



# Safe



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# Bends

## Overview bends – ordinary

| $\text{Ød}_1$ | Short radius<br>$r_m \approx 0,6 \cdot d_1$ |                          | Normal radius<br>$r_m \approx 1 \cdot d_1$ |                          | Long radius<br>$r_m \approx 1,5 \cdot d_1$ |                          |
|---------------|---|--------------------------|--|--------------------------|--|--------------------------|
|               | Pressed and seam welded                     | Segmented and lockseamed | Pressed and seam welded                    | Segmented and lockseamed | Pressed and seam welded                    | Segmented and lockseamed |
| 63            |   |                          |  |                          |  |                          |
| 80            |   |                          |  |                          |  |                          |
| 100           |   |                          |  |                          |  |                          |
| 125           |   | BKU 90°                  |  |                          |  |                          |
| 160           |   |                          |  |                          |  |                          |
| 200           |   |                          |  |                          |  |                          |
| 250           |   |                          |  |                          |  |                          |
| 315           |   |                          | BKFU 90°                                   |                          |  |                          |
| 400           |   |                          |  |                          |  |                          |
| 500           |   |                          |  |                          |  |                          |
| 630           |   |                          |  |                          |  |                          |
| 800           |   |                          |  |                          |  |                          |
| 1000          |   |                          |  |                          |  |                          |
| 1250          |   |                          |  |                          |  |                          |



## Overview bends – others

| $\text{Ød}_1$ | Short radius<br>$r_m \approx 0,6 \cdot d_1$ |                         | Normal radius<br>$r_m \approx 1 \cdot d_1$ |                         |                             |                            |                                  |
|---------------|---|-------------------------|--|-------------------------|-----------------------------|----------------------------|----------------------------------|
|               | Pressed and seam welded                     | Pressed and seam welded | Segmented and lock-seamed                  | Pressed and seam welded | Segmenterad and lock-seamed | Pressed and seam welded    | Pressed and seam welded          |
| 63            |   |                         |  |                         |                             |                            |                                  |
| 80            |   |                         |  |                         |                             |                            |                                  |
| 100           |   | BKMU 90°                |  |                         |                             |                            |                                  |
| 125           |   |                         |  |                         |                             |                            |                                  |
| 160           |   |                         |  |                         |                             |                            |                                  |
| 200           |   |                         |  |                         |                             |                            |                                  |
| 250           |   |                         |  |                         |                             |                            |                                  |
| 315           |   |                         |  |                         |                             |                            |                                  |
| 400           |   |                         |  |                         |                             |                            |                                  |
|               | Female end                                  | Clearing stud at side   |  | Clearing stud at back   |                             | Female end and nail flange | Air valve socket and nail flange |





# T-pieces and saddle

## Overview T-pieces – ordinary

| <b>Ød<sub>1</sub></b> | <b>Short installation length</b> | <b>Normal installation length</b> |                          |
|-----------------------|----------------------------------|-----------------------------------|--------------------------|
|                       | Pressed and seam welded          | Pressed and seam welded           | Segmented and lockseamed |
| 63                    |                                  |                                   |                          |
| 80                    |                                  |                                   |                          |
| 100                   |                                  |                                   |                          |
| 125                   | TCPU KORT                        |                                   |                          |
| 160                   |                                  | TCPU                              |                          |
| 200                   |                                  |                                   | TCU<br>TU                |
| 250                   |                                  |                                   |                          |
| 315                   |                                  |                                   |                          |
| 400                   |                                  |                                   |                          |
| 500                   |                                  |                                   |                          |
| 630                   |                                  |                                   |                          |
| 800                   |                                  |                                   |                          |
| 1000                  |                                  |                                   |                          |
| 1250                  |                                  |                                   |                          |



PSU

TSTCU  
TSTU

## Overview T-pieces – others

| <b>Ød<sub>1</sub></b> | <b>Short installation length</b> | <b>Normal installation length</b> |                                  |
|-----------------------|----------------------------------|-----------------------------------|----------------------------------|
|                       | Pressed and seam welded          | Pressed and seam welded           | Pressed and seam welded          |
| 63                    |                                  |                                   |                                  |
| 80                    |                                  |                                   |                                  |
| 100                   |                                  |                                   |                                  |
| 125                   | TCPU GIPS                        | TCPU GJUT                         | TCSIU GJUT                       |
| 160                   |                                  |                                   |                                  |
| 200                   |                                  |                                   |                                  |
| 250                   |                                  |                                   |                                  |
| 315                   |                                  |                                   |                                  |
| 400                   |                                  |                                   |                                  |
|                       | Female end                       | Female end and nail flange        | Air valve socket and nail flange |





# The Safe system

## The Safe-system

- Safe is a quickly assembled system for round ventilation ducts.
- Safe is type approved to class D by SITAC, no. 1358/88.
- The complete programme has dimensions according to Eurovent 2/3 and Swedish Standard SS-EN 1506.
- The system is based on a double-lipped, factory-installed seal made from EPDM rubber. The moulding, which can withstand rough handling, and is almost insensitive to temperature changes, gives a very airtight seal.

## Advantages of the Safe-system

- Quick assembly.
- Factory fitted seal with no loose fittings.
- Can be twisted and adjusted with tightness unaffected.
- Installation without sealant or solvents.
- Can be used in all climates.
- Seal moulding remains tight from 5 000 Pa negative pressure to 3 000 Pa positive pressure.
- Duct resistance to collapse differs from these pressures, and is noted on page 41.
- Type approved to sealing class D.

## Type approval

Approval no 1358/88 means that the Safe-system complies with the requirements for tightness class D without any demand for pressure testing after installation.

The approval is only valid on condition that all fittings are marked by us in accordance with the example and are installed in accordance with the accompanying installation instruction.

## Marking

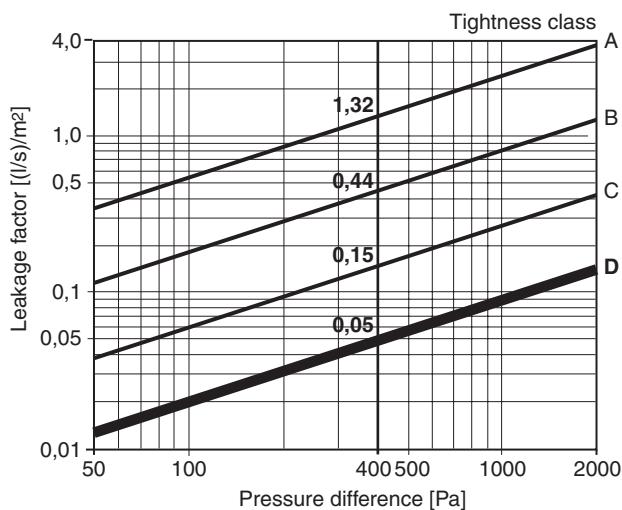
Each individual product is marked with a special label or stamped in the metal.



## Tightness

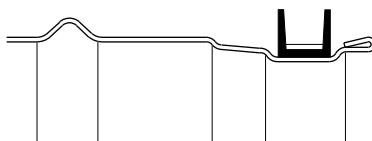
A duct system will never be "completely tight". The system will normally have some leaks at joints between ducts and fittings. The leakage will also increase as the pressure difference between the in- and outside of the duct sides increases.

The leakage factor in  $(\text{l/s})/\text{m}^2$  is always specified in relation to the pressure difference in Pa. (The unit  $(\text{l/s})/\text{m}^2$  denotes the leakage flow in l/s in or out of the system in relation to its duct area in  $\text{m}^2$ .) The graph below shows the leakage factor for the sealing classes A–D as a function of the pressure difference.



The graph shows that sealing class D is 3 times better than class C, which in turn is 3 times better than class B etc. Class D thus entails demands on not only the seal moulding but also the fittings and how well the system is installed.

This is one reason why we have given all fittings a turned-over edge and have given still more fittings a stop bead. This gives us stable products which are better suited to withstand handling on site at the same time as the risk of skewed assembly falls.



Turned-over edge design



# The Safe system

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## Economy – Tightness

Present-day stringent demands for interior climate entail expensive air treatment. Leakage leads to uneconomical operation, adjustment difficulties and over-dimensioned equipment. For this reason, it is important that ventilation systems are very well sealed, to keep overall costs down. This is why official requirements for sealing vary with the size and use of systems.

## Inspection/Testing

In order to make Safe comply with the requirements of sealing class D, we have constant inspection procedures where we do daily sampling. Inspection is done on goods received from sub-contractors and our own production of ducts and fittings.

**Goods reception inspection** complies with Swedish Standard for testing methods and batch acceptance levels. The inspection points include:

1. Inspection of seal moulding inner diameter. This is particularly important for ageing resistance of the rubber. The greater the load on the rubber, either stretching or pressure, the faster the rubber ages, causing brittleness and cracking.
2. The seal moulding profile is measured in a profile projector, where the dimensions of the seal moulding are checked against agreed tolerances.
3. The seal moulding material is tested by accelerated ageing in heat oven.

**Manufacturing inspection** is logged. The inspection includes a diameter check of ducts and fittings, a check of the groove where the seal moulding has been fixed, and a check of its fixing. Pressure testing is done in our air laboratory, to check the leakage flow from our products. This does not give the whole picture, however, so the best inspection of the Safe system is the pressure testing that The Swedish National and Testing Institute undertakes on randomly sampled products. In all these pressure tests, the Safe system has always exceeded the relevant sealing requirements.

## Fittings

Products under the Safe insert and fittings with Safe seals under the Silencer, Dampers and measure units, and Isol inserts are included in the type approval for sealing class D. In addition, some fittings, under the Other circular products insert, are included.

A handful of fittings with the Safe seal can only manage up to tightness class C. This is marked on each of these products.

Fittings in this catalogue with a "U" in their designations have Safe seals, with only a few exceptions.

## Degreased

Fittings can be supplied degreased on the inside, to order.

## Dimensions

Almost all products in the Safe-programme can also be delivered in intermediate dimensions. For further informations see page 11.

## Negative pressure

At big negative pressure there is a risk for a ventilation system to collapse. This risk is greater the bigger dimensions you have.

In order to increase the strength of *the ducts* you can e.g. increase their sheet metal thickness. This is a simple way but the effect is rather small. It exists other ways with higher result. For bigger dimensions then the ducts may be stronger than the fittings.

In order to increase the strength of *the fittings* other ways than thicker sheet metal thickness are more suitable.

Lindab has experience and knowledge about this and is willing to offer help at special cases. We can, as special, deliver duct systems that can withstand at least 5 000 Pa negative pressure.



# The Safe system

## Design

Our Safe seal system is based on a U-shaped profile of solid rubber. The seal moulding rests in a groove at the end of the fitting and is fixed with a steel strap.

**As standard** are Safe-fittings always supplied with an EPDM (ethylene-propylene rubber) seal moulding. The material has been chosen due to its long service life and the best possible resistance to ozone and UV radiation. It is also highly tolerant to temperature variations. Under normal conditions, the moulding can withstand:

-30 °C to +100 °C continuous  
-50 °C to +120 °C intermittent

**As special** for installations which demand high temperature tolerance and somewhat higher oil resistance, Safe fittings can be supplied with a special silicone rubber moulding. This moulding is recognized by its blue colour.

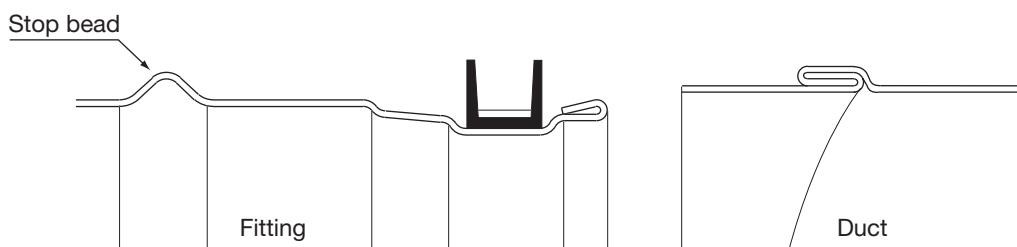
Temperature tolerance:

-70 °C to +150 °C continuous  
-90 °C to +200 °C intermittent

When fittings are installed in ducts, the seal moulding lips will be bent backwards. This means that the seal will be better at withstanding negative pressure than positive pressure, since the negative pressure will tend to press the lips harder against the duct walls. The following pressure differences must not be exceeded, to cope with tightness class D.

Positive pressure in duct 3000 Pa  
Negative pressure in duct 5000 Pa

Both Swedish and European standards allow a greater tolerance range between the duct and matching fittings as the diameter increases. In order to achieve maximum sealing for all dimensions, we have chosen to use successively bigger seal mouldings as duct dimensions increase.





# The Safe system

## Resistance of seal mouldings to various substances

The table below gives a basic guide to how the rubber is affected by various substances.

A figure for each type of rubber indicates its suitability.

|   |                   |                               |
|---|-------------------|-------------------------------|
| 4 | Scarcely affected | Recommended                   |
| 3 | Lightly affected  | Normally usable               |
| 2 | Strongly affected | Only useable in certain cases |
| 1 | Badly affected    | Unsuitable                    |
| – | No information    |                               |

|  | EPDM | Sili-cone | EPDM                                   | Sili-cone | EPDM | Sili-cone  |   |   |
|--|------|-----------|--|-----------|------|--|---|---|
| <b>A</b>                                     |      |           |  |           |      |  |   |   |
| Acetaldehyde                                 | 4    | 4         | Ethylene chloride                      | 1         | –    | Oxalic acid  | 4 | 3 |
| Acetic acid dilute 30%                       | 4    | 3         | Ethyl glycol, cellosolve               | 3         | –    | Ozone  | 4 | 4 |
| Acrylic acid crystalline                     | 4    | 3         | Ethyl chloride                         | 4         | 1    | Oxygen   | 4 | 4 |
| Acetic anhydride                             | 3    | 2         | Ethane, ethylene                       | 1         | –    |  |   |   |
| Acetone                                      | 4    | 3         | <b>F</b>                               |           |      |  |   |   |
| Acetylene                                    | 3    | 3         | Fluoric silicate                       | 4         | 2    | Palmitinic acid  | 3 | – |
| Aluminium salts (non-oxidizing)              | 4    | 4         | Formic acid                            | 4         | 2    | Paraffin (kerosine)  | 1 | 1 |
| Alun   | 4    | 4         | Formaldehyde, formalin                 | 4         | –    | Perchlorethylene   | 1 | 3 |
| Ammonia, liquid                              | 4    | 1         | Freon, see CFC                         |           |      | Perchloric acid  | 3 | 1 |
| Ammonia gas, cold                            | 4    | 4         | Furan, furfuran                        | 2         | –    | Petrol (gasoline), 65 octane                               | 1 | 1 |
| Ammonia gas, hot 65 °C                       | 3    | 3         | Furfural                               | 3         | –    | Petrol (gasoline), 100 octane                              | 1 | 1 |
| Ammonium hydroxide, dil. ammonia             | 3    | 3         | <b>G</b>                               |           |      | Petroleum ether  | 1 | 1 |
| Ammonium salts (non-oxidising)               | 4    | 3         | Glucose                                | 4         | 4    | Petroleum oils high aromatic content                       | 1 | 1 |
| Amyl acetate                                 | 4    | 1         | Glycerine, glycerol                    | 4         | 4    | low aromatic content                                       | 1 | 3 |
| Aniline                                      | 3    | –         | Green liquor, white liquor             | 4         | 3    | Phenol   | 3 | 2 |
| Aniline dyes                                 | 4    | –         | <b>H</b>                               |           |      | Phosphoric acid 45%  | 4 | 1 |
| Animal fats                                  | 2    | 3         | Heating oil                            | 1         | 2    | Phosphoric acid 85%  | 4 | 1 |
| Arsenic acid                                 | 4    | 4         | Hydraulic oil, mineral oil based       | 1         | 3    | Plating solutions without chromium                         | 4 | 3 |
| Asphalt                                      | 1    | 1         | Hydraulic oil, phosphate ester based   | 4         | 4    | Potassium hypochlorite, pH 7 below 10 g/l                  | 4 | 1 |
| <b>B</b>                                     |      |           | Hydrogen                               | 4         | 4    | over 10 g/l  | 3 | 1 |
| Barium salts (non-oxidizing)                 | 4    | 4         | Hydrogen peroxide 3%                   | 4         | 4    | Potassium hydroxide, potash                                | 4 | 3 |
| Beer   | 4    | 4         | 30% 20 °C                              | 4         | 4    | Potassium salts (non-oxidizing)                            | 4 | 3 |
| Benzene, benzol                              | 1    | 1         | 90% 20 °C                              | 2         | 4    | Propane, LPG   | 1 | 1 |
| Black liquor                                 | 1    | –         | <b>I</b>                               |           |      | Propanol, Propyl alcohol                                   | 4 | 4 |
| Black water, waste water                     | 4    | 3         | Hydrochloric acid dilute               | 4         | 1    | <b>R</b>   |   |   |
| Bleaching liquor, see Potassium hypochlorite |      |           | conc 37% room temp                     | 4         | 1    | Radioactive radiation                                      | 3 | 2 |
| Borax  | 4    | 3         | conc 37% 70 °C                         | 2         | 1    | Rape seed oil (canola oil)                                 | 4 | 4 |
| Boric acid                                   | 4    | 4         | Hydrogen sulphide dry, room temp       | 4         | 4    | Rosin oil  | 1 | 1 |
| Bromide, liquid                              | –    | 1         | damp, room temp                        | 4         | 2    | <b>S</b>   |   |   |
| Bromic acid                                  | 4    | 1         | damp, hot                              | 3         | 1    | Salicylic acid   | 4 | 4 |
| Butane                                       | 1    | 4         | Hydrofluosilicic acid                  | 4         | 1    | Sodium salts (non-oxidizing)                               | 4 | 4 |
| Butanol, butyl alcohol                       | 4    | 3         | Hydrofluoric acid 50%                  | 4         | 1    | Sodium hydroxide, sodium hydrate                           | 4 | 2 |
| Butter oils                                  | 1    | 1         | Hydrofluoric acid, conc.               | 4         | 1    | Sodium hypochlorite max 10 g/l free Cl over 10 g/l free Cl | 4 | – |
| Butyl acetate                                | 4    | 1         | <b>L</b>                               |           |      | Sugar solutions  | 4 | 4 |
| <b>C</b>                                     |      |           | Iodine                                 | –         | –    | Styrene  | 1 | 1 |
| Caustic soda, sodium hydroxide               | 4    | 2         | Iron salts (non-oxidizing)             | 4         | 3    | Sulphur, melted  | 4 | 4 |
| Calcium salts (non-oxidizing)                | 4    | 3         | <b>M</b>                               |           |      | Sulphur dioxide, dry gas                                   | 4 | 3 |
| Cellosolve, ethylene glycol                  | 3    | –         | Lactic acid                            | 4         | 4    | Sulphur chloride   | 1 | – |
| Cellosolve acetate                           | 3    | –         | Lead salts (non-oxidizing)             | 4         | 2    | Sulphuric acid 60% room temp.                              | 4 | 1 |
| Chlorine gas dry                             | 2    | –         | Linseed oil                            | 3         | 4    | 60% 50 °C  | 4 | 1 |
| Chlorine solutions 0,1 g/l free chlorine     | 4    | –         | Liquid manure                          | 4         | 3    | 60-75% 50 °C   | 3 | 1 |
| 0,1-1 g/l free chlorine                      | 4    | –         | LPG (Propane/butane)                   | 1         | 1    | 75-80% 50 °C   | 2 | 1 |
| 1-10 g/l free chlorine                       | 3    | –         | <b>N</b>                               |           |      | 85-96% 50 °C   | 1 | 1 |
| over 10 g/l free chlorine                    | 2    | –         | Magnesium salts (non-oxidizing)        | 4         | 4    | fuming, Oleum  | 1 | 1 |
| Chlorine sulphonic acid                      | 1    | 1         | Manganese salts (non-oxidizing)        | 4         | 4    | Sulphurous acid  | 4 | 1 |
| Chromic acid                                 | 2    | 2         | Mercury                                | 4         | 4    | Sulphur trioxide, dry gas                                  | 3 | 2 |
| CFC (e.g. Freon) 11                          | 1    | 1         | Mercury salts (non-oxidizing)          | 4         | 4    | <b>T</b>   |   |   |
| 12   | 3    | 1         | Methanol, methyl alcohol, wood alcohol | 4         | 4    | Tar  | 1 | 2 |
| 13   | 4    | –         | Methylene chloride                     | 1         | 1    | Tannic acid  | 4 | 1 |
| 21   | 1    | –         | Methyl chloride                        | 2         | 1    | Terpentine, terpenes                                       | 1 | 1 |
| 22   | 4    | 1         | Methyl ethyl ketone MEK                | 4         | –    | Toluene, toluol  | 1 | 1 |
| 31   | 4    | –         | Methyl isobutyl ketone                 | 3         | 2    | Trichlorethane, "thinner"                                  | 1 | 2 |
| 32   | 4    | –         | Methyl isopropyl ketone                | 3         | 2    | Transformer oil mineral oil based                          | 1 | 3 |
| 112  | 1    | –         | Milk                                   | 4         | 4    | chlorated hydrocarbon                                      | 1 | 1 |
| 113  | 1    | 1         | <b>V</b>                               |           |      |  |   |   |
| 114  | 4    | 1         | Natural gas                            | 1         | 4    | Vegetable oils   | 4 | 4 |
| 115  | 4    | –         | Nickel salts (non-oxidizing)           | 4         | 4    | <b>W</b>   |   |   |
| Copper salts (non-oxidizing)                 | 4    | 4         | Nitrobenzene, Nitrobenzol              | 2         | 1    | Water fresh  | 4 | 4 |
| Citric acid                                  | 4    | 4         | Nitric acid 20% room temp.             | 4         | –    | distilled  | 4 | 4 |
| <b>D</b>                                     |      |           | 20% 50 °C                              | 3         | 1    | salt   | 4 | 4 |
| Detergent                                    | 4    | 4         | 40% 50 °C                              | 3         | 1    | fresh & dist. 100 °C                                       | 4 | 2 |
| Diesel oil                                   | 1    | 2         | 50% 50 °C                              | 2         | 1    | White spirit (Dilutin)                                     | 1 | 1 |
| Dilutin (White spirit)                       | 1    | 1         | 60% room temp.                         | 2         | 1    | Wine   | 4 | 4 |
| Developing solutions                         | 3    | –         | 70% room temp.                         | 1         | 1    |  |   |   |
| <b>E</b>                                     |      |           | red fuming                             | 1         | 1    |  |   |   |
| Ethanol, ethyl alcohol                       | 4    | 4         | <b>X</b>                               |           |      |  |   |   |
| "Ether", diethyl ether, ethyl ether          | 2    | –         | Nitrogen                               | 4         | 4    | Xylene, xylol  | 1 | 1 |
| Ethyl acetate                                | 3    | 2         | Nitrous gases                          | 2         | 2    |  |   |   |
| Ethylene glycol                              | 4    | 3         | <b>O</b>                               |           |      |  |   |   |
|  |      |           | Olive oil                              | 3         | 3    | Zinc salts (non-oxidizing)                                 | 4 | 4 |
|  |      |           | Oleic acid                             | 4         | –    |  |   |   |



# Circular duct

SR



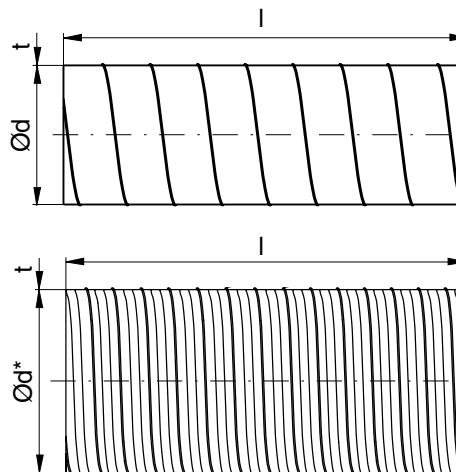
## Description

Circular duct.

