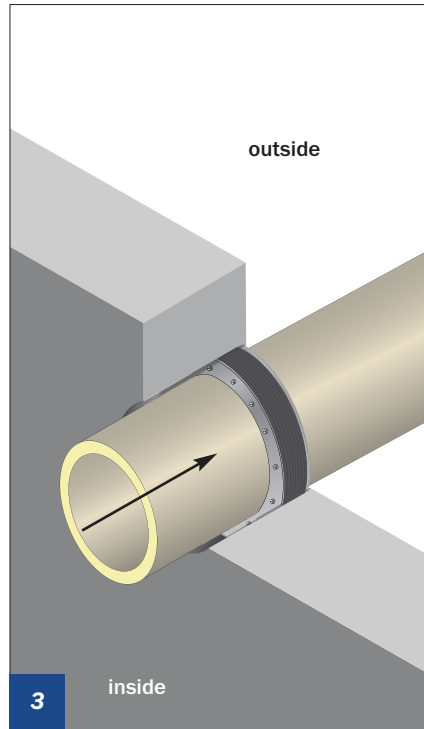
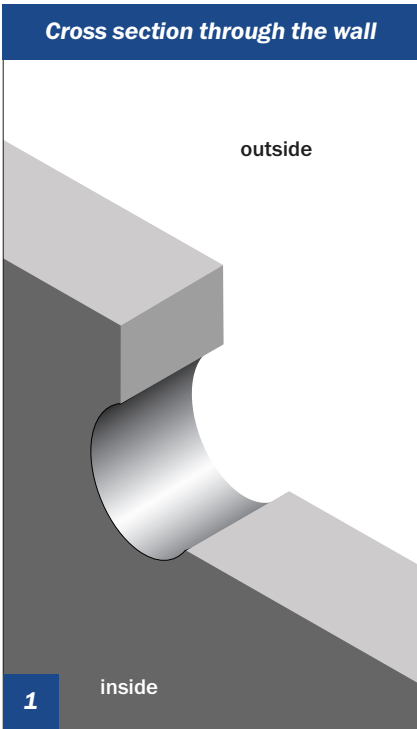


The clean solution to run the air duct through the brickwork, walls and floor plate



Duct diameter and the according size of the ring seal

LAVANTUS® – underground installed air ducts		LAVANTUS® ring seal	
nominal diameter mm	outside diameter mm	d mm	D (core drilling) mm
200	270	282	350
250	320	324	400
300	370	376	500
355	455	465	600
400	500	516	600
500	600	606	700
600	700	708	800
710	810	818	900
800	900	908	1000
900	1000	1008	1100
1000	1100	1108	1200
1250	1370	1378	1500



Check before if core drilling and duct diameter match specification of the ring seal. (see table p. 5.22).

Do a core drilling through the concrete wall, clean the drill hole.

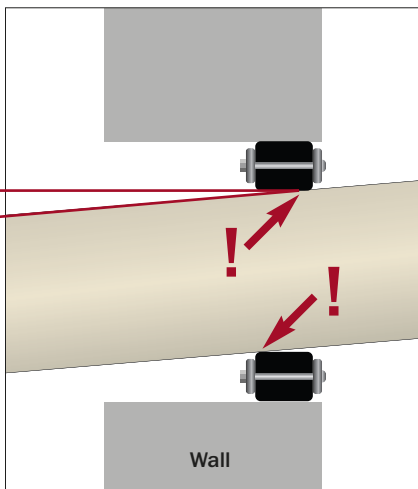
Note: The core drilling can be coated with epoxy resin to smoothen possible unevenness.

Push ring seal to the end of the core drill, so that it comes exactly to the end of the building exterior.

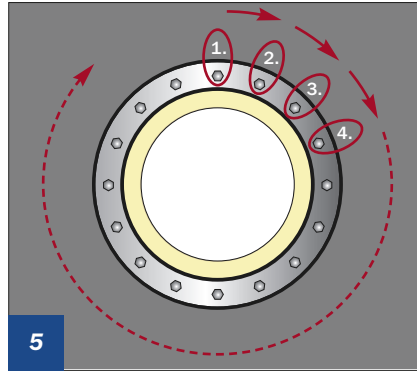
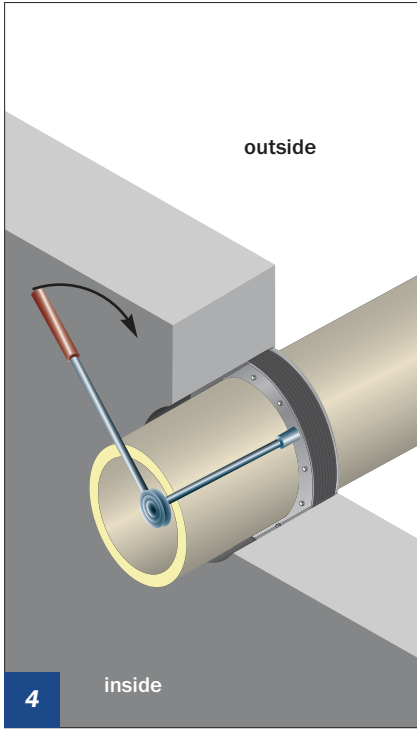
The direction of the clamping nuts has to be put in such way that they can be tightened from the building interior.

The surface of the duct must be clean, clean it if necessary. Push LAVANTUS® underground installed air ducts through the ring seal, support if necessary.

The ring seal does not serve to centre or secure the air duct against buoyancy. Other structural measures should be taken for this purpose.

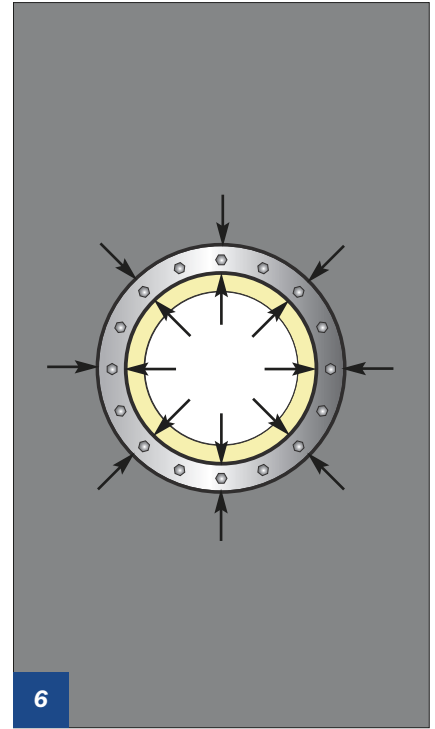


Attention!
The slope of the air duct must not be greater than 2 % because leaks can occur.



