

2023

THE SPECIALISTS FOR AIR CONDUCTION



... inclusive



LAVANTUS®

VENTAFLEX® air duct
for underground installation

VENTAFLEX®

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SPECIALISTS IN AIR GUIDANCE:
the strength of VENTAFLEX®

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LAVANTUS® air duct for underground installation

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 - T-piece 90°
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VENTAFLEX®
More efficiency in air conduction

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LAVANTUS®
VENTAFLEX® air duct
for underground installation

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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 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 take the audit!

Before marketing VENTAFLEX® products have to undergo extensive tests. After going through extensive in-house test procedures, independent institutes are assigned to test the ducts according to highest quality requirements.

Once again it is the special product features of the VENTAFLEX® air ducts which license a certification not only specially in the hygiene sector, but also, more general, with regards to the tightness of the system.



Ventilation solutions

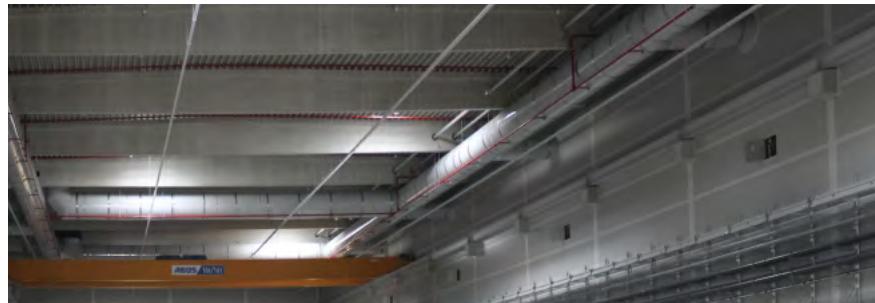
for room – facade – roof

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 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°C VENTAFLEX® air ducts 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 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.



At a glance:

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

VENTAFLEX®

More efficiency in air conduction

high chemical resistance

high stability

low material weight

especially hygienic

certified: VDI 6022

insulation included

easy to clean

ideal insulation values

WLG 022

installation in record time

excellent tightness

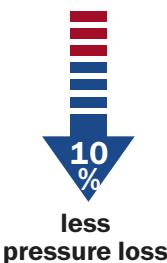
< ATC2 (EN 16798-3)

< tightness class D (EN 13779)

self-explanatory handling

avoids condensation

Measurable improvements compared to conventional, uninsulated spiral duct



CONCLUSION: It all adds up!

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

LAVANTUS®

specially developed for the underground installation

Supported by:



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

LAVANTUS®

VENTAFLEX® air duct
for underground installation

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

Cost efficiency

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

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

Insulation

The excellent insulation effect avoids condensate formation and saves energy costs

Hygiene

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

Cleaning

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

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

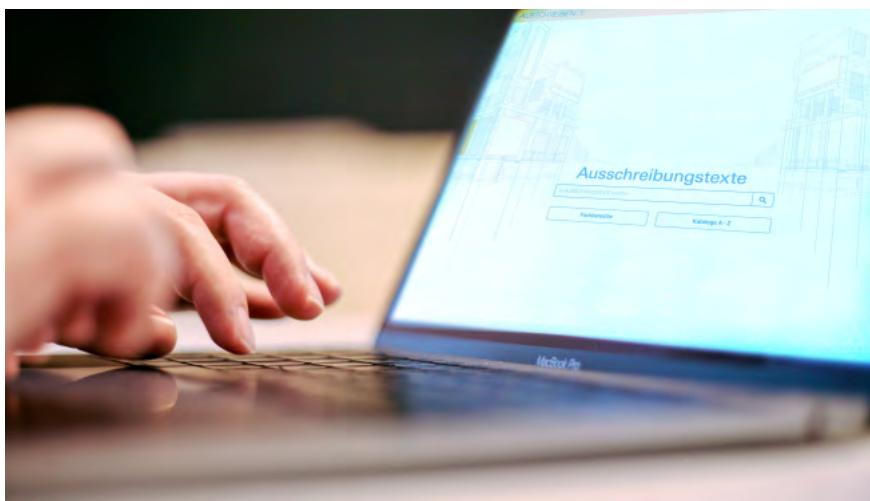
We regularly document where, why and how VENTAFLEX® air ducts have been used in our Practise Reports on our website. On the basis of the described construction projects the flexibility of the system becomes apparent – in the section „references“ you certainly will find some application examples, which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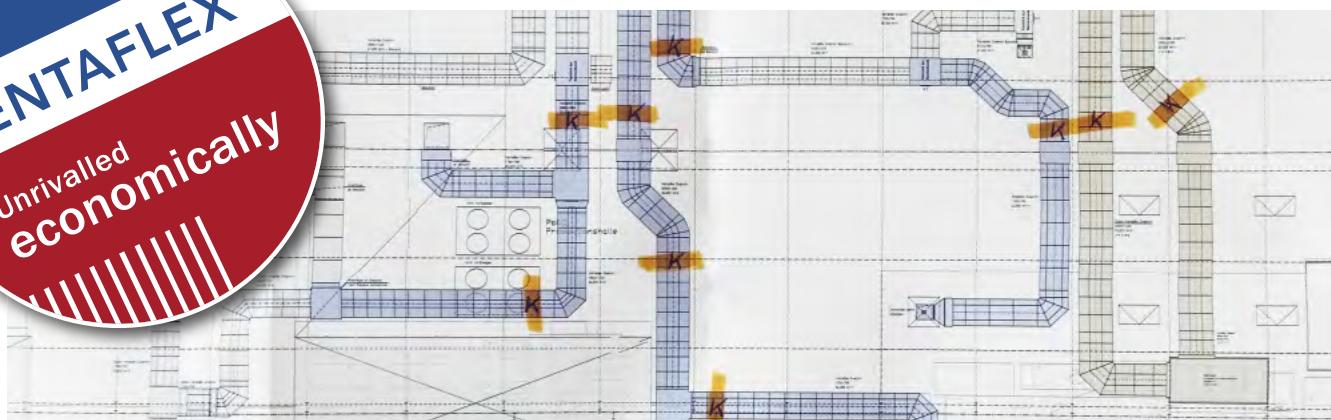
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Technical specifications

**VENTAFLEX® air ducts insulated
Facts and figures for application**

VENTAFLEX®

More efficiency in air conduction



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 independant 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 offer at different applications under various conditions.

| Content | Page |
|--|------|
| Quick-Check | 1.2 |
| - advantage to conventional duct | |
| Check list VENTAFLEX® | 1.3 |
| - standardized planning aid | |
| Material comparison | 1.4 |
| Thermal protection-insulation value | 1.5 |
| Friction loss | 1.6 |
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| - certification | |
| Chemical resistance | 1.10 |
| - and other properties | |
| Planning and service | 1.11 |
| - BIM and tender documents | |
| Fire protection | 1.12 |
| - certification | |

Quick-Check Air Guidance

| Comparison: | VENTAFLEX® air ducts highly insulating PUR rigid foam | Spiral duct stainless steel | Spiral duct galvanized sheet steel |
|---|--|---|--|
| Features of the different air ducts |  |  |  |
| 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 with VENTAFLEX® products

By compliance with certain planning principles a construction with VENTAFLEX® air ducts 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 | Done 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. <i>(For duct joints having been sealed at the plant no further connection clamps are required.)</i> | | | |
| We recommend to use a compensator for longer duct sections (greater than 15 m). This does not apply for underground installation. See catalog page 2.23 and 3.18. | | | |
| 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 | Done No |
|--|-----|-------------|----------------|
| Volume flow in the system (in m³/h) | | | |
| Components of the ducts (single length) | 2 m | 3 m | fitting length |
| Ducts (pieces) | 1 m | | |
| Air velocity max. 10 m/s | | | |

| Application roof installation | | Done Yes | Done 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 | | |

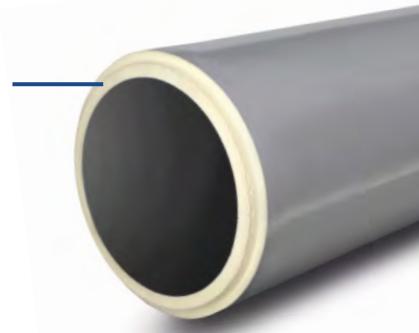
| Application underground installation | | Done Yes | Done No |
|---|--|-------------|------------|
| LavantusGrip connecting clamps | | | |
| Embedding into the ground (at least 30 cm covering with filling sand) | | | |
| Distance between the ducts (minimum distance 30 cm - 50 cm) | | | |
| Wall collar / Ring seal | | | |
| Duct connections | Duct joints have to be free of contamination, sand, grease etc ... | | |
| Individual statics calculation (in the implementation planning) | | | |

VENTAFLEX® air duct insulated versus conventional duct

Structure and thermal insulation by comparison

VENTAFLEX® air duct insulated

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

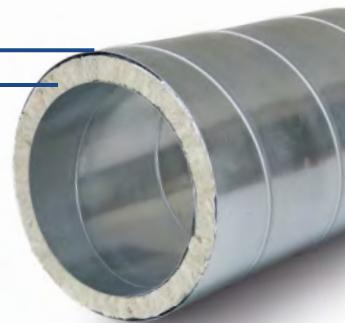


No corrosion:
visually appealing and durable

Conventional duct

Spiral duct

Rock wool

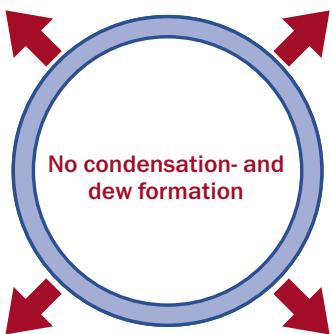


Vulnerable to corrosion:
therefore quickly unsightly and defective

Thermal conductivity by comparison

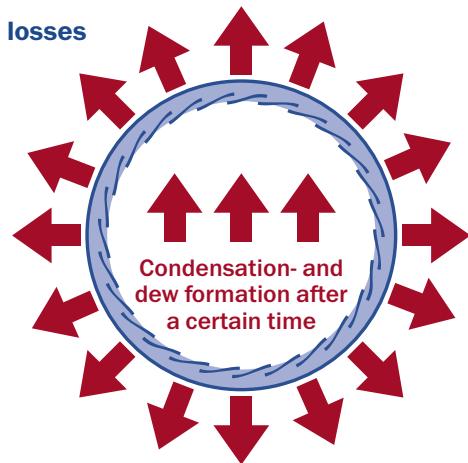
VENTAFLEX® air duct insulated

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 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)

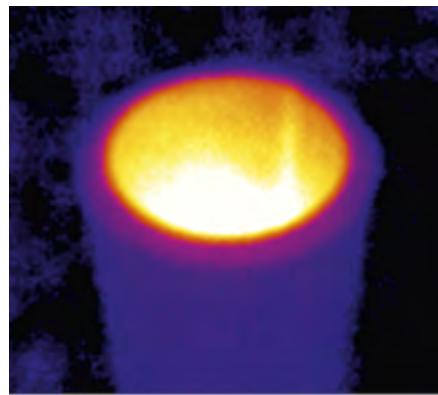
Example:

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

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

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

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



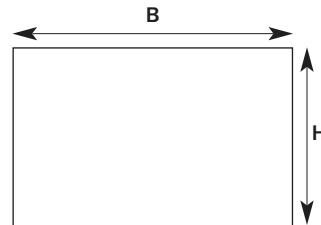
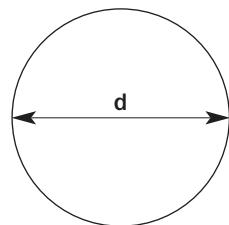
The thermo camera shows the thermal protection of the VENTAFLEX® air ducts.

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

= coefficient of duct friction (VENTAFLEX® GRP coating ...)

L = duct length in [m]

d = diameter respectively dh = hydraulic diameter in [m]

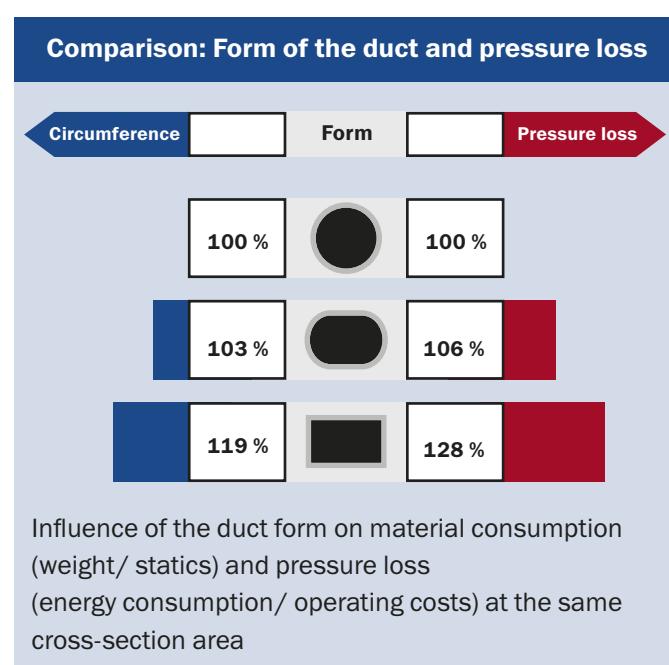
= air density in [kg/m³]

w = flow velocity in [m/s]

3. Comparison of the pressure losses

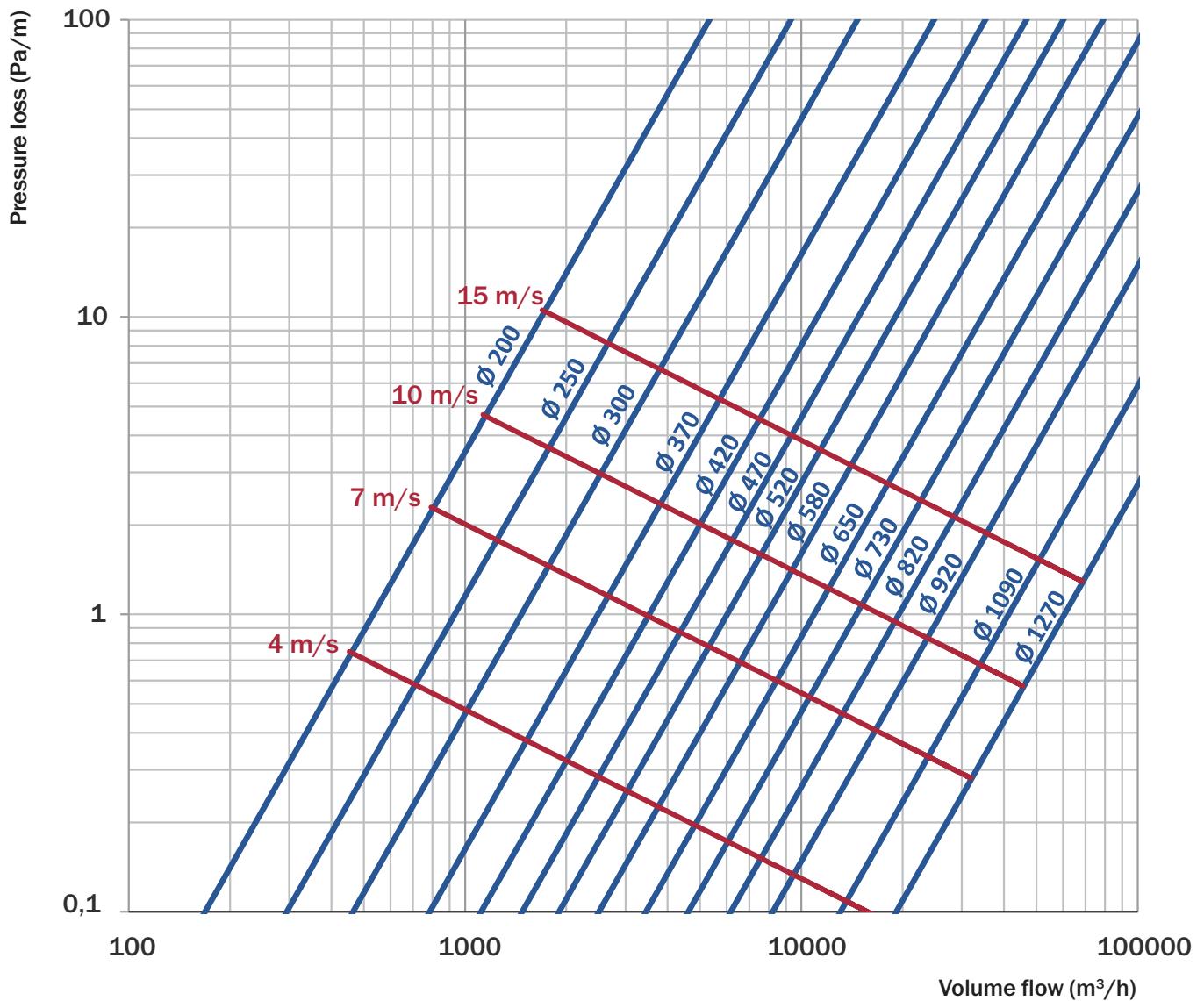
Round and oval air ducts are clearly more streamlined than square air ducts. Thus round air ducts have 20% less surface than square channels with the same performance.

Due to lower pressure losses a small fan can be used. When installing VENTAFLEX® air ducts round or oval operating costs are sustainably saved.



Pressure loss insulated air duct round

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



Permitted pressures for VENTAFLEX® Products

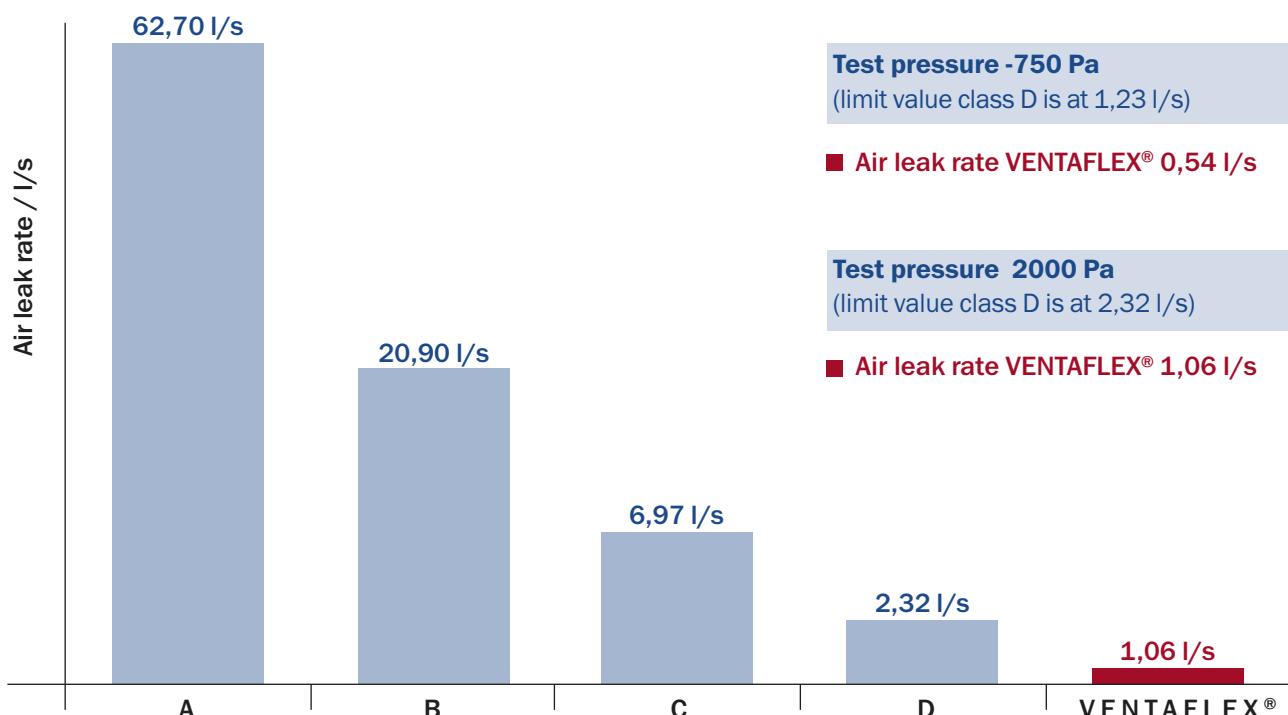
| Name | Series | Overpressure/pa | Negative pressure/pa |
|--------------------------|------------|-----------------|----------------------|
| VENTAFLEX® air duct | 200 – 900 | 5.000 | 5.000 |
| VENTAFLEX® air duct oval | 500 – 1250 | 1.000 | 1.000 |
| Square air channels | | on request | |
| Square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

Tightness air duct round

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

| Air tightness class EN 13779 | Air tightness class EN 16798-3 | 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 |
|--|-----------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 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® 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 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 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 VDI6022

| 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.

VENTAFLEX®
More efficiency in air conduction

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 |

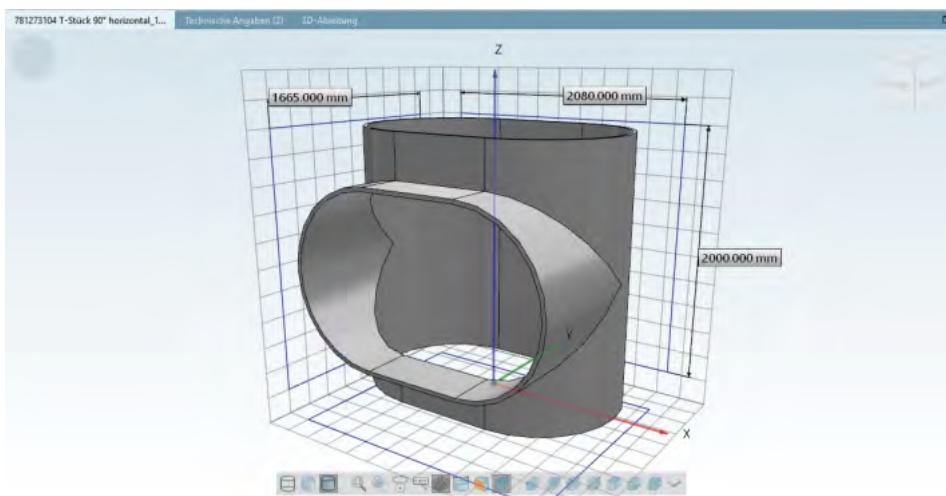
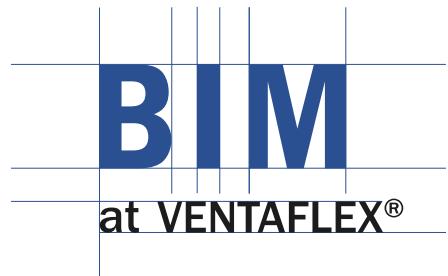
Expansion 1mm per 1m duct length at 20 °C temperature change

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

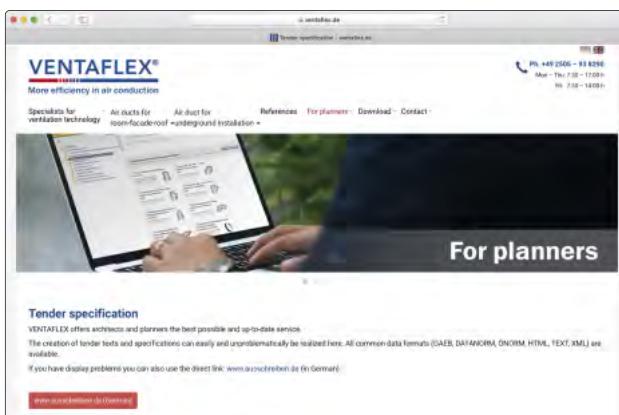
3D CAD-models are available in over 100 different file formats like for example: Revit, CATIA, Inventor, SolidWorks, Creo Parametric, NX, AutoCAD or Solid Edge



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

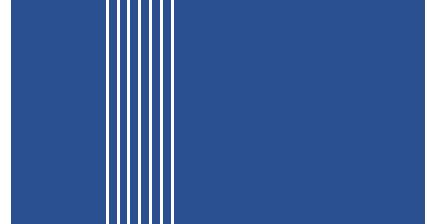
Tender documents

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



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

VENTAFLEX®
More efficiency in air conduction



VENTAFLEX®

More efficiency in air conduction

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 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 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.