## Ordering example

|              |    |     |      |
|--------------|----|-----|------|
| Product      | SR | 200 | 3000 |
| Dimension Ød |    |     |      |
| Length l     |    |     |      |

## Dimensions



| $\varnothing_d$<br>stand<br>nom | O<br>$\pi d$<br>m | A<br>$\pi d^2/4$<br>m <sup>2</sup> | t<br>stand<br>mm | l<br>stand<br>mm | $m_l$<br>stand<br>kg/m |
|---------------------------------|-------------------|------------------------------------|------------------|------------------|------------------------|
| 63                              | 0,198             | 0,003                              | 0,5              | 3000             | 0,89                   |
| 80                              | 0,251             | 0,005                              | 0,5              | 3000             | 1,01                   |
| <b>100</b>                      | <b>0,314</b>      | <b>0,008</b>                       | <b>0,5</b>       | <b>3000</b>      | <b>1,27</b>            |
| 112                             | 0,352             | 0,010                              | 0,5              | 3000             | 1,42                   |
| <b>125</b>                      | <b>0,393</b>      | <b>0,012</b>                       | <b>0,5</b>       | <b>3000</b>      | <b>1,57</b>            |
| 140                             | 0,440             | 0,015                              | 0,5              | 3000             | 1,76                   |
| 150                             | 0,471             | 0,018                              | 0,5              | 3000             | 1,89                   |
| <b>160</b>                      | <b>0,503</b>      | <b>0,020</b>                       | <b>0,5</b>       | <b>3000</b>      | <b>2,02</b>            |
| 180                             | 0,565             | 0,025                              | 0,5              | 3000             | 2,26                   |
| <b>200</b>                      | <b>0,628</b>      | <b>0,031</b>                       | <b>0,5</b>       | <b>3000</b>      | <b>2,56</b>            |
| 224                             | 0,704             | 0,039                              | 0,6              | 3000             | 3,42                   |
| <b>250*</b>                     | <b>0,785</b>      | <b>0,049</b>                       | <b>0,5</b>       | <b>3000</b>      | <b>3,18</b>            |
| 280                             | 0,880             | 0,062                              | 0,6              | 3000             | 4,28                   |
| 300*                            | 0,942             | 0,071                              | 0,6              | 3000             | 4,58                   |
| <b>315*</b>                     | <b>0,990</b>      | <b>0,078</b>                       | <b>0,6</b>       | <b>3000</b>      | <b>4,81</b>            |
| 355*                            | 1,115             | 0,099                              | 0,6              | 3000             | 5,41                   |
| <b>400*</b>                     | <b>1,257</b>      | <b>0,126</b>                       | <b>0,6</b>       | <b>3000</b>      | <b>6,56</b>            |
| 450*                            | 1,414             | 0,159                              | 0,8              | 3000             | 9,83                   |
| <b>500*</b>                     | <b>1,571</b>      | <b>0,196</b>                       | <b>0,7</b>       | <b>3000</b>      | <b>9,54</b>            |
| 560*                            | 1,759             | 0,246                              | 0,8              | 3000             | 12,2                   |
| 600*                            | 1,885             | 0,283                              | 0,8              | 3000             | 13,1                   |
| <b>630*</b>                     | <b>1,979</b>      | <b>0,312</b>                       | <b>0,7</b>       | <b>3000</b>      | <b>12,0</b>            |
| 710*                            | 2,231             | 0,396                              | 0,8              | 3000             | 15,5                   |
| <b>800*</b>                     | <b>2,513</b>      | <b>0,503</b>                       | <b>0,8</b>       | <b>3000</b>      | <b>17,4</b>            |
| 900*                            | 2,827             | 0,636                              | 0,8              | 3000             | 21,7                   |
| <b>1000*</b>                    | <b>3,142</b>      | <b>0,785</b>                       | <b>0,9</b>       | <b>3000</b>      | <b>24,1</b>            |
| 1120*                           | 3,519             | 0,985                              | 0,9              | 3000             | 27,0                   |
| <b>1250*</b>                    | <b>3,927</b>      | <b>1,227</b>                       | <b>0,9</b>       | <b>3000</b>      | <b>30,2</b>            |
| 1400*                           | 4,398             | 1,539                              | 1,25             | 3000             | 48,0                   |
| 1500*                           | 4,712             | 1,767                              | 1,25             | 3000             | 51,4                   |
| <b>1600*</b>                    | <b>5,027</b>      | <b>2,011</b>                       | <b>1,25</b>      | <b>3000</b>      | <b>54,8</b>            |

\* With outturned stiffening corrugation



# Circular duct

SR

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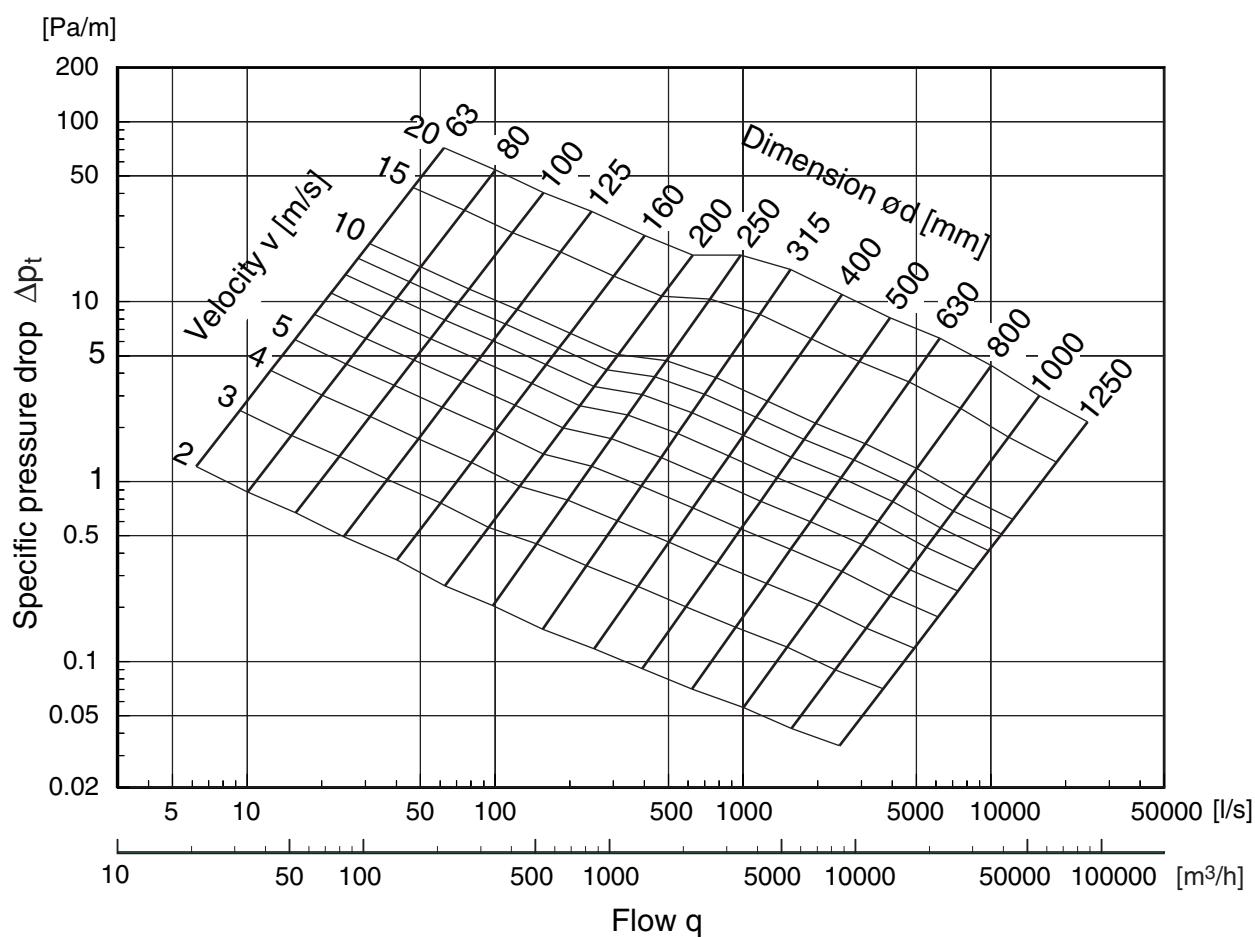
8

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## Technical data





# Circular duct

SR

## Special versions

We can supply ducts with the following special designs:

- In intermediate dimensions, see page 11.
- Extra tight, with nitrile rubber seal in the lock seam
- In other sheet metal thicknesses

### Extra tight, with seam seal

When extremely good sealing is required in the spiral seam, the ducts can also be supplied with a special rubber seal in the seam.

This seal is very effective at stopping leakage of vegetable oils and greases, and most petroleum products including white spirit.

### Other sheet metal thicknesses

If extra stability is needed in ducts, because of high negative pressure etc., they can be supplied with thicker sheet metal than standard. Remember that the thickness increase always reduces the inner diameter. Fittings for such special ducts must be specified separately and sometimes have to be made specially.

### Reinforcement corrugations

Ducts of Ø250 mm and above are normally given stiffening corrugations to increase radial stiffness.

## Strength

### Positive pressure

In case of high positive pressure, the seal moulding lips will first start to whistle. At considerably higher pressure, the joints between the ducts will be forced apart. If you manage to fix the connections very well, the ducts will burst at their seams at even higher pressure. The high pressures needed for this to happen are not relevant to ventilation installations.

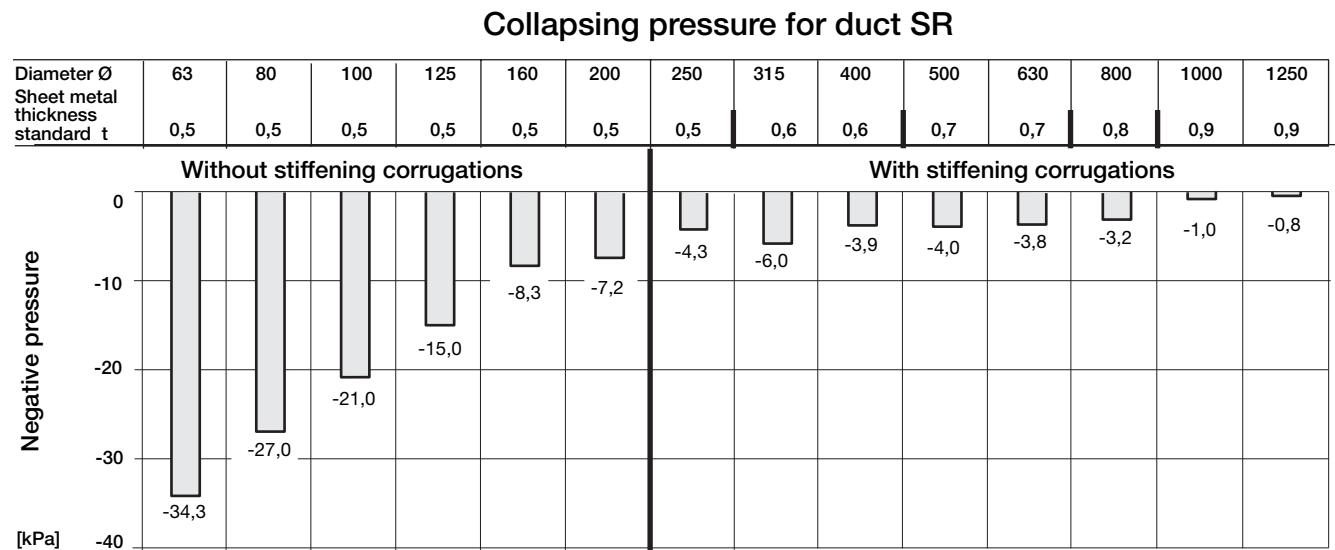
### Negative pressure

In installations with high negative pressure, there is a risk that the ducts could collapse.

This phenomenon is referred to as buckling, and can suddenly happen at the weakest point in the system. Buckling wanders along the duct, which can be completely flattened. The weakest point is frequently a "transport dent" on a duct. For this reason, only use undamaged ducts in systems which are close to the critical pressure!

### Sealing

The ability of the seal moulding to seal is different from these pressures, and is noted on page 35.



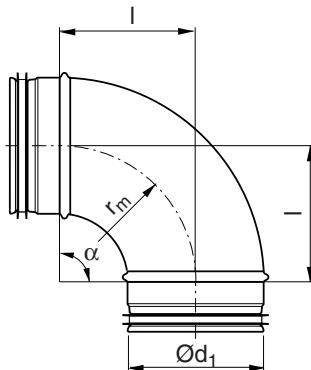


# Bend

BU 90°



## Dimensions



$$r_m \approx 1 \cdot d_1$$

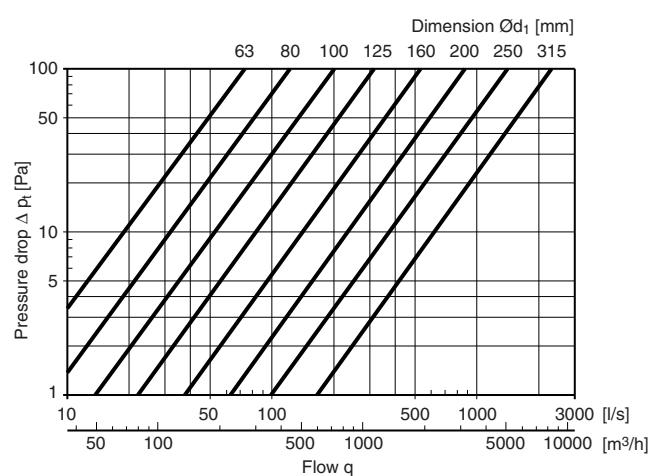
## Description

Pressed and seam welded bend.

## Ordering example

|                           |    |     |    |
|---------------------------|----|-----|----|
| Product                   | BU | 100 | 90 |
| Dimension Ød <sub>1</sub> |    |     |    |
| Angle α                   |    |     |    |

## Technical data



| Ød <sub>1</sub><br>nom | l<br>mm    | m<br>kg     |
|------------------------|------------|-------------|
| 63                     | 110        | 0,20        |
| 80                     | 105        | 0,26        |
| 100                    | 100        | 0,31        |
| 112                    | 120        | 0,39        |
| <b>125</b>             | <b>125</b> | <b>0,48</b> |
| 140                    | 135        | 0,66        |
| 150                    | 150        | 0,77        |
| <b>160</b>             | <b>160</b> | <b>0,86</b> |
| 180                    | 180        | 1,02        |
| <b>200</b>             | <b>200</b> | <b>1,30</b> |
| 224                    | 225        | 1,55        |
| <b>250</b>             | <b>250</b> | <b>2,06</b> |
| 280                    | 260        | 2,50        |
| 300                    | 300        | 2,80        |
| <b>315</b>             | <b>315</b> | <b>3,06</b> |

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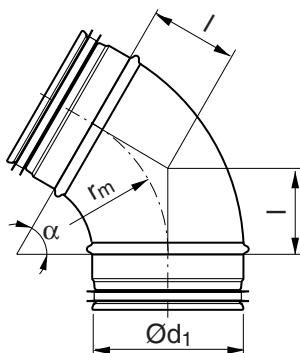


# Bend

BU 60°



## Dimensions



$$r_m \approx 1 \cdot d_1$$

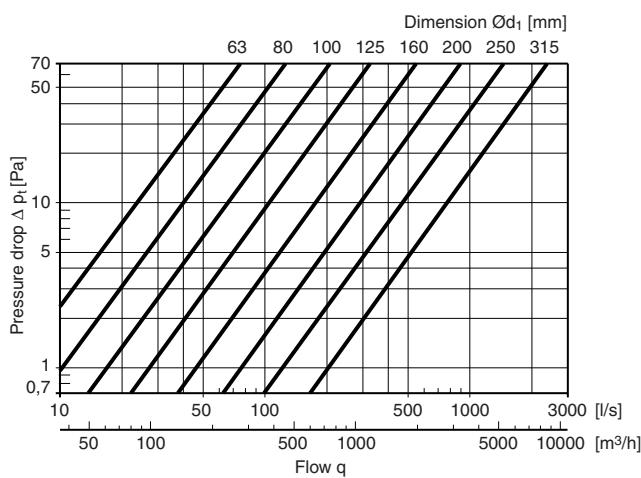
## Description

Pressed and seam welded bend.

## Ordering example

|                             |    |     |    |
|-----------------------------|----|-----|----|
| Product                     | BU | 100 | 60 |
| Dimension $\varnothing d_1$ |    |     |    |
| Angle $\alpha$              |    |     |    |

## Technical data



| $\varnothing d_1$<br>nom | I<br>mm    | m<br>kg     |
|--------------------------|------------|-------------|
| 63                       | 64         | 0,30        |
| 80                       | 58         | 0,32        |
| 100                      | 58         | 0,33        |
| 112                      | 69         | 0,37        |
| <b>125</b>               | <b>72</b>  | <b>0,33</b> |
| 140                      | 78         | 0,51        |
| 150                      | 87         | 0,58        |
| <b>160</b>               | <b>92</b>  | <b>0,65</b> |
| 180                      | 104        | 0,79        |
| <b>200</b>               | <b>115</b> | <b>0,95</b> |
| 224                      | 130        | 1,10        |
| <b>250</b>               | <b>144</b> | <b>1,30</b> |
| 280                      | 159        | 1,50        |
| 300                      | 173        | 1,60        |
| <b>315</b>               | <b>182</b> | <b>1,70</b> |



# Bend

BU 45°

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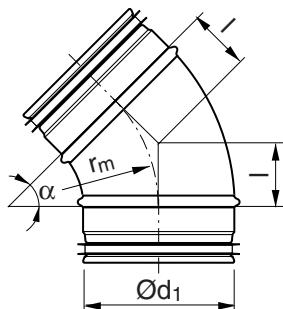
9

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## Dimensions



$$r_m \approx 1 \cdot d_1$$

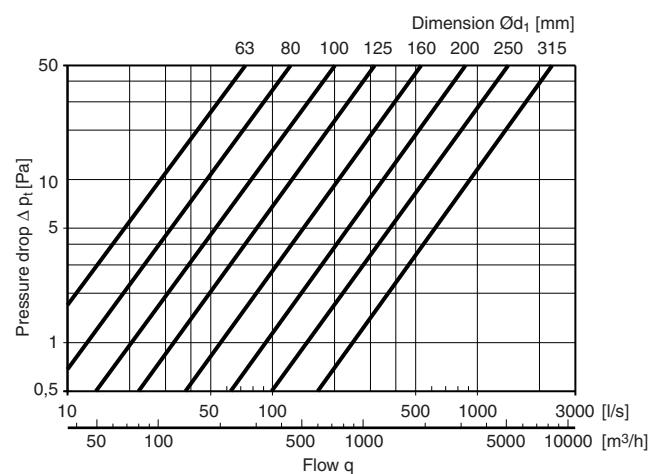
## Description

Pressed and seam welded bend.

## Ordering example

|                         |    |     |    |
|-------------------------|----|-----|----|
| Product                 | BU | 100 | 45 |
| Dimension $\text{Od}_1$ |    |     |    |
| Angle $\alpha$          |    |     |    |

## Technical data



| $\text{Od}_1$<br>nom | I<br>mm    | m<br>kg     |
|----------------------|------------|-------------|
| 63                   | 46         | 0,16        |
| 80                   | 41         | 0,17        |
| 100                  | 41         | 0,21        |
| 112                  | 81         | 0,24        |
| <b>125</b>           | <b>52</b>  | <b>0,29</b> |
| 140                  | 56         | 0,43        |
| 150                  | 62         | 0,49        |
| <b>160</b>           | <b>66</b>  | <b>0,55</b> |
| 180                  | 76         | 0,65        |
| <b>200</b>           | <b>83</b>  | <b>0,80</b> |
| 224                  | 93         | 0,95        |
| <b>250</b>           | <b>103</b> | <b>1,22</b> |
| 280                  | 95         | 1,50        |
| 300                  | 108        | 1,70        |
| <b>315</b>           | <b>130</b> | <b>1,90</b> |

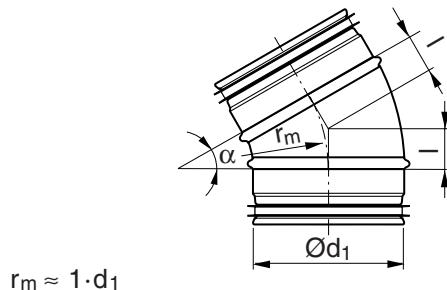


# Bend

BU 30°



## Dimensions



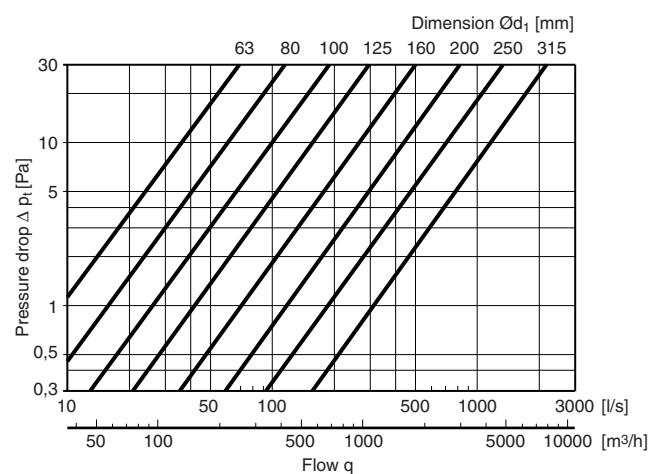
## Description

Pressed and seam welded bend.