The nuts are tightened one after the other in a clockwise direction.

The torque should be achieved in several rounds with approx. 3 turns per nut.

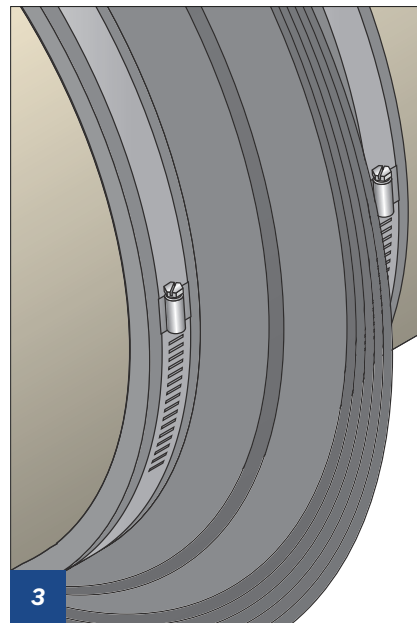
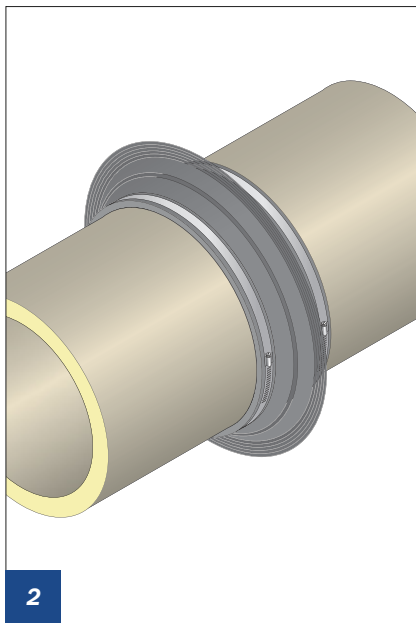
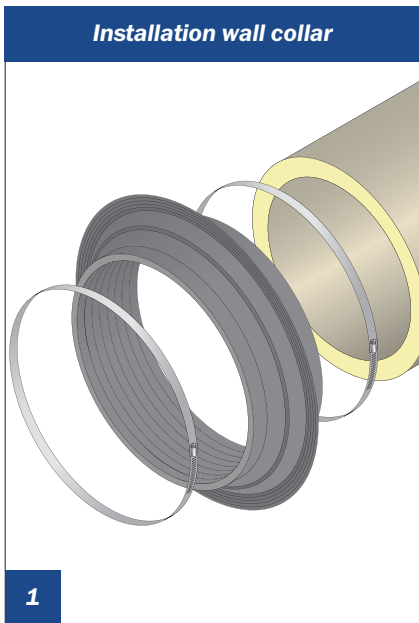


Tighten the clamping nuts with a torque wrench from inside.

Final visual inspection if the ring seal fits closely along the duct and along the core drilling of the LAVANTUS® underground installed duct circumferentially.

nominal size air duct mm	outside diameter air duct mm	bolt	max. tightening torque Nm
200	270	M8	8
250	320	M8	8
300	370	M10	22
355	455	M8	8
400	500	M8	8
500	600	M10	22
600	700	M12	26
710	810	M12	26
800	900	M12	26
900	1000	M12	26
1000	1100	M12	26
1250	1370	M12	26

Please note the permitted torque allowed indicated on the ring seal.

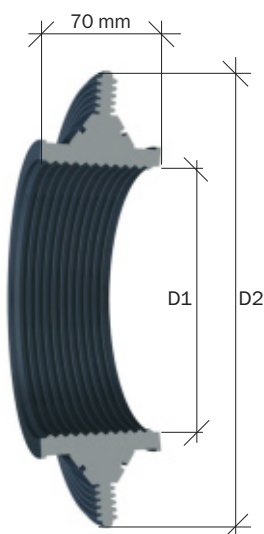


Push the wall collar onto the LAVANTUS® air duct with both clamping rings.

Following this adjust the wall collar according to the structural conditions.

By tightening both clamping rings the wall collar is fixed to the duct.

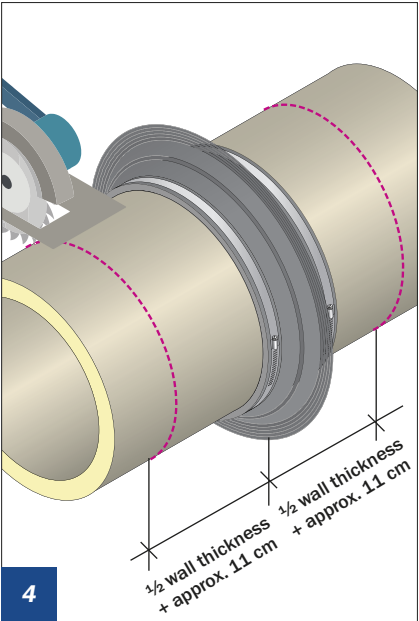
Tip:
Lubricants can be used to make the pushing easier.