VENTAFLEX GmbH & Co. KG

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VENTAFLEX® air duct round

For interior and exterior installation,
application in the hygiene sector

VENTAFLEX®

More efficiency in air conduction

The VENTAFLEX® air duct 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® 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

Easier installation

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

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



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 WLG 022. Consequently a condensation- und dew formation is to be excluded.

Varied design

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

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 thus is 70 % lighter.

A great advantage not only for the installation, but also for statics and roof loads.

Absolutfony 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

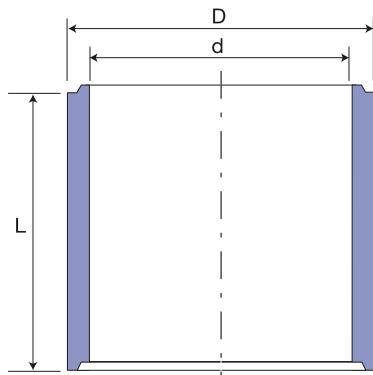
- industrial-/exhibition halls
- swimming pools/sports facilities
- hotels/gastronomy
- schools/daycare facilities
- hospitals/care facilities
- statically loaded roofs
- food industry
- pharmaceutical industry/research
- highTech production

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The VENTAFLEX® air duct 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 in mm | D in mm | L in mm | kg/ duct | surface insides qm | cross section qm |
|-------------|-------------|-------------|-------------|--------------|-----------------------|---------------------|
| 200 | 200 | 260 | 1000 | 3,00 | 0,63 | 0,03 |
| 250 | 250 | 310 | 1000 | 3,50 | 0,79 | 0,05 |
| 300 | 300 | 360 | 1000 | 4,00 | 0,94 | 0,07 |
| 355 | 370 | 460 | 1000 | 6,50 | 1,16 | 0,11 |
| 400 | 420 | 510 | 1000 | 7,00 | 1,32 | 0,14 |
| 450 | 470 | 570 | 1000 | 8,00 | 1,48 | 0,17 |
| 500 | 520 | 620 | 1000 | 9,00 | 1,63 | 0,21 |
| 560 | 580 | 680 | 1000 | 10,00 | 1,82 | 0,26 |
| 630 | 650 | 750 | 1000 | 11,00 | 2,04 | 0,33 |
| 710 | 730 | 830 | 1000 | 12,50 | 2,29 | 0,42 |
| 800 | 820 | 910 | 1000 | 13,50 | 2,57 | 0,53 |
| 900 | 920 | 1020 | 1000 | 16,00 | 2,89 | 0,66 |
| 1250 | 1270 | 1330 | 1000 | 18,00 | 3,99 | 1,27 |
| 1250 | 1270 | 1330 | 1500 | 28,00 | 5,98 | 1,27 |

| series | length in mm | item no. |
|-------------|-----------------|-------------------|
| 200 | 1000 | 102003004 |
| 250 | 1000 | 102503004 |
| 300 | 1000 | 103003004 |
| 355 | 1000 | 103705004 |
| 400 | 1000 | 104205004 |
| 450 | 1000 | 104705004 |
| 500 | 1000 | 105205004 |
| 560 | 1000 | 105805004 |
| 630 | 1000 | 106505004 |
| 710 | 1000 | 107305004 |
| 800 | 1000 | 108205004 |
| 900 | 1000 | 109205004 |
| 1250 | 1000 | 1012703004 |
| 1250 | 1500 | 1512703004 |

Prefabricated components 2 meters

| series | length in mm | item no. |
|--------|-----------------|------------|
| 200 | 2000 | 122003004 |
| 250 | 2000 | 122503004 |
| 300 | 2000 | 123003004 |
| 355 | 2000 | 123705004 |
| 400 | 2000 | 124205004 |
| 450 | 2000 | 124705004 |
| 500 | 2000 | 125205004 |
| 560 | 2000 | 125805004 |
| 630 | 2000 | 126505004 |
| 710 | 2000 | 127305004 |
| 800 | 2000 | 128205004 |
| 900 | 2000 | 129205004 |
| 1250 | 2000 | 1212703004 |

Prefabricated components 3 meters

| series | length in mm | item no. |
|--------|-----------------|------------|
| 200 | 3000 | 132003004 |
| 250 | 3000 | 132503004 |
| 300 | 3000 | 133003004 |
| 355 | 3000 | 133705004 |
| 400 | 3000 | 134205004 |
| 450 | 3000 | 134705004 |
| 500 | 3000 | 135205004 |
| 560 | 3000 | 135805004 |
| 630 | 3000 | 136505004 |
| 710 | 3000 | 137305004 |
| 800 | 3000 | 138205004 |
| 900 | 3000 | 139205004 |
| 1250 | 3000 | 1312703004 |

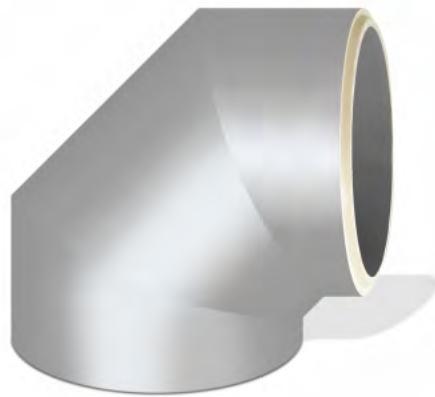
By prefabricating components with 2 or 3 m length valuable installation time can be saved at the construction site



VENTAFLEX®
More efficiency in air conduction



The VENTAFLEX® air duct round Curve 90°



Material

Highly insulating PUR rigid foam

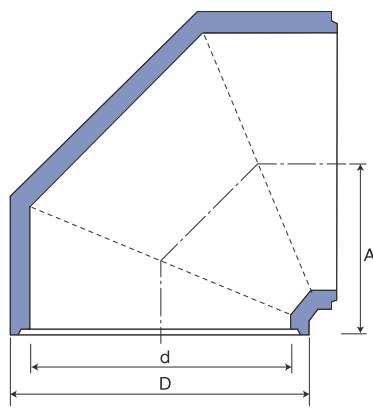
Standard coating inside/outside

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 = Height = $\frac{D}{2} + A$

| series | d in mm | D in mm | A in mm | H in mm | kg/ curve | surface qm | cross section qm |
|--------|------------|------------|------------|------------|--------------|---------------|---------------------|
| 200 | 200 | 260 | 386 | 498 | 3,00 | 0,63 | 0,03 |
| 250 | 250 | 310 | 411 | 566 | 3,50 | 0,79 | 0,05 |
| 300 | 300 | 360 | 436 | 616 | 4,00 | 0,94 | 0,07 |
| 355 | 370 | 460 | 594 | 824 | 6,50 | 1,16 | 0,11 |
| 400 | 420 | 510 | 595 | 850 | 7,00 | 1,32 | 0,14 |
| 450 | 470 | 570 | 597 | 882 | 8,00 | 1,48 | 0,17 |
| 500 | 520 | 620 | 598 | 908 | 9,00 | 1,63 | 0,21 |
| 560 | 580 | 680 | 600 | 940 | 10,00 | 1,82 | 0,26 |
| 630 | 650 | 750 | 602 | 977 | 11,00 | 2,04 | 0,33 |
| 710 | 730 | 830 | 604 | 1019 | 12,50 | 2,29 | 0,42 |
| 800 | 820 | 910 | 607 | 1062 | 13,50 | 2,57 | 0,53 |
| 900 | 920 | 1020 | 610 | 1120 | 16,00 | 2,89 | 0,66 |
| 1250 | 1270 | 1330 | 899 | 1564 | 28,00 | 5,98 | 1,27 |

| series | item no. |
|--------|------------|
| 200 | 902003004 |
| 250 | 902503004 |
| 300 | 903003004 |
| 355 | 903705004 |
| 400 | 904205004 |
| 450 | 904705004 |
| 500 | 905205004 |
| 560 | 905805004 |
| 630 | 906505004 |
| 710 | 907305004 |
| 800 | 908205004 |
| 900 | 909205004 |
| 1250 | 9112703004 |

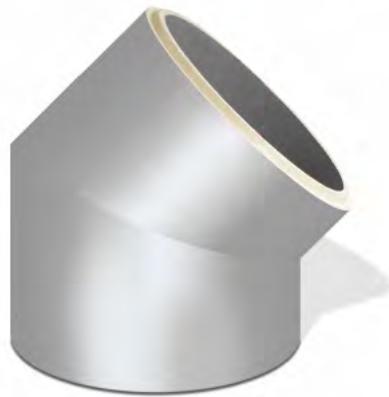
Prices are also valid for 46°- to 90°-curves.

VENTAFLEX®

More efficiency in air conduction



The VENTAFLEX® air duct round Curve 45°



Material

Highly insulating PUR rigid foam

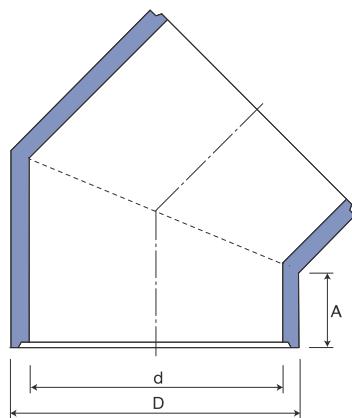
Standard coating inside/outside

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 in mm | D in mm | A in mm | kg/ curve | surface qm | cross section qm |
|--------|------------|------------|------------|--------------|---------------|---------------------|
| 200 | 200 | 260 | 150 | 1,00 | 0,35 | 0,03 |
| 250 | 250 | 310 | 150 | 1,50 | 0,48 | 0,05 |
| 300 | 300 | 360 | 150 | 2,00 | 0,62 | 0,07 |
| 355 | 370 | 460 | 403 | 6,50 | 1,15 | 0,11 |
| 400 | 420 | 510 | 392 | 7,00 | 1,32 | 0,14 |
| 450 | 470 | 570 | 380 | 8,00 | 1,47 | 0,17 |
| 500 | 520 | 620 | 370 | 9,00 | 1,63 | 0,21 |
| 560 | 580 | 680 | 357 | 10,00 | 1,82 | 0,26 |
| 630 | 650 | 750 | 343 | 11,00 | 2,04 | 0,33 |
| 710 | 730 | 830 | 326 | 12,50 | 2,29 | 0,42 |
| 800 | 820 | 910 | 310 | 13,50 | 2,57 | 0,53 |
| 900 | 920 | 1020 | 287 | 16,00 | 2,89 | 0,66 |
| 1250 | 1270 | 1330 | 225 | 18,00 | 3,98 | 1,27 |

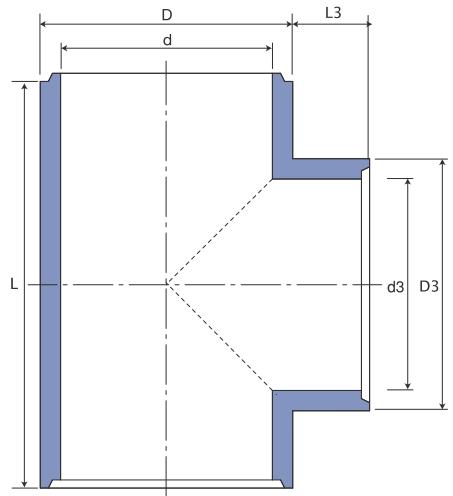
| series | item no. |
|--------|------------|
| 200 | 452003004 |
| 250 | 452503004 |
| 300 | 453003004 |
| 355 | 453705004 |
| 400 | 454205004 |
| 450 | 454705004 |
| 500 | 455205004 |
| 560 | 455805004 |
| 630 | 456505004 |
| 710 | 457305004 |
| 800 | 458205004 |
| 900 | 459205004 |
| 1250 | 4612703004 |

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

More efficiency in air conduction



The VENTAFLEX® air duct 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 in mm | D in mm | L in mm | kg/ piece | surface qm | cross section qm |
|--------|------------|------------|------------|--------------|---------------|---------------------|
| 200 | 200 | 260 | 1000 | 3,90 | 0,86 | 0,03 |
| 250 | 250 | 310 | 1000 | 3,82 | 1,05 | 0,05 |
| 300 | 300 | 360 | 1000 | 5,24 | 1,23 | 0,07 |
| 355 | 370 | 460 | 1000 | 8,23 | 1,47 | 0,11 |
| 400 | 420 | 510 | 1000 | 8,62 | 1,63 | 0,14 |
| 450 | 470 | 570 | 1000 | 9,58 | 1,77 | 0,17 |
| 500 | 520 | 620 | 1000 | 10,54 | 1,91 | 0,21 |
| 560 | 580 | 680 | 1000 | 11,32 | 2,06 | 0,26 |
| 630 | 650 | 750 | 1000 | 11,96 | 2,22 | 0,33 |
| 710 | 730 | 830 | 1000 | 12,96 | 2,37 | 0,42 |
| 800 | 820 | 910 | 1000 | 13,23 | 2,52 | 0,53 |
| 900 | 920 | 1020 | 1200 | 19,43 | 3,51 | 0,66 |
| 1250 | 1270 | 1330 | 1500 | 25,94 | 5,75 | 1,27 |

| d | d3 | item no. |
|----------|-----------|-----------------|
| 200 | 200 | 702003004 |
| 250 | 200 | 702502003004 |
| 250 | 250 | 702503004 |
| 300 | 200 | 703002003004 |
| 300 | 250 | 703002503004 |
| 300 | 300 | 703003004 |
| 370 | 200 | 703702005004 |
| 370 | 250 | 703702505004 |
| 370 | 300 | 703703005004 |
| 370 | 370 | 703705004 |
| 420 | 200 | 704202005004 |
| 420 | 250 | 704202505004 |
| 420 | 300 | 704203005004 |
| 420 | 370 | 704203705004 |
| 420 | 420 | 704205004 |
| 470 | 200 | 704702005004 |
| 470 | 250 | 704702505004 |
| 470 | 300 | 704703005004 |
| 470 | 370 | 704703705004 |
| 470 | 420 | 704704205004 |
| 470 | 470 | 704705004 |
| 520 | 200 | 705202005004 |
| 520 | 250 | 705202505004 |
| 520 | 300 | 705203005004 |
| 520 | 370 | 705203705004 |
| 520 | 420 | 705204205004 |
| 520 | 470 | 705204705004 |
| 520 | 520 | 705205004 |
| 580 | 200 | 705802005004 |
| 580 | 250 | 705802505004 |
| 580 | 300 | 705803005004 |
| 580 | 370 | 705803705004 |
| 580 | 420 | 705804205004 |
| 580 | 470 | 705804705004 |
| 580 | 520 | 705805205004 |
| 580 | 580 | 705805004 |
| 650 | 200 | 706502005004 |
| 650 | 250 | 706502505004 |
| 650 | 300 | 706503005004 |
| 650 | 370 | 706503705004 |
| 650 | 420 | 706504205004 |
| 650 | 470 | 706504705004 |
| 650 | 520 | 706505205004 |
| 650 | 580 | 706505805004 |
| 650 | 650 | 706505004 |
| 730 | 200 | 707302005004 |
| 730 | 250 | 707302505004 |
| 730 | 300 | 707303005004 |
| 730 | 370 | 707303705004 |
| 730 | 420 | 707304205004 |
| 730 | 470 | 707304705004 |
| 730 | 520 | 707305205004 |
| 730 | 580 | 707305805004 |
| 730 | 650 | 707306505004 |
| 730 | 730 | 707305004 |

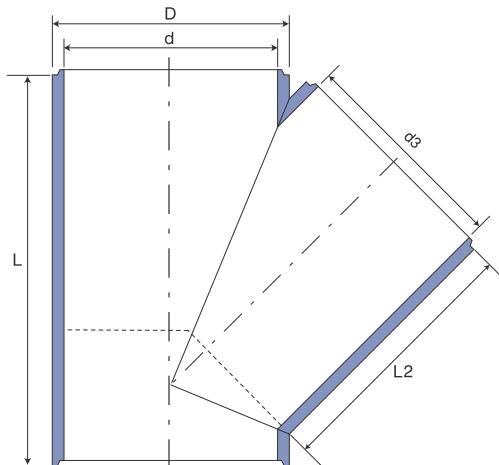
| d | d3 | item no. |
|----------|-----------|-----------------|
| 820 | 200 | 708202005004 |
| 820 | 250 | 708202505004 |
| 820 | 300 | 708203005004 |
| 820 | 370 | 708203705004 |
| 820 | 420 | 708204205004 |
| 820 | 470 | 708204705004 |
| 820 | 520 | 708205205004 |
| 820 | 580 | 708205805004 |
| 820 | 650 | 708206505004 |
| 820 | 730 | 708207305004 |
| 820 | 820 | 708205004 |
| 920 | 200 | 709202005004 |
| 920 | 250 | 709202505004 |
| 920 | 300 | 709203005004 |
| 920 | 370 | 709203705004 |
| 920 | 420 | 709204205004 |
| 920 | 470 | 709204705004 |
| 920 | 520 | 709205205004 |
| 920 | 580 | 709205805004 |
| 920 | 650 | 709206505004 |
| 920 | 730 | 709207305004 |
| 920 | 820 | 709208205004 |
| 920 | 920 | 709205004 |
| 1270 | 200 | 7012702003004 |
| 1270 | 250 | 7012702503004 |
| 1270 | 300 | 7012703003004 |
| 1270 | 370 | 7012703703004 |
| 1270 | 420 | 7012704203004 |
| 1270 | 470 | 7012704703004 |
| 1270 | 520 | 7012705203004 |
| 1270 | 580 | 7012705803004 |
| 1270 | 650 | 7012706503004 |
| 1270 | 730 | 7012707303004 |
| 1270 | 820 | 7012708203004 |
| 1270 | 920 | 7012709203004 |
| 1270 | 1090 | 70127010903004 |
| 1270 | 1270 | 7012703004 |

VENTAFLEX®

More efficiency in air conduction



The VENTAFLEX® air duct 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 in mm | D in mm | L in mm | L2 in mm | kg/ piece | surface qm | cross section qm |
|--------|------------|------------|------------|-------------|--------------|---------------|---------------------|
| 200 | 200 | 260 | 1000 | 580 | 4,38 | 1,23 | 0,03 |
| 250 | 250 | 310 | 1000 | 595 | 5,00 | 1,46 | 0,05 |
| 300 | 300 | 360 | 1000 | 620 | 5,74 | 1,70 | 0,07 |
| 355 | 370 | 460 | 1000 | 635 | 7,56 | 2,17 | 0,11 |
| 400 | 420 | 510 | 1000 | 650 | 8,80 | 2,40 | 0,14 |
| 450 | 470 | 570 | 1000 | 670 | 11,24 | 2,69 | 0,17 |
| 500 | 520 | 620 | 1000 | 695 | 12,64 | 2,92 | 0,21 |
| 560 | 580 | 680 | 1500 | 840 | 21,37 | 3,20 | 0,26 |
| 630 | 650 | 750 | 1500 | 1035 | 23,40 | 3,53 | 0,33 |
| 710 | 730 | 830 | 1500 | 1030 | 25,36 | 3,91 | 0,42 |
| 800 | 820 | 910 | 1500 | 1190 | 28,30 | 4,29 | 0,53 |
| 900 | 920 | 1020 | 1600 | 1064 | 32,17 | 6,41 | 0,66 |
| 1250 | 1270 | 1330 | 2500 | 1400 | 58,15 | 8,35 | 1,27 |

| d | d3 | item no. |
|----------|-----------|-----------------|
| 200 | 200 | 742003004 |
| 250 | 200 | 742502003004 |
| 250 | 250 | 742503004 |
| 300 | 200 | 743002003004 |
| 300 | 250 | 743002503004 |
| 300 | 300 | 743003004 |
| 370 | 200 | 743702005004 |
| 370 | 250 | 743702505004 |
| 370 | 300 | 743703005004 |
| 370 | 370 | 743705004 |
| 420 | 200 | 744202005004 |
| 420 | 250 | 744202505004 |
| 420 | 300 | 744203005004 |
| 420 | 370 | 744203705004 |
| 420 | 420 | 744205004 |
| 470 | 200 | 744702005004 |
| 470 | 250 | 744702505004 |
| 470 | 300 | 744703005004 |
| 470 | 370 | 744703705004 |
| 470 | 420 | 744704205004 |
| 470 | 470 | 744705004 |
| 520 | 200 | 745202005004 |
| 520 | 250 | 745202505004 |
| 520 | 300 | 745203005004 |
| 520 | 370 | 745203705004 |
| 520 | 420 | 745204205004 |
| 520 | 470 | 745204705004 |
| 520 | 520 | 745205004 |
| 580 | 200 | 745802005004 |
| 580 | 250 | 745802505004 |
| 580 | 300 | 745803005004 |
| 580 | 370 | 745803705004 |
| 580 | 420 | 745804205004 |
| 580 | 470 | 745804705004 |
| 580 | 520 | 745805205004 |
| 580 | 580 | 745805004 |
| 650 | 200 | 746502005004 |
| 650 | 250 | 746502505004 |
| 650 | 300 | 746503005004 |
| 650 | 370 | 746503705004 |
| 650 | 420 | 746504205004 |
| 650 | 470 | 746504705004 |
| 650 | 520 | 746505205004 |
| 650 | 580 | 746505805004 |
| 650 | 650 | 746505004 |

| d | d3 | item no. |
|----------|-----------|-----------------|
| 730 | 200 | 747302005004 |
| 730 | 250 | 747302505004 |
| 730 | 300 | 747303005004 |
| 730 | 370 | 747303705004 |
| 730 | 420 | 747304205004 |
| 730 | 470 | 747304705004 |
| 730 | 520 | 747305205004 |
| 730 | 580 | 747305805004 |
| 730 | 650 | 747306505004 |
| 730 | 730 | 747305004 |
| 820 | 200 | 748202005004 |
| 820 | 250 | 748202505004 |
| 820 | 300 | 748203005004 |
| 820 | 370 | 748203705004 |
| 820 | 420 | 748204205004 |
| 820 | 470 | 748204705004 |
| 820 | 520 | 748205205004 |
| 820 | 580 | 748205805004 |
| 820 | 650 | 748206505004 |
| 820 | 730 | 748207305004 |
| 820 | 820 | 748205004 |
| 920 | 200 | 749202005004 |
| 920 | 250 | 749202505004 |
| 920 | 300 | 749203005004 |
| 920 | 370 | 749203705004 |
| 920 | 420 | 749204205004 |
| 920 | 470 | 749204705004 |
| 920 | 520 | 749205205004 |
| 920 | 580 | 749205805004 |
| 920 | 650 | 749206505004 |
| 920 | 730 | 749207305004 |
| 920 | 820 | 749208205004 |
| 920 | 920 | 749205004 |
| 1270 | 1270 | 7412703004 |