## Ordering example

|                             |    |     |    |
|-----------------------------|----|-----|----|
| Product                     | BU | 100 | 30 |
| Dimension $\varnothing d_1$ |    |     |    |
| Angle $\alpha$              |    |     |    |

## Technical data



| $\varnothing d_1$<br>nom | I<br>mm   | m<br>kg     |
|--------------------------|-----------|-------------|
| 63                       | 29        | 0,13        |
| 80                       | 27        | 0,15        |
| 100                      | 27        | 0,18        |
| 112                      | 30        | 0,21        |
| <b>125</b>               | <b>33</b> | <b>0,20</b> |
| 140                      | 36        | 0,36        |
| 150                      | 40        | 0,40        |
| <b>160</b>               | <b>43</b> | <b>0,32</b> |
| 180                      | 48        | 0,51        |
| <b>200</b>               | <b>54</b> | <b>0,62</b> |
| 224                      | 60        | 0,83        |
| <b>250</b>               | <b>67</b> | <b>1,05</b> |
| 280                      | 74        | 1,30        |
| 300                      | 80        | 1,50        |
| <b>315</b>               | <b>84</b> | <b>1,60</b> |



# Bend

BU 15°

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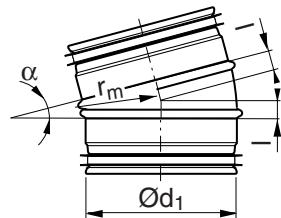
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## Dimensions



$$r_m \approx 1 \cdot d_1$$

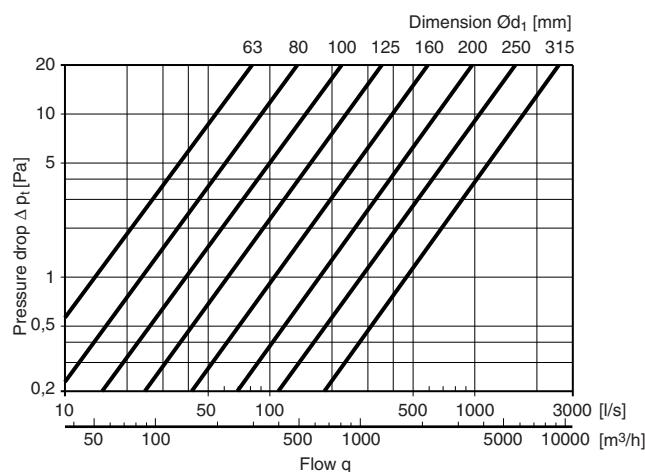
## Description

Pressed and seam welded bend.

## Ordering example

|                         |    |     |    |
|-------------------------|----|-----|----|
| Product                 | BU | 160 | 15 |
| Dimension $\text{Ø}d_1$ |    |     |    |
| Angle $\alpha$          |    |     |    |

## Technical data



| $\text{Ø}d_1$<br>nom | I<br>mm   | m<br>kg     |
|----------------------|-----------|-------------|
| 63                   | 14        | 0,09        |
| 80                   | 13        | 0,11        |
| 100                  | 13        | 0,15        |
| 112*                 | 25        | 0,29        |
| <b>125</b>           | <b>16</b> | <b>0,24</b> |
| 140*                 | 18        | 0,29        |
| 150*                 | 20        | 0,31        |
| <b>160</b>           | <b>21</b> | <b>0,33</b> |
| 180*                 | 24        | 0,37        |
| <b>200</b>           | <b>26</b> | <b>0,47</b> |
| 224*                 | 30        | 0,56        |
| <b>250*</b>          | <b>33</b> | <b>0,65</b> |
| 280*                 | 37        | 0,79        |
| 300*                 | 39        | 0,83        |
| <b>315*</b>          | <b>41</b> | <b>0,91</b> |

\* Segmented and lockseamed

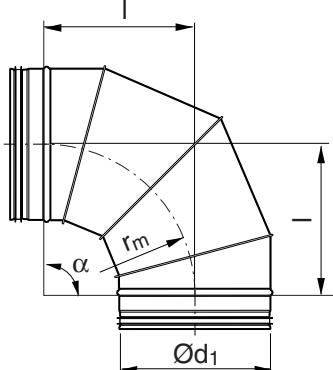


# Bend – lockseamed

BFU 90°



## Dimensions



$$r_m \approx 1 \cdot d_1$$

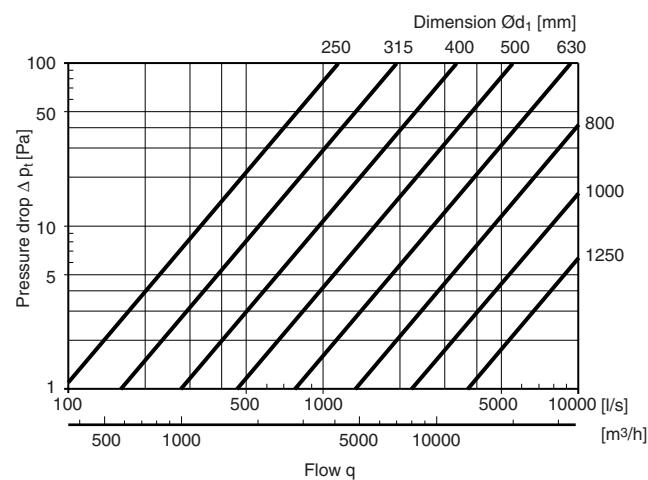
## Description

Segmented and lockseamed bend.

## Ordering example

|                          |     |     |    |
|--------------------------|-----|-----|----|
| Product                  | BFU | 315 | 90 |
| Dimension $\text{O}_d_1$ |     |     |    |
| Angle $\alpha$           |     |     |    |

## Technical data



| $\text{O}_d_1$<br>nom | I<br>mm     | m<br>kg     |
|-----------------------|-------------|-------------|
| 250                   | 250         | 2,20        |
| 280                   | 280         | 2,50        |
| 300                   | 300         | 2,70        |
| <b>315</b>            | <b>315</b>  | <b>3,00</b> |
| 355                   | 355         | 3,75        |
| <b>400</b>            | <b>400</b>  | <b>5,64</b> |
| 450                   | 450         | 7,00        |
| <b>500</b>            | <b>500</b>  | <b>8,20</b> |
| 560                   | 560         | 10,1        |
| 600                   | 600         | 11,7        |
| <b>630</b>            | <b>630</b>  | <b>12,9</b> |
| 710                   | 710         | 19,8        |
| <b>800</b>            | <b>800</b>  | <b>26,0</b> |
| 900                   | 900         | 33,6        |
| <b>1000</b>           | <b>1000</b> | <b>42,0</b> |
| 1120                  | 1120        | 52,6        |
| <b>1250</b>           | <b>1250</b> | <b>64,0</b> |



# Bend – lockseamed

BFU 60°

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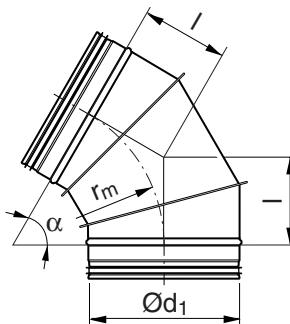
9

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11



## Dimensions



$$r_m \approx 1 \cdot d_1$$

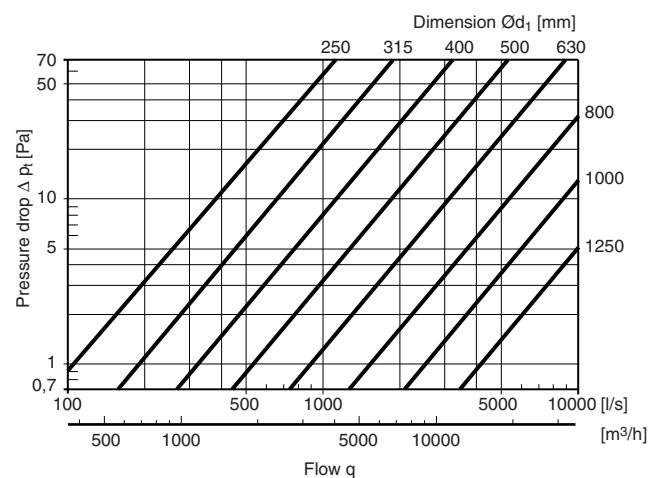
## Description

Segmented and lockseamed bend.

## Ordering example

|                             |     |     |    |
|-----------------------------|-----|-----|----|
| Product                     | BFU | 315 | 60 |
| Dimension $\varnothing d_1$ |     |     |    |
| Angle $\alpha$              |     |     |    |

## Technical data



| $\varnothing d_1$<br>nom | I<br>mm    | m<br>kg     |
|--------------------------|------------|-------------|
| 250                      | 144        | 1,48        |
| 280                      | 162        | 1,80        |
| 300                      | 173        | 2,00        |
| <b>315</b>               | <b>182</b> | <b>2,20</b> |
| 355                      | 205        | 2,80        |
| 400                      | 231        | 3,47        |
| 450                      | 260        | 4,70        |
| <b>500</b>               | <b>289</b> | <b>6,00</b> |
| 560                      | 323        | 7,40        |
| 600                      | 346        | 8,60        |
| <b>630</b>               | <b>364</b> | <b>9,20</b> |
| 710                      | 410        | 11,3        |
| <b>800</b>               | <b>462</b> | <b>14,8</b> |
| 900                      | 520        | 19,3        |
| <b>1000</b>              | <b>577</b> | <b>24,2</b> |
| 1120                     | 647        | 30,1        |
| <b>1250</b>              | <b>722</b> | <b>36,6</b> |

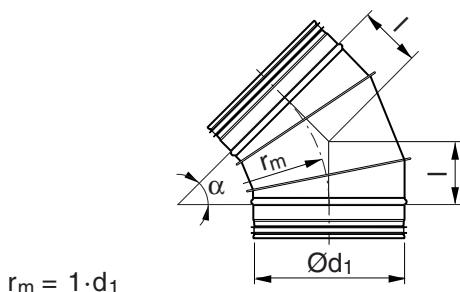


# Bend – lockseamed

BFU 45°



## Dimensions



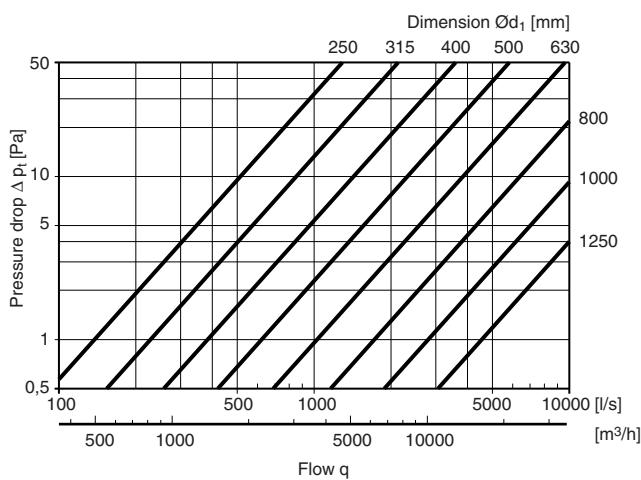
## Description

Segmented and lockseamed bend.

## Ordering example

|                         |     |     |    |
|-------------------------|-----|-----|----|
| Product                 | BFU | 250 | 45 |
| Dimension $\text{Ø}d_1$ |     |     |    |
| Angle $\alpha$          |     |     |    |

## Technical data



| $\text{Ø}d_1$<br>nom | I<br>mm | m<br>kg |
|----------------------|---------|---------|
| 250                  | 104     | 1,26    |
| 280                  | 116     | 1,54    |
| 300                  | 124     | 1,77    |
| 315                  | 130     | 1,90    |
| 355                  | 147     | 2,26    |
| 400                  | 166     | 2,96    |
| 450                  | 186     | 4,00    |
| 500                  | 207     | 4,90    |
| 560                  | 232     | 6,10    |
| 600                  | 249     | 6,80    |
| 630                  | 261     | 7,49    |
| 710                  | 294     | 11,3    |
| 800                  | 331     | 15,0    |
| 900                  | 373     | 16,8    |
| 1000                 | 414     | 19,5    |
| 1120                 | 464     | 28,5    |
| 1250                 | 518     | 38,0    |



# Bend – lockseamed

BFU 30°

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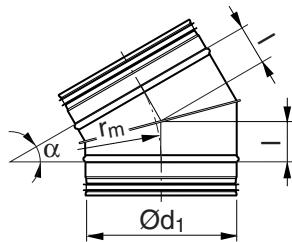
9

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## Dimensions



$$r_m = 1 \cdot d_1$$

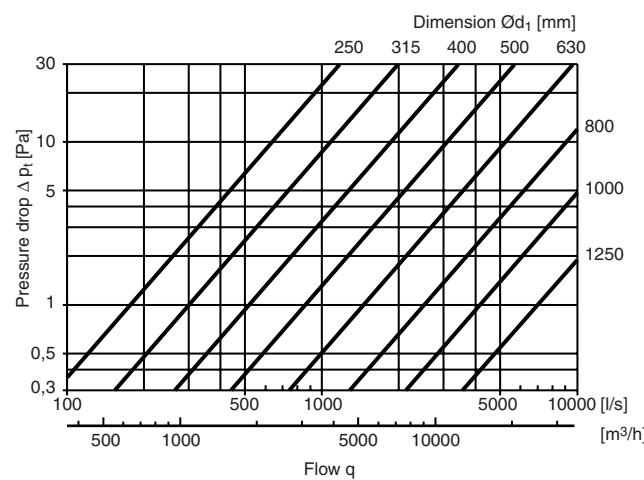
## Description

Segmented and lockseamed bend.

## Ordering example

|                         |     |     |    |
|-------------------------|-----|-----|----|
| Product                 | BFU | 315 | 30 |
| Dimension $\text{Ø}d_1$ |     |     |    |
| Angle $\alpha$          |     |     |    |

## Technical data



| $\text{Ø}d_1$<br>nom | I<br>mm    | m<br>kg     |
|----------------------|------------|-------------|
| 250                  | 67         | 1,00        |
| 280                  | 75         | 1,10        |
| 300                  | 80         | 1,30        |
| <b>315</b>           | <b>84</b>  | <b>1,42</b> |
| 355                  | 95         | 1,70        |
| <b>400</b>           | <b>107</b> | <b>2,27</b> |
| 450                  | 121        | 3,00        |
| <b>500</b>           | <b>134</b> | <b>3,70</b> |
| 560                  | 150        | 4,60        |
| 600                  | 161        | 5,10        |
| <b>630</b>           | <b>169</b> | <b>5,60</b> |
| 710                  | 190        | 8,60        |
| <b>800</b>           | <b>214</b> | <b>11,0</b> |
| 900                  | 241        | 10,9        |
| <b>1000</b>          | <b>268</b> | <b>13,4</b> |
| 1120                 | 300        | 16,1        |
| <b>1250</b>          | <b>335</b> | <b>19,0</b> |

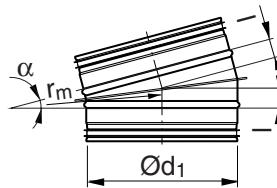


# Bend – lockseamed

BFU 15°



## Dimensions



$$r_m = 1 \cdot d_1$$

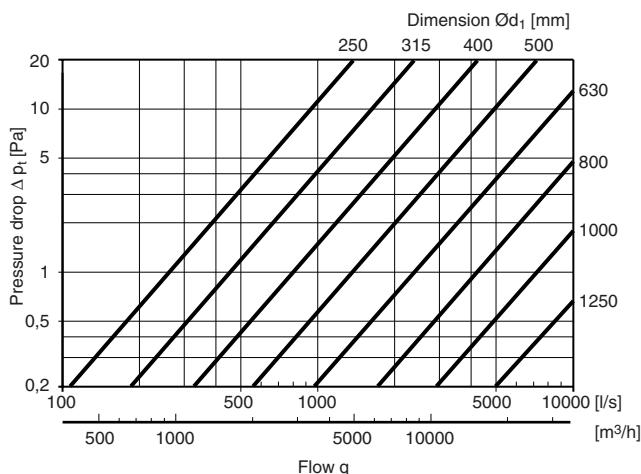
## Description

Segmented and lockseamed bend.

## Ordering example

|                           |     |     |    |
|---------------------------|-----|-----|----|
| Product                   | BFU | 400 | 15 |
| Dimension Ød <sub>1</sub> |     |     |    |
| Angle α                   |     |     |    |

## Technical data



| Ød <sub>1</sub><br>nom | I<br>mm    | m<br>kg     |
|------------------------|------------|-------------|
| 250                    | 33         | 0,65        |
| 280                    | 37         | 0,77        |
| 300                    | 39         | 0,85        |
| <b>315</b>             | <b>41</b>  | <b>0,91</b> |
| 355                    | 47         | 1,41        |
| <b>400</b>             | <b>53</b>  | <b>1,70</b> |
| 450                    | 59         | 2,20        |
| <b>500</b>             | <b>66</b>  | <b>2,65</b> |
| 560                    | 74         | 3,30        |
| 600                    | 79         | 3,70        |
| <b>630</b>             | <b>83</b>  | <b>4,00</b> |
| 710                    | 93         | 5,80        |
| <b>800</b>             | <b>105</b> | <b>7,00</b> |
| 900                    | 118        | 8,50        |
| <b>1000</b>            | <b>132</b> | <b>10,4</b> |
| 1120                   | 147        | 12,5        |
| <b>1250</b>            | <b>165</b> | <b>14,5</b> |

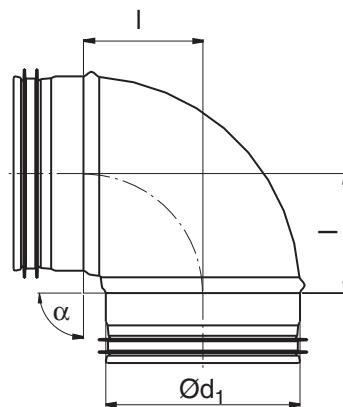


# Bend – short

BKU 90°



## Dimensions



## Description

Pressed and seam welded bend with short installation length.

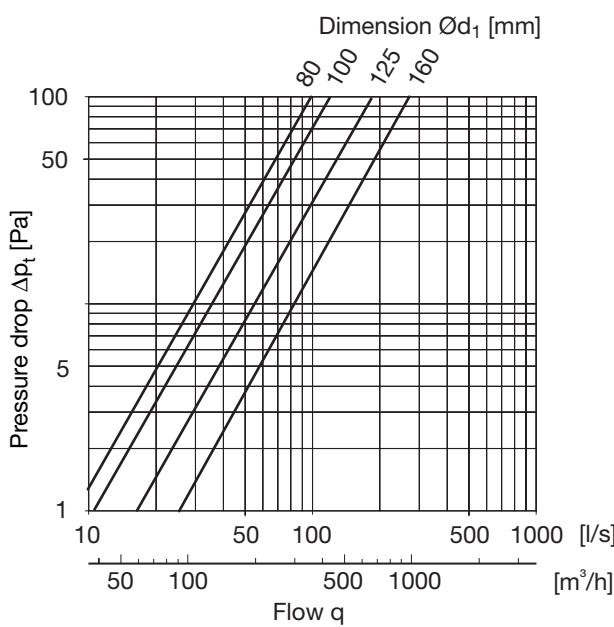
## Ordering example

|                         |     |     |    |
|-------------------------|-----|-----|----|
| Product                 | BKU | 100 | 90 |
| Dimension $\text{Od}_1$ |     |     |    |
| Angle $\alpha$          |     |     |    |

| $\text{Od}_1$<br>nom | I<br>mm | m<br>kg |
|----------------------|---------|---------|
| 80                   | 80      | 0,14    |
| 100                  | 62      | 0,22    |
| 125                  | 79      | 0,43    |
| 160*                 | 94      | 0,64    |

\* With a seam in the middle

## Technical data



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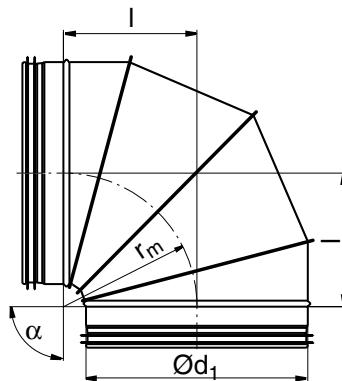


# Bend – short, lockseamed

BKFU 90°



## Dimensions



## Description

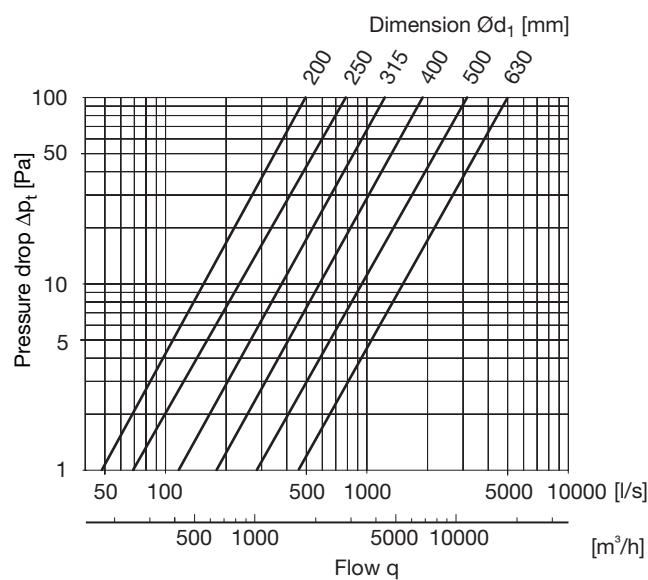
Segmented and lockseamed bend with short installation length.

## Ordering example

|                         |      |     |    |
|-------------------------|------|-----|----|
| Product                 | BKFU | 315 | 90 |
| Dimension $\text{Ø}d_1$ |      |     |    |
| Angle $\alpha$          |      |     |    |

| $\text{Ø}d_1$<br>nom | I<br>mm | m<br>kg |
|----------------------|---------|---------|
| 200                  | 158     | 1,18    |
| 250                  | 180     | 1,64    |
| 315                  | 220     | 2,49    |
| 400                  | 255     | 3,61    |
| 500                  | 315     | 6,30    |
| 630                  | 397     | 9,45    |

## Technical data



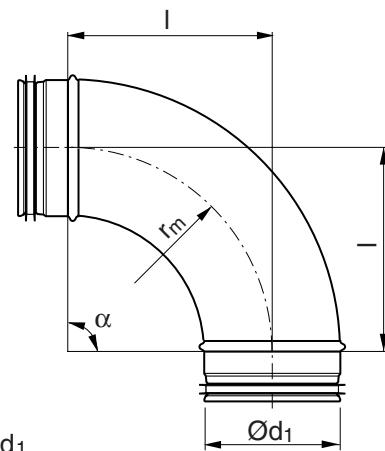


# Bend – long

BSU 90°



## Dimensions



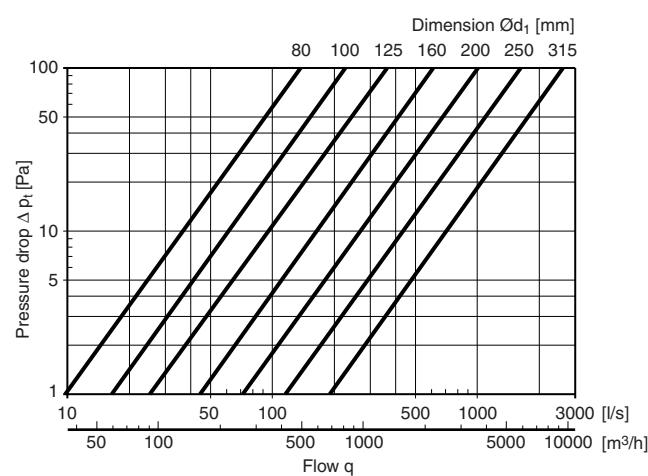
## Description

Pressed and seam welded bend.