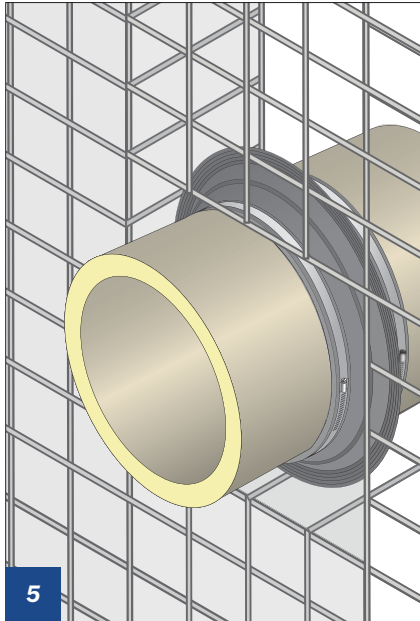
LAVANTUS® – underground installed air duct		LAVANTUS® wall collar	
nominal diameter d mm	duct outside Ø mm	D1 inner dimension wall collar Ø mm	D2 external dimension wall collar Ø mm
200	270	265	359
250	320	315	409
300	370	365	459
355	455	450	544
400	500	495	589
500	600	595	689
600	700	695	789
710	810	805	899
800	900	895	989
900	1000	995	1089
1000	1100	1095	1189
1250	1370	1365	1459



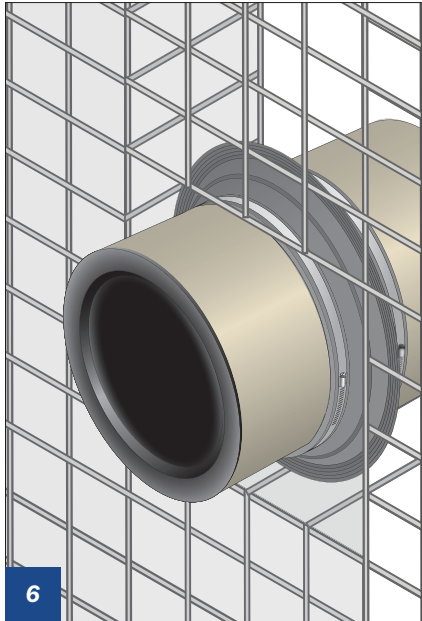
The wall collar can be used horizontally as well vertically (e.g. in base plates).



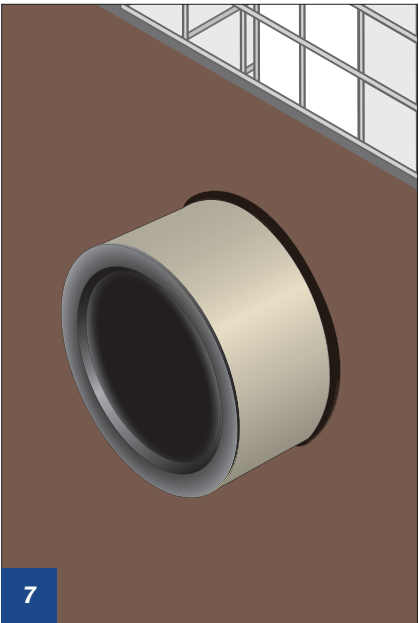
Shorten the duct piece in front of and behind the wall collar and insert it into the reinforcement at appropriate position of the wall.



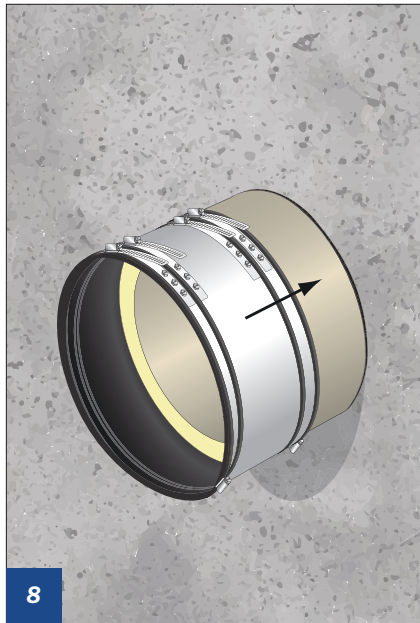
This way the air duct including the wall duct is placed into the reinforcement, so that it protrudes at least 11 cm on both sides of the completed wall.



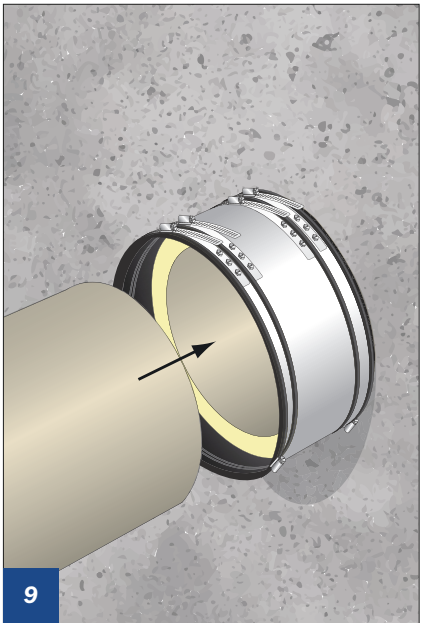
We recommend to protect the duct with an end stopper from damage or soiling during the construction time.



Install the casing with an omission for the duct, backfill it and let it set.



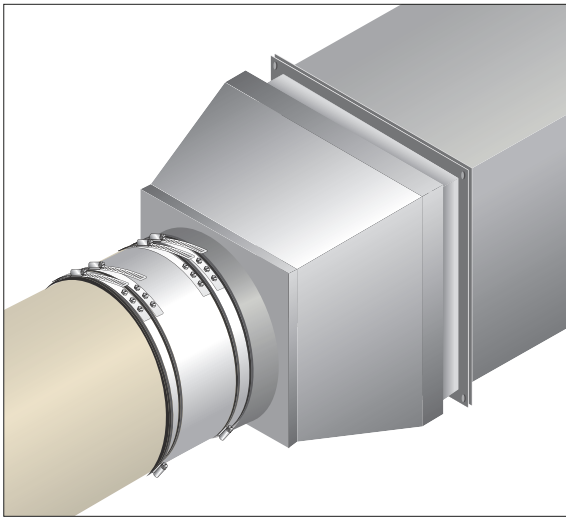
Remove casing and end stopper and slide LavantusGrip-cuff onto the duct after that (see p. 5.20).



Slide pursuing duct into cuff and tighten the tightening straps.