VENTAFLEX®

More efficiency in air conduction



The VENTAFLEX® air duct round Reduction symmetric



Material

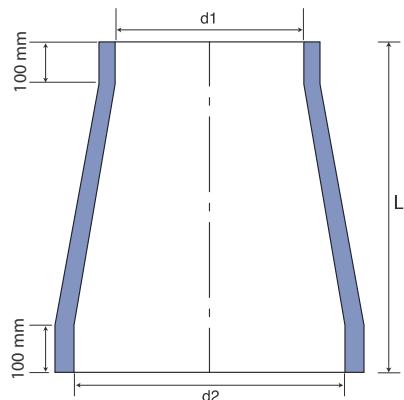
Highly insulating PUR rigid foam

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 | d2 | L | item no. |
|----------|------|-----|-----|---------------|
| 250/200 | 250 | 200 | 269 | 432502003004 |
| 300/200 | 300 | 200 | 338 | 433002003004 |
| 300/250 | 300 | 250 | 269 | 433002503004 |
| 355/200 | 370 | 200 | 475 | 433702005004 |
| 355/250 | 370 | 250 | 406 | 433702505004 |
| 355/300 | 370 | 300 | 338 | 433703005004 |
| 400/200 | 420 | 200 | 544 | 434202005004 |
| 400/250 | 420 | 250 | 475 | 434202505004 |
| 400/300 | 420 | 300 | 406 | 434203005004 |
| 400/355 | 420 | 370 | 269 | 434203705004 |
| 450/200 | 470 | 200 | 626 | 434702005004 |
| 450/250 | 470 | 250 | 557 | 434702505004 |
| 450/300 | 470 | 300 | 489 | 434703005004 |
| 450/355 | 470 | 370 | 351 | 434703705004 |
| 450/400 | 470 | 420 | 282 | 434704205004 |
| 500/200 | 520 | 200 | 695 | 435202005004 |
| 500/250 | 520 | 250 | 626 | 435202505004 |
| 500/300 | 520 | 300 | 558 | 435203005004 |
| 500/355 | 520 | 370 | 420 | 435203705004 |
| 500/400 | 520 | 420 | 351 | 435204205004 |
| 500/450 | 520 | 470 | 269 | 435204705004 |
| 560/355 | 580 | 370 | 502 | 435803705004 |
| 560/400 | 580 | 420 | 433 | 435804205004 |
| 560/450 | 580 | 470 | 351 | 435804705004 |
| 560/500 | 580 | 520 | 282 | 435805205004 |
| 630/355 | 650 | 370 | 598 | 436503705004 |
| 630/400 | 650 | 420 | 530 | 436504205004 |
| 630/450 | 650 | 470 | 447 | 436504705004 |
| 630/500 | 650 | 520 | 379 | 436505205004 |
| 630/560 | 650 | 580 | 296 | 436505805004 |
| 710/355 | 730 | 370 | 708 | 437303705004 |
| 710/400 | 730 | 420 | 639 | 437304205004 |
| 710/450 | 730 | 470 | 557 | 437304705004 |
| 710/500 | 730 | 520 | 488 | 437305205004 |
| 710/560 | 730 | 580 | 406 | 437305805004 |
| 710/630 | 730 | 650 | 310 | 437306505004 |
| 800/500 | 820 | 520 | 598 | 438205205004 |
| 800/560 | 820 | 580 | 516 | 438205805004 |
| 800/630 | 820 | 650 | 420 | 438206505004 |
| 800/710 | 820 | 730 | 310 | 438207305004 |
| 900/500 | 920 | 520 | 749 | 439205205004 |
| 900/560 | 920 | 580 | 667 | 439205805004 |
| 900/630 | 920 | 650 | 571 | 439206505004 |
| 900/710 | 920 | 730 | 461 | 439207305004 |
| 900/800 | 920 | 820 | 351 | 439208205004 |
| 1250/900 | 1270 | 920 | 950 | 4312709203004 |

VENTAFLEX®

More efficiency in air conduction



The VENTAFLEX® air duct round Y-piece



Material

Highly insulating PUR rigid foam

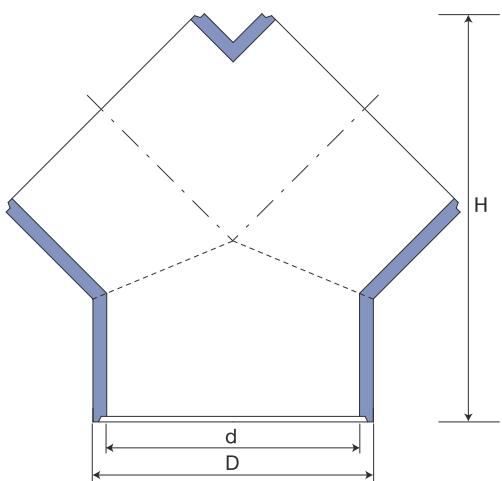
Standard coating inside/outside

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 in mm | D in mm | L in mm | H in mm | kg m | surface qm |
|--------|------------|------------|------------|------------|---------|---------------|
| 200 | 200 | 260 | 446 | 947 | 4,5 | 0,9 |
| 250 | 250 | 310 | 435 | 963 | 5,3 | 1,1 |
| 300 | 300 | 360 | 425 | 981 | 6,0 | 1,3 |
| 355 | 370 | 460 | 403 | 1016 | 9,8 | 1,5 |
| 400 | 420 | 510 | 392 | 1035 | 10,5 | 1,7 |
| 450 | 470 | 570 | 380 | 1055 | 9,6 | 1,8 |
| 500 | 520 | 620 | 372 | 1073 | 13,5 | 2,0 |
| 560 | 580 | 680 | 357 | 1094 | 15,0 | 2,1 |
| 630 | 650 | 750 | 343 | 1106 | 16,5 | 2,3 |
| 710 | 730 | 830 | 326 | 1134 | 18,8 | 2,5 |
| 800 | 820 | 910 | 310 | 1166 | 30,4 | 2,6 |
| 900 | 920 | 1020 | 534 | 1201 | 36,0 | 5,0 |
| 1250 | 1270 | 1330 | 475 | 1752 | 40,5 | 6,2 |

| series | item no. |
|--------|------------|
| 200 | 782003004 |
| 250 | 782503004 |
| 300 | 783003004 |
| 355 | 783705004 |
| 400 | 784205004 |
| 450 | 784705004 |
| 500 | 785205004 |
| 560 | 785805004 |
| 630 | 786505004 |
| 710 | 787305004 |
| 800 | 788205004 |
| 900 | 789205004 |
| 1250 | 7812703004 |

The VENTAFLEX® air duct round Exhaust curve 90°



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

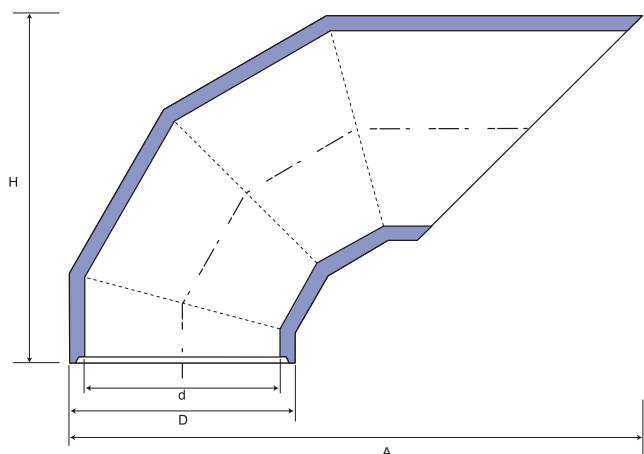
Light grey (RAL 7035)

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 in mm | D in mm | H in mm | A in mm | surface qm | weight kg |
|--------|------------|------------|------------|------------|---------------|--------------|
| 200 | 200 | 260 | 497 | 757 | 0,5 | 3,10 |
| 250 | 250 | 310 | 547 | 857 | 0,6 | 4,15 |
| 300 | 300 | 360 | 597 | 957 | 0,8 | 5,20 |
| 355 | 370 | 460 | 697 | 1157 | 1,2 | 6,17 |
| 400 | 420 | 510 | 747 | 1257 | 1,4 | 7,50 |
| 450 | 470 | 570 | 807 | 1377 | 1,7 | 9,98 |
| 500 | 520 | 620 | 857 | 1477 | 2,0 | 11,40 |
| 560 | 580 | 680 | 917 | 1597 | 2,3 | 13,30 |
| 630 | 650 | 750 | 987 | 1737 | 2,8 | 15,68 |
| 710 | 730 | 830 | 1067 | 1897 | 3,4 | 18,53 |
| 800 | 820 | 910 | 1147 | 2057 | 4,1 | 21,38 |
| 900 | 920 | 1020 | 1257 | 2277 | 5,0 | 26,13 |
| 1250 | 1270 | 1330 | 1567 | 2897 | 8,5 | 36,00 |

| series | item no. |
|--------|------------|
| 200 | 952003004 |
| 250 | 952503004 |
| 300 | 953003004 |
| 355 | 953705004 |
| 400 | 954205004 |
| 450 | 954705004 |
| 500 | 955205004 |
| 560 | 955805004 |
| 630 | 956505004 |
| 710 | 957305004 |
| 800 | 958205004 |
| 900 | 959205004 |
| 1250 | 9512703004 |

The VENTAFLEX® air duct round Exhaust curve 135°



Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

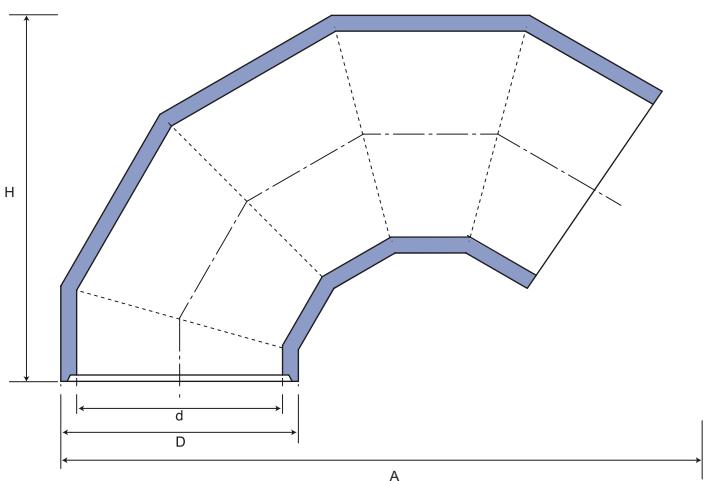
Light grey (RAL 7035)

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

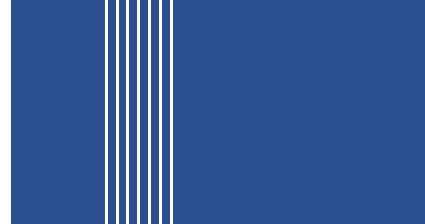
D = Outside diameter

A = Extension

H = Height

| series | d in mm | D in mm | H in mm | A in mm | surface qm | weight kg |
|--------|------------|------------|------------|------------|---------------|--------------|
| 200 | 200 | 260 | 530 | 835 | 0,6 | 3,80 |
| 250 | 250 | 310 | 581 | 920 | 0,8 | 5,05 |
| 300 | 300 | 360 | 633 | 1005 | 1,0 | 6,30 |
| 355 | 370 | 460 | 735 | 1176 | 1,3 | 7,50 |
| 400 | 420 | 510 | 786 | 1262 | 1,6 | 8,38 |
| 450 | 470 | 570 | 848 | 1364 | 1,9 | 10,93 |
| 500 | 520 | 620 | 899 | 1449 | 2,2 | 12,35 |
| 560 | 580 | 680 | 961 | 1552 | 2,6 | 14,25 |
| 630 | 650 | 750 | 1033 | 1671 | 3,1 | 16,63 |
| 710 | 730 | 830 | 1115 | 1808 | 3,7 | 19,95 |
| 800 | 820 | 910 | 1197 | 1944 | 4,4 | 22,80 |
| 900 | 920 | 1020 | 1309 | 2132 | 4,6 | 28,03 |
| 1250 | 1270 | 1330 | 1627 | 2661 | 8,8 | 37,80 |

| series | item no. |
|--------|------------|
| 200 | 962003004 |
| 250 | 962503004 |
| 300 | 963003004 |
| 355 | 963705004 |
| 400 | 964205004 |
| 450 | 964705004 |
| 500 | 965205004 |
| 560 | 965805004 |
| 630 | 966505004 |
| 710 | 967305004 |
| 800 | 968205004 |
| 900 | 969205004 |
| 1250 | 9612703004 |



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

The precise, computer-aided and robot-manufactured components allow a perfect adaption to each particular system: tightness and a good optics remain unchanged.

The VENTAFLEX® manufactured special components guarantee an ideal connectivity to all customary duct systems and classic ventilation units – please contact us!



VENTAFLEX GmbH & Co. KG

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www.ventaflex.de

The VENTAFLEX® Supplies-system

Ideal components –
Customized and multiply tested

VENTAFLEX®

More efficiency in air conduction

“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 |
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| VentaSnap | 2.21 |
| VentaFix | 2.22 |
| Compensator | 2.23 |
| Roof duct | 2.24 |
| End cover | 2.25 |
| Inspection cover, roof hood | 2.26 |

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

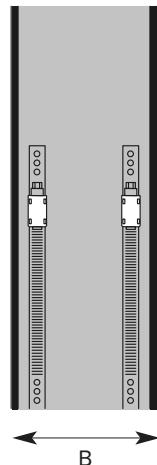
Stainless steel



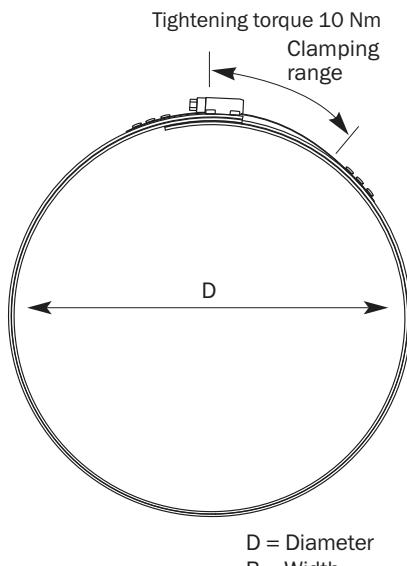
EPDM gasket insert



Fastening clamp



B



D = Diameter
B = Width

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

| series | Ø air duct | Ø D in mm | width (B) in mm | item no. |
|--------|------------|--------------|--------------------|------------|
| 200 | 200 | 260 | 100 | 052003020 |
| 250 | 250 | 310 | 100 | 052503020 |
| 300 | 300 | 360 | 100 | 053003020 |
| 355 | 370 | 460 | 100 | 053705020 |
| 400 | 420 | 510 | 100 | 054205020 |
| 450 | 470 | 570 | 100 | 054705020 |
| 500 | 520 | 620 | 100 | 055205020 |
| 560 | 580 | 680 | 100 | 055805020 |
| 630 | 650 | 750 | 100 | 056505020 |
| 710 | 730 | 830 | 100 | 057305020 |
| 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 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

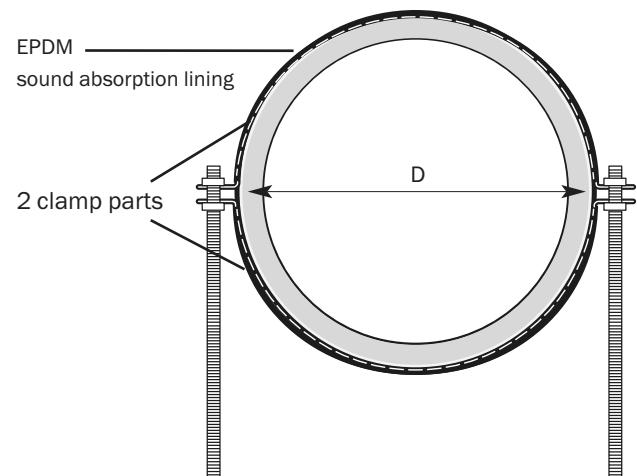


Connection of the clamps by
means of thread rods
Ø hole of the clamps: 11 mm

High-quality sound absorption
lining

Mounting clamp made of stainless steel
for placing on stands or hanging of
VENTAFLEX® air ducts round

| series | Ø D in mm | item no. |
|--------|--------------|------------|
| 200 | 260 | 062003020 |
| 250 | 310 | 062503020 |
| 300 | 360 | 063003020 |
| 355 | 460 | 063705020 |
| 400 | 510 | 064205020 |
| 450 | 570 | 064705020 |
| 500 | 620 | 065205020 |
| 560 | 680 | 065805020 |
| 630 | 750 | 066505020 |
| 710 | 830 | 067305020 |
| 800 | 910 | 068205020 |
| 900 | 1020 | 069205020 |
| 1250 | 1330 | 0612703020 |



VENTAFLEX®
More efficiency in air conduction

Compensator


Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

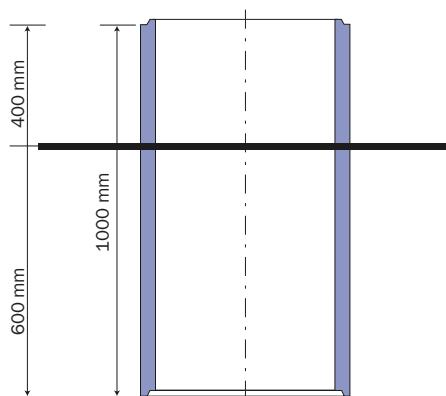
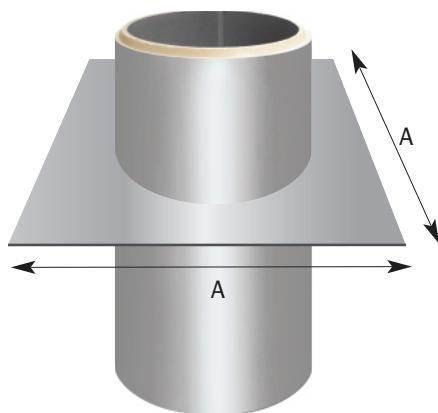
Light grey (RAL 7035)



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

| series | d in mm | item no. |
|--------|------------|------------|
| 200 | 200 | 402003004 |
| 250 | 250 | 402503004 |
| 300 | 300 | 403003004 |
| 355 | 370 | 403705004 |
| 400 | 420 | 404205004 |
| 450 | 470 | 404705004 |
| 500 | 520 | 405205004 |
| 560 | 580 | 405805004 |
| 630 | 650 | 406505004 |
| 710 | 730 | 407305004 |
| 800 | 820 | 408205004 |
| 900 | 920 | 409205004 |
| 1250 | 1270 | 4012703004 |

Roof duct



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

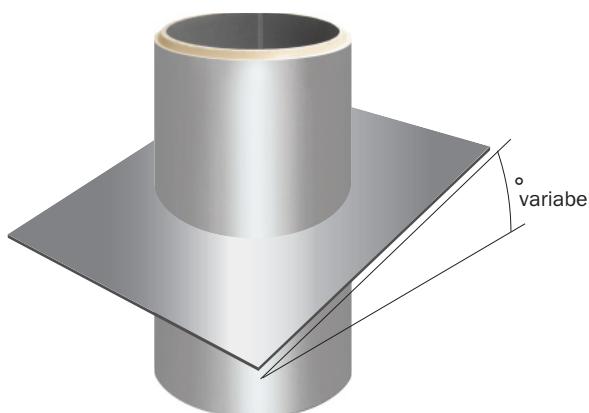
Material

UV-stabilized materials

Dimensions

Height of the duct with roof duct is 1000 mm

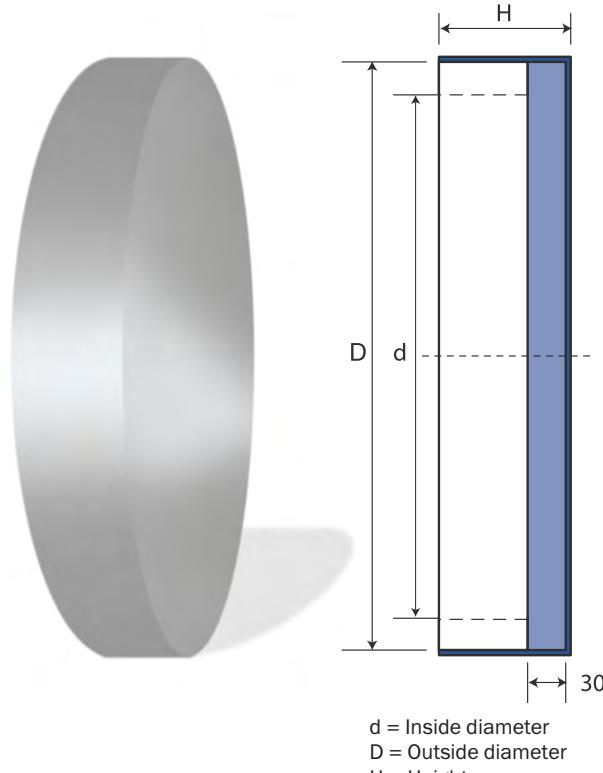
| series | A in mm | item no. |
|--------|------------|-------------|
| 200 | 750 | R022003004 |
| 250 | 750 | R022503004 |
| 300 | 750 | R023003004 |
| 355 | 1000 | R023705004 |
| 400 | 1000 | R024205004 |
| 450 | 1000 | R024705004 |
| 500 | 1000 | R025205004 |
| 560 | 1260 | R025805004 |
| 630 | 1260 | R026505004 |
| 710 | 1720 | R027305004 |
| 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

| series | d in mm | D in mm | H in 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 |
| 355 | 370 | 460 | 100 | 0,17 | 203705004 |
| 400 | 420 | 510 | 100 | 0,20 | 204205004 |
| 450 | 470 | 570 | 100 | 0,25 | 204705004 |
| 500 | 520 | 620 | 100 | 0,30 | 205205004 |
| 560 | 580 | 680 | 100 | 0,36 | 205805004 |
| 630 | 650 | 750 | 100 | 0,44 | 206505004 |
| 710 | 730 | 830 | 100 | 0,54 | 207305004 |
| 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 |
| 355 | 200 x 300 | 253705010 | 253705020 |
| 400 | 200 x 300 | 254205010 | 254205020 |
| 450 | 200 x 300 | 254705010 | 254705020 |
| 500 | 200 x 300 | 255205010 | 255205020 |
| 560 | 300 x 400 | 255805010 | 255805020 |
| 630 | 300 x 400 | 256505010 | 256505020 |
| 710 | 300 x 400 | 257305010 | 257305020 |
| 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 | diameter D (mm) | item no. |
|--------|-----------------|------------|
| 200 | 950 | 245205004 |
| 560 | 1100 | 245805004 |
| 630 | 1100 | 246505004 |
| 710 | 1250 | 247305004 |
| 800 | 1250 | 248205004 |
| 900 | 1350 | 249205004 |
| 1250 | 1950 | 2412703004 |



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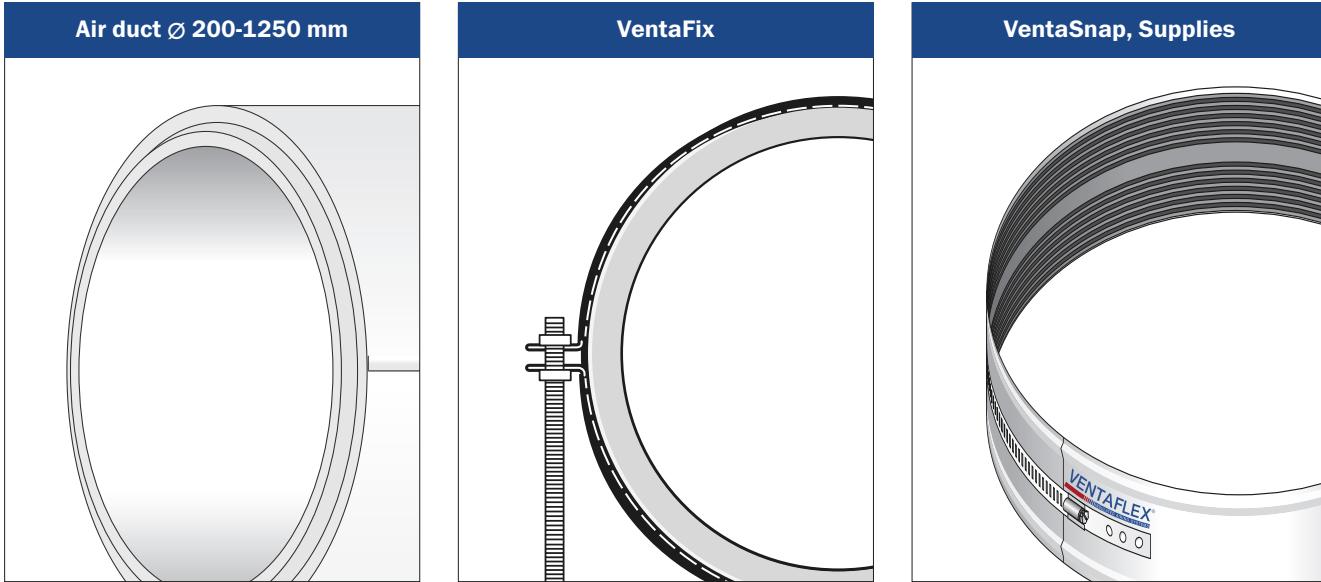
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www.ventaflex.de

INSTALLATION INSTRUCTION

VENTAFLEX®
More efficiency in air conduction



VENTAFLEX® AIR DUCT 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.