## Ordering example

|                           |     |     |    |
|---------------------------|-----|-----|----|
| Product                   | BSU | 160 | 90 |
| Dimension Ød <sub>1</sub> |     |     |    |
| Angle α                   |     |     |    |

## Technical data



| Ød <sub>1</sub><br>nom | l<br>mm    | m<br>kg     |
|------------------------|------------|-------------|
| 80                     | 120        | 0,35        |
| 100                    | 150        | 0,50        |
| 125                    | 190        | 0,79        |
| 150                    | 225        | 0,95        |
| <b>160</b>             | <b>240</b> | <b>1,14</b> |
| 180                    | 270        | 1,50        |
| 200                    | 300        | 1,80        |
| 224                    | 340        | 2,40        |
| <b>250</b>             | <b>375</b> | <b>3,20</b> |
| 300                    | 450        | 6,20        |
| <b>315</b>             | <b>450</b> | <b>6,72</b> |

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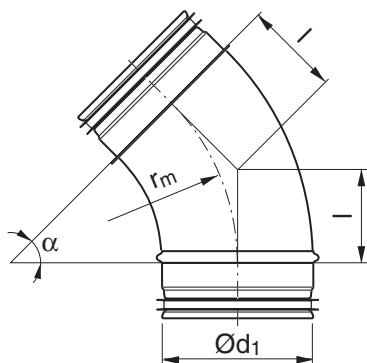


# Bend – long

BSU 45°



## Dimensions



$$r_m \approx 1,5 \cdot d_1$$

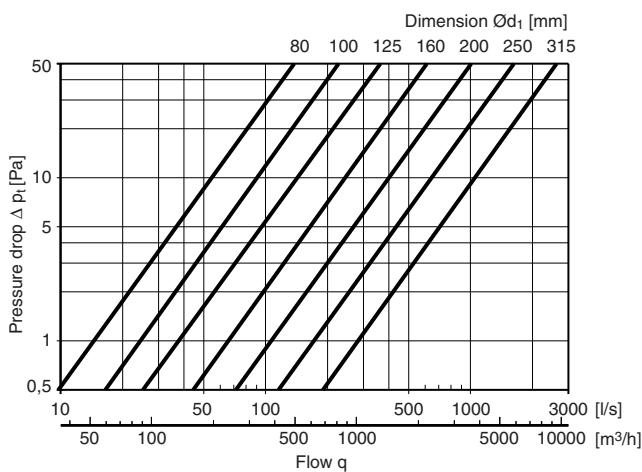
## Description

Pressed and seam welded bend.

## Ordering example

|                         |     |     |    |
|-------------------------|-----|-----|----|
| Product                 | BSU | 125 | 45 |
| Dimension $\text{O}d_1$ |     |     |    |
| Angle $\alpha$          |     |     |    |

## Technical data



| $\text{O}d_1$<br>nom | I<br>mm | m<br>kg |
|----------------------|---------|---------|
| 80                   | 50      | 0,18    |
| 100                  | 62      | 0,26    |
| 125                  | 79      | 0,41    |
| 150                  | 93      | 0,49    |
| 160                  | 100     | 0,59    |
| 180                  | 112     | 0,77    |
| 200                  | 124     | 0,93    |
| 224                  | 141     | 1,23    |
| 250                  | 155     | 1,64    |
| 280                  | 174     | 1,97    |
| 300                  | 186     | 3,16    |
| 315                  | 186     | 3,42    |

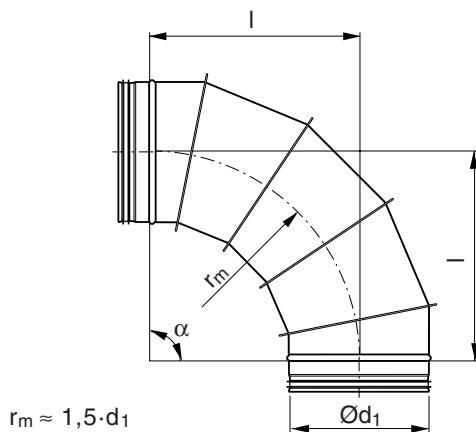


# Bend – long, lockseamed

BSFU 90°



## Dimensions



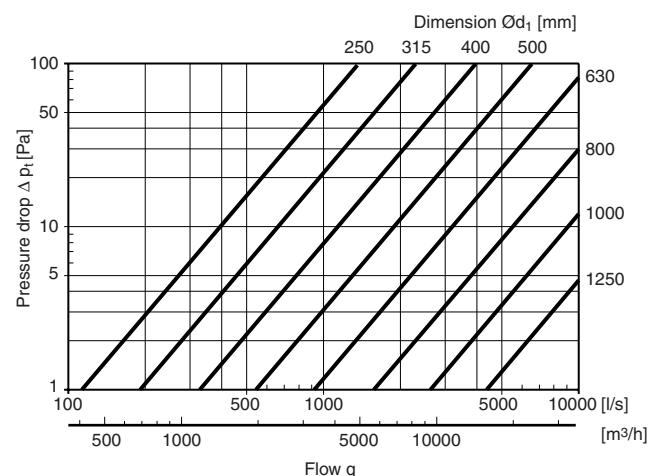
## Description

Segmented and lockseamed bend.

## Ordering example

|                          |      |     |    |
|--------------------------|------|-----|----|
| Product                  | BSFU | 315 | 90 |
| Dimension $\text{O}_d_1$ |      |     |    |
| Angle $\alpha$           |      |     |    |

## Technical data



| $\text{O}_d_1$<br>nom | I<br>mm     | m<br>kg     |
|-----------------------|-------------|-------------|
| 250                   | 375         | 2,70        |
| 280                   | 420         | 3,33        |
| 300                   | 450         | 3,60        |
| <b>315</b>            | <b>473</b>  | <b>4,20</b> |
| 355                   | 533         | 4,60        |
| <b>400</b>            | <b>600</b>  | <b>8,30</b> |
| 450                   | 675         | 10,2        |
| <b>500</b>            | <b>750</b>  | <b>11,9</b> |
| 560                   | 840         | 15,2        |
| 600                   | 900         | 17,0        |
| <b>630</b>            | <b>945</b>  | <b>18,8</b> |
| 710                   | 1065        | 22,7        |
| <b>800</b>            | <b>1200</b> | <b>26,9</b> |
| 900                   | 1350        | 39,3        |
| <b>1000</b>           | <b>1500</b> | <b>47,7</b> |
| 1120                  | 1680        | 63,0        |
| <b>1250</b>           | <b>1875</b> | <b>78,5</b> |

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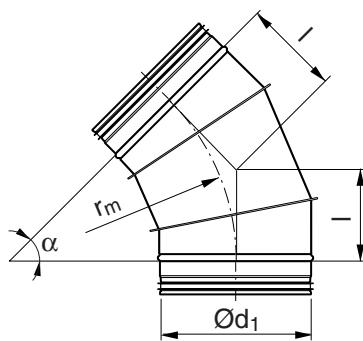


# Bend – long, lockseamed

BSFU 45°



## Dimensions



$$r_m = 1,5 \cdot d_1$$

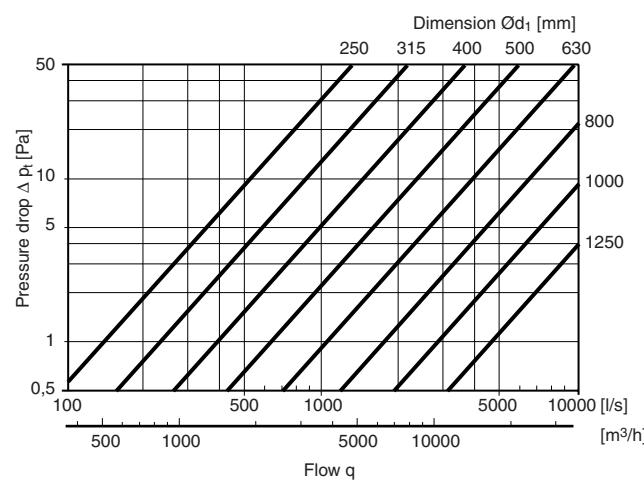
## Description

Segmented and lockseamed bend.

## Ordering example

|                         |      |     |    |
|-------------------------|------|-----|----|
| Product                 | BSFU | 315 | 45 |
| Dimension $\text{Od}_1$ |      |     |    |
| Angle $\alpha$          |      |     |    |

## Technical data



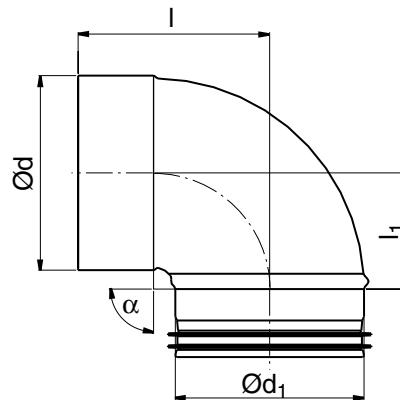
| $\text{Od}_1$<br>nom | I<br>mm    | m<br>kg     |
|----------------------|------------|-------------|
| 250                  | 155        | 1,60        |
| 280                  | 174        | 1,81        |
| 300                  | 186        | 2,00        |
| <b>315</b>           | <b>196</b> | <b>2,26</b> |
| 355                  | 221        | 2,60        |
| 400                  | 249        | 4,50        |
| 450                  | 280        | 5,53        |
| <b>500</b>           | <b>311</b> | <b>6,60</b> |
| 560                  | 348        | 7,95        |
| 600                  | 373        | 8,80        |
| <b>630</b>           | <b>391</b> | <b>9,50</b> |
| 710                  | 441        | 11,1        |
| <b>800</b>           | <b>497</b> | <b>13,1</b> |
| 900                  | 559        | 18,9        |
| <b>1000</b>          | <b>621</b> | <b>23,9</b> |
| 1120                 | 696        | 29,6        |
| <b>1250</b>          | <b>777</b> | <b>36,1</b> |



# Bend – Casting-in programme BKMU 90°



## Dimensions



## Description

Pressed and seam welded bend with short installation length and female end.

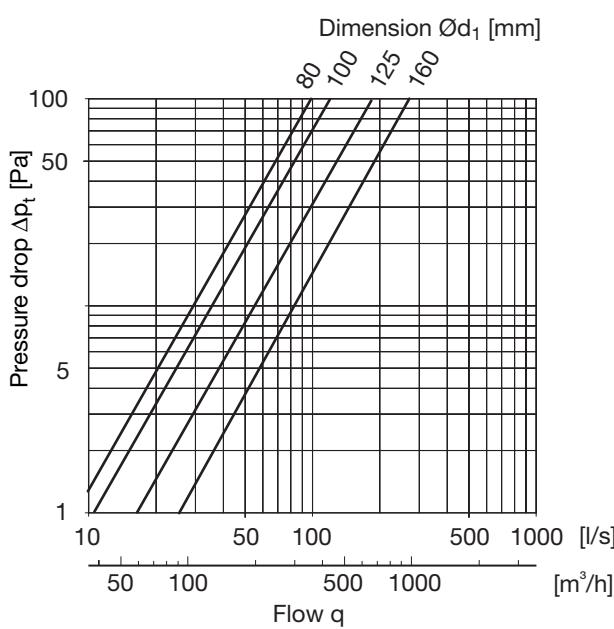
## Ordering example

|                           |      |     |    |
|---------------------------|------|-----|----|
| Product                   | BKMU | 100 | 90 |
| Dimension Ød <sub>1</sub> |      |     |    |
| Angle α                   |      |     |    |

| Ød <sub>1</sub><br>nom | Ød<br>mm | I<br>mm | I <sub>1</sub><br>mm | m<br>kg |
|------------------------|----------|---------|----------------------|---------|
| 80                     | 80       | 123     | 80                   | 0,13    |
| 100                    | 100      | 105     | 62                   | 0,29    |
| 125                    | 125      | 120     | 79                   | 0,42    |
| 160*                   | 160      | 136     | 94                   | 0,63    |

\* With a seam in the middle

## Technical data



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# Cleaning bend

# BKCU 90°, BFKCU 90°



## Description

Pressed and seam welded bend with separate branch for cleaning.

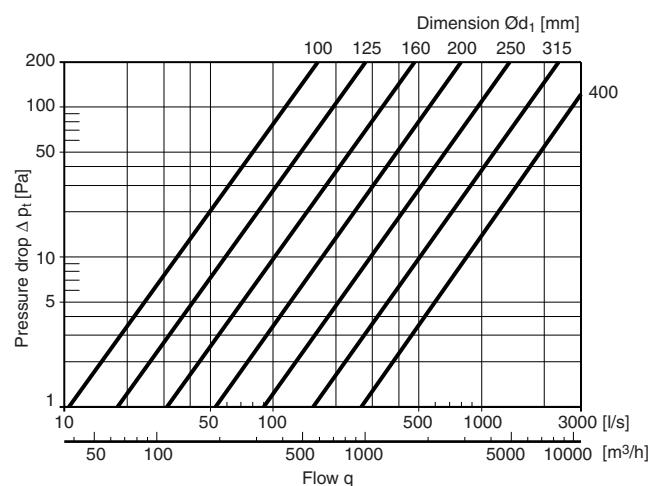
The stud is fitted with a Safe take-off and fits an inspection cap.

The design gives a lower pressure drop than the equivalent design using a T-piece. The stud can also be used as the connection for an SR duct.

## Ordering example

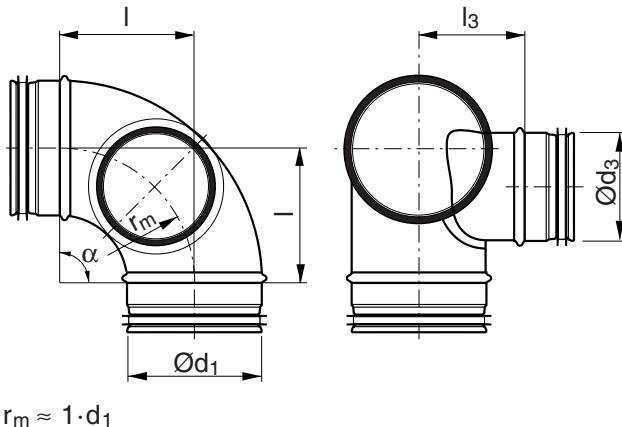
|                           |      |     |     |
|---------------------------|------|-----|-----|
|                           | BKCU | 200 | 160 |
| Product                   |      |     |     |
| Dimension Ød <sub>1</sub> |      |     |     |
| Dimension Ød <sub>3</sub> |      |     |     |

## Technical data



The graph applies to a cleaning bend with cleaning cap.  
Pressure drop is independent of take-off dimension  
(Ød<sub>3</sub> ≤ Ød<sub>1</sub>).

## Dimensions



| Ød <sub>1</sub><br>nom | Ød <sub>3</sub><br>nom | I<br>mm | l <sub>3</sub><br>mm | m<br>kg |
|------------------------|------------------------|---------|----------------------|---------|
| 100                    | 100                    | 100     | 75                   | 0,41    |
| 112                    | 100                    | 120     | 85                   | 0,50    |
| 125                    | 100                    | 125     | 90                   | 0,59    |
| 125                    | 125                    | 125     | 90                   | 0,66    |
| 140                    | 125                    | 135     | 100                  | 0,75    |
| 150                    | 125                    | 150     | 105                  | 0,86    |
| 160                    | 125                    | 160     | 110                  | 0,97    |
| 160                    | 160                    | 160     | 110                  | 0,97    |
| 180                    | 160                    | 180     | 120                  | 1,18    |
| 200                    | 160                    | 200     | 130                  | 1,40    |
| 200                    | 200                    | 200     | 130                  | 1,44    |
| 224                    | 200                    | 225     | 140                  | 1,78    |
| 250                    | 200                    | 250     | 155                  | 2,19    |
| 250                    | 250                    | 250     | 150                  | 2,28    |
| 280                    | 250                    | 280     | 165                  | 2,65    |
| 300                    | 250                    | 300     | 175                  | 2,95    |
| 315                    | 250                    | 315     | 180                  | 3,30    |
| 315                    | 315                    | 315     | 180                  | 3,30    |
| 355*                   | 315                    | 350     | 200                  | 5,50    |
| 400*                   | 315                    | 400     | 220                  | 7,53    |
| 400*                   | 400                    | 400     | 220                  | 7,25    |

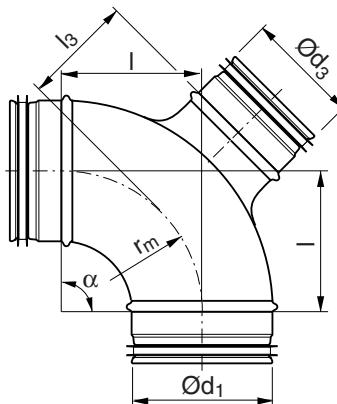
\* Segmented and lockseamed. Designated BFKCU 90°



# Cleaning bend BBKCU 90°, BFBKCU 90°



## Dimensions



## Description

Pressed and seam welded bend with separate branch for cleaning.

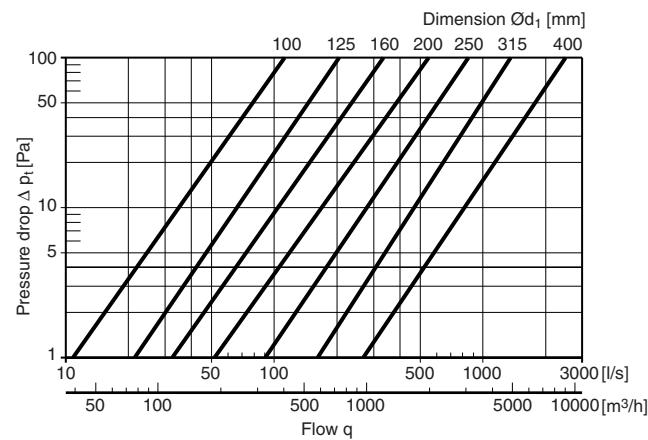
The stud is fitted with a Safe take-off and fits an inspection cap.

## Ordering example

BBKCU 200 160

|                           |       |     |     |
|---------------------------|-------|-----|-----|
| Product                   | BBKCU | 200 | 160 |
| Dimension Ød <sub>1</sub> |       |     |     |
| Dimension Ød <sub>3</sub> |       |     |     |

## Technical data



The graph applies to a cleaning bend with cleaning cap EPFH and with the same dimension of take-off and main duct ( $\text{Ø}d_3 = \text{Ø}d_1$ ).

The pressure drop is about 30% lower for cleaning cap KCU and  $\text{Ø}d_3 = \text{Ø}d_1$ .

The pressure drop is about 30% lower for cleaning cap EPFH and one step smaller take-off dimension ( $\text{Ø}d_3 < \text{Ø}d_1$ ).

The pressure drop is about 50% lower for cleaning cap KCU and one step smaller take-off dimension ( $\text{Ø}d_3 < \text{Ø}d_1$ ).

| $\text{Ø}d_1$<br>nom | $\text{Ø}d_3$<br>nom | I<br>mm | $l_3$<br>mm | m<br>kg |
|----------------------|----------------------|---------|-------------|---------|
| 100                  | 100                  | 100     | 75          | 0,42    |
| 112                  | 100                  | 120     | 78          | 0,51    |
| 125                  | 100                  | 125     | 78          | 0,58    |
| 125                  | 125                  | 125     | 83          | 0,58    |
| 140                  | 125                  | 135     | 90          | 0,75    |
| 150                  | 125                  | 150     | 90          | 0,85    |
| 160                  | 125                  | 160     | 100         | 0,97    |
| 160                  | 160                  | 160     | 105         | 0,96    |
| 180                  | 160                  | 180     | 108         | 1,20    |
| 200                  | 160                  | 200     | 125         | 1,40    |
| 200                  | 200                  | 200     | 125         | 1,45    |
| 224                  | 200                  | 225     | 128         | 1,90    |
| 250                  | 200                  | 250     | 150         | 2,30    |
| 250                  | 250                  | 250     | 150         | 2,40    |
| 280                  | 250                  | 280     | 148         | 2,75    |
| 300                  | 250                  | 300     | 148         | 3,10    |
| 315                  | 250                  | 315     | 183         | 3,45    |
| 315                  | 315                  | 315     | 183         | 3,45    |
| 355*                 | 315                  | 350     | 180         | 5,60    |
| 400*                 | 315                  | 400     | 225         | 7,30    |
| 400*                 | 400                  | 400     | 225         | 7,00    |

\* Segmented and lockseamed. Designated BFBKCU 90°

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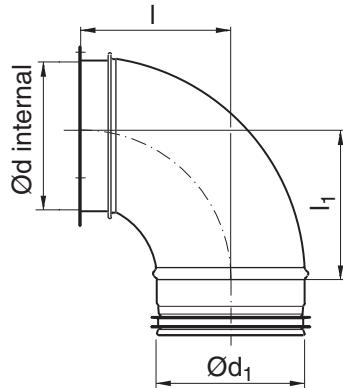


# Bend – Casting-in programme

BU



## Dimensions



### Description

Short installation length with female end and nail flange with pre-punched holes.

### Ordering example

|                           |    |     |    |      |
|---------------------------|----|-----|----|------|
|                           | BU | 100 | 90 | GJUT |
| Product                   |    |     |    |      |
| Dimension Ød <sub>1</sub> |    |     |    |      |
| Angle                     |    |     |    |      |
| Specification             |    |     |    |      |

| Ød <sub>1</sub><br>nom | Ød<br>mm | I<br>mm | l <sub>1</sub><br>mm | m<br>kg |
|------------------------|----------|---------|----------------------|---------|
| 80                     | 80       | 90      | 80                   | 0,24    |
| 100                    | 100      | 100     | 100                  | 0,32    |
| 125                    | 125      | 120     | 125                  | 0,42    |
| 160                    | 160      | 150     | 160                  | 0,57    |

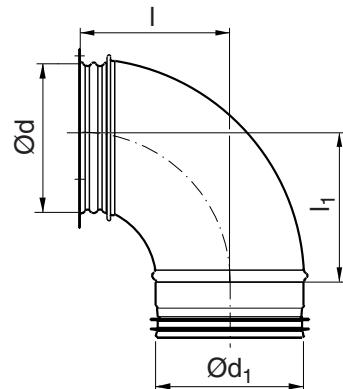


# Bend – Casting-in programme

BSIU



## Dimensions



### Description

Short installation lenght with air valve socket and nail flange with pre-punched holes.

Fits air valve KGEB etc.