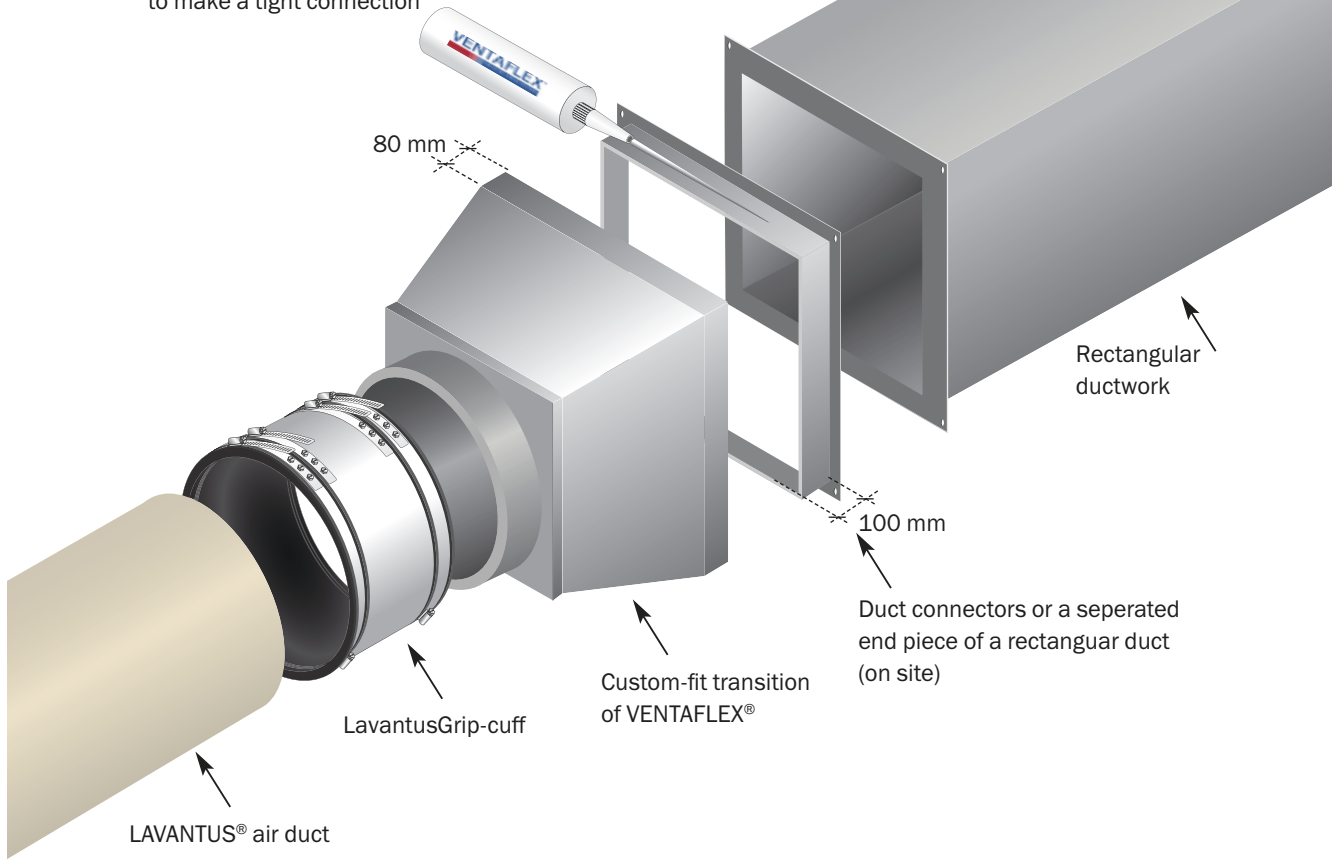
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Transition to rectangular duct work

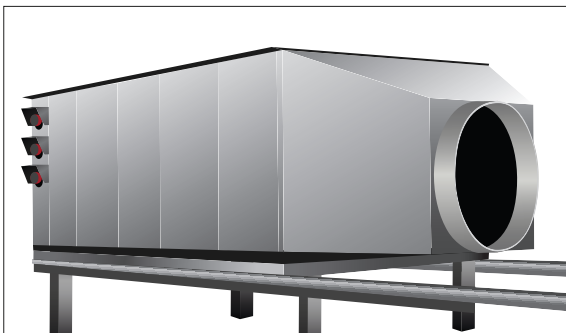


Installation of a tight connection between LAVANTUS® air duct and rectangular ductwork

Adhesion with VENTAFLEX® glue to make a tight connection

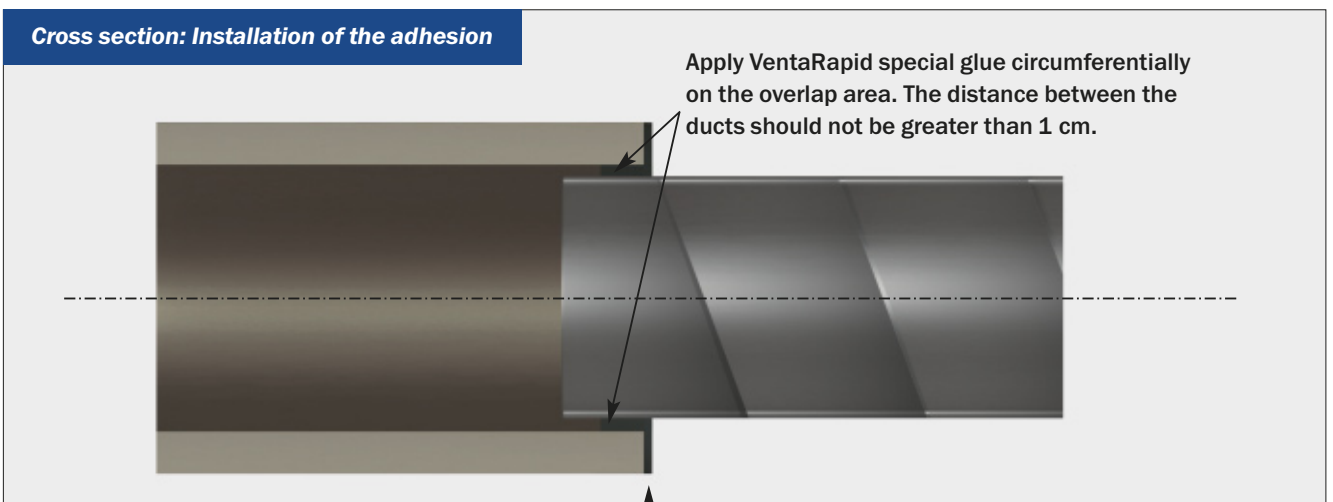
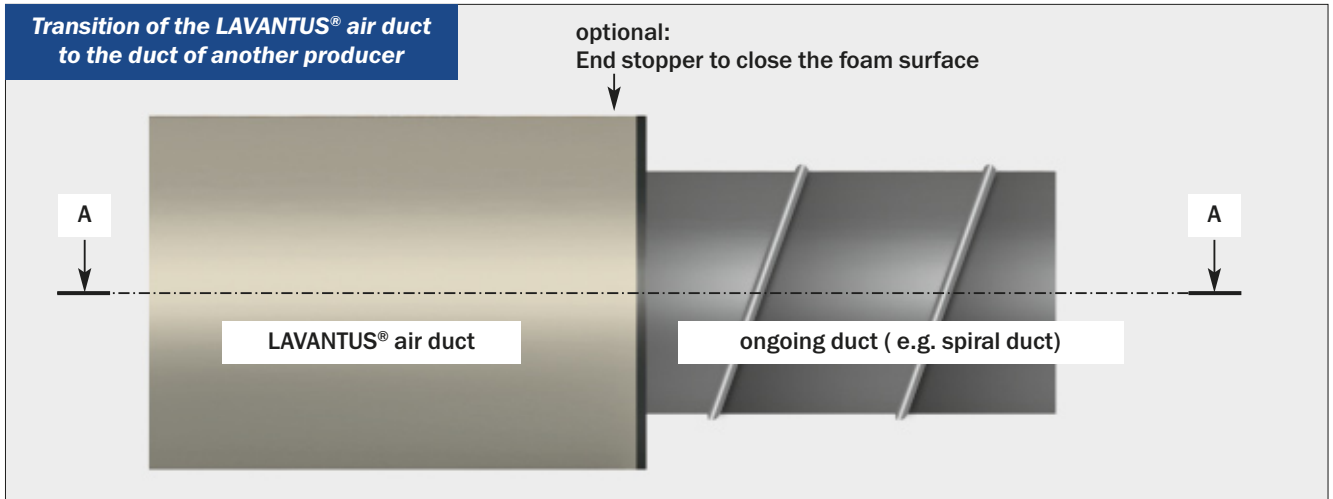