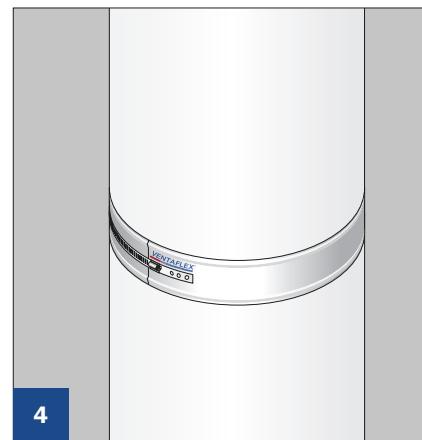
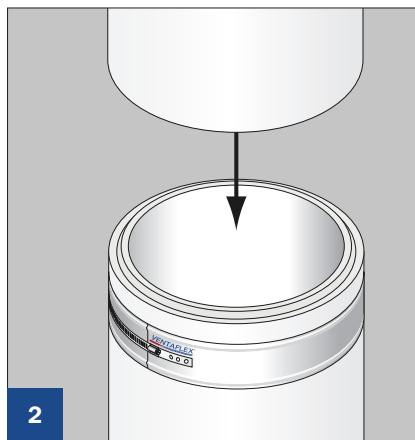
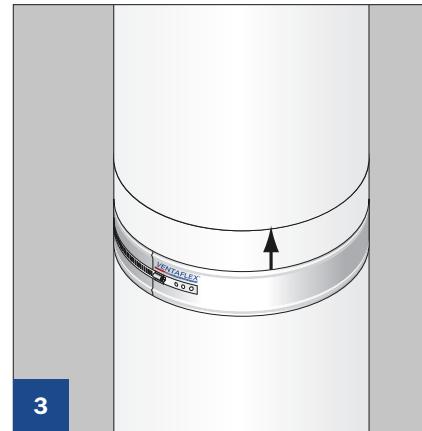
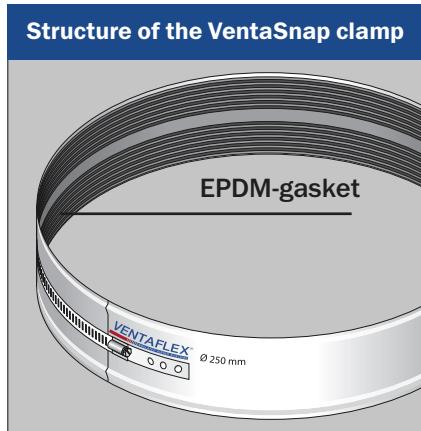
Quick help

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. Put a second duct on top of the first one and adjust it so that groove and tongue are joined.

Tip:

Soap can be used to make the pushing easier.

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

After this process step we recommend doing a tightness test.

We recommend considering when planning that VENTAFLEX® air duct 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.

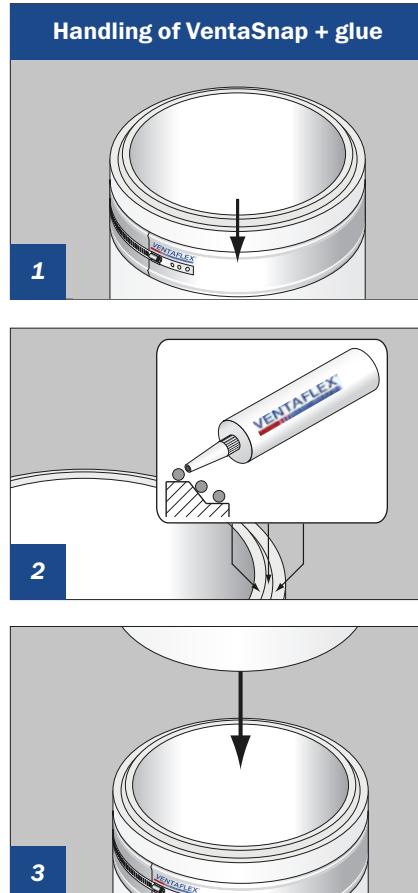
Information about VentaRapid



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.

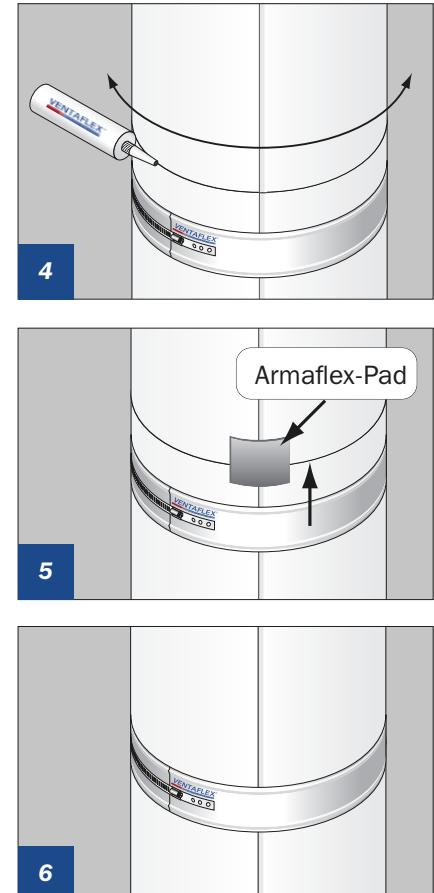
Tip:

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.



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

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.



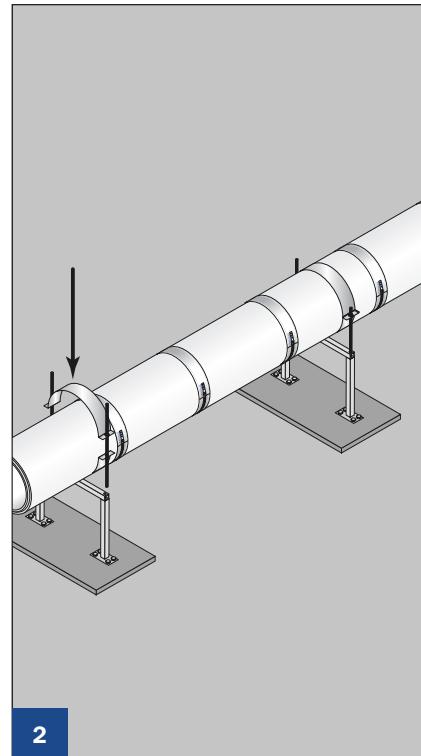
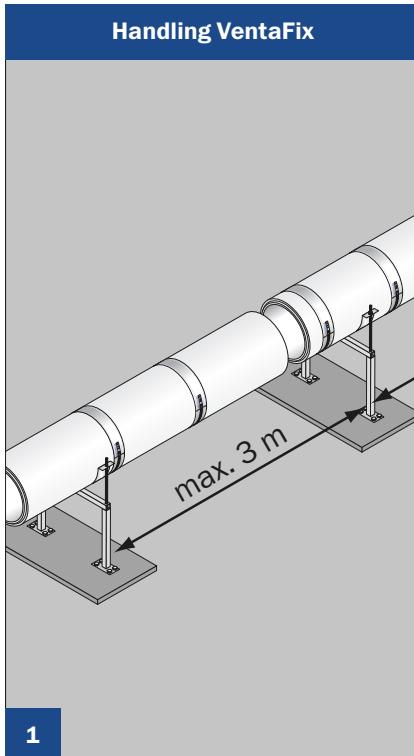
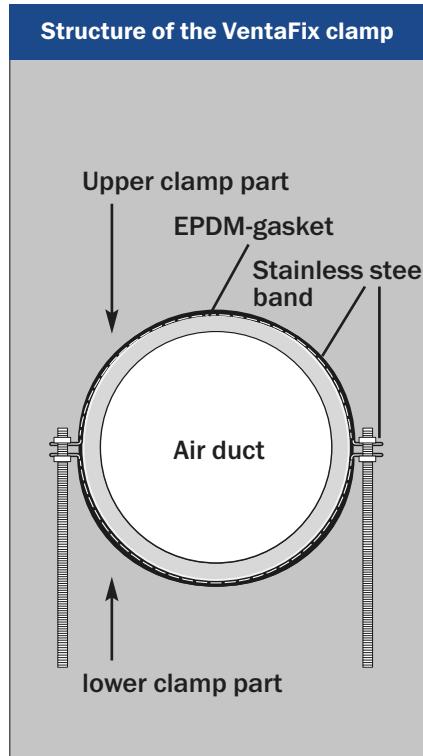
The second duct is put on top of the first one until groove and tongue are joined. Spread the glue with pressure by moving the ducts back and forth, subsequently seal the adhesive seam with glue from the outside.

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.

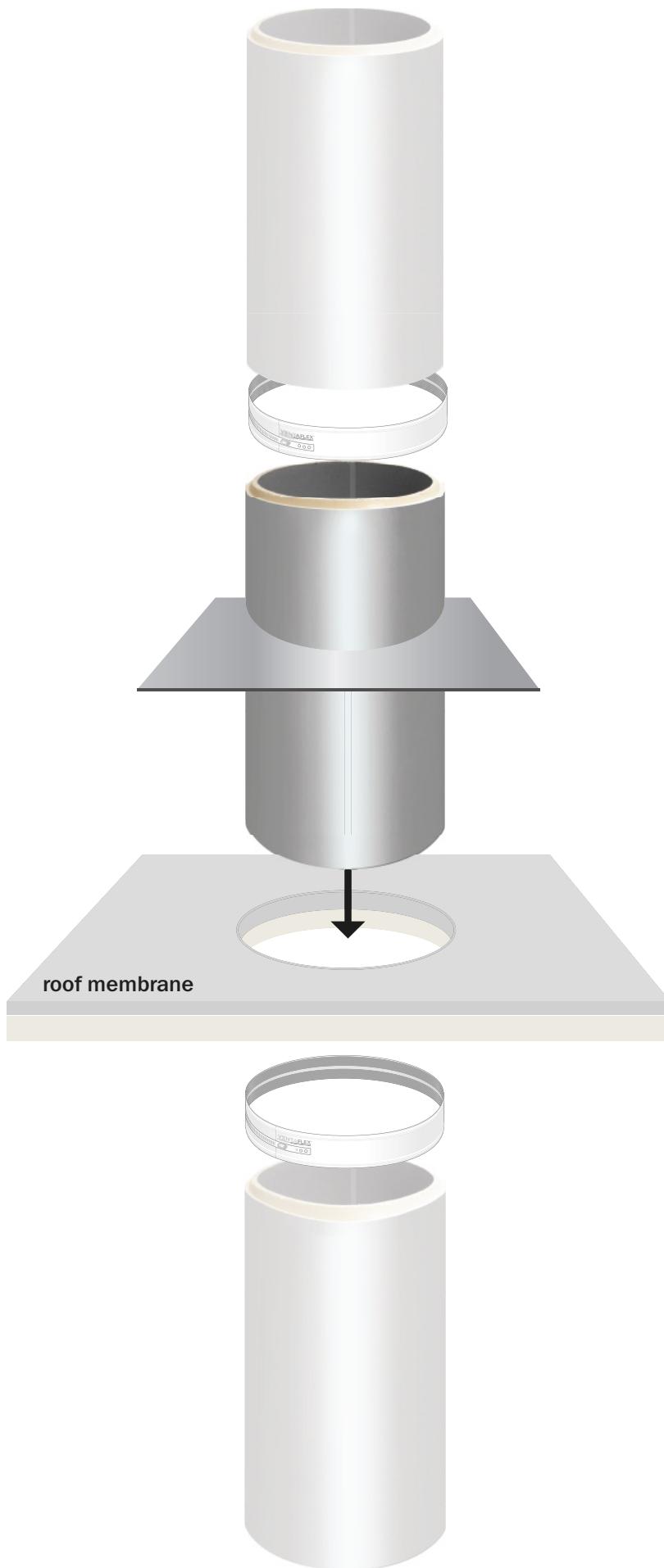


Washed concrete slabs as foundation for the construction avoids the penetration of the roof membrane. We recommend individually reconciling a possible wind load.

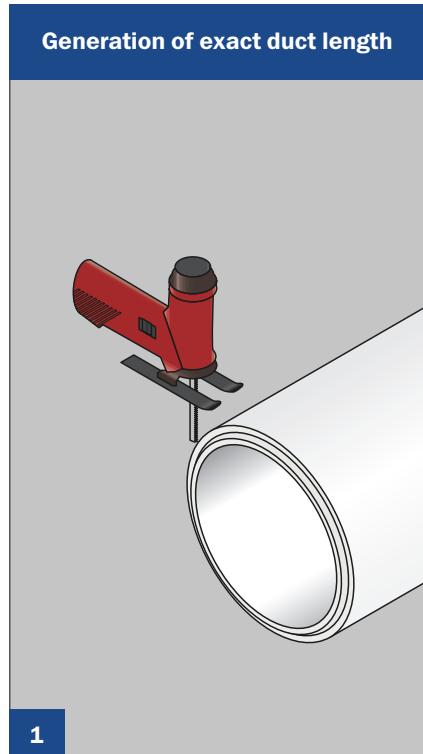
Put the components on the lower VentaFix clamp parts. After that connect the duct segments with a VentaSnap clamp as described.

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

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



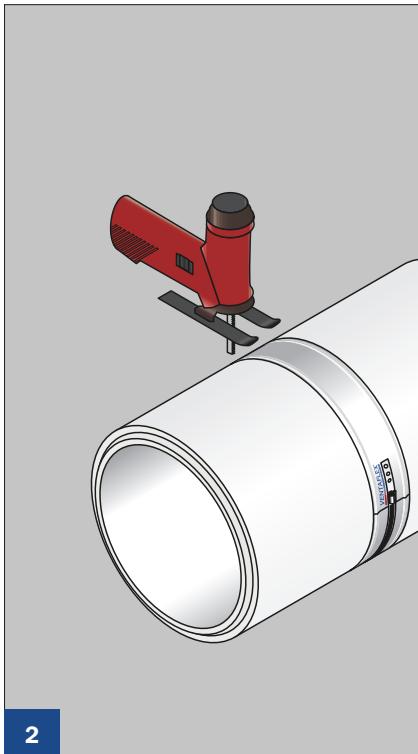
If required VENTAFLEX® produces a roof duct according to the angle of the roof inclination



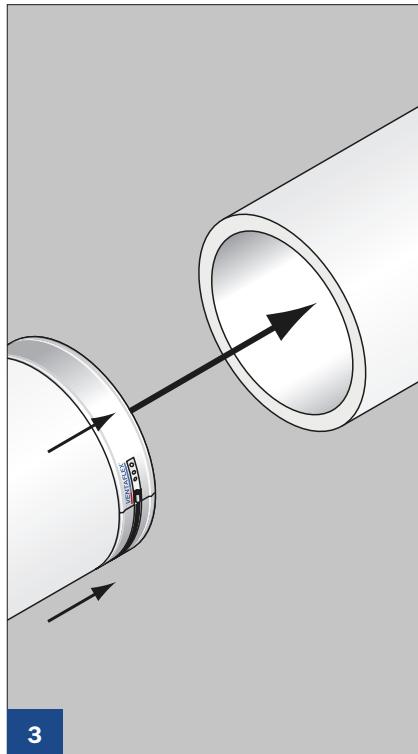
Remove groove or tongue at the connection point of the VENTAFLEX® air duct with a jigsaw.

Tip:

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

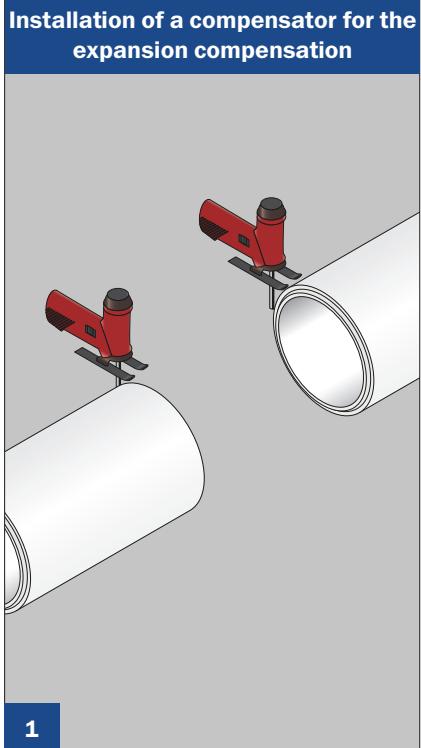


Push a VentaSnap clamp as a stop on the VENTAFLEX® air duct which is to be shortened and tighten it slightly. After that shorten the VENTAFLEX® air duct with the jigsaw.

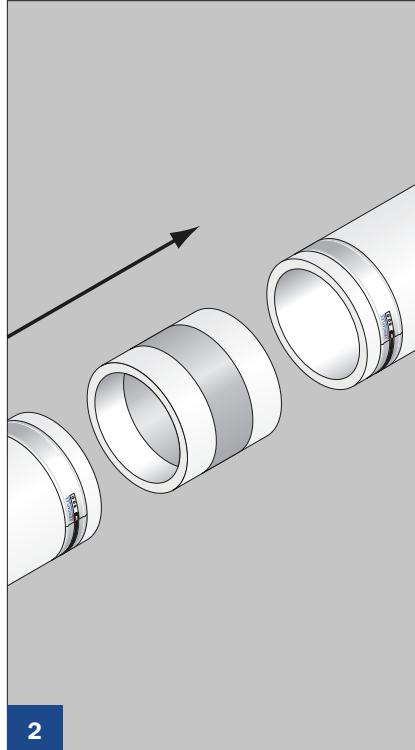


Apply plenty of glue on the cutting point after shortening (see „Installation VentaSnap + adhesion“). Put both VENTAFLEX® air ducts up to contact and spread the glue with pressure by moving the ducts back and forth. Finally pull the VentaSnap clamp centered over the connection and screw it together.

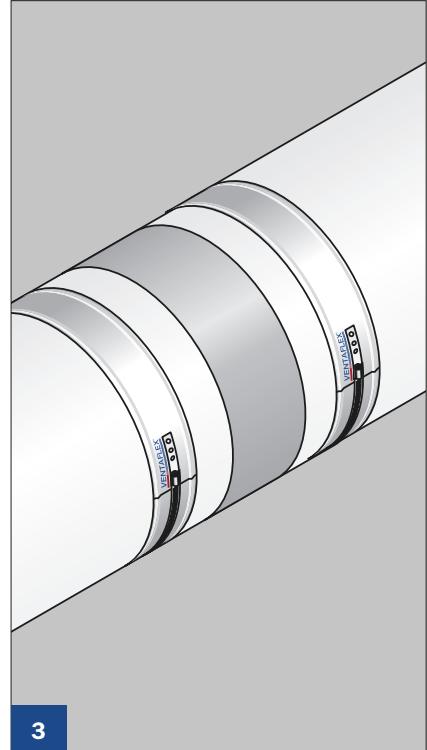
Installation of a compensator for the expansion compensation



1



2



3

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

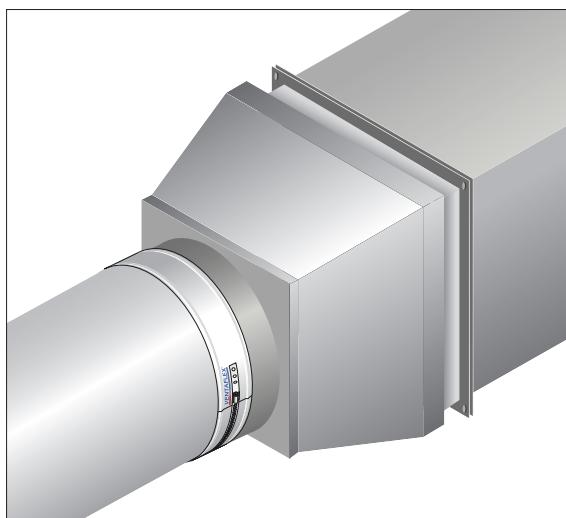
Tip:

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

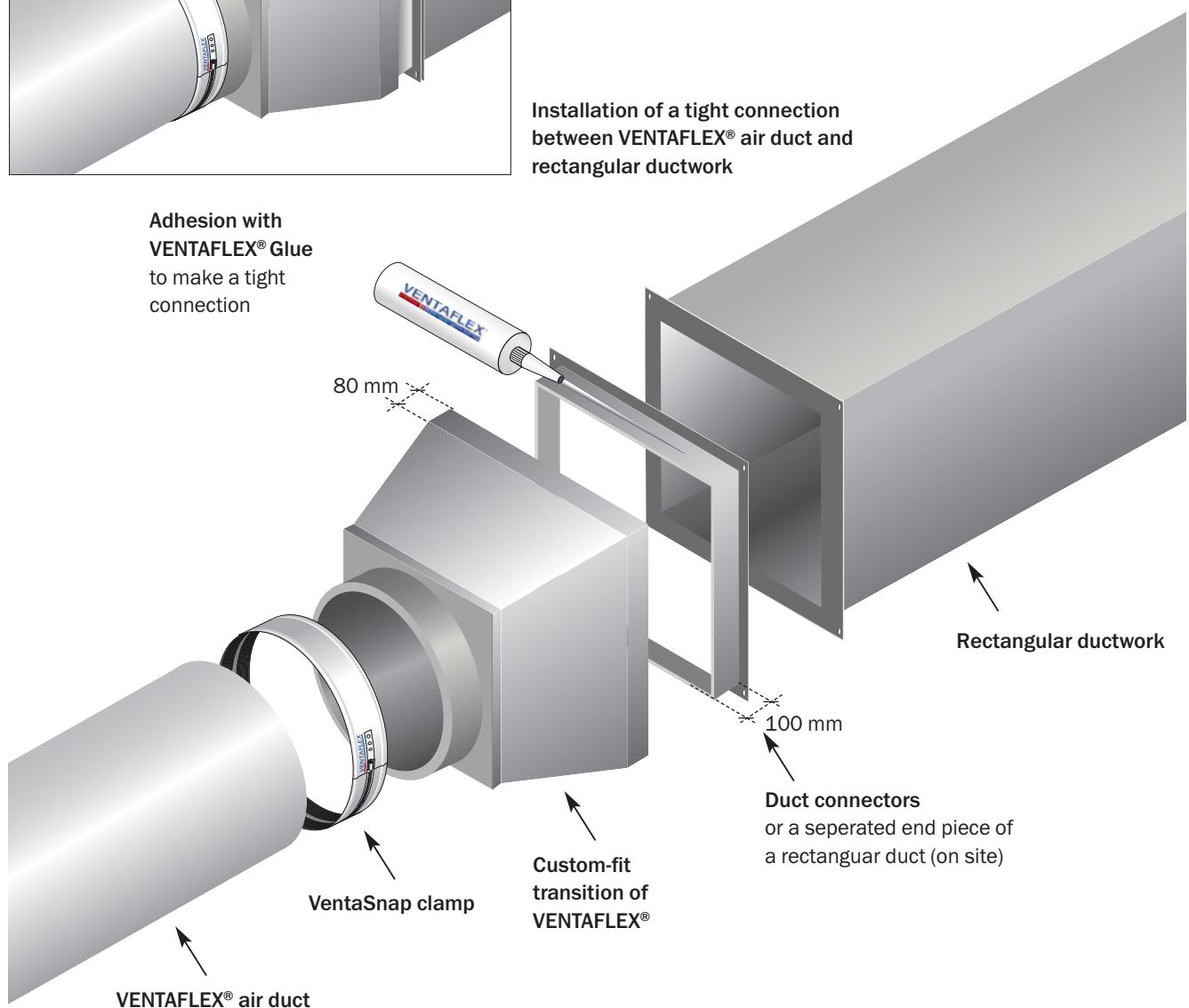
After pushing two VentaSnap clamps on the ends of the VENTAFLEX® air ducts, fit in the compensator between the two cutting points.

Apply plenty of glue on the cutting point after cutting (see „Installation VentaSnap + adhesion“). Put both VENTAFLEX® air ducts 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.