### Ordering example

|                         |      |     |    |      |
|-------------------------|------|-----|----|------|
| Product                 | BSIU | 100 | 90 | GJUT |
| Dimension $\text{Ød}_1$ |      |     |    |      |
| Angle                   |      |     |    |      |
| Specification           |      |     |    |      |

| $\text{Ød}_1$<br>nom | $\text{Ød}$<br>nom | $l$<br>mm | $l_1$<br>mm | m<br>kg |
|----------------------|--------------------|-----------|-------------|---------|
| 100                  | 92                 | 100       | 92          | 0,30    |
| 125                  | 117                | 125       | 122         | 0,41    |
| 160                  | 152                | 160       | 157         | 0,51    |

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# Reducer

RCU



## Description

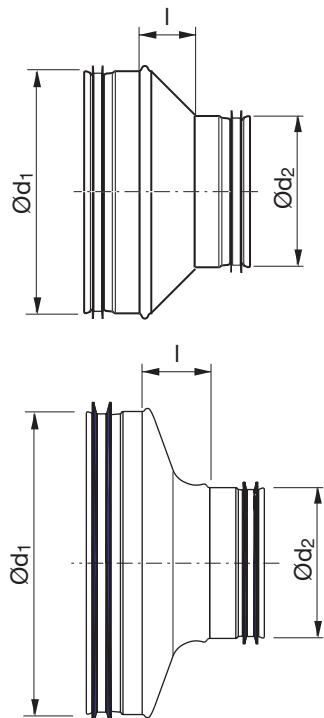
Pressed, concentric reducer to meet demands for short installation length with low pressure drop and low internal noise generation.

Pressure drop, see graphs on pages 65–66.

## Ordering example

|                           |     |     |     |
|---------------------------|-----|-----|-----|
| Product                   | RCU | 200 | 100 |
| Dimension Ød <sub>1</sub> |     |     |     |
| Dimension Ød <sub>2</sub> |     |     |     |

## Dimensions



## Dimensions

| Ød <sub>1</sub><br>nom | Ød <sub>2</sub><br>nom | I<br>mm | m<br>kg |
|------------------------|------------------------|---------|---------|
| 80                     | 63                     | 18      | 0,12    |
| 100                    | 63                     | 27      | 0,16    |
| 100*                   | 80                     | 26      | 0,18    |
| 125*                   | 80                     | 38      | 0,16    |
| 125*                   | 100                    | 27      | 0,21    |
| 150                    | 100                    | 36      | 0,17    |
| 150*                   | 125                    | 31      | 0,15    |
| 160                    | 80                     | 52      | 0,30    |
| 160*                   | 100                    | 46      | 0,17    |
| 160*                   | 125                    | 35      | 0,22    |
| 160                    | 150                    | 20      | 0,25    |
| 180                    | 100                    | 55      | 0,24    |
| 180                    | 125                    | 40      | 0,37    |
| 180                    | 150                    | 27      | 0,29    |
| 180                    | 160                    | 20      | 0,26    |
| 200*                   | 100                    | 46      | 0,22    |
| 200*                   | 125                    | 55      | 0,30    |
| 200                    | 150                    | 37      | 0,37    |
| 200*                   | 160                    | 39      | 0,29    |
| 200                    | 180                    | 23      | 0,34    |
| 224                    | 150                    | 48      | 0,53    |
| 224                    | 160                    | 44      | 0,53    |
| 224                    | 180                    | 32      | 0,47    |
| 224                    | 200                    | 24      | 0,45    |
| 250                    | 125                    | 70      | 0,62    |
| 250                    | 150                    | 62      | 0,60    |
| 250*                   | 160                    | 60      | 0,46    |
| 250                    | 180                    | 47      | 0,59    |
| 250*                   | 200                    | 42      | 0,46    |
| 250                    | 224                    | 29      | 0,57    |
| 300                    | 200                    | 59      | 0,73    |
| 300                    | 250                    | 34      | 0,71    |
| 315                    | 160                    | 91      | 0,86    |
| 315                    | 200                    | 74      | 0,83    |
| 315*                   | 250                    | 50      | 0,65    |
| 355                    | 250                    | 69      | 1,08    |
| 355                    | 315                    | 33      | 0,99    |
| 400                    | 200                    | 118     | 1,37    |
| 400                    | 250                    | 94      | 1,38    |
| 400                    | 315                    | 54      | 1,29    |
| 500*                   | 250                    | 128     | 2,30    |
| 500                    | 315                    | 95      | 1,90    |
| 500                    | 400                    | 68      | 1,76    |
| 630**                  | 315                    | 160     | 3,37    |
| 630**                  | 400                    | 118     | 3,17    |
| 630**                  | 500                    | 68      | 2,89    |

\* With stream-lined transition

\*\* Hand made



# Reducer

RCFU



## Description

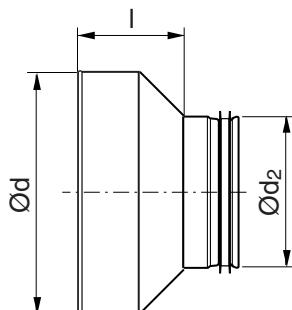
Pressed, concentric reducer with female coupling, with a 45° angle to meet demands for short installation length with low pressure drop and low internal noise generation. Ød fits outside another fitting.

Pressure drop, see graphs on pages 65–66.

## Ordering example

|                           |      |     |     |
|---------------------------|------|-----|-----|
| Product                   | RCFU | 200 | 100 |
| Dimension Ød              |      |     |     |
| Dimension Ød <sub>2</sub> |      |     |     |

## Dimensions



## Dimensions

| Ød<br>nom         | Ød <sub>2</sub><br>nom | I<br>mm | m<br>kg |
|-------------------|------------------------|---------|---------|
| 80                | 63                     | 57      | 0,11    |
| 100               | 63                     | 66      | 0,14    |
| 100*              | 80                     | 58      | 0,15    |
| 125* <sup>1</sup> | 80                     | 73      | 0,16    |
| 125* <sup>1</sup> | 100                    | 64      | 0,14    |
| 150               | 100                    | 78      | 0,16    |
| 150               | 125                    | 68      | 0,17    |
| 160*              | 80                     | 92      | 0,24    |
| 160*              | 100                    | 80      | 0,22    |
| 160*              | 125                    | 67      | 0,26    |
| 160*              | 150                    | 57      | 0,25    |
| 180               | 100                    | 98      | 0,24    |
| 180               | 125                    | 85      | 0,31    |
| 180               | 150                    | 68      | 0,24    |
| 180               | 160                    | 66      | 0,27    |
| 200*              | 100                    | 103     | 0,38    |
| 200*              | 125                    | 90      | 0,37    |
| 200*              | 150                    | 75      | 0,34    |
| 200*              | 160                    | 70      | 0,34    |
| 200*              | 180                    | 63      | 0,32    |
| 224               | 150                    | 92      | 0,45    |
| 224               | 160                    | 87      | 0,49    |
| 224               | 180                    | 76      | 0,46    |
| 224               | 200                    | 66      | 0,45    |
| 250*              | 125                    | 133     | 0,57    |
| 250*              | 150                    | 122     | 0,56    |
| 250*              | 160                    | 117     | 0,56    |
| 250*              | 180                    | 107     | 0,55    |
| 250*              | 200                    | 94      | 0,54    |
| 250*              | 224                    | 89      | 0,53    |
| 300               | 200                    | 119     | 0,68    |
| 300               | 250                    | 94      | 0,66    |
| 315*              | 160                    | 153     | 0,82    |
| 315*              | 200                    | 134     | 0,77    |
| 315*              | 250                    | 108     | 0,75    |
| 355               | 250                    | 136     | 1,04    |
| 355               | 315                    | 97      | 0,89    |
| 400*              | 200                    | 196     | 1,31    |
| 400*              | 250                    | 174     | 1,37    |
| 400*              | 315                    | 133     | 1,20    |
| 500**             | 250                    | 208     | 2,12    |
| 500**             | 315                    | 185     | 2,09    |
| 500**             | 400                    | 150     | 1,95    |
| 630**             | 315                    | 240     | 2,76    |
| 630**             | 400                    | 198     | 2,72    |
| 630**             | 500                    | 148     | 2,69    |

\* With turned-over edge

\*\* Hand made

<sup>1</sup> With stream-lined transition

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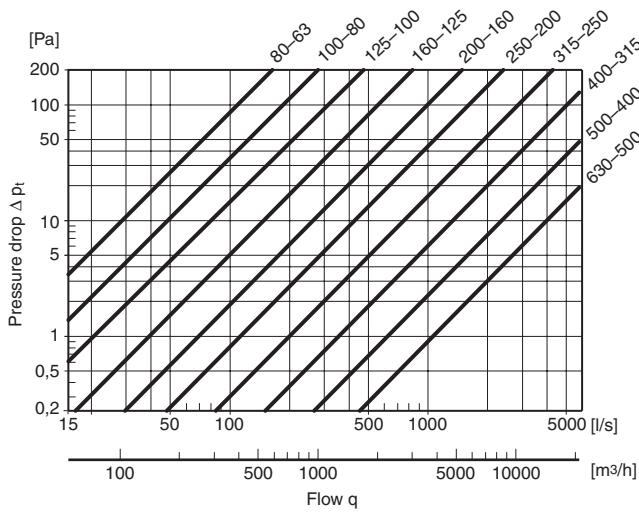
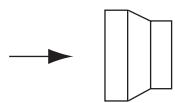


# Reducers

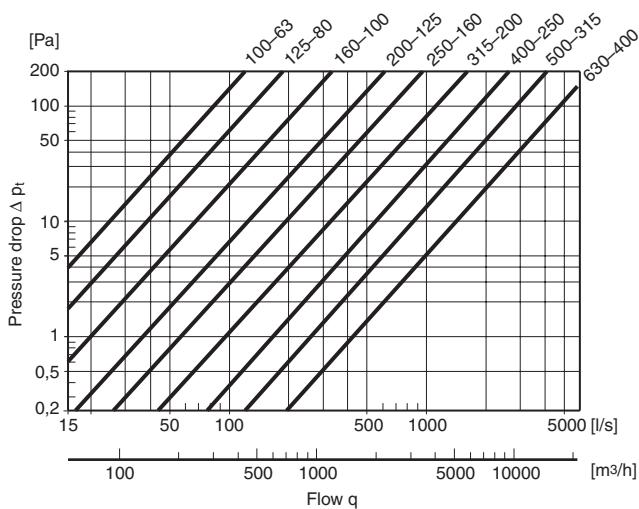
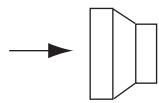
RCU, RCFU

## Technical data

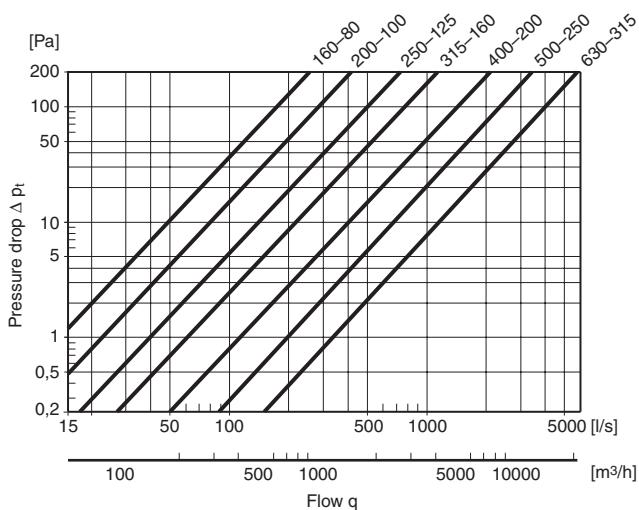
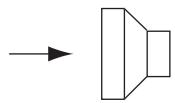
### RCU, RCFU 1 step reduction



### RCU, RCFU 2 steps reduction



### RCU, RCFU 3 steps reduction





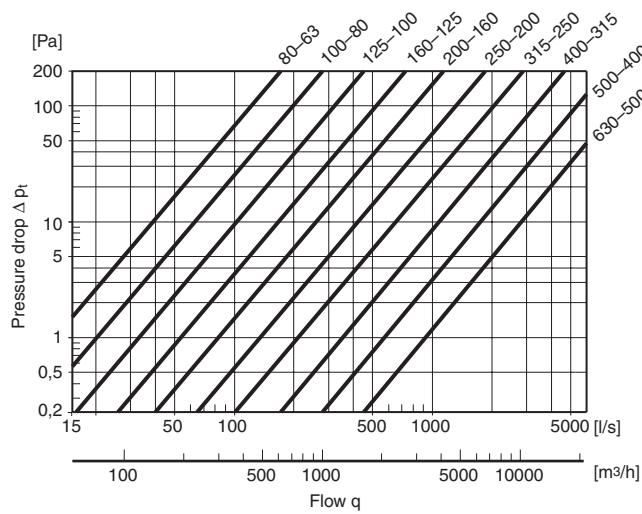
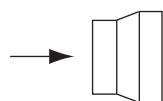
# Reducers

RCU, RCFU

## Technical data

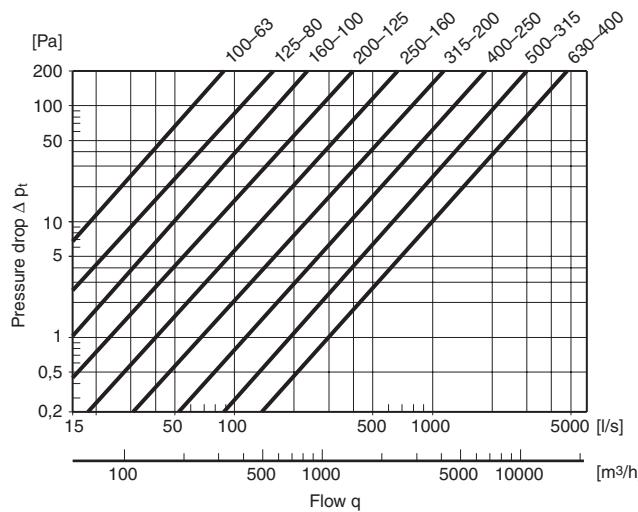
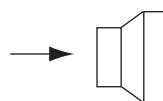
### RCU, RCFU

1 step reduction



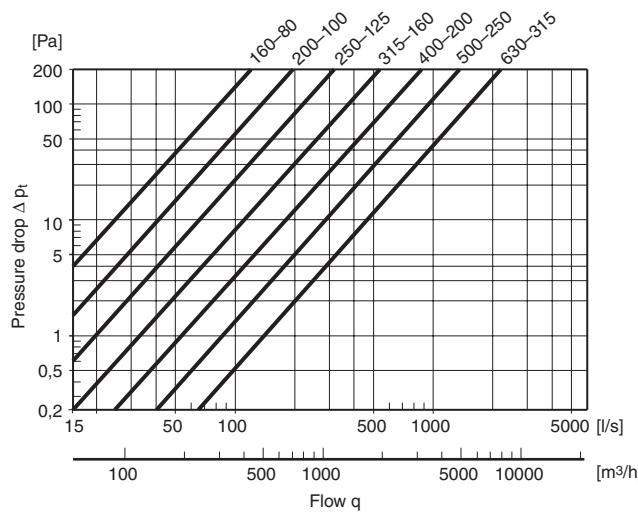
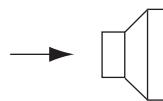
### RCU, RCFU

2 steps reduction



### RCU, RCFU

3 steps reduction



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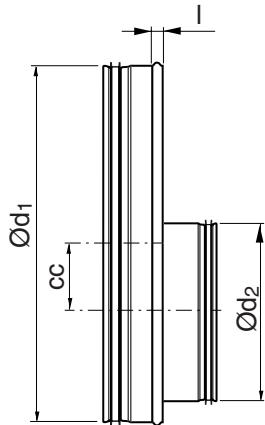


# Reducer

RU



## Dimensions



### Description

Short, eccentric reducer to achieve extremely short installation length.

### Ordering example

|                           |           |            |            |
|---------------------------|-----------|------------|------------|
|                           | <b>RU</b> | <b>500</b> | <b>250</b> |
| Product                   |           |            |            |
| Dimension Ød <sub>1</sub> |           |            |            |
| Dimension Ød <sub>2</sub> |           |            |            |

| Ød <sub>1</sub><br>nom | Ød <sub>2</sub><br>nom | cc<br>mm   | I<br>mm   | m<br>kg     |
|------------------------|------------------------|------------|-----------|-------------|
| <b>400</b>             | <b>200</b>             | <b>75</b>  | <b>12</b> | <b>1,42</b> |
| 400                    | 224                    | 63         | 12        | 1,48        |
| <b>400</b>             | <b>250</b>             | <b>50</b>  | <b>12</b> | <b>1,54</b> |
| 400                    | 280                    | 35         | 12        | 1,53        |
| 400                    | 300                    | 25         | 12        | 1,52        |
| <b>400</b>             | <b>315</b>             | <b>18</b>  | <b>12</b> | <b>1,51</b> |
| 400                    | 355                    | 10         | 12        | 1,13        |
| 450                    | 250                    | 75         | 4         | 1,76        |
| 450                    | 280                    | 60         | 4         | 1,75        |
| 450                    | 300                    | 50         | 4         | 1,74        |
| 450                    | 315                    | 43         | 4         | 1,73        |
| 450                    | 355                    | 23         | 4         | 1,64        |
| 450                    | 400                    | 15         | 4         | 1,31        |
| <b>500</b>             | <b>250</b>             | <b>100</b> | <b>12</b> | <b>1,98</b> |
| 500                    | 280                    | 85         | 12        | 1,97        |
| 500                    | 300                    | 75         | 12        | 1,96        |
| <b>500</b>             | <b>315</b>             | <b>68</b>  | <b>12</b> | <b>1,95</b> |
| 500                    | 355                    | 48         | 12        | 1,87        |
| <b>500</b>             | <b>400</b>             | <b>25</b>  | <b>12</b> | <b>1,92</b> |
| 500                    | 450                    | 15         | 12        | 1,46        |
| 560                    | 315                    | 98         | 4         | 2,29        |
| 560                    | 355                    | 78         | 4         | 2,21        |
| 560                    | 400                    | 55         | 4         | 2,26        |
| 560                    | 450                    | 30         | 4         | 1,80        |
| 560                    | 500                    | 20         | 4         | 1,70        |
| 600                    | 315                    | 118        | 4         | 2,63        |
| 600                    | 355                    | 98         | 4         | 2,54        |
| 600                    | 400                    | 75         | 4         | 2,60        |
| 600                    | 450                    | 50         | 4         | 2,14        |
| 600                    | 500                    | 25         | 4         | 2,56        |
| 600                    | 560                    | 10         | 4         | 1,87        |
| <b>630</b>             | <b>315</b>             | <b>133</b> | <b>4</b>  | <b>2,85</b> |
| 630                    | 355                    | 113        | 4         | 2,77        |



# Reducer

RU

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>2</sub><br/>nom</b> | <b>cc<br/>mm</b> | <b>l<br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|------------------|-----------------|-----------------|
| 630                           | 400                           | 90               | 4               | <b>2,82</b>     |
| 630                           | 450                           | 65               | 4               | 2,36            |
| <b>630</b>                    | <b>500</b>                    | <b>40</b>        | <b>4</b>        | <b>2,78</b>     |
| 630                           | 560                           | 25               | 4               | 2,09            |
| 630                           | 600                           | 5                | 4               | 1,90            |
| 710                           | 400                           | 130              | 4               | 3,43            |
| 710                           | 450                           | 105              | 4               | 2,97            |
| 710                           | 500                           | 80               | 4               | 3,39            |
| 710                           | 560                           | 50               | 4               | 2,70            |
| 710                           | 600                           | 30               | 4               | 2,51            |
| 710                           | 630                           | 15               | 4               | 2,48            |
| <b>800</b>                    | <b>400</b>                    | <b>175</b>       | <b>4</b>        | <b>4,06</b>     |
| 800                           | 450                           | 150              | 4               | 3,60            |
| <b>800</b>                    | <b>500</b>                    | <b>125</b>       | <b>4</b>        | <b>4,02</b>     |
| 800                           | 560                           | 95               | 4               | 3,33            |
| 800                           | 600                           | 75               | 4               | 3,14            |
| <b>800</b>                    | <b>630</b>                    | <b>60</b>        | <b>4</b>        | <b>3,75</b>     |
| 800                           | 710                           | 20               | 4               | 3,06            |
| 900                           | 500                           | 175              | 4               | 5,30            |
| 900                           | 560                           | 145              | 4               | 4,58            |
| 900                           | 600                           | 125              | 4               | 4,36            |
| 900                           | 630                           | 110              | 4               | 4,95            |
| 900                           | 710                           | 70               | 4               | 4,20            |
| 900                           | 800                           | 25               | 4               | 4,01            |
| <b>1000</b>                   | <b>500</b>                    | <b>225</b>       | <b>4</b>        | <b>6,52</b>     |
| 1000                          | 560                           | 195              | 4               | 5,80            |
| 1000                          | 600                           | 175              | 4               | 5,58            |
| <b>1000</b>                   | <b>630</b>                    | <b>160</b>       | <b>4</b>        | <b>6,17</b>     |
| 1000                          | 710                           | 120              | 4               | 5,42            |
| <b>1000</b>                   | <b>800</b>                    | <b>75</b>        | <b>4</b>        | <b>5,23</b>     |
| 1000                          | 900                           | 25               | 4               | 4,94            |
| 1120                          | 630                           | 222              | 4               | 7,59            |
| 1120                          | 710                           | 182              | 4               | 6,84            |
| 1120                          | 800                           | 137              | 4               | 6,64            |
| 1120                          | 900                           | 87               | 4               | 6,36            |
| 1120                          | 1000                          | 37               | 4               | 5,46            |
| <b>1250</b>                   | <b>630</b>                    | <b>287</b>       | <b>4</b>        | <b>9,69</b>     |
| 1250                          | 710                           | 247              | 4               | 8,94            |
| <b>1250</b>                   | <b>800</b>                    | <b>202</b>       | <b>4</b>        | <b>8,74</b>     |
| 1250                          | 900                           | 152              | 4               | 8,46            |
| <b>1250</b>                   | <b>1000</b>                   | <b>102</b>       | <b>4</b>        | <b>7,56</b>     |
| 1250                          | 1120                          | 42               | 4               | 7,53            |

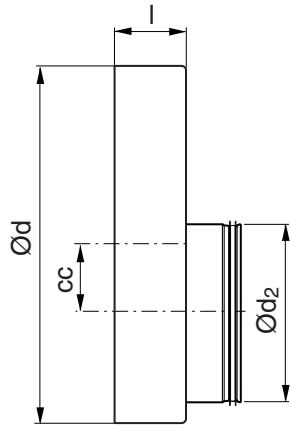


# Reducer

RFU



## Dimensions



## Description

Short, eccentric reducer with female end to achieve extremely short installation length.  
Ød fits outside another fitting.