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Also suitable as a connection with transition to the correct dimension for the HVAC systems

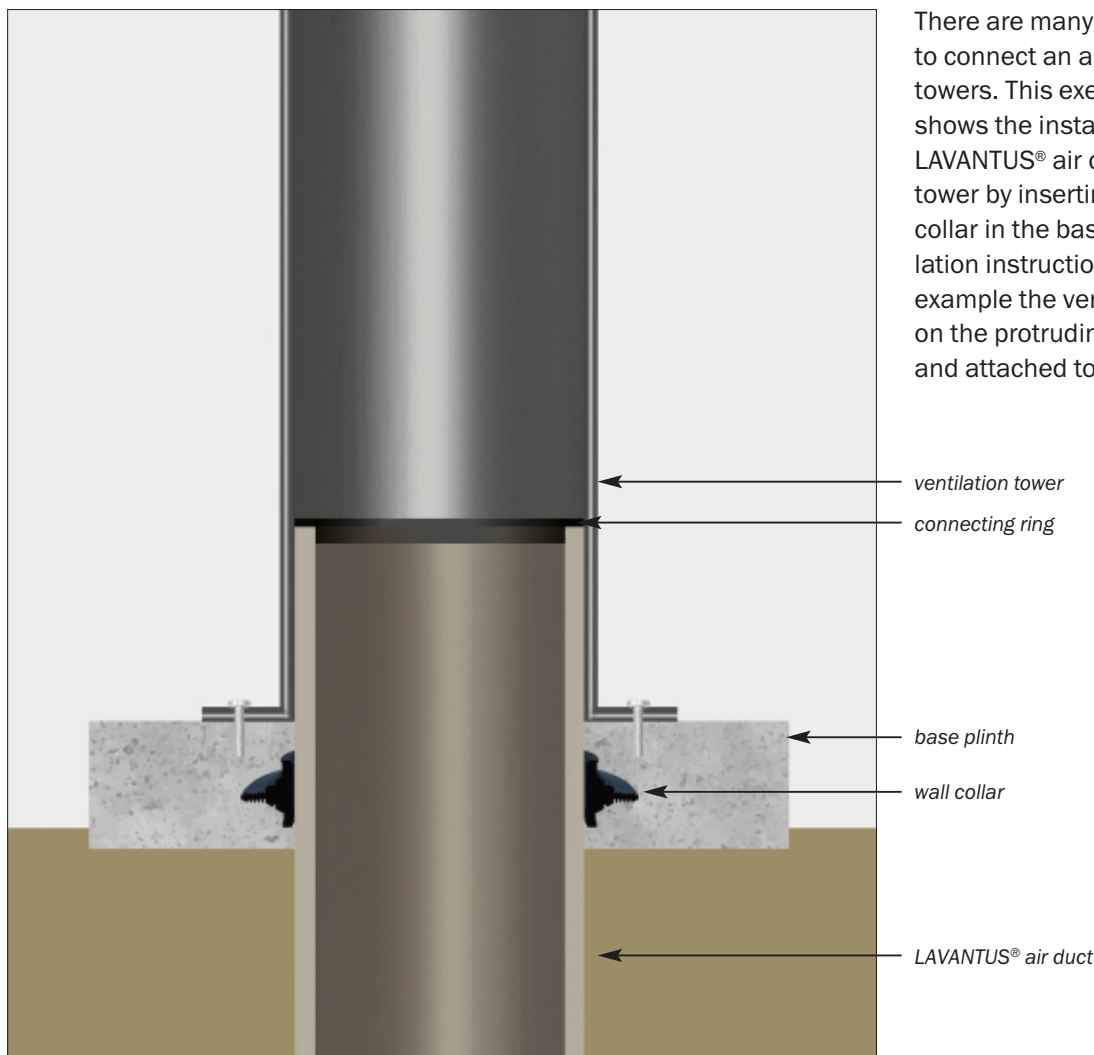
This transition is an installation inside the building



Since the diameters of the ducts of other producers are very often similar to the ducts of the VENTAFLEX® system, absolutely tight connections can be produced uncomplicatedly.
An connecting ring – if requested – makes an optically clean completion.



This transition is an installation inside the building



There are many different possibilities to connect an air duct to ventilation towers. This exemplary illustration shows the installation of the LAVANTUS® air duct to a ventilation tower by inserting it through a wall collar in the base plinth. (see installation instruction wall collar). In the example the ventilation tower is put on the protruding end of the air duct and attached to the base plinth.