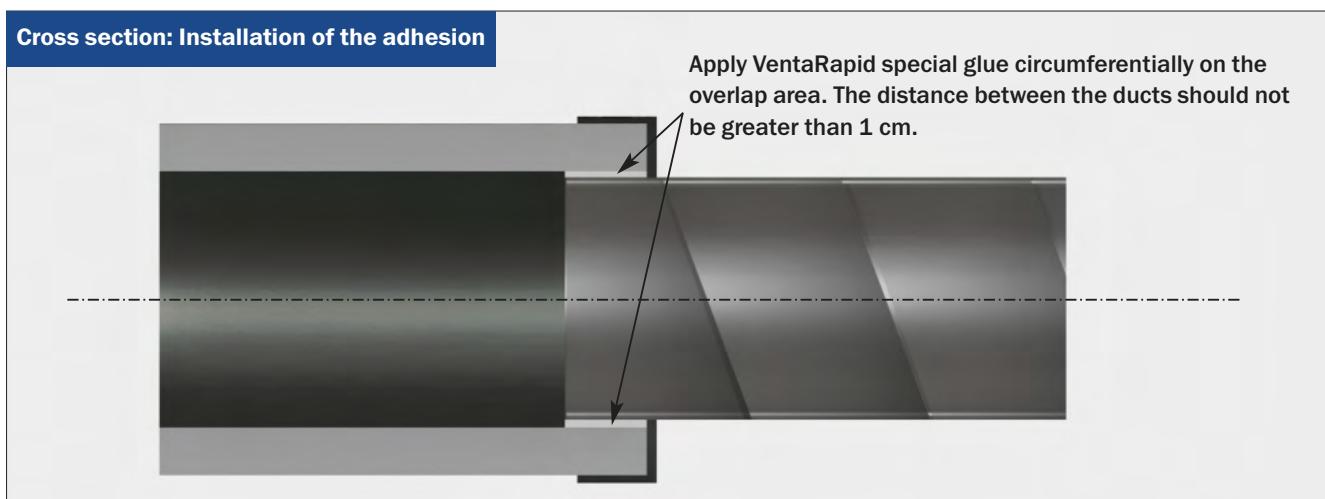
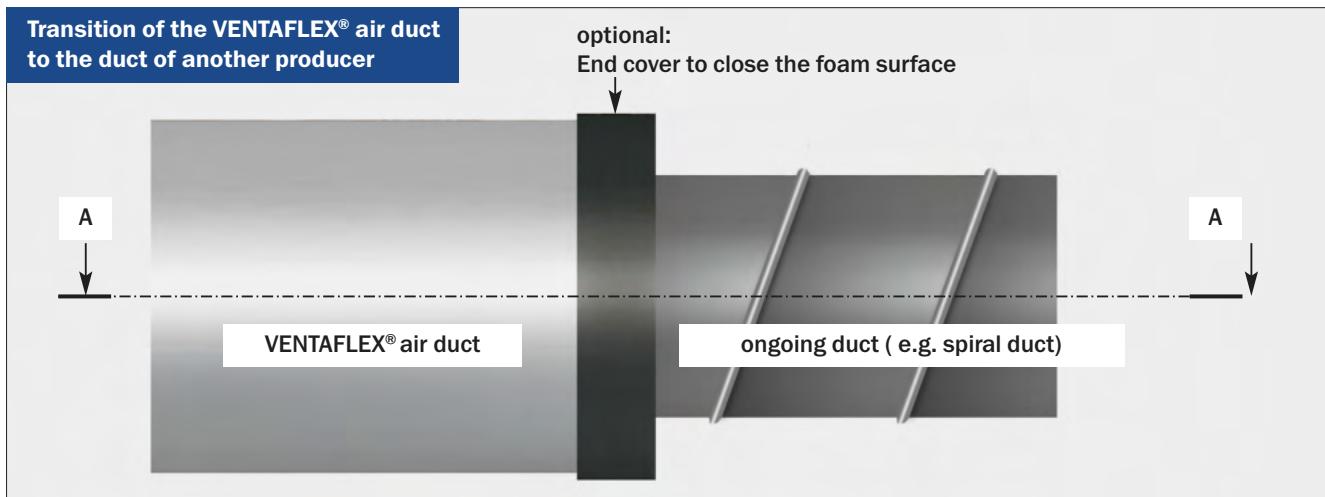
For air ducts with a length of over 15 m it is necessary to install an expansion compensation.



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



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



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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VENTAFLEX® air duct oval

Particularly for great air volumes
at low installation height

The VENTAFLEX® air duct 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 WLG 022. 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.

Ultra light

The VENTAFLEX® duct 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 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.

Perfectly compatible

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

VENTAFLEX®

More efficiency in air conduction

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® air duct oval: The width of the duct is adaptable thanks to the modular principle – up to 2270 mm



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| Air duct oval | 3.1 |
| Curve 90° vertical | 3.3 |
| Curve 90° horizontal | 3.5 |
| Curve 45° vertical | 3.7 |
| Curve 45° horizontal | 3.9 |
| T-piece 90° vertical | 3.11 |
| T-piece 90° horizontal | 3.13 |
| Special components | 3.15 |

The VENTAFLEX® air duct oval


Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

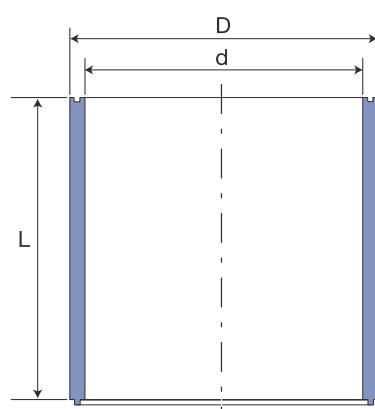
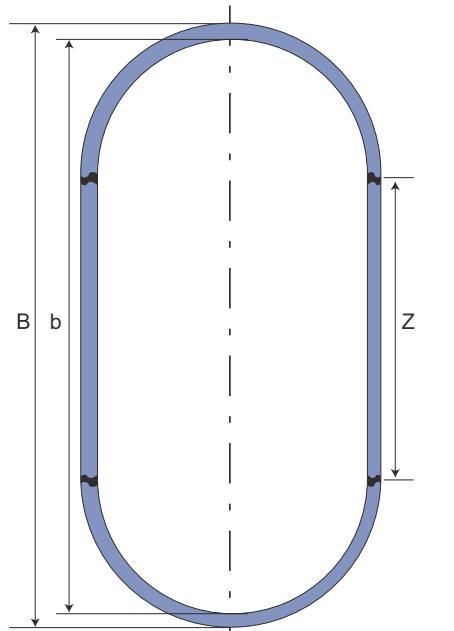
Colour

Light grey (RAL 7035)

| series | Z in mm | d in mm | D in mm | b in mm | B in mm | L in 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 in 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 oval

Curve 90° vertical

**Material**

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

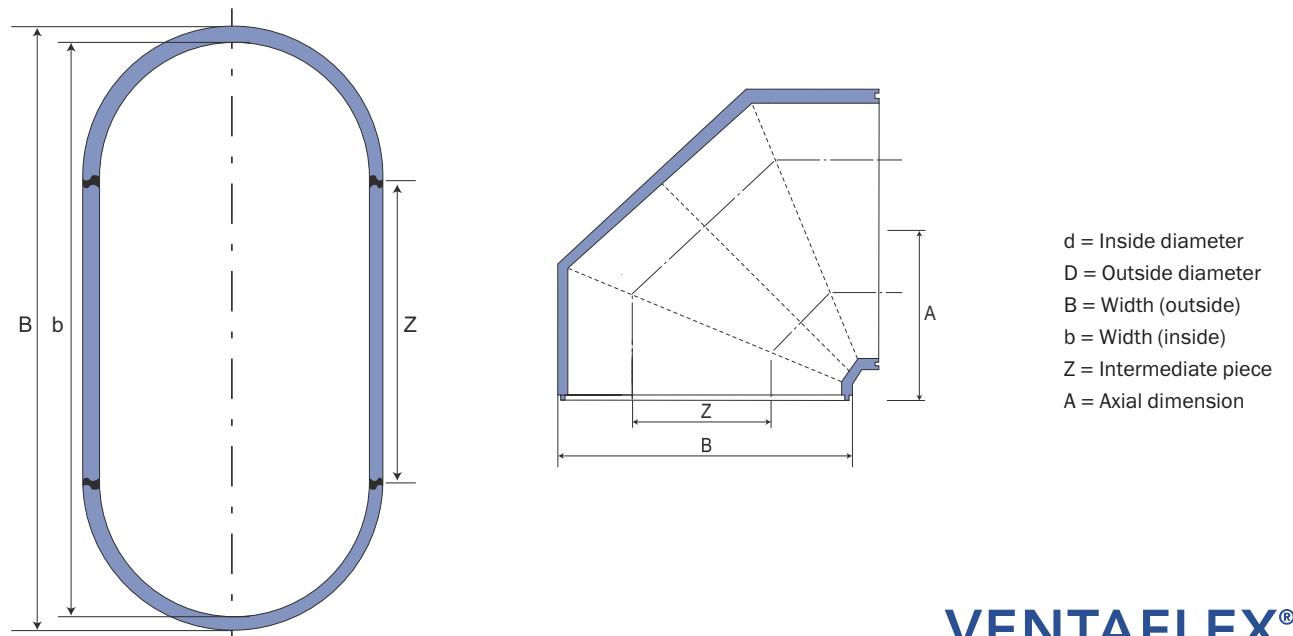
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in 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 in 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 |



VENTAFLEX®

More efficiency in air conduction

The VENTAFLEX® air duct oval

Curve 90° horizontal


Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

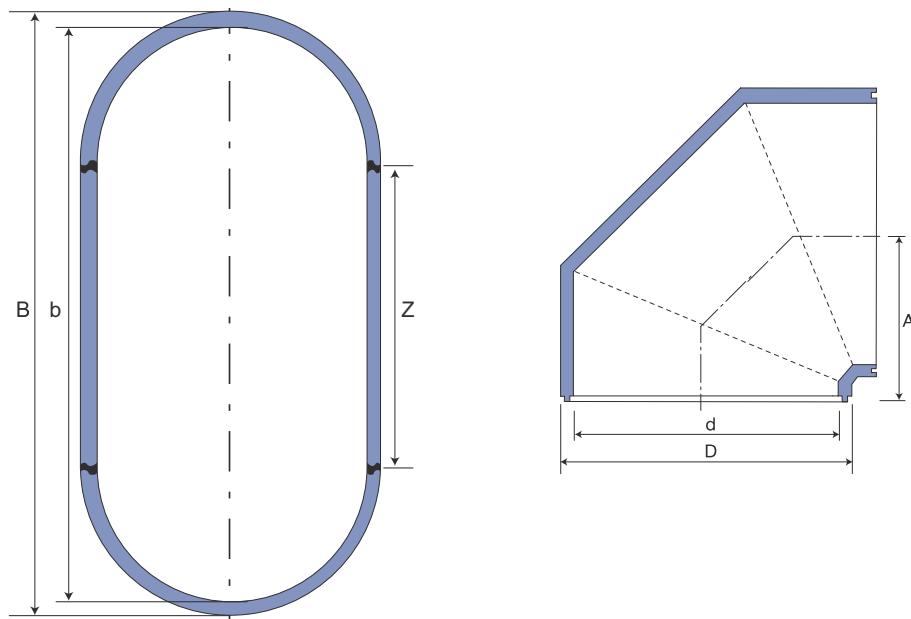
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in 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 in 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 oval

Curve 45° vertical

**Material**

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

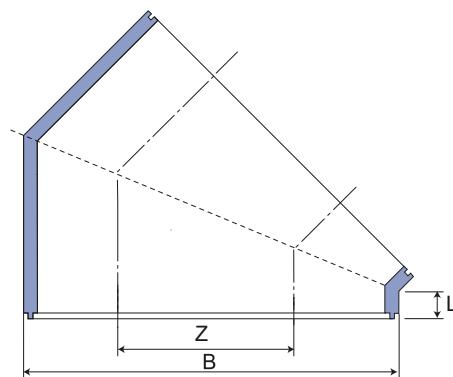
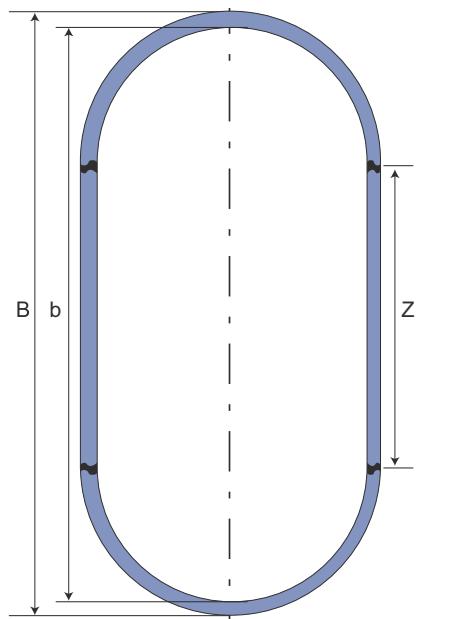
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in mm | side length L | 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 in 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 oval

Curve 45° horizontal


Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

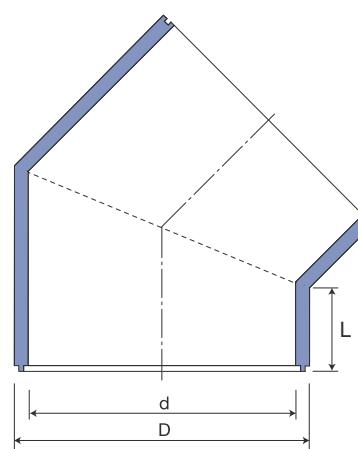
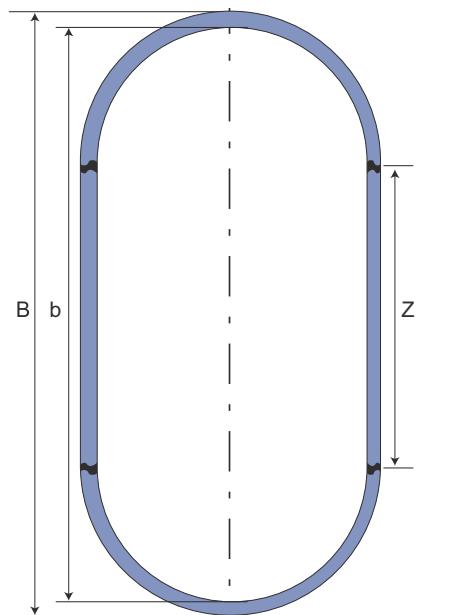
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in mm | side length L | 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 in 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 oval

T-piece 90° vertical

**Material**

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

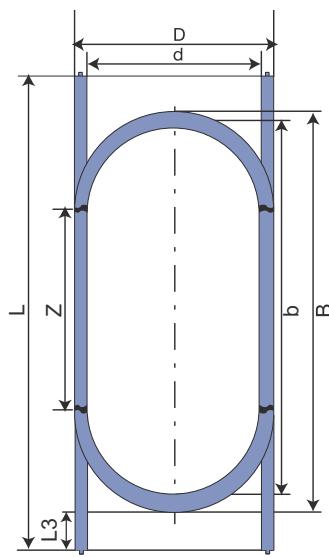
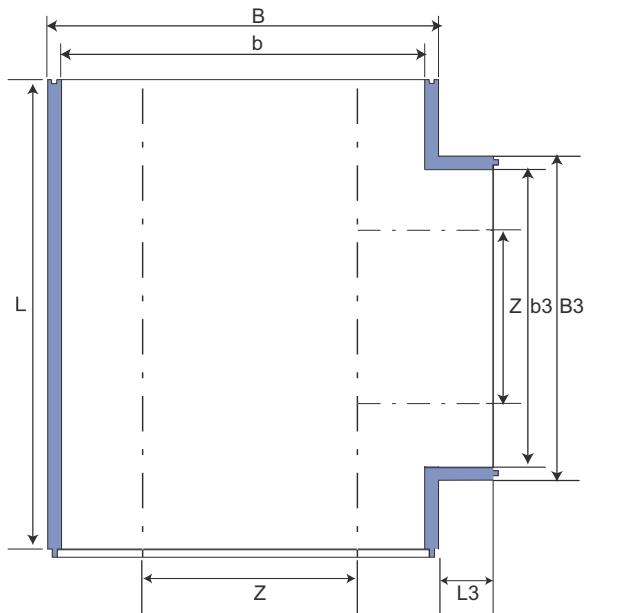
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in mm | L in 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 in 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 = Length (Outgoing) = $\frac{L-B}{2}$

VENTAFLEX®

More efficiency in air conduction



The VENTAFLEX® air duct oval

T-piece 90° horizontal


Material

Highly insulating PUR rigid foam

Standard coating inside/outside

GRP (glass fiber reinforced plastic)

Colour

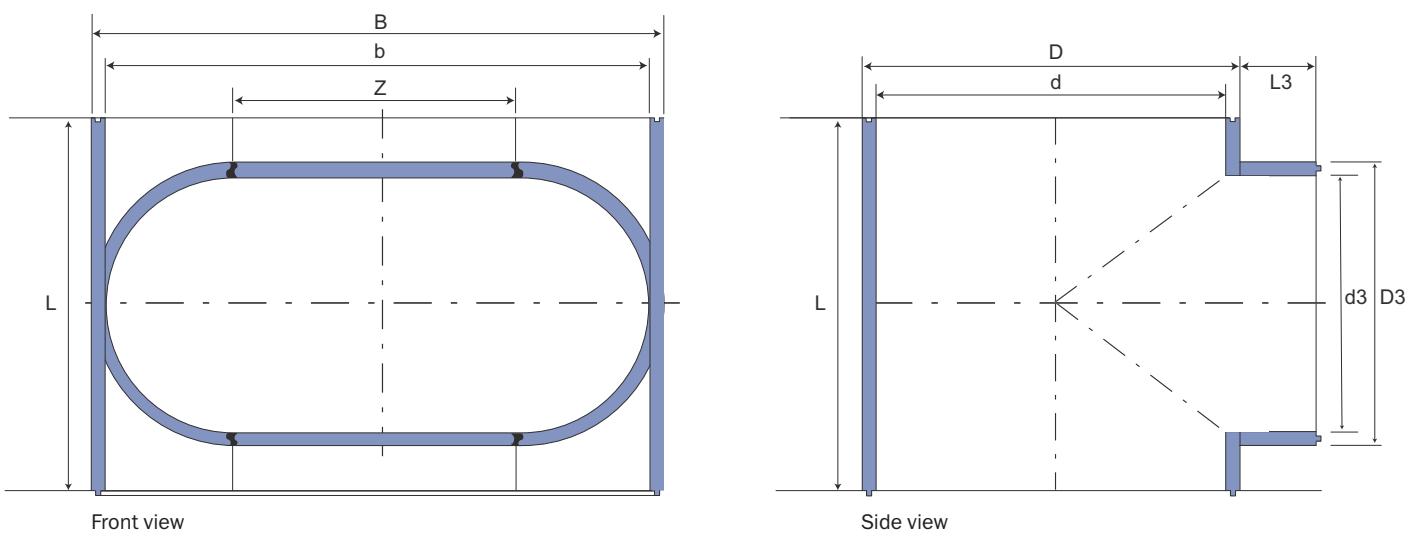
Light grey (RAL 7035)

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

| series | Z in mm | d in mm | D in mm | b in mm | B in mm | L in 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 in 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 |



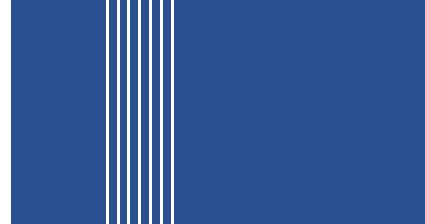
Front view

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



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

The precise, computer-aided and robot-manufactured components allow a perfect adaption to each particular system: tightness and a good optics remain unchanged.

The VENTAFLEX® manufactured special components guarantee an ideal connectivity to all customary duct systems and classic ventilation units – please contact us!



VENTAFLEX GmbH & Co. KG

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www.ventaflex.de

VENTAFLEX® oval supplies-system

Optimized components –
Customized and multiply tested

VENTAFLEX®

More efficiency in air conduction

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

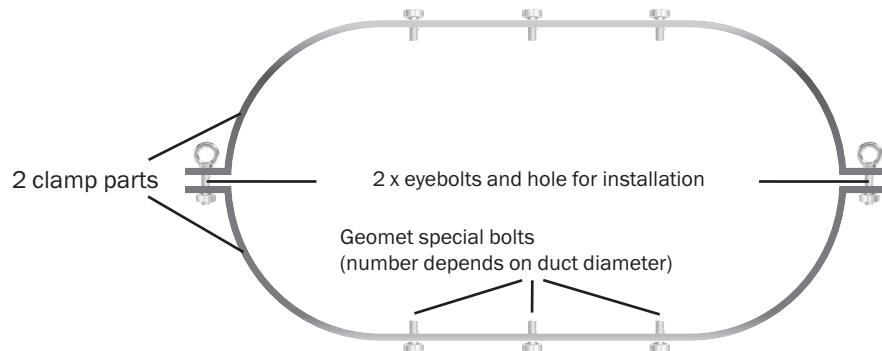
The supplies are – depending on the application – functionally combinable. We like to advise you on the ideal combination of your components and the material!



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

VENTAFLEX® oval-clamp

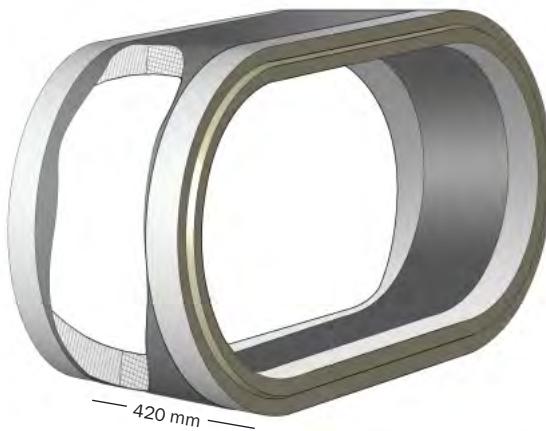
For the connection of air ducts oval with the installation option of placing on stands or hanging.



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 1.520/30 | 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 in mm | d in 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 |



VENTAFLEX®

More efficiency in air conduction



VentaRapid



VentaRapid is a special developed glue for the adhesion of VENTAFLEX® air ducts. 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.