## Ordering example

|                           |     |     |     |
|---------------------------|-----|-----|-----|
| Product                   | RFU | 630 | 315 |
| Dimension Ød              |     |     |     |
| Dimension Ød <sub>2</sub> |     |     |     |

| Ød<br>nom | Ød <sub>2</sub><br>nom | cc<br>mm | I<br>mm | m<br>kg |
|-----------|------------------------|----------|---------|---------|
| 400*      | 200                    | 75       | 80      | 1,33    |
| 400*      | 200                    | 75       | 80      | 1,33    |
| 400       | 224                    | 63       | 80      | 1,39    |
| 400*      | 250                    | 50       | 80      | 1,44    |
| 400       | 280                    | 35       | 80      | 1,43    |
| 400       | 300                    | 25       | 80      | 1,43    |
| 400*      | 315                    | 18       | 80      | 1,42    |
| 400       | 355                    | 10       | 80      | 0,99    |
| 450       | 250                    | 75       | 80      | 1,76    |
| 450       | 280                    | 60       | 80      | 1,75    |
| 450       | 300                    | 50       | 80      | 1,74    |
| 450       | 315                    | 43       | 80      | 1,73    |
| 450       | 355                    | 23       | 80      | 1,69    |
| 450       | 400                    | 15       | 80      | 1,31    |
| 500       | 250                    | 100      | 80      | 2,09    |
| 500       | 280                    | 85       | 80      | 2,08    |
| 500       | 300                    | 75       | 80      | 2,07    |
| 500       | 315                    | 68       | 80      | 2,06    |
| 500       | 355                    | 48       | 80      | 1,98    |
| 500       | 400                    | 25       | 80      | 2,03    |
| 500       | 450                    | 15       | 80      | 1,57    |
| 560       | 315                    | 98       | 80      | 2,39    |
| 560       | 355                    | 78       | 80      | 2,32    |
| 560       | 400                    | 55       | 80      | 2,36    |
| 560       | 450                    | 30       | 80      | 1,90    |
| 560       | 500                    | 20       | 80      | 1,80    |
| 600       | 315                    | 118      | 80      | 2,62    |
| 600       | 355                    | 98       | 80      | 2,54    |
| 600       | 400                    | 75       | 80      | 2,59    |
| 600       | 450                    | 50       | 80      | 2,53    |
| 600       | 500                    | 25       | 80      | 2,54    |
| 600       | 560                    | 10       | 80      | 1,86    |
| 630       | 315                    | 133      | 80      | 2,79    |



# Reducer

RFU

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| Ød<br>nom   | Ød <sub>2</sub><br>nom | cc<br>mm   | I<br>mm    | m<br>kg     |
|-------------|------------------------|------------|------------|-------------|
| 630         | 355                    | 113        | 80         | 2,71        |
| <b>630</b>  | <b>400</b>             | <b>90</b>  | <b>80</b>  | <b>2,76</b> |
| 630         | 450                    | 65         | 80         | 2,30        |
| <b>630</b>  | <b>500</b>             | <b>40</b>  | <b>80</b>  | <b>2,72</b> |
| 630         | 560                    | 25         | 80         | 2,03        |
| 630         | 600                    | 5          | 80         | 1,84        |
| 710         | 400                    | 130        | 100        | 3,72        |
| 710         | 450                    | 105        | 100        | 2,76        |
| 710         | 500                    | 80         | 100        | 3,18        |
| 710         | 560                    | 50         | 100        | 2,49        |
| 710         | 600                    | 30         | 100        | 2,30        |
| 710         | 630                    | 15         | 100        | 2,44        |
| <b>800</b>  | <b>400</b>             | <b>175</b> | <b>100</b> | <b>3,76</b> |
| 800         | 450                    | 150        | 100        | 3,30        |
| <b>800</b>  | <b>500</b>             | <b>125</b> | <b>100</b> | <b>3,72</b> |
| 800         | 560                    | 95         | 100        | 3,03        |
| 800         | 600                    | 75         | 100        | 2,84        |
| <b>800</b>  | <b>630</b>             | <b>60</b>  | <b>100</b> | <b>3,44</b> |
| 800         | 710                    | 20         | 100        | 2,76        |
| 900         | 500                    | 175        | 100        | 6,14        |
| 900         | 560                    | 145        | 100        | 5,42        |
| 900         | 600                    | 125        | 100        | 5,20        |
| 900         | 630                    | 110        | 100        | 5,74        |
| 900         | 710                    | 70         | 100        | 5,04        |
| 900         | 800                    | 25         | 100        | 4,84        |
| <b>1000</b> | <b>500</b>             | <b>225</b> | <b>100</b> | <b>7,34</b> |
| 1000        | 560                    | 195        | 100        | 6,42        |
| 1000        | 600                    | 175        | 100        | 6,40        |
| <b>1000</b> | <b>630</b>             | <b>160</b> | <b>100</b> | <b>6,99</b> |
| 1000        | 710                    | 120        | 100        | 6,24        |
| <b>1000</b> | <b>800</b>             | <b>75</b>  | <b>100</b> | <b>6,04</b> |
| 1000        | 900                    | 25         | 100        | 5,76        |
| 1120        | 630                    | 222        | 120        | 9,09        |
| 1120        | 710                    | 182        | 120        | 8,34        |
| 1120        | 800                    | 137        | 120        | 8,14        |
| 1120        | 900                    | 87         | 120        | 7,86        |
| 1120        | 1000                   | 37         | 120        | 6,96        |
| <b>1250</b> | <b>630</b>             | <b>287</b> | <b>120</b> | <b>11,0</b> |
| 1250        | 710                    | 247        | 120        | 10,3        |
| <b>1250</b> | <b>800</b>             | <b>202</b> | <b>120</b> | <b>10,0</b> |
| 1250        | 900                    | 152        | 120        | 9,76        |
| <b>1250</b> | <b>1000</b>            | <b>102</b> | <b>120</b> | <b>8,86</b> |
| 1250        | 1120                   | 42         | 120        | 8,83        |

\* With turned-over edge



# Reducers

## RCLU, RLU



RCLU



RLU

### Description

#### RCLU

Long, concentric, hand made reducer with approx. 18° angle.

Pressure drop, see graphs on pages 74–75.

#### RLU

Long, tangential, hand made reducer with approx. 35° angle.

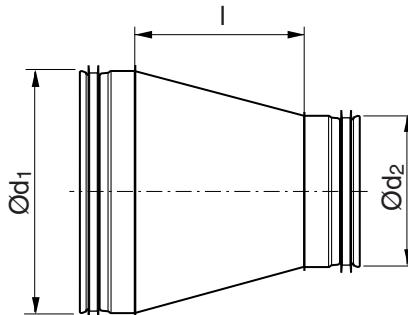
Dimensions are otherwise adapted to DIN 24147 section 4.

### Ordering example

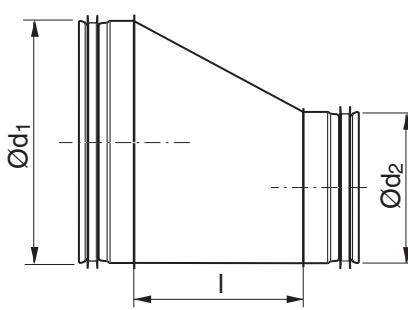
|                           |      |     |     |
|---------------------------|------|-----|-----|
| Product                   | RCLU | 200 | 160 |
| Dimension Ød <sub>1</sub> |      |     |     |
| Dimension Ød <sub>2</sub> |      |     |     |

### Dimensions

#### RCLU



#### RLU



| Ød <sub>1</sub><br>nom | Ød <sub>2</sub><br>nom | I<br>mm | m<br>kg |
|------------------------|------------------------|---------|---------|
| 80                     | 63                     | 53      | 0,14    |
| 100                    | 63                     | 81      | 0,20    |
| 100                    | 80                     | 58      | 0,18    |
| 112                    | 63                     | 97      | 0,23    |
| 112                    | 80                     | 74      | 0,22    |
| 112                    | 100                    | 47      | 0,20    |
| 125                    | 63                     | 115     | 0,28    |
| 125                    | 80                     | 92      | 0,26    |
| 125                    | 100                    | 64      | 0,24    |



# Reducers

# RCLU, RLU

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>2</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------|
| 125                           | 112                           | 48              | 0,23            |
| 140                           | 63                            | 136             | 0,33            |
| 140                           | 80                            | 112             | 0,32            |
| 140                           | 100                           | 85              | 0,30            |
| 140                           | 112                           | 69              | 0,28            |
| 140                           | 125                           | 51              | 0,27            |
| 150                           | 63                            | 150             | 0,37            |
| 150                           | 80                            | 126             | 0,36            |
| 150                           | 100                           | 99              | 0,34            |
| 150                           | 112                           | 82              | 0,32            |
| 150                           | 125                           | 64              | 0,30            |
| 150                           | 140                           | 44              | 0,28            |
| <b>160</b>                    | <b>63</b>                     | <b>163</b>      | <b>0,43</b>     |
| <b>160</b>                    | <b>80</b>                     | <b>140</b>      | <b>0,42</b>     |
| <b>160</b>                    | <b>100</b>                    | <b>112</b>      | <b>0,40</b>     |
| 160                           | 112                           | 96              | 0,38            |
| <b>160</b>                    | <b>125</b>                    | <b>78</b>       | <b>0,36</b>     |
| 160                           | 140                           | 57              | 0,34            |
| 160                           | 150                           | 44              | 0,32            |
| 180                           | 80                            | 167             | 0,51            |
| 180                           | 100                           | 140             | 0,49            |
| 180                           | 112                           | 123             | 0,47            |
| 180                           | 125                           | 106             | 0,46            |
| 180                           | 140                           | 85              | 0,43            |
| 180                           | 150                           | 71              | 0,41            |
| 180                           | 160                           | 58              | 0,41            |
| <b>200</b>                    | <b>80</b>                     | <b>195</b>      | <b>0,61</b>     |
| <b>200</b>                    | <b>100</b>                    | <b>167</b>      | <b>0,59</b>     |
| 200                           | 112                           | 151             | 0,57            |
| <b>200</b>                    | <b>125</b>                    | <b>133</b>      | <b>0,55</b>     |
| 200                           | 140                           | 112             | 0,53            |
| 200                           | 150                           | 99              | 0,51            |
| <b>200</b>                    | <b>160</b>                    | <b>85</b>       | <b>0,50</b>     |
| 200                           | 180                           | 58              | 0,46            |
| 224                           | 100                           | 200             | 0,72            |
| 224                           | 112                           | 184             | 0,70            |
| 224                           | 125                           | 166             | 0,68            |
| 224                           | 140                           | 145             | 0,65            |
| 224                           | 150                           | 132             | 0,64            |
| 224                           | 160                           | 118             | 0,63            |
| 224                           | 180                           | 90              | 0,58            |
| 224                           | 200                           | 63              | 0,53            |
| <b>250</b>                    | <b>100</b>                    | <b>236</b>      | <b>0,94</b>     |
| 250                           | 112                           | 220             | 0,92            |
| <b>250</b>                    | <b>125</b>                    | <b>202</b>      | <b>0,90</b>     |
| 250                           | 140                           | 181             | 0,89            |
| 250                           | 150                           | 167             | 0,87            |
| <b>250</b>                    | <b>160</b>                    | <b>154</b>      | <b>0,87</b>     |
| 250                           | 180                           | 126             | 0,80            |
| <b>250</b>                    | <b>200</b>                    | <b>99</b>       | <b>0,75</b>     |
| 250                           | 224                           | 66              | 0,67            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>2</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------|
| 280                           | 125                           | 243             | 1,10            |
| 280                           | 140                           | 222             | 1,08            |
| 280                           | 150                           | 209             | 1,06            |
| 280                           | 160                           | 195             | 1,05            |
| 280                           | 180                           | 167             | 1,00            |
| 280                           | 200                           | 140             | 0,95            |
| 280                           | 224                           | 107             | 0,87            |
| 280                           | 250                           | 71              | 0,84            |
| 300                           | 125                           | 270             | 1,25            |
| 300                           | 140                           | 250             | 1,22            |
| 300                           | 150                           | 236             | 1,20            |
| 300                           | 160                           | 222             | 1,20            |
| 300                           | 180                           | 195             | 1,15            |
| 300                           | 200                           | 167             | 1,09            |
| 300                           | 224                           | 135             | 1,02            |
| 300                           | 250                           | 99              | 0,98            |
| 300                           | 280                           | 58              | 0,86            |
| <b>315</b>                    | <b>125</b>                    | <b>291</b>      | <b>1,36</b>     |
| 315                           | 140                           | 270             | 1,33            |
| 315                           | 150                           | 257             | 1,32            |
| <b>315</b>                    | <b>160</b>                    | <b>243</b>      | <b>1,31</b>     |
| 315                           | 180                           | 216             | 1,26            |
| <b>315</b>                    | <b>200</b>                    | <b>188</b>      | <b>1,21</b>     |
| 315                           | 224                           | 155             | 1,13            |
| <b>315</b>                    | <b>250</b>                    | <b>119</b>      | <b>1,09</b>     |
| 315                           | 280                           | 78              | 0,97            |
| 315                           | 300                           | 51              | 0,88            |
| 355                           | 160                           | 298             | 1,84            |
| 355                           | 180                           | 270             | 1,77            |
| 355                           | 200                           | 243             | 1,71            |
| 355                           | 224                           | 210             | 1,61            |
| 355                           | 250                           | 174             | 1,56            |
| 355                           | 280                           | 133             | 1,41            |
| 355                           | 300                           | 106             | 1,30            |
| 355                           | 315                           | 85              | 1,21            |
| <b>400</b>                    | <b>160</b>                    | <b>365</b>      | <b>2,44</b>     |
| 400                           | 180                           | 337             | 2,38            |
| <b>400</b>                    | <b>200</b>                    | <b>310</b>      | <b>2,31</b>     |
| 400                           | 224                           | 277             | 2,23            |
| <b>400</b>                    | <b>250</b>                    | <b>241</b>      | <b>2,20</b>     |
| 400                           | 280                           | 200             | 2,01            |
| 400                           | 300                           | 172             | 1,90            |
| <b>400</b>                    | <b>315</b>                    | <b>152</b>      | <b>1,86</b>     |
| 400                           | 355                           | 97              | 1,55            |
| 450                           | 200                           | 378             | 2,99            |
| 450                           | 224                           | 346             | 2,90            |
| 450                           | 250                           | 310             | 2,85            |
| 450                           | 280                           | 269             | 2,70            |
| 450                           | 300                           | 241             | 2,59            |
| 450                           | 315                           | 221             | 2,50            |
| 450                           | 355                           | 166             | 2,24            |



# Reducers

# RCLU, RLU

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>2</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------|
| 450                           | 400                           | 109             | 2,64            |
| <b>500</b>                    | <b>200</b>                    | <b>447</b>      | <b>3,66</b>     |
| 500                           | 224                           | 414             | 3,56            |
| <b>500</b>                    | <b>250</b>                    | <b>378</b>      | <b>3,51</b>     |
| 500                           | 280                           | 337             | 3,36            |
| 500                           | 300                           | 310             | 3,25            |
| <b>500</b>                    | <b>315</b>                    | <b>289</b>      | <b>3,16</b>     |
| 500                           | 355                           | 234             | 2,89            |
| <b>500</b>                    | <b>400</b>                    | <b>177</b>      | <b>2,69</b>     |
| 500                           | 450                           | 109             | 2,37            |
| 560                           | 250                           | 461             | 4,47            |
| 560                           | 280                           | 420             | 4,32            |
| 560                           | 300                           | 392             | 4,21            |
| 560                           | 315                           | 371             | 4,11            |
| 560                           | 355                           | 317             | 3,85            |
| 560                           | 400                           | 260             | 3,66            |
| 560                           | 450                           | 191             | 2,70            |
| 560                           | 500                           | 122             | 2,86            |
| 600                           | 250                           | 516             | 5,10            |
| 600                           | 280                           | 475             | 4,96            |
| 600                           | 300                           | 447             | 4,84            |
| 600                           | 315                           | 427             | 4,76            |
| 600                           | 355                           | 372             | 4,49            |
| 600                           | 400                           | 315             | 4,29            |
| 600                           | 450                           | 246             | 3,96            |
| 600                           | 500                           | 177             | 3,49            |
| 600                           | 560                           | 95              | 2,94            |
| <b>630</b>                    | <b>250</b>                    | <b>557</b>      | <b>5,60</b>     |
| 630                           | 280                           | 516             | 5,46            |
| 630                           | 300                           | 488             | 5,34            |
| <b>630</b>                    | <b>315</b>                    | <b>468</b>      | <b>5,25</b>     |
| 630                           | 355                           | 413             | 4,99            |
| <b>630</b>                    | <b>400</b>                    | <b>356</b>      | <b>4,79</b>     |
| 630                           | 450                           | 287             | 4,46            |
| <b>630</b>                    | <b>500</b>                    | <b>219</b>      | <b>4,00</b>     |
| 630                           | 560                           | 136             | 3,43            |
| 630                           | 600                           | 81              | 2,97            |
| 710                           | 355                           | 528             | 7,11            |
| 710                           | 400                           | 471             | 6,92            |
| 710                           | 450                           | 402             | 6,60            |
| 710                           | 500                           | 333             | 6,12            |
| 710                           | 560                           | 251             | 5,57            |
| 710                           | 600                           | 196             | 5,10            |
| 710                           | 630                           | 155             | 4,72            |
| <b>800</b>                    | <b>400</b>                    | <b>594</b>      | <b>8,81</b>     |
| 800                           | 450                           | 526             | 8,49            |
| <b>800</b>                    | <b>500</b>                    | <b>457</b>      | <b>8,02</b>     |
| 800                           | 560                           | 375             | 7,46            |
| 800                           | 600                           | 320             | 6,99            |
| <b>800</b>                    | <b>630</b>                    | <b>279</b>      | <b>6,62</b>     |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>2</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------|
| 800                           | 710                           | 174             | 6,21            |
| 900                           | 450                           | 663             | 10,8            |
| 900                           | 500                           | 594             | 10,3            |
| 900                           | 560                           | 512             | 9,78            |
| 900                           | 600                           | 457             | 9,31            |
| 900                           | 630                           | 416             | 8,94            |
| 900                           | 710                           | 311             | 8,53            |
| 900                           | 800                           | 187             | 7,18            |
| <b>1000</b>                   | <b>500</b>                    | <b>732</b>      | <b>13,1</b>     |
| 1000                          | 560                           | 649             | 12,5            |
| 1000                          | 600                           | 594             | 12,0            |
| <b>1000</b>                   | <b>630</b>                    | <b>553</b>      | <b>11,7</b>     |
| 1000                          | 710                           | 448             | 11,2            |
| <b>1000</b>                   | <b>800</b>                    | <b>325</b>      | <b>9,91</b>     |
| 1000                          | 900                           | 187             | 8,17            |
| 1120                          | 560                           | 814             | 16,4            |
| 1120                          | 600                           | 759             | 15,9            |
| 1120                          | 630                           | 718             | 15,5            |
| 1120                          | 710                           | 613             | 15,1            |
| 1120                          | 800                           | 490             | 13,8            |
| 1120                          | 900                           | 352             | 12,1            |
| 1120                          | 1000                          | 215             | 10,3            |
| 1250                          | 600                           | 938             | 20,1            |
| <b>1250</b>                   | <b>630</b>                    | <b>897</b>      | <b>19,7</b>     |
| 1250                          | 710                           | 792             | 19,3            |
| <b>1250</b>                   | <b>800</b>                    | <b>668</b>      | <b>17,9</b>     |
| 1250                          | 900                           | 531             | 16,2            |
| <b>1250</b>                   | <b>1000</b>                   | <b>393</b>      | <b>14,4</b>     |
| 1250                          | 1120                          | 229             | 12,2            |



# Reducer

RCLU

1

2

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4

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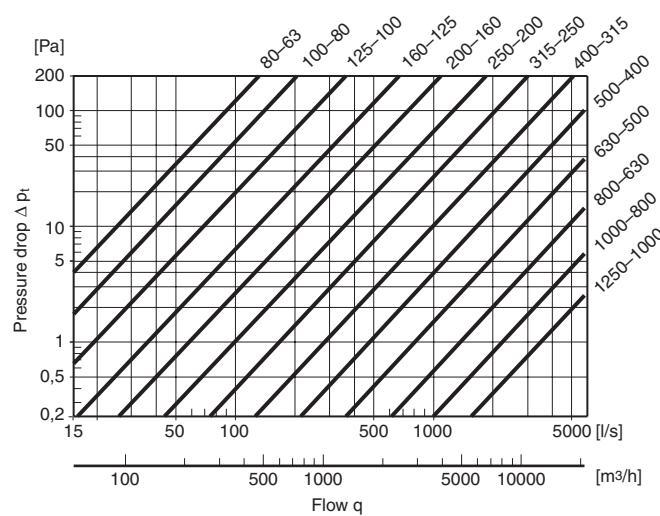
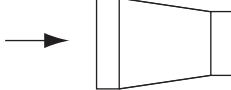
10

11

## Technical data

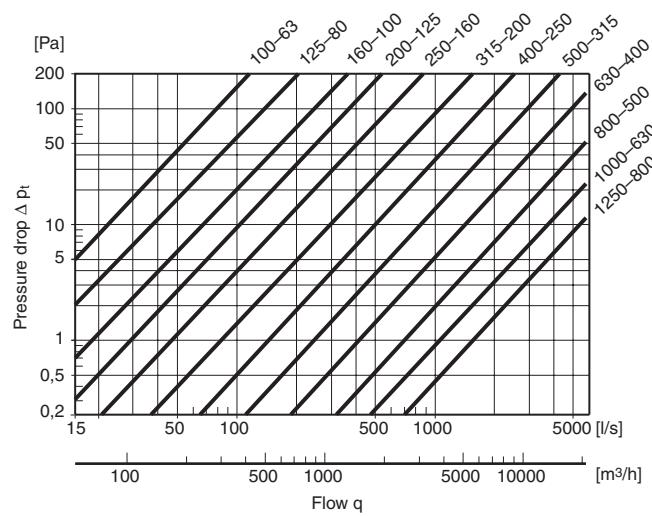
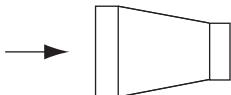
### RCLU

1 step reduction



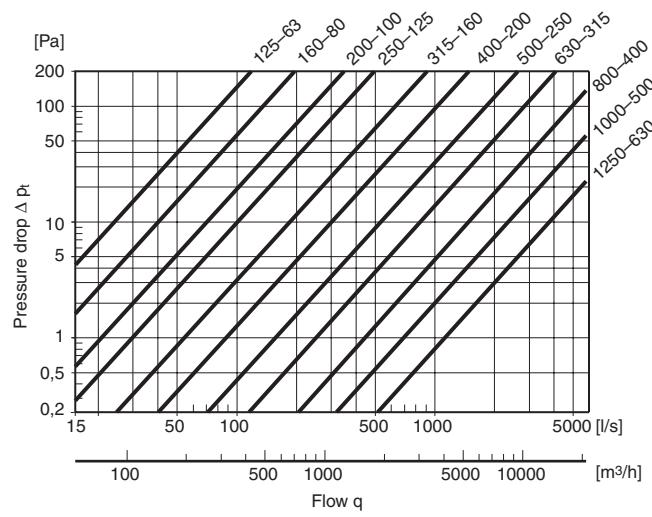
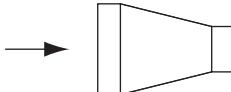
### RCLU