Recommendation for cleaning

Ventilation systems must be inspected regularly to ensure hygiene, function and quality. The type and frequency of these inspections vary depending on individual circumstances. It is recommended that appropriate measures are carried out by a specialist company at least every 2 years.

For efficient cleaning, we recommend the use of brush robots with plastic brushes.

For stubborn soiling, we recommend MEZ CLEANER LM for cleaning and Sanosil S003 for disinfection. Both are cleaning and disinfecting agents for VENTAFLEX® air ducts and comply with the applicable safety standards. Please always read and follow the manufacturer's instructions for correct use.

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Fax +49 25 05 – 93 829 - 10

info@ventaflex.de
www.ventaflex.de

The VENTASQUARE air channel

For interior- and exterior installation



VENTAFLEX®

More efficiency in air conduction



Economical in purchasing Effective at installation

VENTASQUARE air channels are financially a smart alternative compared to conventional systems.

We would like to make a settlement offer to those insulated air channels, which have been familiar to you so far.

Compared to VENTASQUARE air channels comparable, conventional air channels are 75 % heavier. This weight advantage simplifies the installation of the VENTASQUARE system in a significant degree: The installation is made easily and quickly without any heavy device.

Variable in planning

The finished insulated VENTASQUARE air channels offer the planner and the craftsmen full possibilities. That way the application in swimming pools with chlorinated air is no problem.

What is special are the highly flexible moulded parts. Even fitting pieces can be made by the craftsmen at the construction site – without any special tools.

Uniquely efficient in operation

The very good insulation properties provide low operating costs and notable energy savings. Further savings arise from low friction-pressure losses and high tightness. In addition VENTASQUARE air channel is characterized by noticeable sound insulation and vibration damping.

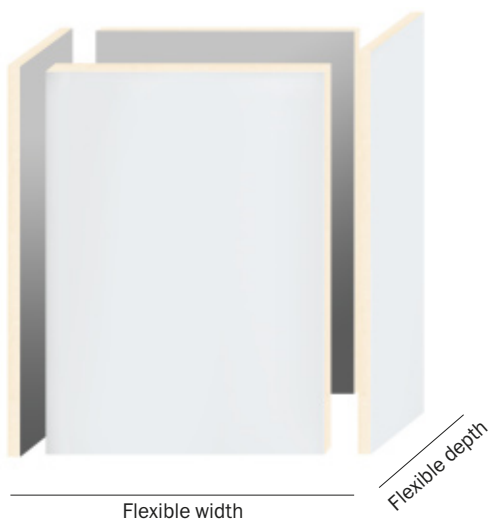
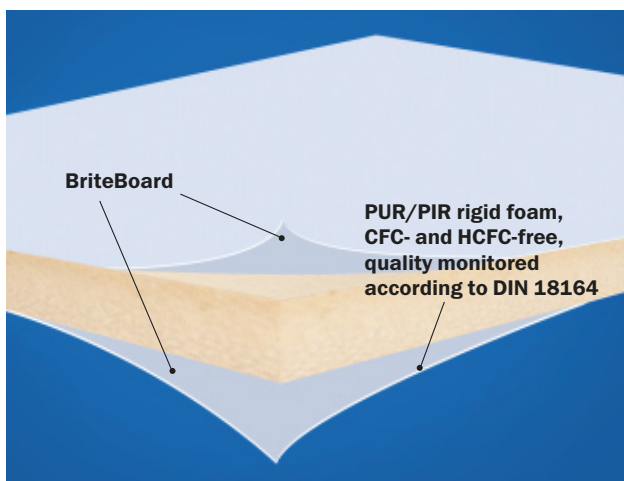
Advantages at a glance

- Ideal thermal insulation
- Easy, quick and flexible installation
- Corrosion-resistant against chlorine
- Hygienic
- Top-layer foamed, not glued
- Impermeable
- Paintable
- CFC-free
- Directly applicable

Personal consulting at VENTAFLEX® under +49 (0) 2505 - 93 829-0



VENTASQUARE Rectangle-air channel



Product details

- Rectangle-channel system
- 20-40mm PUR/ PIR rigid foam plates with Brite Board aluminium laminate
- Pressure stages 200-400 Pa as well as 400-750 Pa
- Quality-monitored DIN18164
- Thermal conductivity rating WLS 025
- Including necessary reinforcement, where needed

VENTASQUARE air channels are available in the following qualities:

- 20 mm, Alu 80 μm , approx. 1 kg/m², normal flammability
- 30 mm, Alu 50 μm , approx. 0,7 kg/m², normal flammability
- 40 mm, Alu 50 μm , approx. 1,2 kg/m², low flammability

Channels beyond 900 mm edge length have an aluminium angle for guidance at outdoor application.

As of edge length beyond 800 mm inner reinforcements are incorporated.

Needed components

- Butyl adhesive tape (outdoor area)
- Aluminium adhesive tape (indoor area)
- VentaRapid-glue

Pressure 400-750 Pa, price per m²
VENTASQUARE air channel straight

Prices serve as an orientation and are offered on a daily basis on request

a/b	< 700 mm	710 - 1.400 mm	1410 - 2000 mm
< 700 mm	50,40 €	–	–
710 - 1.400 mm	56,70 €	63,70 €	–
1410 - 2000 mm	60,90 €	69,30 €	78,40 €

VENTASQUARE moulded parts

a/b	< 700 mm	710 - 1.400 mm	1410 - 2000 mm
< 700 mm	60,20 €	–	–
710 - 1.400 mm	68,60 €	72,10 €	–
1410 - 2000 mm	72,10 €	78,40 €	85,40 €

Pressure 400-750 Pa, price per m²
VENTASQUARE air channel straight

Prices serve as an orientation and are offered on a daily basis on request

a/b	< 550 mm	560 - 1.000 mm	1.010 - 1.400 mm	1.410 - 2.000 mm
< 550 mm	49,70 €	–	–	–
560 - 1.000 mm	57,40 €	69,30 €	–	–
1.010 - 1.400 mm	63,00 €	76,30 €	86,80 €	–
1.410 - 2.000 mm	69,30 €	85,40 €	100,10 €	121,80 €