Tubular bag press



Especially for tubular bags with 400 ml or 600 ml

| quantity | item no. |
|----------|------------|
| 1 | 0030019001 |

| 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 |

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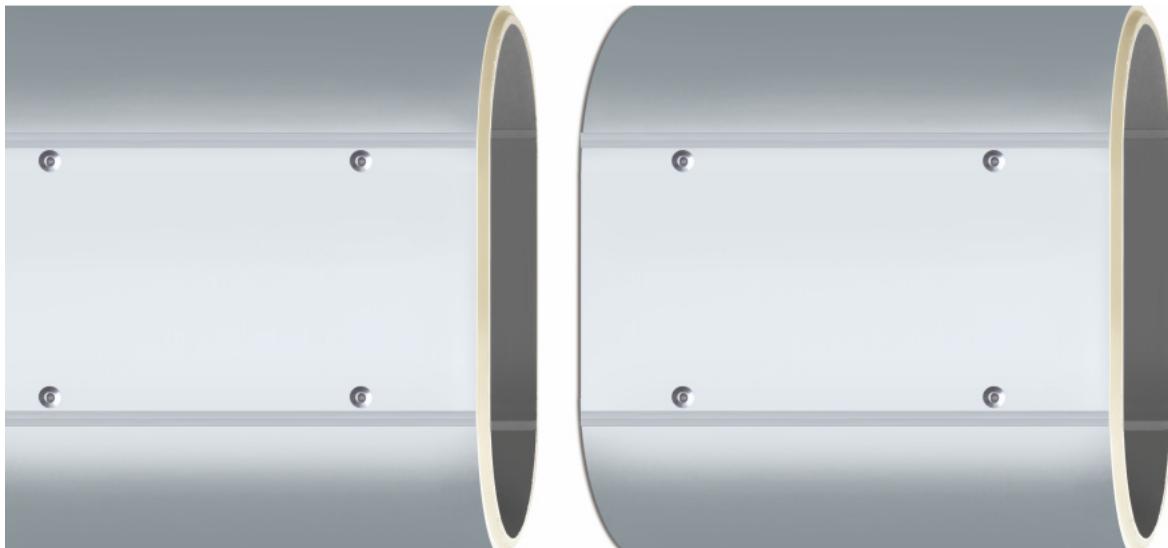
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www.ventaflex.de

INSTALLATION INSTRUCTION

VENTAFLEX®
More efficiency in air conduction



VENTAFLEX® AIR DUCT OVAL

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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

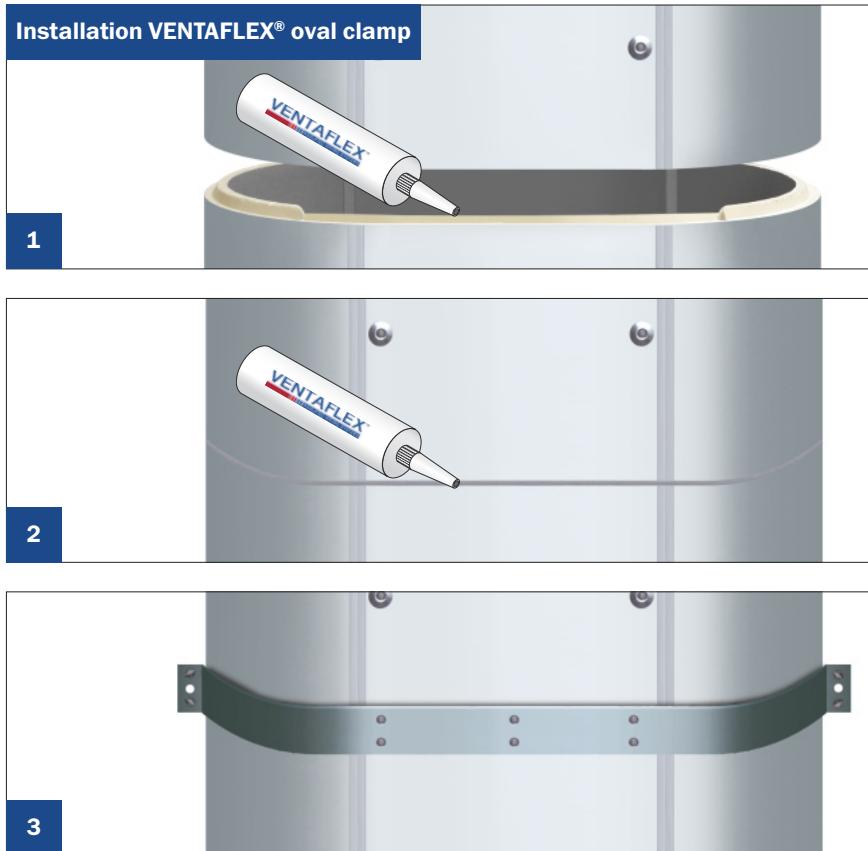
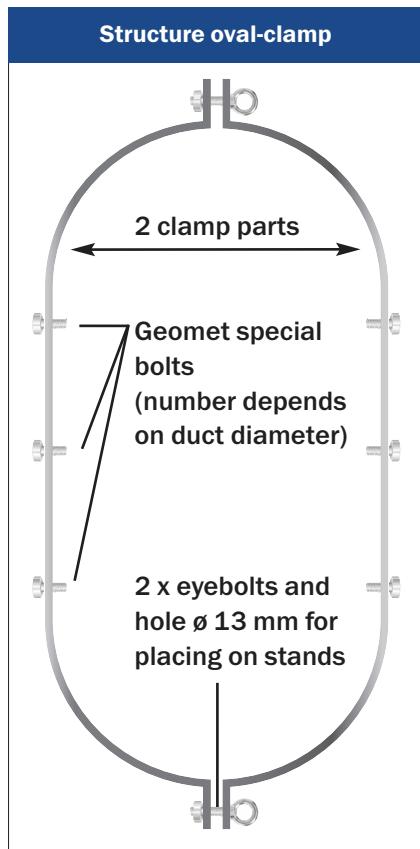
- be able to assess the assigned work, recognize possible dangers and avoid them
- be authorized to carry out the necessary work and action by those responsible for safety of the plant.

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.



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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 glue on the different planes of the connection points. Attention has to 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, subsequently seal the adhesive seam with glue from the outside.

Pull the VENTAFLEX® oval-clamps only use the specifically developed Geomet special bolts to maintain the tightness of the duct.

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

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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

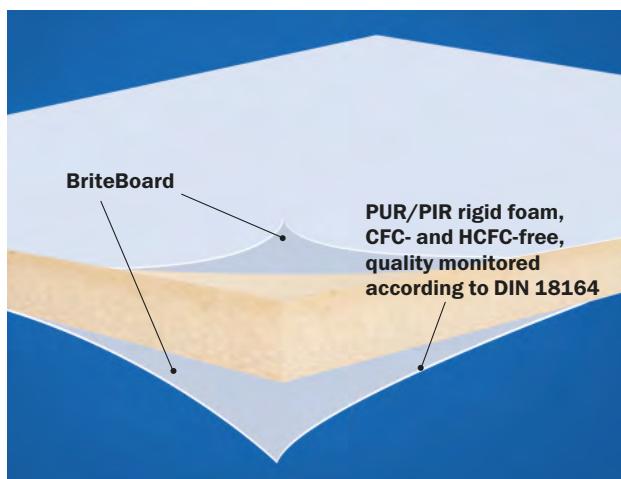
- Ideal thermal insulation
- Easy, quick and flexible installation
- Corrosion-resistant against chlorine
- Hygienic
- Top-layer foamed, not glued
- Impermeable
- Paintable
- CFC-free
- Directly applicable

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

| 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 | | | |
| 710 - 1.400 mm | | | |
| 1410 - 2000 mm | | | |

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

| a/b | < 550 mm | 560 - 1.000 mm | 1.010 - 1.400 mm | 1.410 - 2.000 mm |
|------------------|----------|----------------|------------------|------------------|
| < 550 mm | | | | |
| 560 - 1.000 mm | | | | |
| 1.010 - 1.400 mm | | | | |
| 1.410 - 2.000 mm | | | | |

VENTASQUARE moulded parts

| a/b | < 550 mm | 560 - 1.000 mm | 1.010 - 1.400 mm | 1.410 - 2.000 mm |
|------------------|----------|----------------|------------------|------------------|
| < 550 mm | | | | |
| 560 - 1.000 mm | | | | |
| 1.010 - 1.400 mm | | | | |
| 1.410 - 2.000 mm | | | | |

VentaRapid

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

| item no. | quantity |
|-----------|----------|
| 030015004 | 600 ml |

Butyl adhesive tape

20 m long

| width | item no. |
|--------|-----------|
| 75 mm | 040003031 |
| 100 mm | 040003032 |

Aluminum-cap cover, mounted

~500 µm Aluminum sheet metal for outdoor channels

| item no. |
|-----------|
| 350100000 |

Aluminium adhesive tape

50 µm, 75 mm wide, 50 m long

| item no. |
|-----------|
| 040003030 |

VENTAFLEX®

More efficiency in air conduction



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).

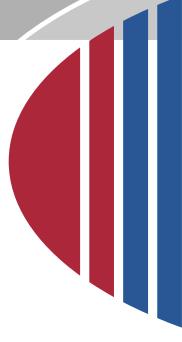
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www.ventaflex.de

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 |

LAVANTUS®

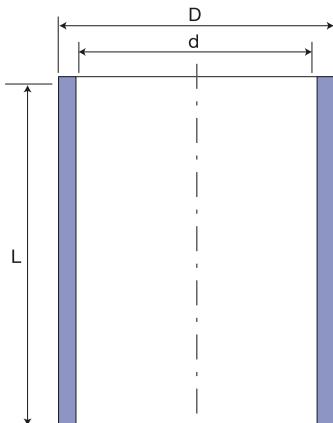
underground installed air duct

LAVANTUS®

VENTAFLEX® air duct
for underground installation

Material

highly insulating PUR rigid foam



d = nominal diameter

D = Outside diameter

L = Length



| nominal diameter d in mm | D in mm | L in mm | surface inside in qm | free cross section in qm | weight in 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 |
| 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 |

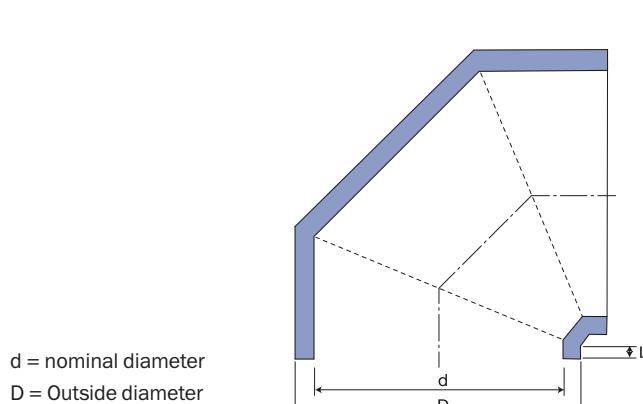
| nominal diameter | item no. |
|------------------|-------------|
| 200 | L132003502 |
| 250 | L132503502 |
| 300 | L133003502 |
| 355 | L133555002 |
| 400 | L134005002 |
| 500 | L135005002 |
| 600 | L136005002 |
| 710 | L137105002 |
| 800 | L138005002 |
| 900 | L139005002 |
| 1000 | L1310005002 |
|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

LAVANTUS®

underground installed air duct

Curve 90°

Upon request curves can be produced
in any other needed angle



| nominal diameter d in mm | D in mm | L in mm | free cross section in qm | weight in 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.

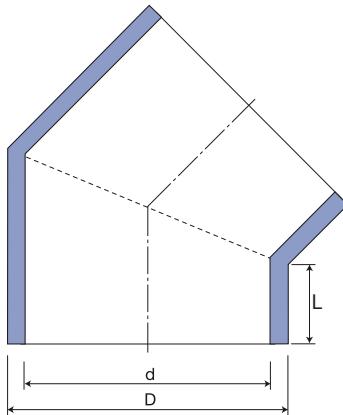
LAVANTUS®

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 in mm | D in mm | L in mm | surface inside in qm | free cross section in qm | weight in 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

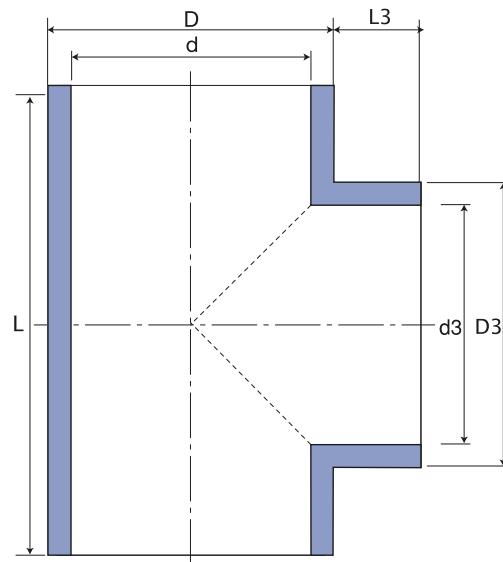
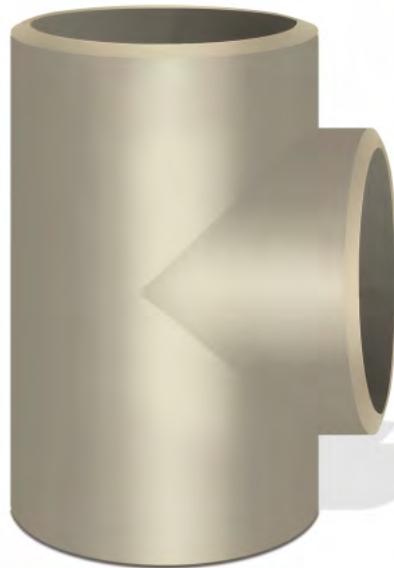
T-piece 90°

LAVANTUS®

VENTAFLEX® air duct
for underground installation

T-piece 90°

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



d = nominal diameter

D = Outside diameter

L = Length T-piece

L3 = Length outgoing

d3 = Inside diameter (outgoing)

D3 = Outside diameter (outgoing)

| nominal diameter d in mm | D in mm | L in mm | L3 in mm | surface inside in qm | free cross-section in qm | weight in 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 |

T-piece 90°

LAVANTUS®

VENTAFLEX® air duct
for underground installation

| 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 | 706004005002 |
| 600 | 500 | 706005005002 |
| 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 |

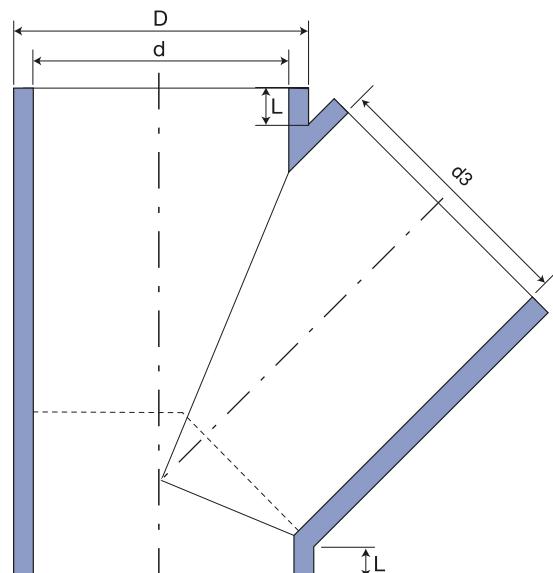
*other outgoings possible on request

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 in mm | D in mm | L in mm | free cross section in qm | weight in 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 |

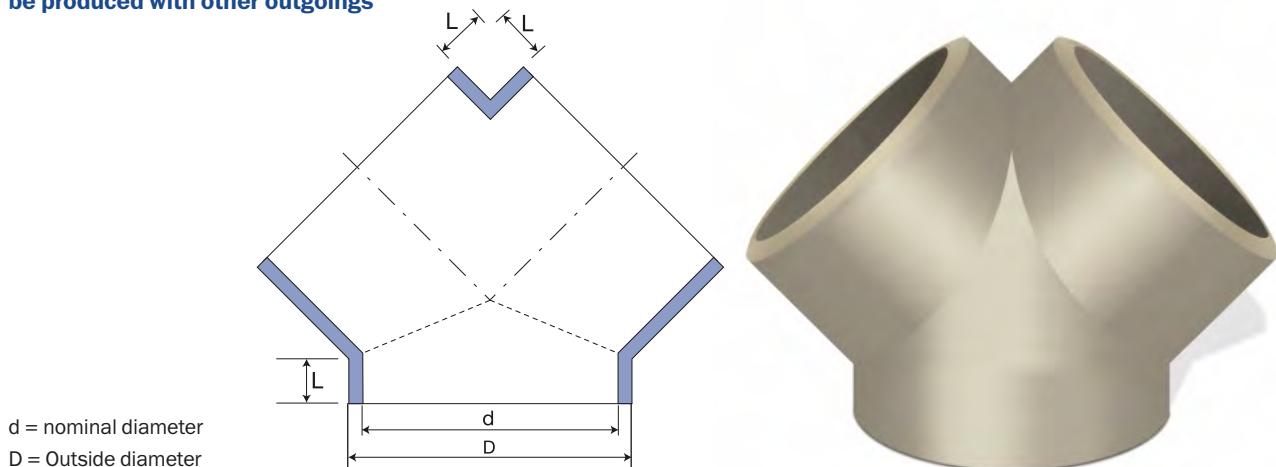
*other outgoings possible on request



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 in mm | D in mm | L in mm | free cross section in qm | weight in 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 | L782003502 |
| 250 | L782503502 |
| 300 | L783003502 |
| 355 | L783555002 |
| 400 | L784005002 |
| 500 | L785005002 |
| 600 | L786005002 |
| 710 | L787105002 |
| 800 | L788005002 |
| 900 | L789005002 |
| 1000 | L7810005002 |
| 1250 | L7812506002 |

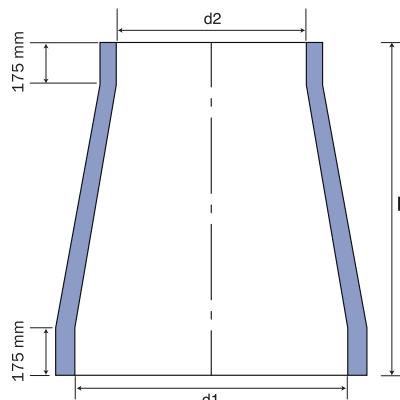
Reduction
symmetric

LAVANTUS®

VENTAFLEX® air duct
for underground installation

LAVANTUS® underground installed air duct

Reduction symmetric



L = Total length cone

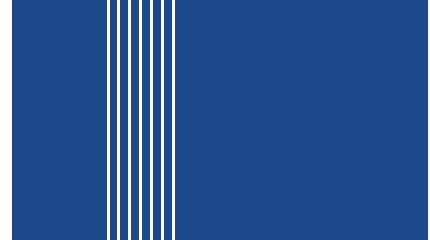
d1 = nominal diameter (width)

d2 = nominal diameter (narrow)

| nominal diameter d in mm | d1 | d2 | L in 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 |

| nominal diameter d in mm | d1 | d2 | L in 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 |

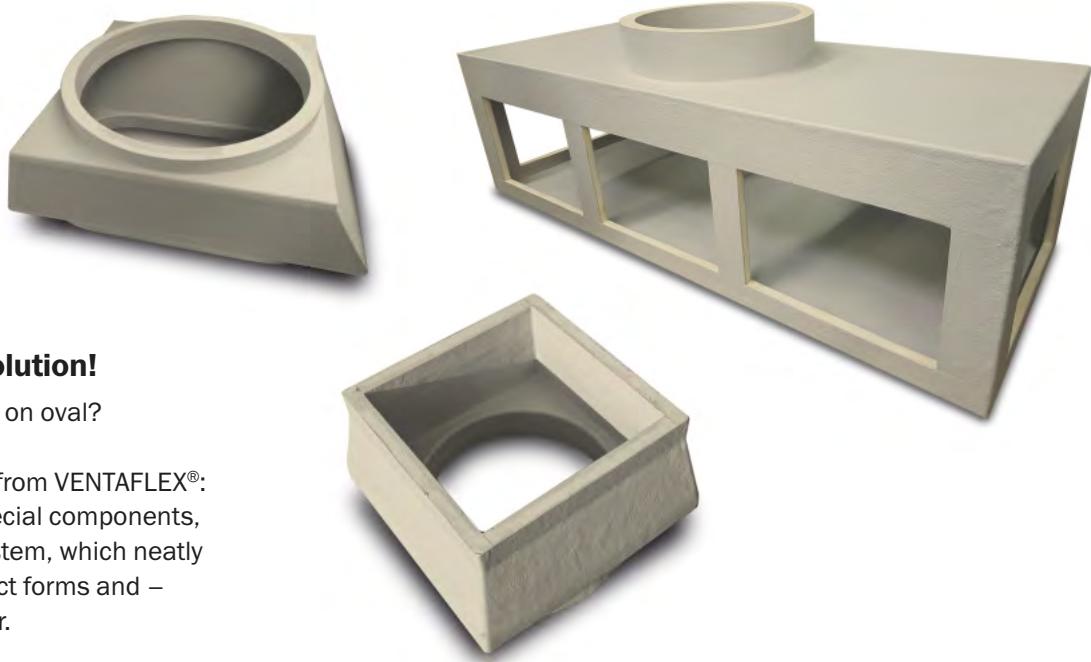
*other nominal diameter possible on request



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

The precise, computer-aided and
robot-manufactured components
allow a perfect adaption to each
particular system: tightness and a
good optics remain unchanged.

**The VENTAFLEX® manufactured
special components guarantee
an ideal connectivity to all
customary duct systems and
classic ventilation units –
please contact us!**

VENTAFLEX GmbH & Co. KG

Siemensstraße 46
D-48341 Altenberge

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Fax +49 25 05 – 93 829 - 10

info@ventaflex.de
www.ventaflex.de

SUPPLIES



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!

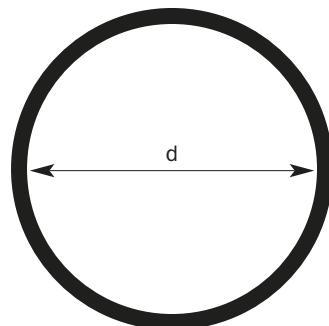
| Content | Page |
|-------------------|------|
| LavantusGrip-cuff | 5.13 |
| Ring seal | 5.14 |
| Wall collar | 5.15 |
| End stopper | 5.16 |

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LAVANTUS® Supplies

LavantusGrip-cuff

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



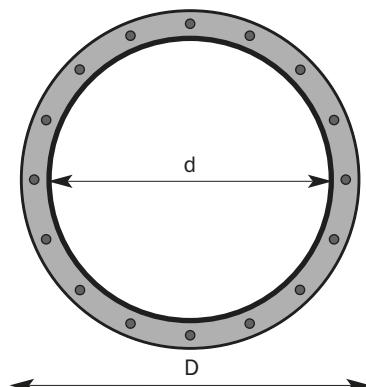
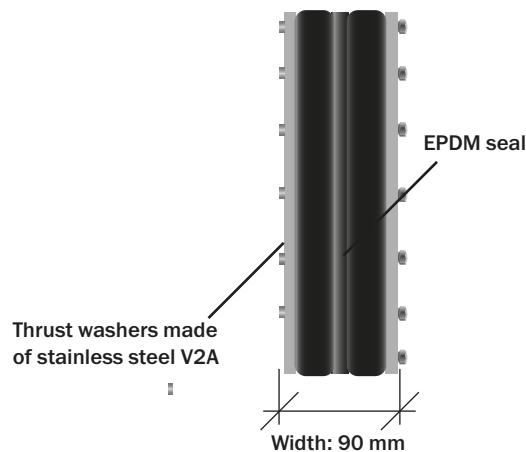
Duct diameter and the according size of the LavantusGrip-cuff

| LAVANTUS® – underground installed air ducts | | LavantusGrip cuff, width 190 mm | |
|---|---------------------------|---------------------------------|-------------|
| nominal diameter in mm | outside diameter in mm | d in 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



Duct diameter and the according size of the ring seal

| LAVANTUS® – underground installed air ducts | | LAVANTUS® ring seal | | |
|---|------------------------|---------------------|-------------------------|-------------|
| nominal diameter in mm | outside diameter in mm | d in mm | D in mm (core drilling) | 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 |

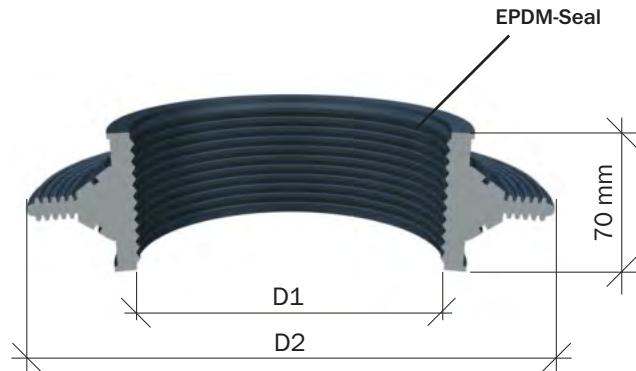
LAVANTUS® Supplies

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 audited 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 in mm | D in mm | D1 in mm | D2 in mm | item no. |
| 200 | 270 | 265 | 359 | L032003502 |
| 250 | 320 | 315 | 409 | L032503502 |
| 300 | 370 | 365 | 459 | L033003502 |
| 355 | 455 | 450 | 544 | L033555002 |
| 400 | 500 | 495 | 589 | L034005002 |
| 500 | 600 | 595 | 689 | L035005002 |
| 600 | 700 | 695 | 789 | L036005002 |
| 710 | 810 | 805 | 899 | L037105002 |
| 800 | 900 | 895 | 989 | L038005002 |
| 900 | 1000 | 995 | 1089 | L039005002 |
| 1000 | 1100 | 1095 | 1189 | L0310005002 |
| 1250 | 1370 | 1365 | 1459 | L0312506002 |

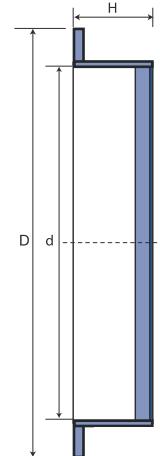
End stopper

LAVANTUS®

VENTAFLEX® air duct
for underground installation

LAVANTUS® Supplies

End stopper



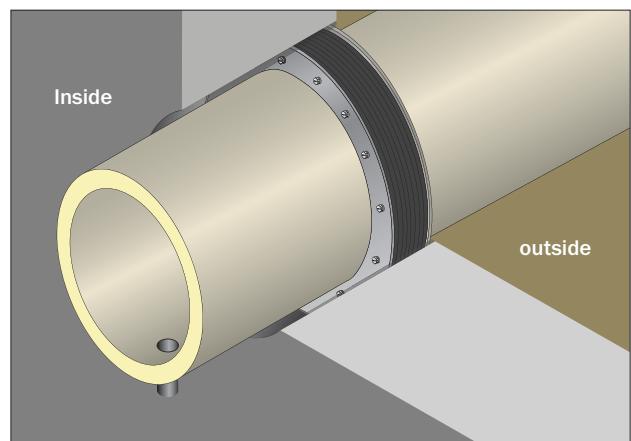
d = nominal diameter (Inside diameter)
D = Outside diameter

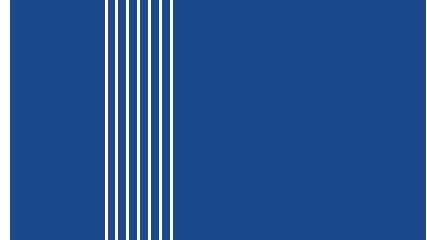
Duct diameter and the according size of the end stopper

| LAVANTUS® – underground installed air ducts | | End stopper | | |
|---|------------|-------------|------------|-------------|
| nominal diameter d in mm | D in mm | d in mm | D in 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.