2 steps reduction



### RCLU

3 steps reduction





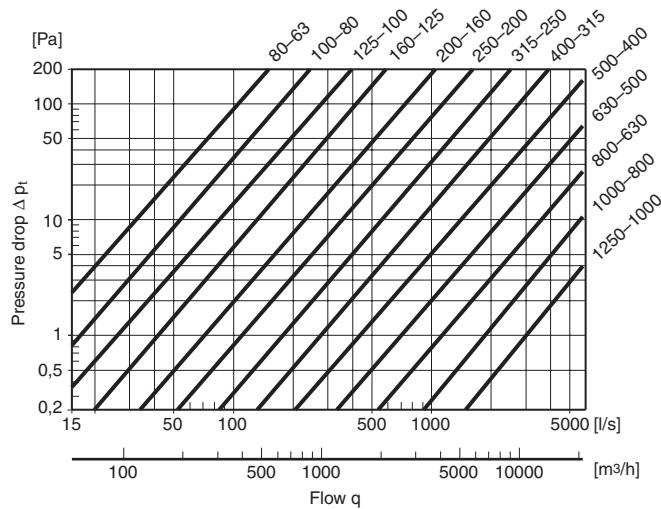
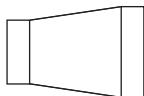
# Reducer

RCLU

## Technical data

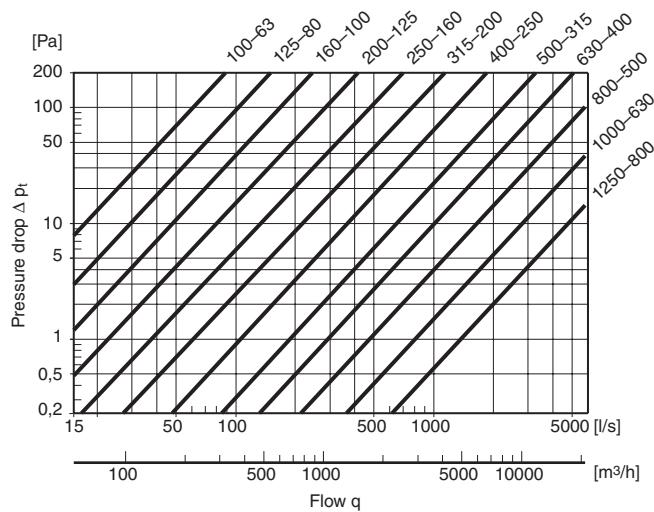
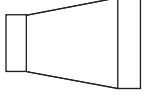
### RCLU

1 step reduction



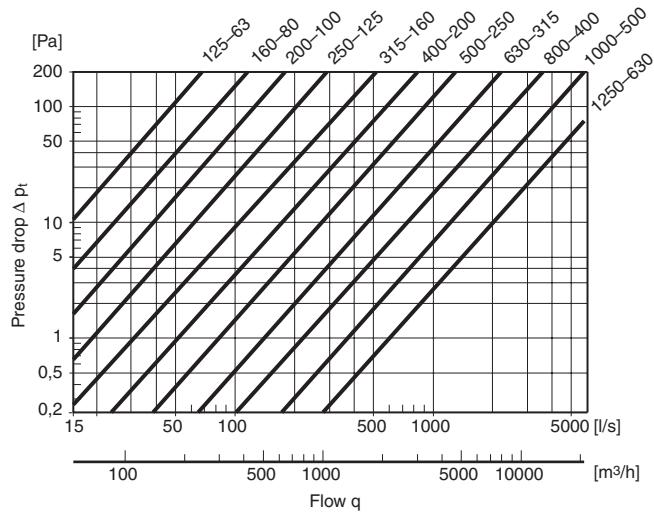
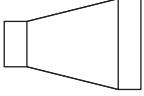
### RCLU

2 steps reduction



### RCLU

3 steps reduction





# Saddle

PSU

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11



## Description

Pressed saddle with aerodynamic flow radius facing the branch.

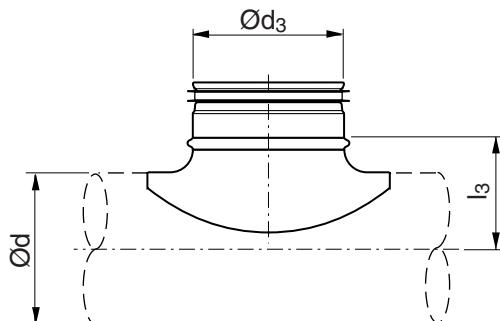
Pressure drop, see graphs on pages 82–83.

Some PSUs are pressed with one and the same tool, and fit several dimensions of main pipe.

## Ordering example

|                           |     |     |     |
|---------------------------|-----|-----|-----|
|                           | PSU | 200 | 125 |
| Product                   |     |     |     |
| Dimension Ød              |     |     |     |
| Dimension Ød <sub>3</sub> |     |     |     |

## Dimensions



| Ød<br>nom | Ød <sub>3</sub><br>nom | l <sub>3</sub><br>mm | m<br>kg |
|-----------|------------------------|----------------------|---------|
| 63        | 63                     | 42                   | 0,09    |
| 80        | 63                     | 50                   | 0,09    |
| 80        | 80                     | 52                   | 0,13    |
| 100       | 63                     | 60                   | 0,09    |
| 100       | 80                     | 62                   | 0,14    |
| 100       | 100                    | 65                   | 0,18    |
| 112       | 63                     | 66                   | 0,09    |
| 112       | 80                     | 68                   | 0,14    |
| 112       | 100                    | 71                   | 0,18    |
| 112*      | 112                    | 56                   | 0,21    |
| 125       | 63                     | 73                   | 0,08    |
| 125       | 80                     | 75                   | 0,13    |
| 125       | 100                    | 78                   | 0,18    |
| 125*      | 112                    | 78                   | 0,21    |
| 125       | 125                    | 83                   | 0,25    |
| 140       | 80                     | 82                   | 0,13    |
| 140       | 100                    | 85                   | 0,18    |
| 140*      | 112                    | 85                   | 0,21    |
| 140*      | 125                    | 70                   | 0,22    |
| 140       | 140                    | 90                   | 0,25    |
| 150       | 80                     | 87                   | 0,12    |
| 150       | 100                    | 90                   | 0,18    |
| 150       | 125                    | 95                   | 0,20    |
| 150       | 140                    | 95                   | 0,25    |
| 150       | 150                    | 95                   | 0,34    |
| 160       | 80                     | 92                   | 0,10    |
| 160       | 100                    | 95                   | 0,18    |
| 160       | 125                    | 100                  | 0,18    |
| 160       | 140                    | 100                  | 0,25    |
| 160       | 150                    | 100                  | 0,32    |
| 160       | 160                    | 105                  | 0,37    |
| 180       | 80                     | 102                  | 0,11    |
| 180       | 100                    | 105                  | 0,18    |



# Saddle

PSU

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------------------|-----------------|
| 180               | 125                           | 110                         | 0,22            |
| 180               | 140                           | 110                         | 0,25            |
| 180               | 150                           | 110                         | 0,31            |
| 180               | 160                           | 115                         | 0,32            |
| 180               | 180                           | 115                         | 0,48            |
| <b>200</b>        | <b>80</b>                     | <b>112</b>                  | <b>0,09</b>     |
| <b>200</b>        | <b>100</b>                    | <b>115</b>                  | <b>0,19</b>     |
| <b>200</b>        | <b>125</b>                    | <b>115</b>                  | <b>0,25</b>     |
| 200               | 140                           | 120                         | 0,25            |
| 200               | 150                           | 120                         | 0,30            |
| <b>200</b>        | <b>160</b>                    | <b>125</b>                  | <b>0,27</b>     |
| 200               | 180                           | 125                         | 0,45            |
| <b>200</b>        | <b>200</b>                    | <b>125</b>                  | <b>0,39</b>     |
| 224               | 80                            | 124                         | 0,12            |
| 224               | 100                           | 127                         | 0,19            |
| 224               | 125                           | 132                         | 0,24            |
| 224               | 140                           | 132                         | 0,27            |
| 224               | 150                           | 132                         | 0,28            |
| 224               | 160                           | 137                         | 0,30            |
| 224               | 180                           | 137                         | 0,43            |
| 224               | 200                           | 137                         | 0,50            |
| 224               | 224                           | 137                         | 0,64            |
| <b>250</b>        | <b>80</b>                     | <b>137</b>                  | <b>0,12</b>     |
| <b>250</b>        | <b>100</b>                    | <b>140</b>                  | <b>0,18</b>     |
| <b>250</b>        | <b>125</b>                    | <b>145</b>                  | <b>0,23</b>     |
| 250               | 140                           | 145                         | 0,29            |
| 250               | 150                           | 145                         | 0,29            |
| <b>250</b>        | <b>160</b>                    | <b>150</b>                  | <b>0,34</b>     |
| 250               | 180                           | 150                         | 0,41            |
| <b>250</b>        | <b>200</b>                    | <b>150</b>                  | <b>0,47</b>     |
| 250               | 224                           | 150                         | 0,63            |
| 250               | 250                           | 150                         | 0,30            |
| 280               | 80                            | 152                         | 0,12            |
| 280               | 100                           | 155                         | 0,18            |
| 280               | 125                           | 160                         | 0,23            |
| 280               | 140                           | 160                         | 0,28            |
| 280               | 150                           | 160                         | 0,29            |
| 280               | 160                           | 165                         | 0,34            |
| 280               | 180                           | 165                         | 0,40            |
| 280               | 200                           | 165                         | 0,47            |
| 280               | 224                           | 165                         | 0,61            |
| 280*              | 250                           | 140                         | 0,77            |
| 280*              | 280                           | 140                         | 0,59            |
| 300               | 80                            | 162                         | 0,12            |
| 300               | 100                           | 165                         | 0,17            |
| 300               | 125                           | 170                         | 0,23            |
| 300               | 140                           | 170                         | 0,27            |
| 300               | 150                           | 170                         | 0,29            |
| 300               | 160                           | 175                         | 0,33            |
| 300               | 180                           | 175                         | 0,40            |
| 300               | 200                           | 175                         | 0,46            |

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------------------|-----------------|
| 300               | 224                           | 175                         | 0,59            |
| 300               | 250                           | 175                         | 0,73            |
| 300*              | 280                           | 150                         | 0,59            |
| 300               | 300                           | 175                         | 0,13            |
| <b>315</b>        | <b>80</b>                     | <b>170</b>                  | <b>0,12</b>     |
| <b>315</b>        | <b>100</b>                    | <b>173</b>                  | <b>0,12</b>     |
| <b>315</b>        | <b>125</b>                    | <b>178</b>                  | <b>0,23</b>     |
| 315               | 140                           | 178                         | 0,27            |
| 315               | 150                           | 178                         | 0,29            |
| <b>315</b>        | <b>160</b>                    | <b>182</b>                  | <b>0,33</b>     |
| 315               | 180                           | 182                         | 0,40            |
| <b>315</b>        | <b>200</b>                    | <b>182</b>                  | <b>0,46</b>     |
| 315               | 224                           | 182                         | 0,58            |
| <b>315</b>        | <b>250</b>                    | <b>182</b>                  | <b>0,71</b>     |
| 315*              | 280                           | 158                         | 0,95            |
| 315               | 300                           | 182                         | 1,10            |
| <b>315</b>        | <b>315</b>                    | <b>182</b>                  | <b>1,22</b>     |
| 355               | 100                           | 193                         | 0,18            |
| 355               | 125                           | 198                         | 0,23            |
| 355               | 140                           | 198                         | 0,27            |
| 355               | 150                           | 198                         | 0,28            |
| 355               | 160                           | 203                         | 0,29            |
| 355               | 180                           | 203                         | 0,40            |
| 355               | 200                           | 203                         | 0,45            |
| 355               | 224                           | 203                         | 0,56            |
| 355               | 250                           | 203                         | 0,67            |
| 355*              | 280                           | 178                         | 0,89            |
| 355               | 300                           | 178                         | 1,03            |
| 355*              | 315                           | 203                         | 1,12            |
| 355*              | 355                           | 203                         | 1,57            |
| <b>400</b>        | <b>100</b>                    | <b>215</b>                  | <b>0,17</b>     |
| <b>400</b>        | <b>125</b>                    | <b>220</b>                  | <b>0,23</b>     |
| <b>400</b>        | <b>160</b>                    | <b>225</b>                  | <b>0,24</b>     |
| <b>400</b>        | <b>200</b>                    | <b>225</b>                  | <b>0,44</b>     |
| 400               | 224                           | 225                         | 0,54            |
| <b>400</b>        | <b>250</b>                    | <b>225</b>                  | <b>0,65</b>     |
| 400*              | 280                           | 200                         | 0,83            |
| 400               | 300                           | 225                         | 0,94            |
| <b>400</b>        | <b>315</b>                    | <b>225</b>                  | <b>1,03</b>     |
| 400*              | 355                           | 225                         | 1,42            |
| <b>400</b>        | <b>400</b>                    | <b>225</b>                  | <b>1,87</b>     |
| 450               | 100                           | 240                         | 0,17            |
| 450               | 125                           | 245                         | 0,23            |
| 450               | 160                           | 250                         | 0,23            |
| 450               | 200                           | 250                         | 0,43            |
| 450               | 224                           | 250                         | 0,52            |
| 450               | 250                           | 250                         | 0,65            |
| 450*              | 280                           | 225                         | 0,77            |
| 450               | 300                           | 225                         | 0,86            |
| 450               | 315                           | 250                         | 0,94            |
| 450*              | 355                           | 250                         | 1,01            |



# Saddle

PSU

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| Ød<br>nom   | Ød <sub>3</sub><br>nom | l <sub>3</sub><br>mm | m<br>kg     |
|-------------|------------------------|----------------------|-------------|
| 450         | 400                    | 250                  | 1,81        |
| 450*        | 450                    | 225                  | 1,58        |
| <b>500</b>  | <b>100</b>             | <b>265</b>           | <b>0,12</b> |
| <b>500</b>  | <b>125</b>             | <b>270</b>           | <b>0,23</b> |
| <b>500</b>  | <b>160</b>             | <b>275</b>           | <b>0,25</b> |
| <b>500</b>  | <b>200</b>             | <b>275</b>           | <b>0,42</b> |
| <b>500</b>  | <b>250</b>             | <b>275</b>           | <b>0,67</b> |
| 500         | 300                    | 275                  | 0,83        |
| <b>500</b>  | <b>315</b>             | <b>275</b>           | <b>0,93</b> |
| 500*        | 355                    | 275                  | 1,01        |
| <b>500</b>  | <b>400</b>             | <b>275</b>           | <b>1,75</b> |
| 500*        | 450                    | 250                  | 1,45        |
| <b>500*</b> | <b>500</b>             | <b>290</b>           | <b>2,15</b> |
| 560         | 100                    | 295                  | 0,17        |
| 560         | 125                    | 300                  | 0,23        |
| 560         | 160                    | 305                  | 0,27        |
| 560         | 200                    | 305                  | 0,41        |
| 560         | 250                    | 305                  | 0,66        |
| 560         | 300                    | 280                  | 0,92        |
| 560         | 315                    | 305                  | 0,93        |
| 560*        | 355                    | 280                  | 1,06        |
| 560         | 400                    | 305                  | 1,66        |
| 560*        | 450                    | 280                  | 1,37        |
| 560*        | 500                    | 280                  | 1,75        |
| 560*        | 560                    | 280                  | 2,24        |
| 600         | 100                    | 315                  | 0,17        |
| 600         | 125                    | 320                  | 0,23        |
| 600         | 160                    | 325                  | 0,29        |
| 600         | 200                    | 325                  | 0,40        |
| 600         | 250                    | 325                  | 0,65        |
| 600         | 300                    | 300                  | 0,55        |
| 600         | 315                    | 325                  | 0,93        |
| 600*        | 355                    | 300                  | 0,94        |
| 600         | 400                    | 300                  | 1,57        |
| 600*        | 450                    | 300                  | 1,34        |
| 600*        | 500                    | 300                  | 1,60        |
| 600*        | 560                    | 300                  | 2,09        |
| 600*        | 600                    | 300                  | 2,47        |
| <b>630</b>  | <b>100</b>             | <b>330</b>           | <b>0,17</b> |
| <b>630</b>  | <b>125</b>             | <b>335</b>           | <b>0,23</b> |
| <b>630</b>  | <b>160</b>             | <b>340</b>           | <b>0,31</b> |
| <b>630</b>  | <b>200</b>             | <b>340</b>           | <b>0,40</b> |
| <b>630</b>  | <b>250</b>             | <b>340</b>           | <b>0,65</b> |
| 630         | 300                    | 315                  | 0,55        |
| <b>630</b>  | <b>315</b>             | <b>340</b>           | <b>0,93</b> |
| 630*        | 355                    | 315                  | 0,80        |
| <b>630</b>  | <b>400</b>             | <b>340</b>           | <b>1,49</b> |
| 630*        | 450                    | 355                  | 1,32        |

| Ød<br>nom   | Ød <sub>3</sub><br>nom | l <sub>3</sub><br>mm | m<br>kg     |
|-------------|------------------------|----------------------|-------------|
| <b>630*</b> | <b>500</b>             | <b>355</b>           | <b>1,71</b> |
| 630*        | 560                    | 355                  | 2,09        |
| 630*        | 600                    | 355                  | 2,35        |
| <b>630*</b> | <b>630</b>             | <b>355</b>           | <b>2,82</b> |

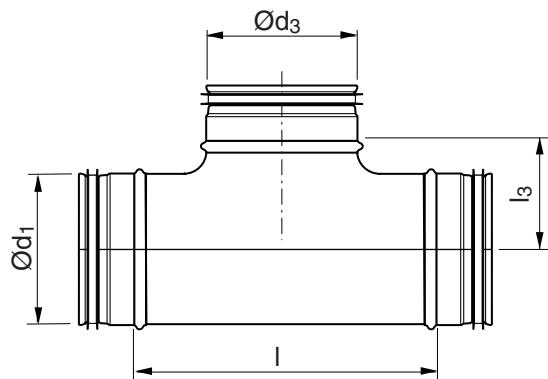
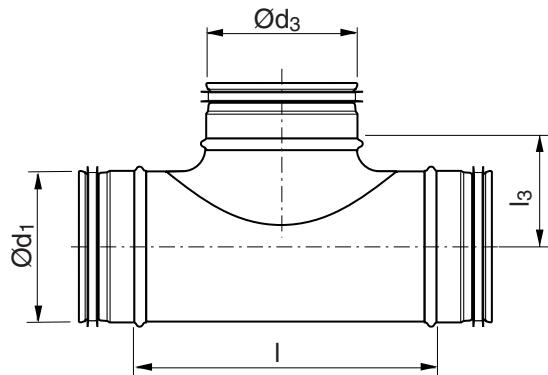
\* Hand made



# T-piece

TCPU

## Dimensions



## Description

T-piece built with PSU saddle or a fully pressed top section.

Pressure drop, see graphs on pages 82–83.

## Ordering example

|                         |      |     |     |
|-------------------------|------|-----|-----|
| Product                 | TCPU | 250 | 160 |
| Dimension $\text{Ød}_1$ |      |     |     |
| Dimension $\text{Ød}_3$ |      |     |     |

| $\text{Ød}_1$<br>nom | $\text{Ød}_3$<br>nom | I<br>mm | $l_3$<br>mm | m<br>kg |
|----------------------|----------------------|---------|-------------|---------|
| 63                   | 63                   | 125     | 42          | 0,26    |
| 80                   | 63                   | 125     | 50          | 0,31    |
| 80                   | 80                   | 140     | 52          | 0,36    |
| 100                  | 63                   | 125     | 60          | 0,35    |
| 100                  | 80                   | 103     | 65          | 0,23    |
| 100                  | 100                  | 130     | 65          | 0,32    |
| 112                  | 63                   | 125     | 66          | 0,41    |
| 112                  | 80                   | 140     | 68          | 0,47    |
| 112                  | 100                  | 175     | 71          | 0,55    |
| 112                  | 112*                 | 175     | 56          | 0,57    |
| 125                  | 63                   | 125     | 73          | 0,44    |
| 125                  | 80                   | 97      | 75          | 0,34    |
| 125                  | 100                  | 130     | 78          | 0,37    |
| 125                  | 112                  | 175     | 78          | 0,61    |
| 125                  | 125                  | 165     | 83          | 0,44    |
| 140                  | 80                   | 140     | 82          | 0,56    |
| 140                  | 100                  | 175     | 85          | 0,65    |
| 140                  | 112                  | 175     | 85          | 0,67    |
| 140                  | 125*                 | 215     | 70          | 0,76    |
| 140                  | 140                  | 230     | 90          | 0,78    |
| 150                  | 80                   | 140     | 87          | 0,58    |
| 150                  | 100                  | 175     | 90          | 0,69    |
| 150                  | 125                  | 215     | 95          | 0,76    |
| 150                  | 140                  | 230     | 95          | 0,82    |