VENTASQUARE moulded parts

a/b	< 550 mm	560 - 1.000 mm	1.010 - 1.400 mm	1.410 - 2.000 mm
< 550 mm	59,50 €	–	–	–
560 - 1.000 mm	70,00 €	77,70 €	–	–
1.010 - 1.400 mm	73,50 €	83,30 €	88,20€	–
1.410 - 2.000 mm	78,40 €	91,70 €	100,80 €	124,60 €

VentaRapid

VentaRapid is an especially developed glue to stick the VENTASQUARE rectangle-air channels together.

item no.	quantity	price € per piece
030015004	600 ml	16,80

Butyl adhesive tape

20 m long

width	item no.	price € per roll
75 mm	040003031	58,40
100 mm	040003032	72,60

Aluminum-cap cover, mounted

~500 µm Aluminum sheet metal for outdoor channels

item no.	price € per m ²
350100000	25,00

Aluminium adhesive tape

50 µm, 75 mm wide, 50 m long

item no.	price € per roll
040003030	21,30

Outdoor installation:

When installing VENTASQUARE air channels VentaRapid is applied on the edges and the segments are connected bluntly. Ducts beyond an edge length of 900 mm have an aluminium angle for guidance for an easier installation. For bigger channels aluminium angles can be supplied as extra supplies, which can be installed at the four outside corners and can be screwed together with the inside aluminium guidance with self-tapping screws and thereby are mechanically fixed even tighter.

Attention must be paid that sealing compound is applied to the joints so that no leakage occurs. If necessary, sealant adhesive must additionally be inserted into the connection from the outside after fitting together.

The joints are masked with butyl adhesive tape. At temperatures under +18°C the butyl tape should be heated (warm air blower) until it is soft and elastic. Then it has to be pressed on fully and firmly.

If the aluminium cover plates are pre-mounted on the duct top the aluminium plates are to be sealed well to the duct top with VentaRapid at the connecting points, so that no air can flow under the plates from a „leaking“ connection. (especially at overpressure channels because of the swelling!).

In the outdoor area the channel duct should be protected from hail.

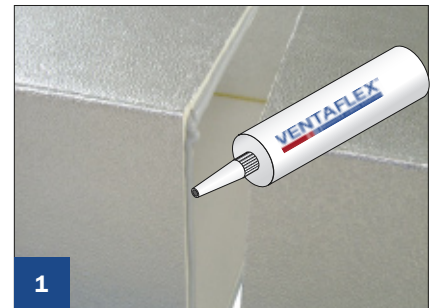
Indoor installation:

When installing VENTASQUARE air channels VentaRapid is applied on the edges and the segments are connected bluntly. The joints, which are still accessible, are masked with 50 µm aluminium adhesive tape.

Attention must be paid that sealing compound is applied to the joints so that no leakage occurs. If necessary sealant adhesive must additionally be inserted into the connection from the outside after fitting together.

The suspension of the VENTASQUARE air channel can be carried out as in the case of sheet metal ducts.

Alternatively a covered mounting can be made, by dowelling the VENTASQUARE air channel to the wall or ceiling with washers from the inside. The screws and washers should be sealed with VentaRapid generously so that no unnecessary corrosion arises.



1



2



3

General information

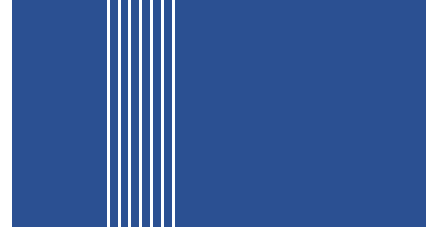
- Store unprocessed channel parts dryly
- Processing only at temperature over +7°C and dry weather (without dew)
- With applied acoustic insulation baffles on part of the building site (especially overpressure channel) the channel has to be screwed together with the baffles from the outside (e.g. self-tapping screws with big washer), as otherwise the channel can swell. These points must be sealed with a piece of butyl adhesive tape before and after the screw connection (generously over and under the washer).

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VENTAFLEX®

More efficiency in air conduction

VENTAFLEX®: Heat exchanger

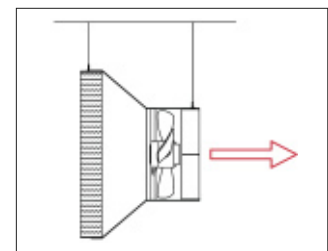
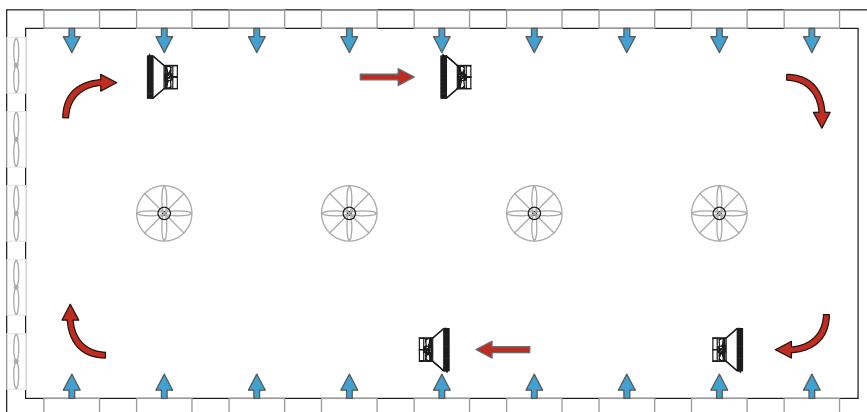
Air-water heat exchanger for an efficient heat transmission



Horizontal circulation of the air

The air is sucked in sideways. An application is made in very long halls, in doing so the supply air gets to the long side of the hall. Overall the construction is

resistant, because it is solely made of non-corrosive stainless steel and plastic materials with smooth surfaces, which are easy to clean.