VENTAFLEX®

More efficiency in air conduction

VENTAFLEX GmbH & Co. KG

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info@ventaflex.de
www.ventaflex.de

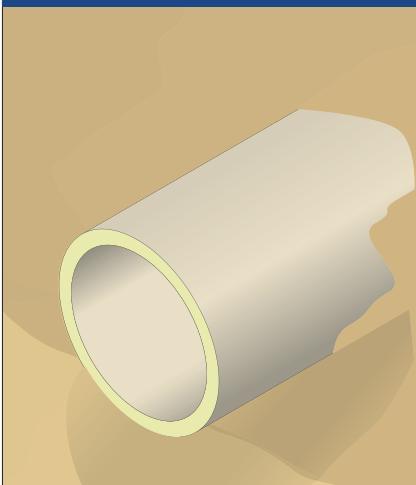


INSTALLATION INSTRUCTION

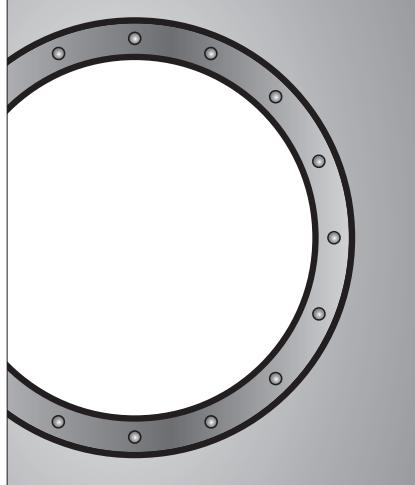
LAVANTUS®

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

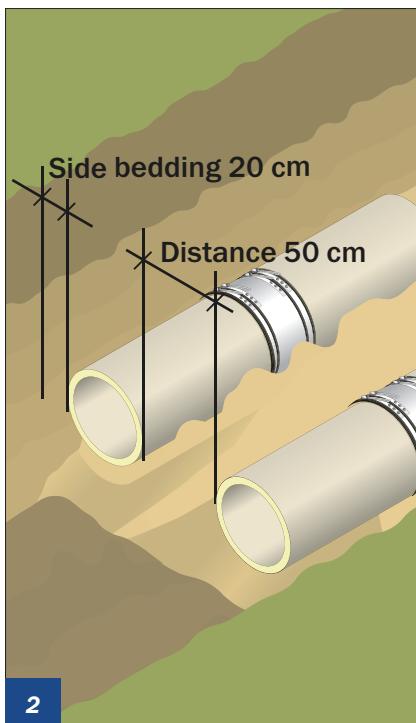
| Content | Page |
|-------------------------------------|------|
| Underground installation | 5.19 |
| LavantusGrip-cuff | 5.20 |
| Length adjustment | 5.21 |
| Ring seal | 5.22 |
| Wall collar/end stopper | 5.25 |
| Transition to rectangular duct work | 5.27 |
| Transition to other duct work | 5.28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

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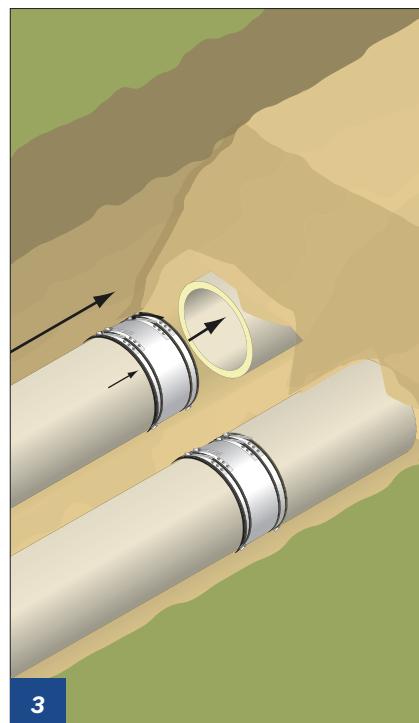
Before installation a ditch must be made which guarantees a 20 cm support and a covering of at least 30 cm of filling sand.

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).

We recommend a leakage test before backfilling the ditch.

Backfill the ditch with filling sand and compress carefully.

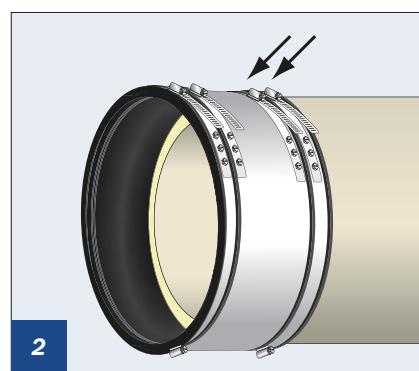
It is important to mark the backfilled duct ditch sufficiently so that it is not damaged by heavy construction machinery.

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®.

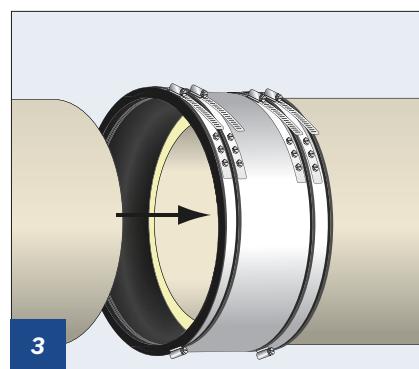


A LavantusGrip-cuff is slid half over the first air duct.

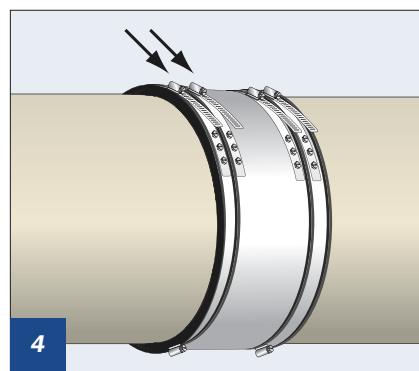
Tip:
Lubricants can be used to make the sliding easier.



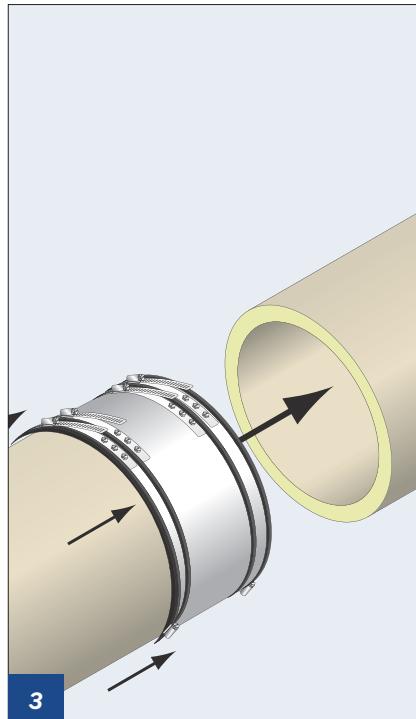
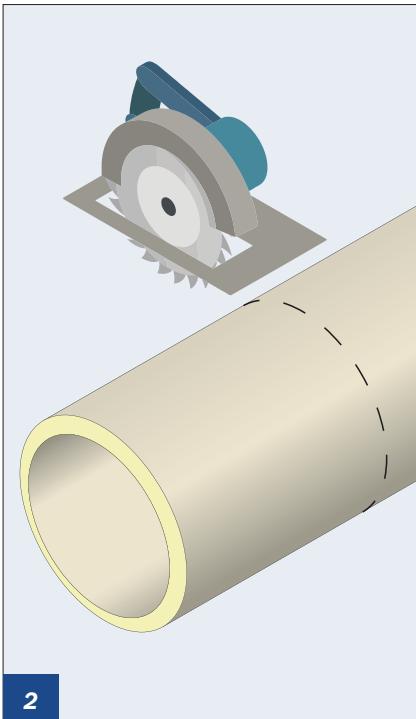
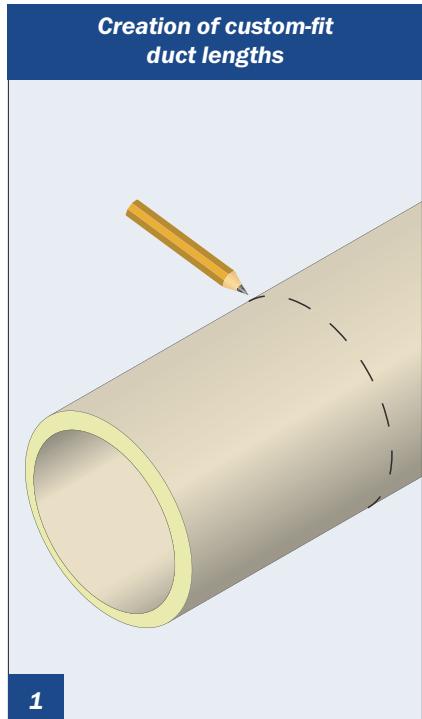
Now the first two tightening straps are tightened.



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



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



Mark the duct where it should be cut.

Cut the duct with a jig- or circular saw.

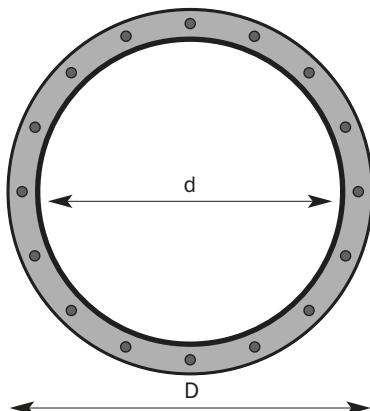
After cutting connect the LAVANTUS® air duct with the LavantusGrip-cuff (see p. 5.20).

Tip:

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

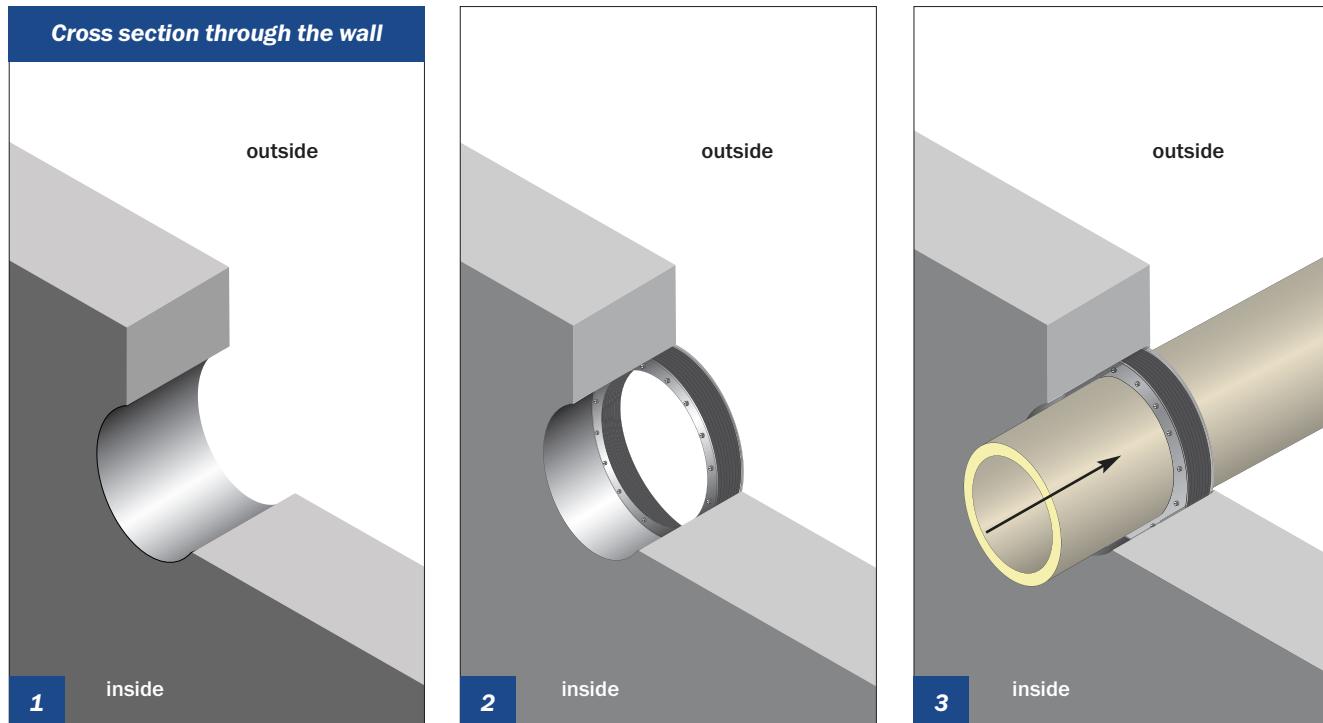


The clean solution to run the air duct through the brickwork, walls and floor plate



Duct diameter and the according size of the ring seal

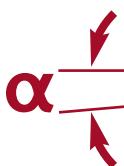
| LAVANTUS® – underground installed air ducts | | LAVANTUS® ring seal | |
|---|---------------------------|---------------------|----------------------------|
| nominal diameter in mm | outside diameter in mm | d in mm | D in mm (core drilling) |
| 200 | 270 | 282 | 350 |
| 250 | 320 | 324 | 400 |
| 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.

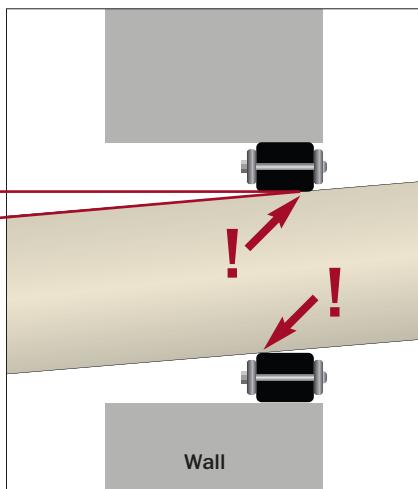
Note: The core drilling can be coated with epoxy resin to smoothen possible unevenness.



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

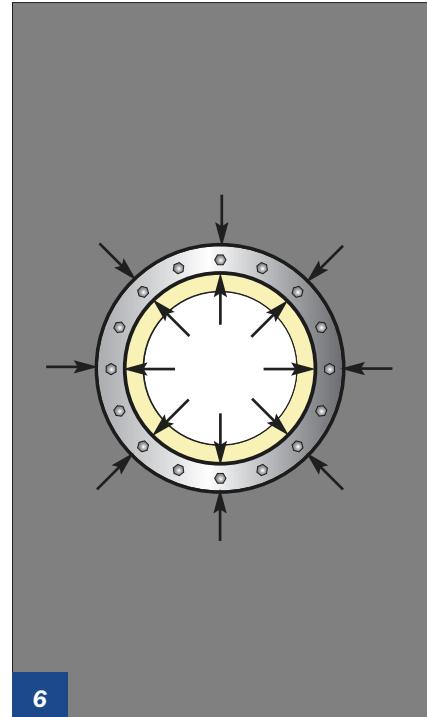
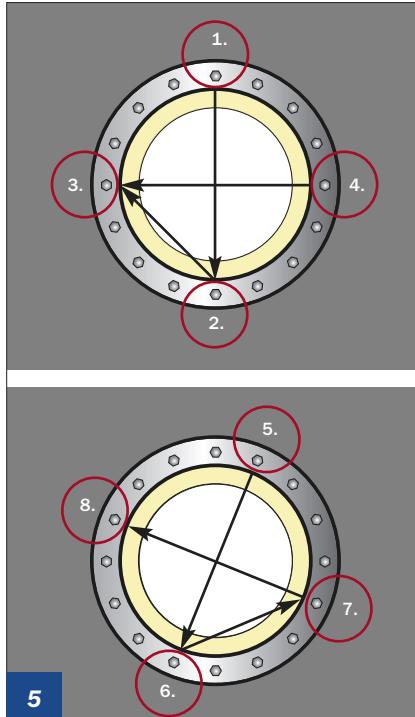
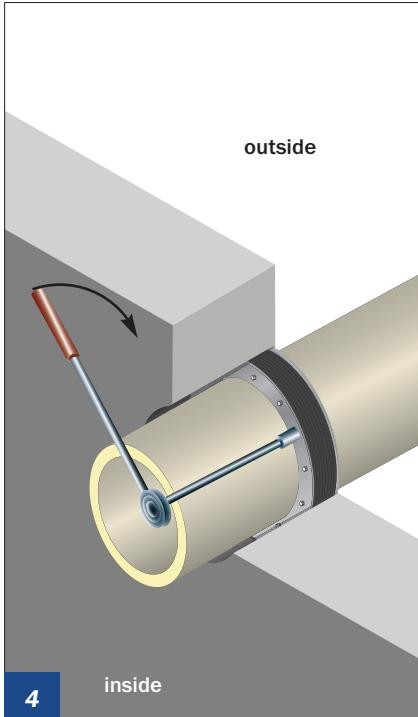
Push ring seal to the end of the core drill, so that it comes exactly to the end of the building exterior.

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.



Tighten the clamping nuts with a torque wrench from inside.

Tighten the clamping nuts alternately diagonally with a few turns

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

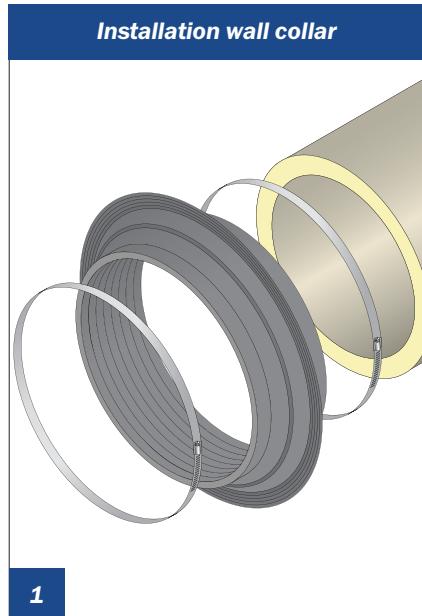
Please note the permitted torque allowed indicated on the ring seal.

| nominal size air duct in mm | outside diameter air duct in mm | bolt | max. tightening torque in 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 |

Installation wall collar onto the duct

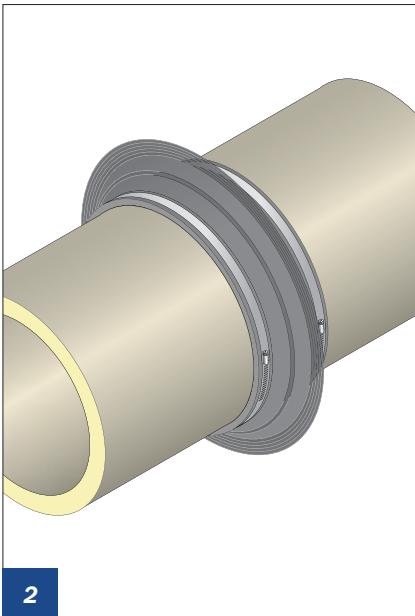
LAVANTUS®

VENTAFLEX® air duct
for underground installation

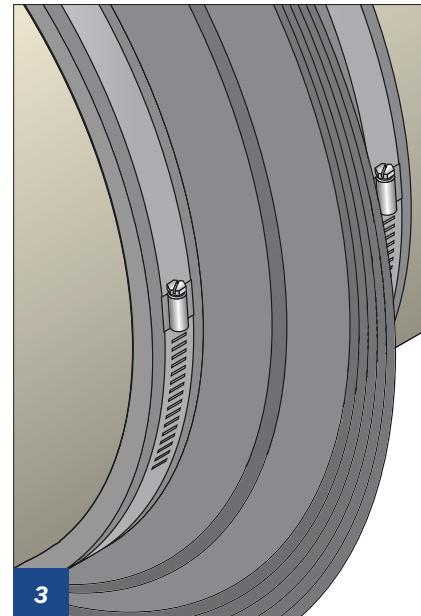


Push the wall collar onto the LAVANTUS® air duct with both clamping rings.

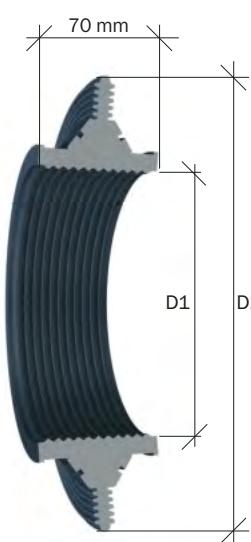
Tip:
Lubricants can be used to make the pushing easier.



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



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



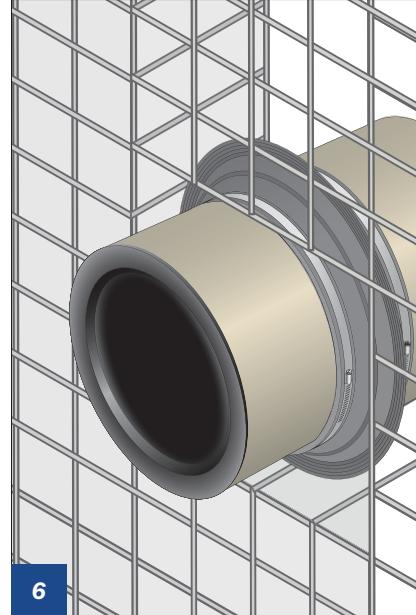
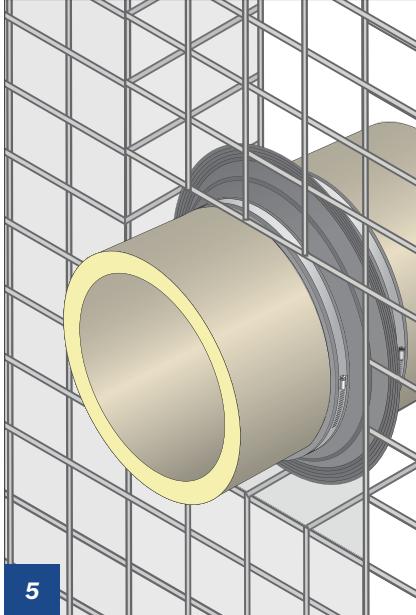
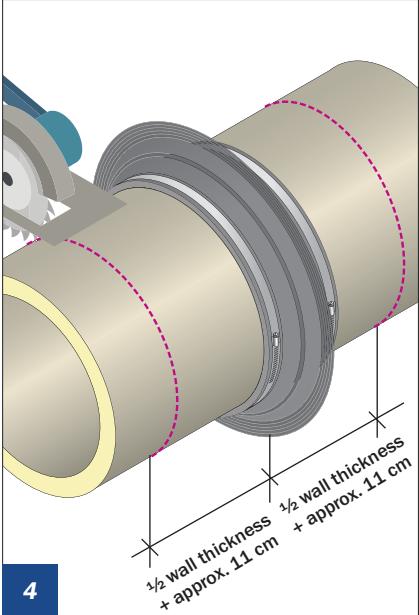
| LAVANTUS® – underground installed air duct | | LAVANTUS® wall collar | |
|---|-------------------------------------|---|--|
| nominal diameter d in mm | duct outside \varnothing in mm | D1 inner dimension wall collar \varnothing in mm | D2 external dimension wall collar \varnothing in mm |
| 200 | 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 |

Installation wall collar into the wall

LAVANTUS®

VENTAFLEX® air duct
for underground installation

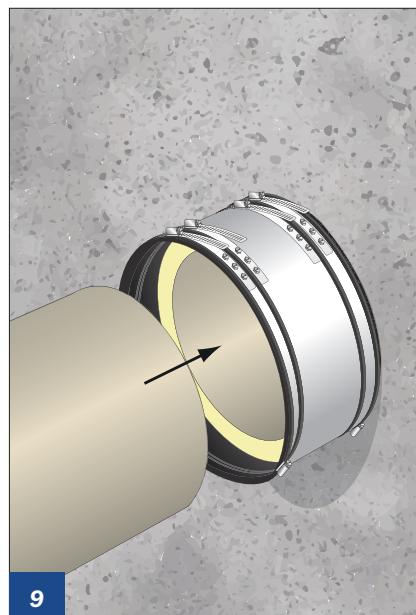
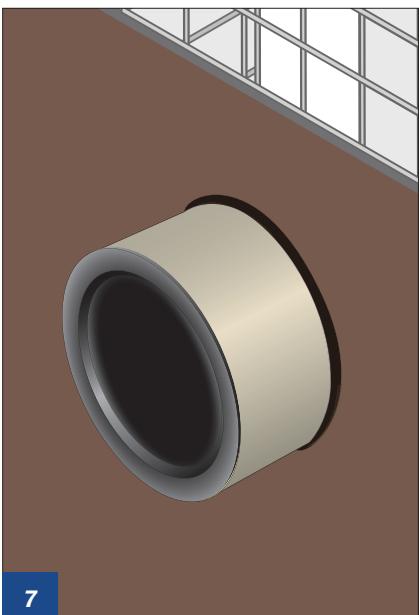
The wall collar can be used horizontally as well vertically (e.g. in base plates).



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.

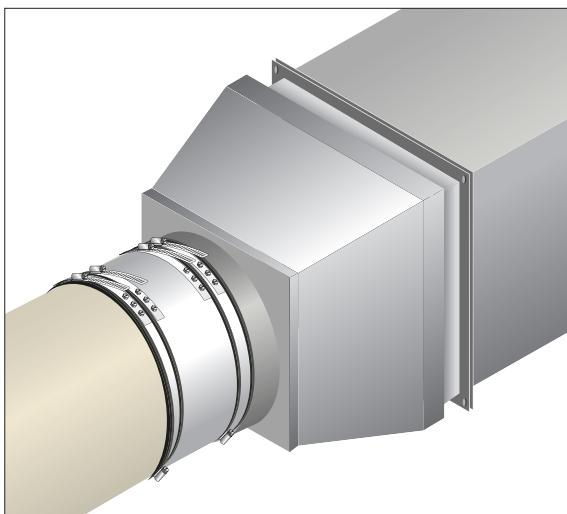
Remove casing and end stopper and slide LavantusGrip-cuff onto the duct after that (see p. 5.20).

Slide pursuing duct into cuff and tighten the tightening straps.

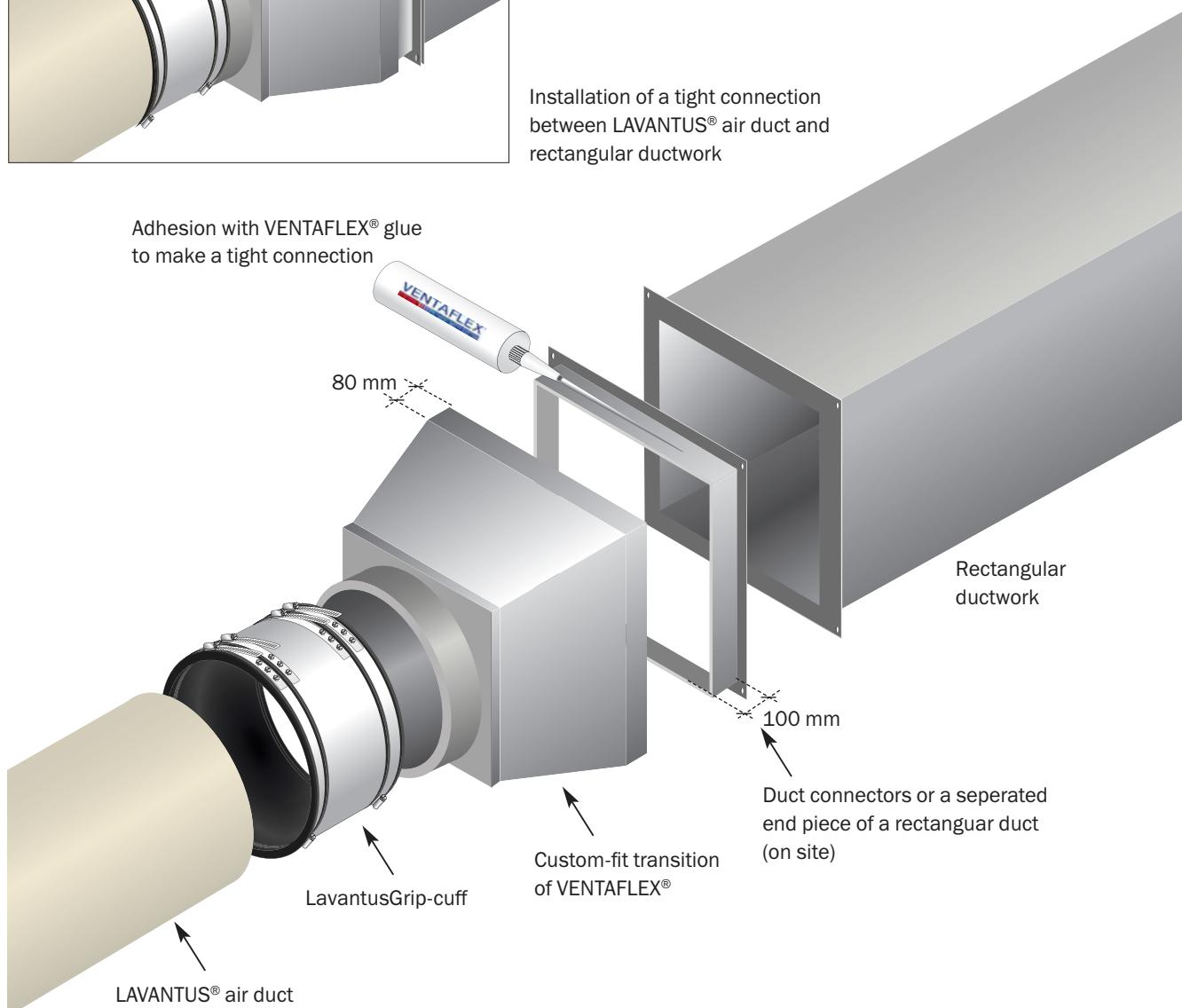
Transition to rectangular duct work

LAVANTUS®

VENTAFLEX® air duct
for underground installation



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



Die Montageanleitungen sind urheberrechtlich geschützt – © VENTAFLEX GmbH & Co.KG



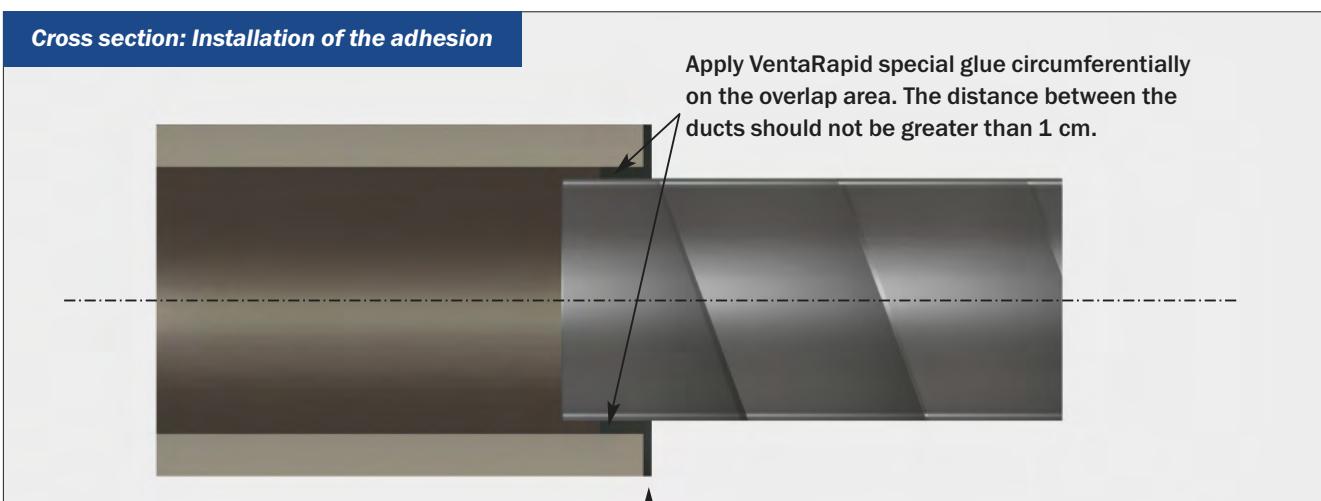
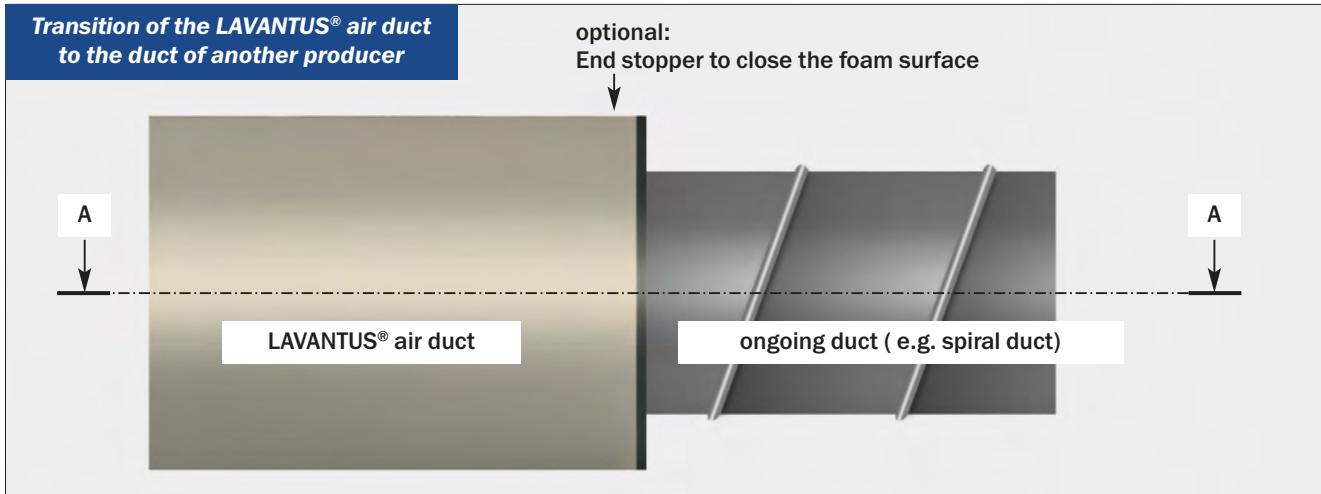
Also suitable as a
connection with transition
to the correct dimension
for the HVAC systems

This transition is an
installation inside the building

Transition to other duct work

LAVANTUS®

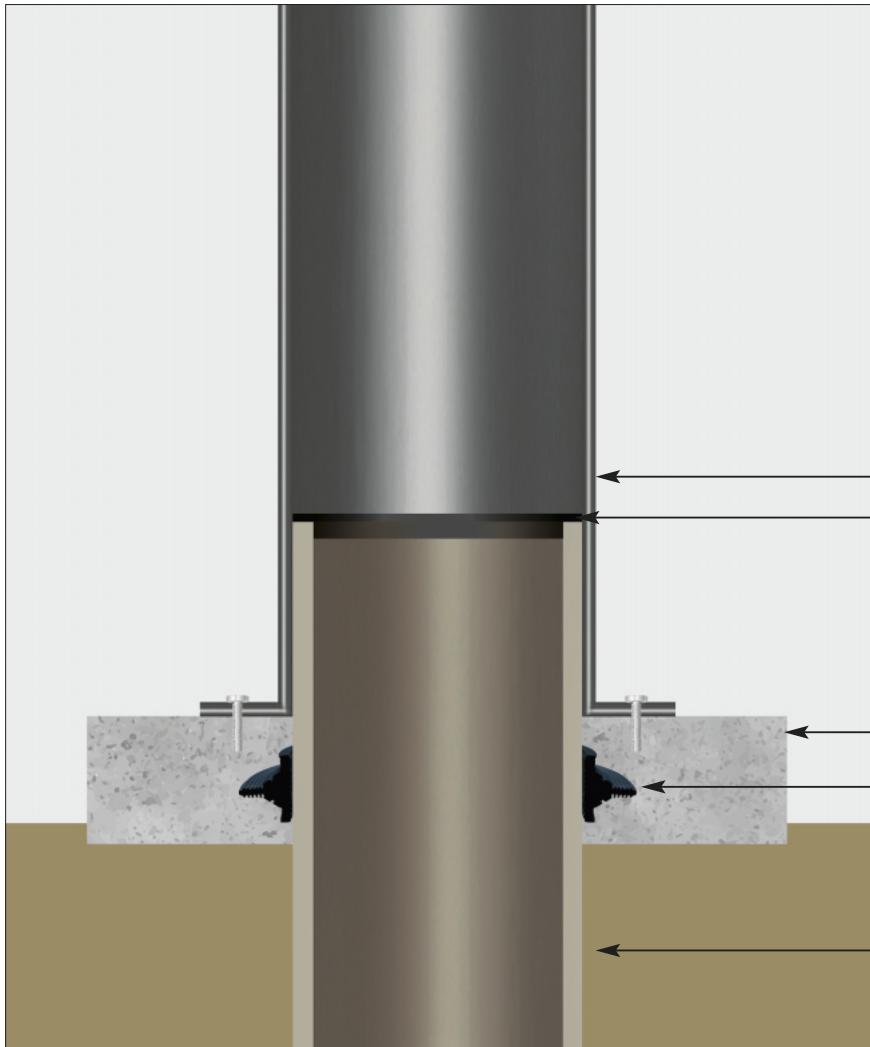
VENTAFLEX® air duct
for underground installation



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.

VENTAFLEX® air duct in the hygiene sector

Tightness and smooth surfaces at air duct systems
– an inseparable couple for clean air

VENTAFLEX®

More efficiency in air conduction

Installation in an outdoor scaffold:

Ventilation of an industrial bakery in Wittenberg
Total volume of 537.000 m³, overall 1000 m oval ducts



Indoor installation:

Clean air for a production hall for
hygienic packaging.
Total volume of 110.000 m³,
spread over 400 m ducts



Application areas for hygienic air supply with VENTAFLEX® air ducts:

Food industry

- Bakery business
- Meat-processing industry
- Dairies
- Breweries
- Beverage manufacturers

Public areas

- Rehabilitation clinics
- Social facilities
- Retirement homes
- Swimming pools
- Sports facilities

Production plants

- Laboratories and institutions
- High Tech industry
- Engineering
- Chemical industry
- Pharmaceutical industry

Installation on an outdoor hall roof:

Fresh air for meat-processing in the Netherlands
Volume: 50.000 m³, spread over more than 100 m ducts



A large number of large-scale projects were realized with insulated VENTAFLEX® air duct systems in the last decades. Our experienced team would like to support you with your ventilation concept.

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

Clean air in sensitive areas

In many hygienic-relevant sectors, like the food industry, rehabilitation clinics or swimming pools, hygiene plays a very special role.

The VENTAFLEX® insulated air ducts have clean room character due to their material characteristics. They meet highest hygienic demands and are certified for this.

VENTAFLEX® air ducts have a clean, smooth and discreet appearance. The smooth surfaces avoid adhesions, are easy to clean and minimize the friction losses for a hygienic air flow.

Please note:
VENTAFLEX® offers special supplies for the installation in the hygiene sector.

At a glance: Hygiene advantages of VENTAFLEX® ventilation systems

especially hygienic

certified: VDI 6022

germ-resistant/low germ contamination

little deposit on
smooth GRP-surface

excellent tightness,
locks out germs

EN 16798-3 class ATC2/
tightness class D

avoids condensate due to
high insulation value

WLG 022

GRP-surfaces are resistant
against cleaning agents certified

geprüft nach EN 13401

easy cleaning

low care- and maintenance effort saves costs and time

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 page 1 the avoidance of leakage as well as the prevention of unplanned moisture due to entry or condensation is relevant for the supply air quality. All ducts are to be planned and carried out so that an unintentional admixture of air is avoided. The tighter a duct system is, the more hygienic the air guidance and therefore the supplied air is.

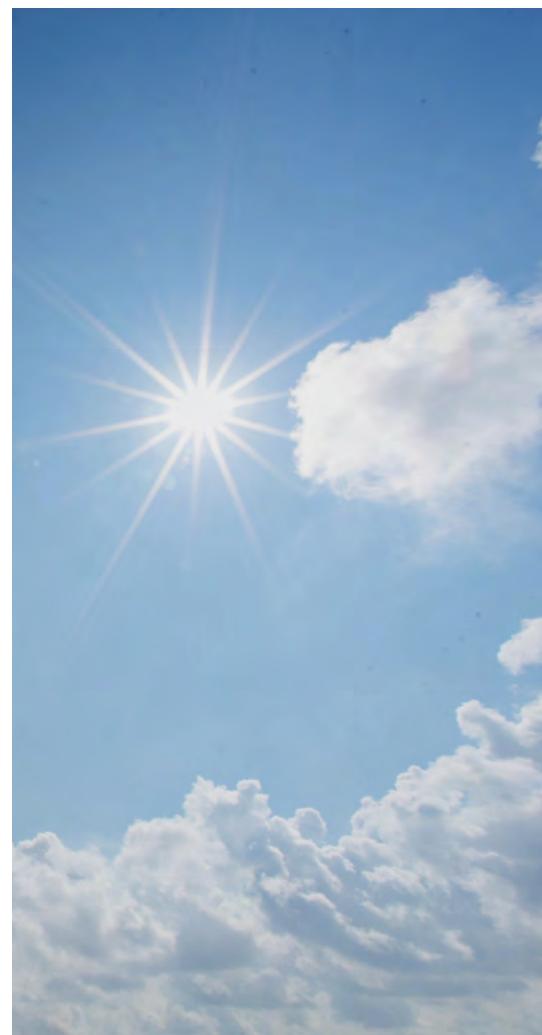
... and save energy

At the same time tightness is one of the most important aspects when dealing with energy efficiency. For installations with high demands on energy efficiency and hygiene the tightness class ATC 2 (former D) is applied.

The right decision for a good climate: the VENTAFLEX® system

VENTAFLEX® air ducts exceed the requirements of tightness class ATC 2 by far – without any additional measures.

Because of the application of VENTAFLEX® air ducts a leakage of a air conduction system can be reduced up to 99 % compared to conventional systems. Moreover less fan output is needed at a tight air conduction system, which leads to long-term savings of energy and thus operating costs.



Certified for the hygiene sector

Before marketing VENTAFLEX® products have to meet extensive tests. After going through different in-house test procedures, independent institutes are assigned to test the ducts on highest quality demands. Again it is the special characteristics of the VENTAFLEX® air ducts that allow a certification in the hygiene sector.

Now also „signed and sealed“.



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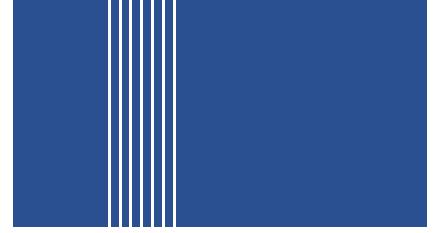
info@ventaflex.de
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VENTAFLEX®

Hygiene sector

Supplies-system

Matched and certified for
hygiene applications according to VDI 6022



VENTAFLEX®
More efficiency in air conduction



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.



VENTAFLEX®

More efficiency in air conduction

| 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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VENTAFLEX®: Heat exchanger

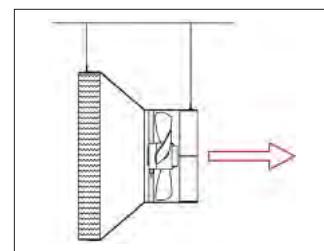
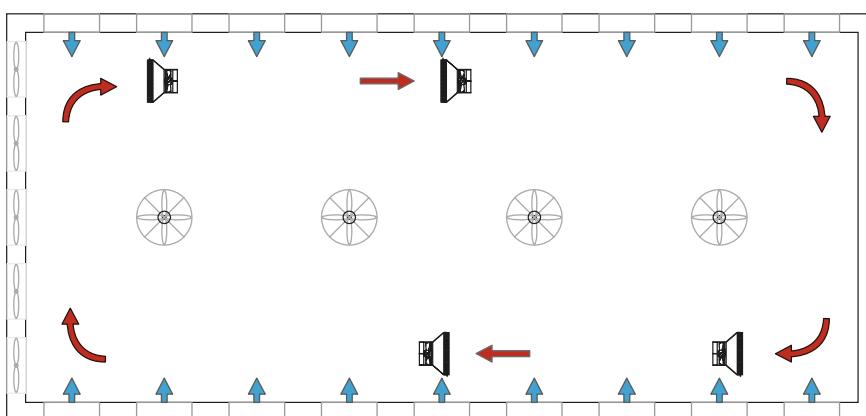
Air-water heat exchanger for an efficient heat transmission



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.



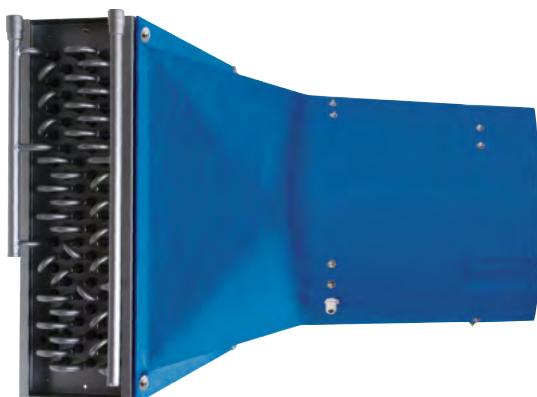
Air heater – horizontal installation position



Type 2 H - Stainless steel “sucking”

Type 2 H - Stainless steel “pressing”

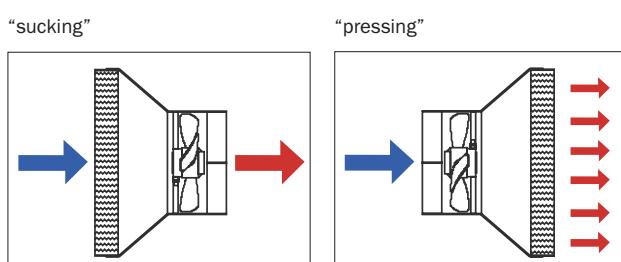
Air performance 3.000 m³/h
Heat: 30 kW bei 20°C Room temperature
horizontal air guidance



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. |
|---------|----------|----------|
| Typ 2 H | sucking | 281100 |
| | pressing | 281130 |
| Typ 3 H | sucking | 281200 |
| | pressing | 281230 |
| Typ 4 H | sucking | 281300 |

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"

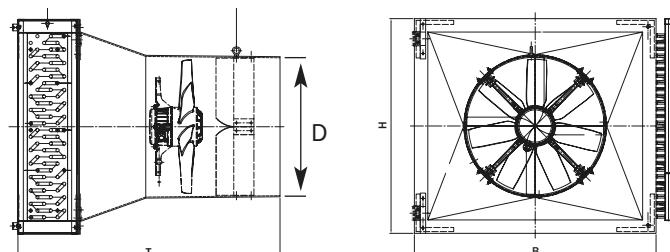
| type | item no. | empty weight (kg) | water content (kg) | total weight (kg) |
|-------------|-----------------|--------------------------|---------------------------|--------------------------|
| Typ 2 H/A2 | 281100 | ca. 50 | 5,9 | ca. 56 |
| Typ 3 H/A2 | 281200 | ca. 66 | 8,1 | ca. 74 |

Weight "pressing"

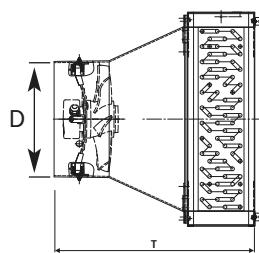
| type | item no. | empty weight (kg) | water content (kg) | total weight (kg) |
|-------------|-----------------|--------------------------|---------------------------|--------------------------|
| Typ 2 H/A2 | 281130 | ca. 47 | 5,9 | ca. 53 |
| Typ 3 H/A2 | 281230 | ca. 59 | 8,1 | ca. 67 |
| Typ 4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