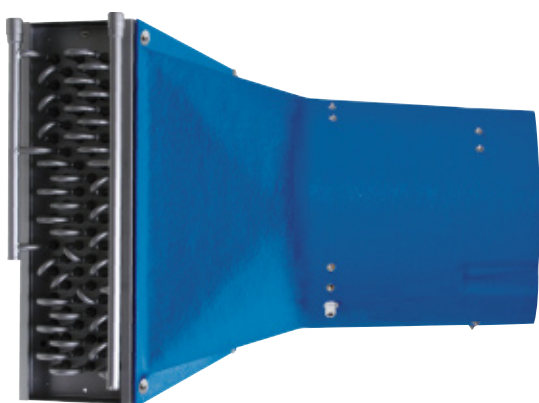
Air heater – horizontal installation position



Type 2 H - Stainless steel “sucking”

Type 2 H - Stainless steel “pressing”

Air performance 3.000 m³/h
Heat: 30 kW bei 20°C Room temperature
horizontal air guidance

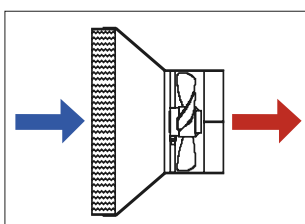


Type 3 H - Stainless steel “sucking”

Type 3 H - Stainless steel “pressing”

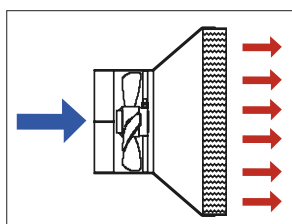
Air performance 5.000 m³/h
Heat: 50 kW bei 20°C Room temperature
horizontal air guidance

“sucking”



High air velocity for high throwing distance

“pressing”



Low air velocity in the entrance room and for small compartments

Type 4 H - Stainless steel “sucking”

Air performance 7.500 m³/h
Heat: 95 kW bei 20°C Room temperature
horizontal air guidance

type	version	item no.	price € /per piece
Typ 2 H	sucking	281100	3098,80
	pressing	281130	3098,80
Typ 3 H	sucking	281200	3592,70
	pressing	281230	3592,70
Typ 4 H	sucking	281300	5307,40

Technical data

	type 2 H	type 3 H	type 4 H
Fan capacity	3000 m ³ /h	5000 m ³ /h	7500 m ³ /h
Connection value fan	400V; 0,75A; 350W	400V; 1,1A; 530W	400V; 1,25A; 630W
Air inlet dry	20°C	20°C	20°C
Air outlet dry	50°C	48,9°C	56,9°C
Air pressure drop dry	42 Pa	47 Pa	56 Pa
Heating medium flow-/ return temperature	80/60 °C	80/60 °C	80/60 °C
Water pressure drop	0,34 bar	0,49 bar	0,36 bar
Water flow rate	1,34 m ³ /h	2,15 m ³ /h	4,11 m ³ /h
Performance at 20°C room temperature	~ 30 KW	~ 50 KW	~ 95 KW
Dimension air heater H x B x T	700 x 700 x 896 mm	800 x 900 x 976 mm	1000 x 1100 x 1075 mm
Connection pipe thread	3/4"	3/4"	1"
item no. Horizontal stainless steel	281100 / 281130	281200 / 281230	281300 / 281330

Weight “sucking”

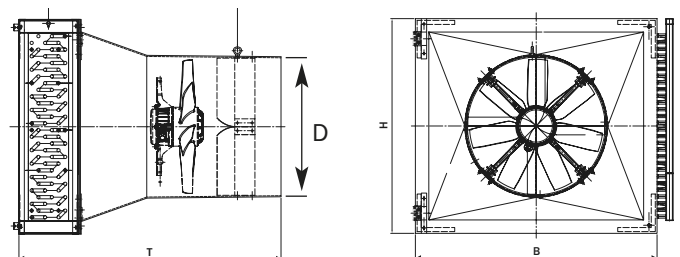
type	item no.	empty weight (kg)	water content (kg)	total weight (kg)
Typ 2 H/A2	281100	ca. 50	5,9	ca. 56
Typ 3 H/A2	281200	ca. 66	8,1	ca. 74

Weight “pressing”

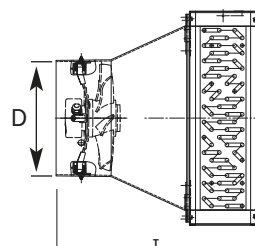
type	item no.	empty weight (kg)	water content (kg)	total weight (kg)
Typ 2 H/A2	281130	ca. 47	5,9	ca. 53
Typ 3 H/A2	281230	ca. 59	8,1	ca. 67
Typ 4 H/A2	281330	ca. 92	17,6	ca. 110

Dimensions “sucking”

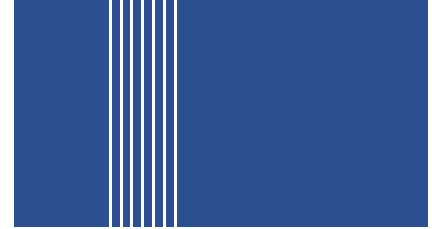
type	H (mm)	B (mm)	T (mm)	D (mm)
Typ 2 H	700	700	896	445
Typ 3 H	800	900	976	498
Typ 4 H	1000	1100	1075	632


Dimensions “pressing”

type	H (mm)	B (mm)	T (mm)	D (mm)
Typ 2 H	680	700	678	462
Typ 3 H	780	900	690	525

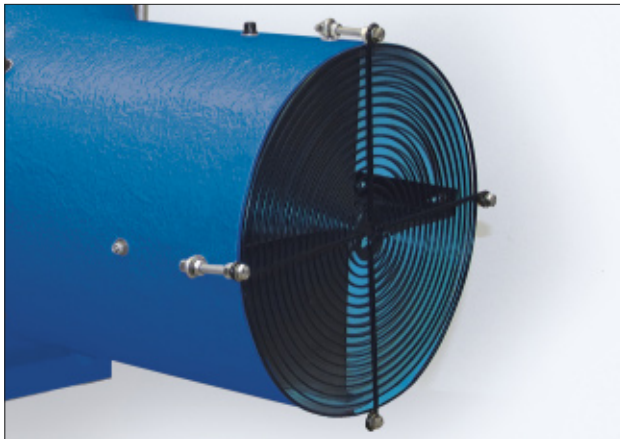


VENTAFLEX®
More efficiency in air conduction


VENTAFLEX®

More efficiency in air conduction

Air heater– additional supplies



Protection grille air heater

Protection grille for air heater prevents the reaching into the rotating fan.

for type H + V	item no.	price €
25 kW	281180	96,30
40 kW	281280	103,10

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