# T-piece

TCPU

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 150                           | 150                           | 260             | 95                          | 0,94            |
| 160                           | 80                            | 140             | 92                          | 0,59            |
| <b>160</b>                    | <b>100</b>                    | <b>130</b>      | <b>95</b>                   | <b>0,46</b>     |
| <b>160</b>                    | <b>125</b>                    | <b>166</b>      | <b>100</b>                  | <b>0,53</b>     |
| 160                           | 140                           | 230             | 100                         | 0,87            |
| 160                           | 150                           | 260             | 100                         | 0,99            |
| <b>160</b>                    | <b>160</b>                    | <b>209</b>      | <b>105</b>                  | <b>0,63</b>     |
| 180                           | 80                            | 140             | 102                         | 0,92            |
| 180                           | 100                           | 175             | 105                         | 0,80            |
| 180                           | 125                           | 215             | 110                         | 0,91            |
| 180                           | 140                           | 230             | 110                         | 0,96            |
| 180                           | 150                           | 260             | 110                         | 1,08            |
| 180                           | 160                           | 260             | 115                         | 1,06            |
| 180                           | 180                           | 285             | 115                         | 1,44            |
| <b>200</b>                    | <b>80</b>                     | <b>140</b>      | <b>112</b>                  | <b>0,77</b>     |
| <b>200</b>                    | <b>100</b>                    | <b>175</b>      | <b>115</b>                  | <b>0,88</b>     |
| <b>200</b>                    | <b>125</b>                    | <b>215</b>      | <b>115</b>                  | <b>1,02</b>     |
| 200                           | 140                           | 230             | 120                         | 1,07            |
| 200                           | 150                           | 260             | 120                         | 1,19            |
| <b>200</b>                    | <b>160</b>                    | <b>209</b>      | <b>125</b>                  | <b>0,67</b>     |
| 200                           | 180                           | 285             | 125                         | 1,35            |
| <b>200</b>                    | <b>200</b>                    | <b>249</b>      | <b>125</b>                  | <b>1,21</b>     |
| 224                           | 80                            | 140             | 124                         | 0,85            |
| 224                           | 100                           | 175             | 127                         | 1,01            |
| 224                           | 125                           | 215             | 132                         | 1,14            |
| 224                           | 140                           | 230             | 132                         | 1,20            |
| 224                           | 150                           | 260             | 132                         | 1,29            |
| 224                           | 160                           | 260             | 137                         | 1,28            |
| 224                           | 180                           | 285             | 137                         | 1,46            |
| 224                           | 200                           | 346             | 137                         | 1,69            |
| <b>250</b>                    | <b>80</b>                     | <b>156</b>      | <b>137</b>                  | <b>1,13</b>     |
| <b>250</b>                    | <b>100</b>                    | <b>175</b>      | <b>140</b>                  | <b>1,22</b>     |
| <b>250</b>                    | <b>125</b>                    | <b>220</b>      | <b>145</b>                  | <b>1,48</b>     |
| 250                           | 140                           | 230             | 145                         | 1,48            |
| 250                           | 150                           | 255             | 145                         | 1,55            |
| <b>250</b>                    | <b>160</b>                    | <b>256</b>      | <b>150</b>                  | <b>1,58</b>     |
| 250                           | 180                           | 306             | 150                         | 1,79            |
| <b>250</b>                    | <b>200</b>                    | <b>306</b>      | <b>150</b>                  | <b>1,78</b>     |
| 250                           | 224                           | 350             | 150                         | 2,09            |
| <b>250</b>                    | <b>250</b>                    | <b>296</b>      | <b>150</b>                  | <b>1,65</b>     |
| 280                           | 80                            | 156             | 155                         | 1,25            |
| 280                           | 100                           | 175             | 155                         | 1,37            |
| 280                           | 125                           | 220             | 160                         | 1,56            |
| 280                           | 140                           | 230             | 160                         | 1,63            |
| 280                           | 150                           | 255             | 160                         | 1,72            |
| 280                           | 160                           | 256             | 165                         | 1,75            |
| 280                           | 180                           | 306             | 165                         | 1,97            |
| 280                           | 200                           | 306             | 165                         | 2,01            |
| 280                           | 224                           | 350             | 165                         | 2,27            |
| 280                           | 250*                          | 350             | 140                         | 2,44            |
| 280                           | 280*                          | 390             | 140                         | 2,67            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 300                           | 80                            | 156             | 162                         | 1,36            |
| 300                           | 100                           | 175             | 165                         | 1,47            |
| 300                           | 125                           | 220             | 170                         | 1,68            |
| 300                           | 140                           | 230             | 170                         | 1,74            |
| 300                           | 150                           | 255             | 170                         | 1,86            |
| 300                           | 160                           | 256             | 175                         | 1,87            |
| 300                           | 180                           | 306             | 175                         | 2,12            |
| 300                           | 200                           | 306             | 175                         | 2,15            |
| 300                           | 224                           | 350             | 175                         | 2,41            |
| 300                           | 250                           | 350             | 175                         | 2,50            |
| 300                           | 280*                          | 390             | 150                         | 2,53            |
| 300                           | 300                           | 430             | 175                         | 3,55            |
| <b>315</b>                    | <b>80</b>                     | <b>156</b>      | <b>170</b>                  | <b>1,43</b>     |
| <b>315</b>                    | <b>100</b>                    | <b>175</b>      | <b>173</b>                  | <b>1,50</b>     |
| <b>315</b>                    | <b>125</b>                    | <b>220</b>      | <b>178</b>                  | <b>1,76</b>     |
| 315                           | 140                           | 230             | 178                         | 1,82            |
| 315                           | 150                           | 355             | 178                         | 2,38            |
| <b>315</b>                    | <b>160</b>                    | <b>256</b>      | <b>182</b>                  | <b>1,96</b>     |
| 315                           | 180                           | 306             | 182                         | 2,21            |
| <b>315</b>                    | <b>200</b>                    | <b>306</b>      | <b>182</b>                  | <b>2,14</b>     |
| 315                           | 224                           | 350             | 182                         | 2,51            |
| <b>315</b>                    | <b>250</b>                    | <b>350</b>      | <b>182</b>                  | <b>2,59</b>     |
| 315                           | 280                           | 390             | 182                         | 3,00            |
| 315                           | 300                           | 430             | 182                         | 3,21            |
| <b>315</b>                    | <b>315</b>                    | <b>363</b>      | <b>182</b>                  | <b>2,20</b>     |
| 355                           | 100                           | 175             | 193                         | 1,73            |
| 355                           | 125                           | 220             | 198                         | 1,96            |
| 355                           | 140                           | 230             | 198                         | 2,03            |
| 355                           | 150                           | 255             | 198                         | 2,46            |
| 355                           | 160                           | 256             | 203                         | 2,45            |
| 355                           | 180                           | 306             | 203                         | 2,81            |
| 355                           | 200                           | 306             | 203                         | 2,82            |
| 355                           | 224                           | 350             | 203                         | 3,13            |
| 355                           | 250                           | 350             | 203                         | 3,18            |
| 355                           | 280*                          | 390             | 178                         | 3,63            |
| 355                           | 300                           | 430             | 203                         | 3,87            |
| 355                           | 315                           | 455             | 203                         | 4,06            |
| 355                           | 355*                          | 470             | 203                         | 5,14            |
| <b>400</b>                    | <b>100</b>                    | <b>175</b>      | <b>215</b>                  | <b>2,27</b>     |
| <b>400</b>                    | <b>125</b>                    | <b>225</b>      | <b>220</b>                  | <b>2,81</b>     |
| <b>400</b>                    | <b>160</b>                    | <b>266</b>      | <b>225</b>                  | <b>3,02</b>     |
| <b>400</b>                    | <b>200</b>                    | <b>300</b>      | <b>225</b>                  | <b>3,37</b>     |
| 400                           | 224                           | 350             | 225                         | 3,74            |
| <b>400</b>                    | <b>250</b>                    | <b>350</b>      | <b>225</b>                  | <b>3,79</b>     |
| 400                           | 280*                          | 390             | 200                         | 4,23            |
| 400                           | 300                           | 430             | 225                         | 4,47            |
| <b>400</b>                    | <b>315</b>                    | <b>415</b>      | <b>225</b>                  | <b>4,42</b>     |
| 400                           | 355*                          | 470             | 225                         | 5,04            |
| <b>400</b>                    | <b>400</b>                    | <b>510</b>      | <b>225</b>                  | <b>6,20</b>     |
| 450                           | 100                           | 175             | 240                         | 2,76            |
| 450                           | 125                           | 225             | 245                         | 3,15            |



# T-piece

TCPU

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 450                           | 160                           | 266             | 250                         | 3,38            |
| 450                           | 200                           | 300             | 250                         | 3,75            |
| 450                           | 224                           | 350             | 250                         | 4,16            |
| 450                           | 250                           | 350             | 250                         | 4,23            |
| 450                           | 280*                          | 390             | 225                         | 4,64            |
| 450                           | 300                           | 430             | 250                         | 4,89            |
| 450                           | 315                           | 415             | 250                         | 4,82            |
| 450                           | 355                           | 470             | 250                         | 5,16            |
| 450                           | 400                           | 510             | 250                         | 5,81            |
| 450                           | 450*                          | 550             | 225                         | 6,99            |
| 500                           | 100                           | 175             | 265                         | 3,06            |
| 500                           | 125                           | 225             | 270                         | 3,35            |
| 500                           | 160                           | 266             | 275                         | 3,77            |
| 500                           | 200                           | 300             | 275                         | 4,14            |
| 500                           | 250                           | 350             | 275                         | 4,68            |
| 500                           | 300                           | 430             | 275                         | 5,36            |
| 500                           | 315                           | 415             | 275                         | 5,30            |
| 500                           | 355                           | 470             | 275                         | 5,70            |
| 500                           | 400                           | 510             | 275                         | 6,34            |
| 500                           | 450*                          | 550             | 250                         | 6,56            |
| 500*                          | 500                           | 552             | 290                         | 8,27            |
| 560                           | 100                           | 175             | 295                         | 3,59            |
| 560                           | 125                           | 225             | 300                         | 3,92            |
| 560                           | 160                           | 266             | 305                         | 4,41            |
| 560                           | 200                           | 300             | 305                         | 4,78            |
| 560                           | 250                           | 350             | 305                         | 5,38            |
| 560                           | 300                           | 430             | 280                         | 5,86            |
| 560                           | 315                           | 415             | 305                         | 6,06            |
| 560                           | 355                           | 470             | 305                         | 6,57            |
| 560                           | 400                           | 510             | 305                         | 7,08            |
| 560                           | 450*                          | 550             | 280                         | 7,38            |
| 560                           | 500*                          | 552             | 280                         | 7,57            |
| 560                           | 560*                          | 610             | 280                         | 9,69            |
| 600                           | 100                           | 175             | 315                         | 3,83            |
| 600                           | 125                           | 225             | 320                         | 4,19            |
| 600                           | 160                           | 266             | 325                         | 4,73            |
| 600                           | 200                           | 300             | 325                         | 5,10            |
| 600                           | 250                           | 350             | 325                         | 5,73            |
| 600                           | 300*                          | 430             | 300                         | 6,36            |
| 600                           | 315                           | 415             | 325                         | 6,46            |
| 600                           | 355*                          | 470             | 300                         | 6,98            |
| 600                           | 400                           | 510             | 325                         | 7,43            |
| 600                           | 450*                          | 550             | 300                         | 7,84            |
| 600                           | 500*                          | 552             | 300                         | 7,91            |
| 600                           | 560*                          | 610             | 300                         | 8,76            |
| 600                           | 600*                          | 650             | 300                         | 10,8            |
| 630                           | 100                           | 175             | 330                         | 4,03            |
| 630                           | 125                           | 225             | 335                         | 4,41            |
| 630                           | 160                           | 266             | 340                         | 4,99            |
| 630                           | 200                           | 300             | 340                         | 5,35            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| <b>630</b>                    | <b>250</b>                    | <b>350</b>      | <b>340</b>                  | <b>6,00</b>     |
| 630                           | 300*                          | 450             | 315                         | 7,23            |
| <b>630</b>                    | <b>315</b>                    | <b>415</b>      | <b>340</b>                  | <b>6,77</b>     |
| 630                           | 355*                          | 470             | 315                         | 7,18            |
| <b>630</b>                    | <b>400</b>                    | <b>510</b>      | <b>340</b>                  | <b>7,69</b>     |
| 630                           | 450*                          | 555             | 315                         | 8,24            |
| <b>630*</b>                   | <b>500</b>                    | <b>552</b>      | <b>340</b>                  | <b>8,44</b>     |
| 630                           | 560*                          | 610             | 315                         | 9,11            |
| 630                           | 600*                          | 650             | 315                         | 9,58            |
| <b>630*</b>                   | <b>630</b>                    | <b>680</b>      | <b>340</b>                  | <b>11,3</b>     |

\* Built with PSU saddle, without radius



# T-piece and saddle

TCPU, PSU

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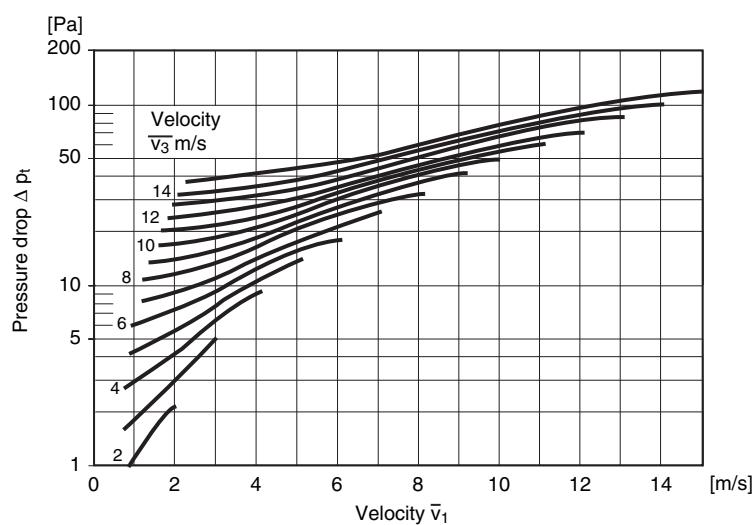
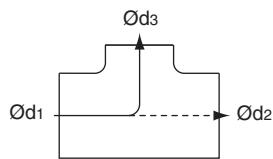
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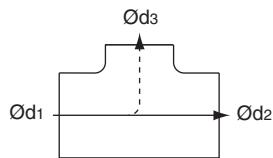
## Technical data

### Supply air

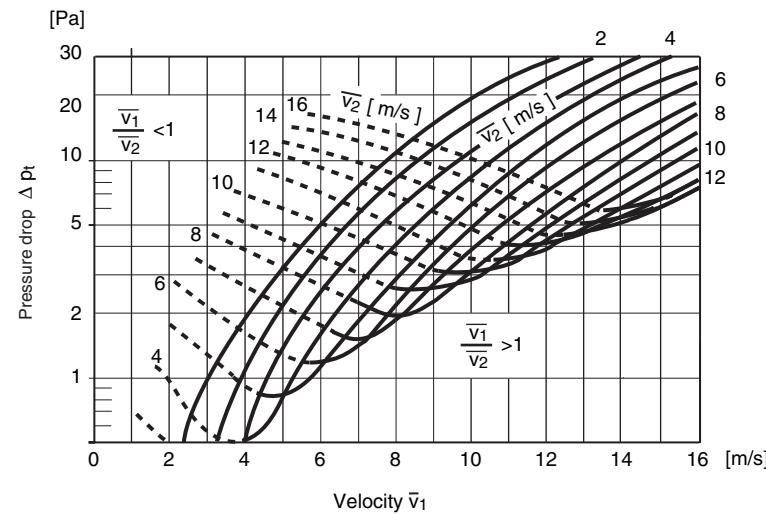
#### Diverging flow



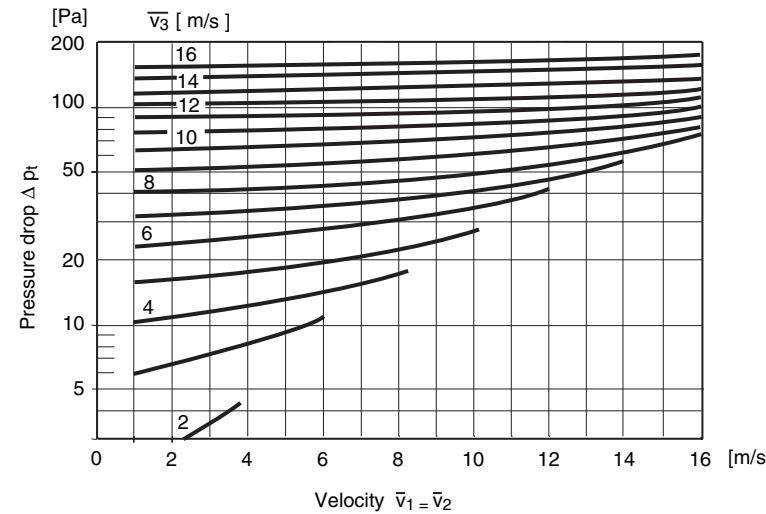
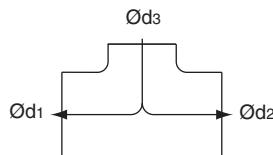
#### Diverging flow



The diagram is also applicable to reduction in  $\bar{\Omega}_{d2}$ .



#### Diverging flow





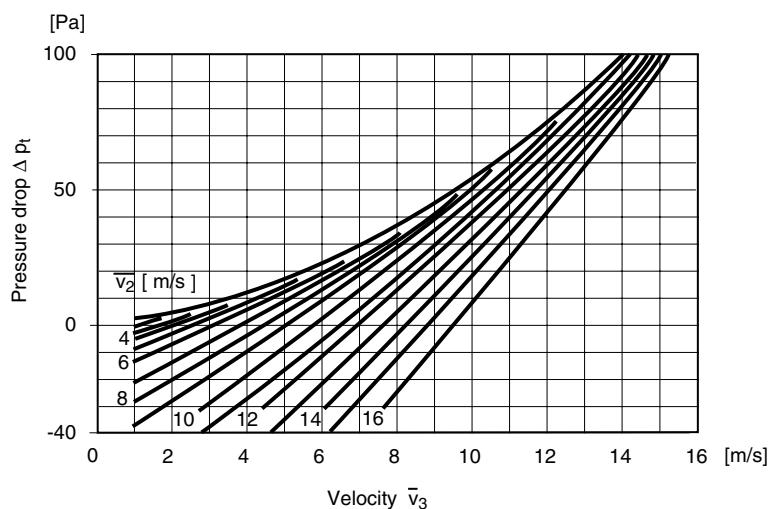
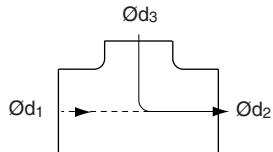
# T-piece and saddle

TCPU, PSU

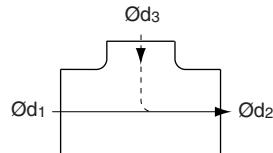
## Technical data

### Exhaust air

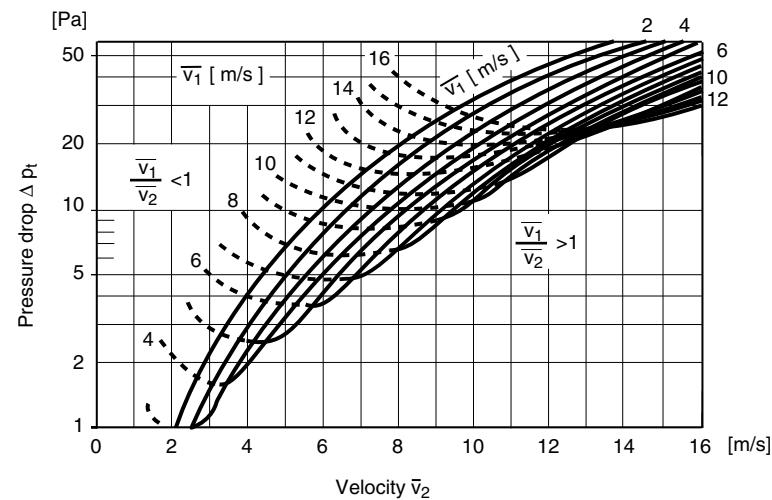
#### Converging flow



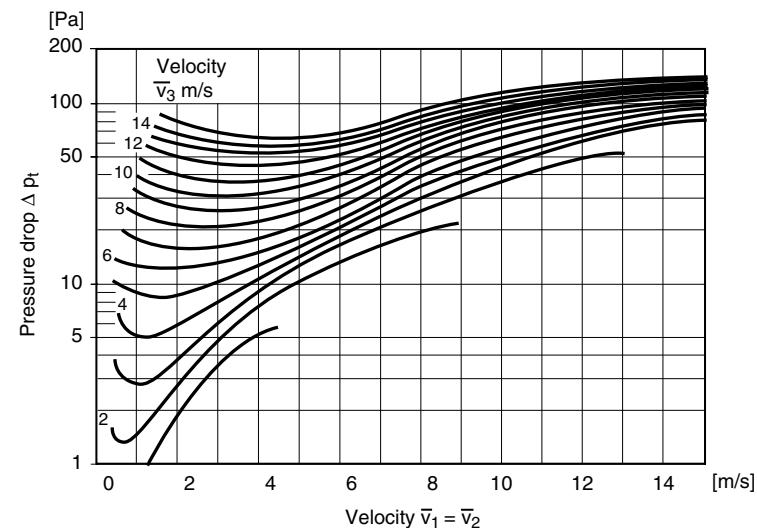
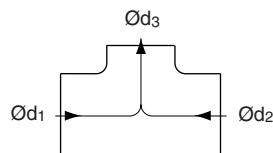
#### Converging flow



The diagram is also applicable to reduction in  $\bar{v}_1$ .



#### Converging flow





# T-piece – Casting-in programme TCSIU

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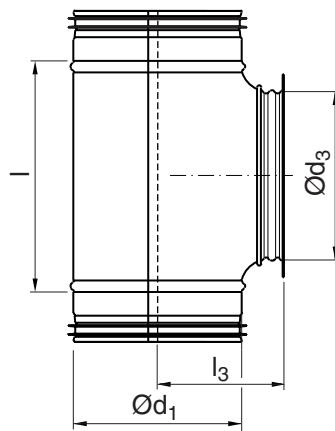
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## Dimensions



### Description

Short branch with air valve socket and nail flange with pre-punched holes.

Fits air valve KGEB etc.

### Ordering example

|                           |       |     |     |      |
|---------------------------|-------|-----|-----|------|
| Product                   | TCSIU | 100 | 100 | GJUT |
| Dimension Ød <sub>1</sub> |       |     |     |      |
| Branch Ød <sub>3</sub>    |       |     |     |      |
| Specification             |       |     |     |      |

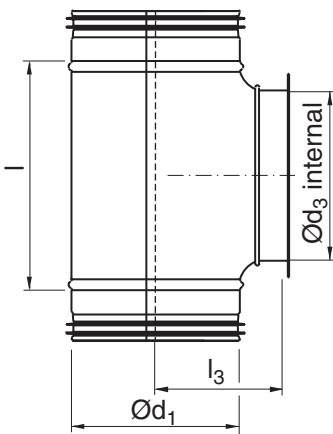
| Ød <sub>1</sub><br>nom | Ød <sub>3</sub><br>mm | I<br>mm | l <sub>3</sub><br>mm | m<br>kg |
|------------------------|-----------------------|---------|----------------------|---------|
| 100                    | 92                    | 130     | 90                   | 0,31    |
| 125                    | 92                    | 130     | 105                  | 0,52    |
| 125                    | 117                   | 165     | 105                  | 0,67    |
| 160                    | 152                   | 229     | 132                  | 1,02    |



# T-piece – Casting-in programme

TCPU

## Dimensions



### Description

Short branch with female end and nail flange with pre-punched holes.

### Ordering example

|                           |      |     |     |      |
|---------------------------|------|-----|-----|------|
| Product                   | TCPU | 100 | 100 | GJUT |
| Dimension Ød <sub>1</sub> |      |     |     |      |
| Branch Ød <sub>3</sub>    |      |     |     |      |
| Specification             |      |     |     |      |

| Ød <sub>1</sub><br>nom | Ød <sub>3</sub><br>mm | I<br>mm | I <sub>3</sub><br>mm | m<br>kg |
|------------------------|-----------------------|---------|----------------------|---------|
| 80*                    | 80                    | 140     | 80                   | 0,38    |
| 100                    | 100                   | 130     | 90                   | 0,30    |
| 125                    | 100                   | 130     | 100                  | 0,49    |
| 125                    | 125                   | 165     | 100                  | 0,59    |
| 160                    | 160                   | 229     | 117                  | 0,90    |

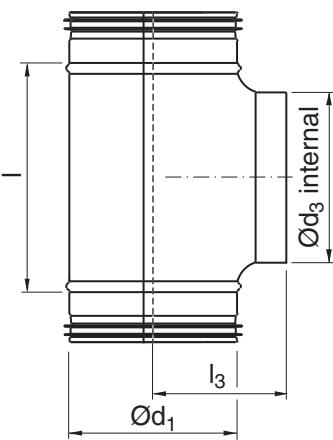
\* Made with saddle PS



# T-piece – Casting-in programme

TCPU

## Dimensions



### Description

Short branch with female end.

### Ordering example

|                           |      |     |     |      |
|---------------------------|------|-----|-----|------|
| Product                   | TCPU | 100 | 100 | GIPS |
| Dimension Ød <sub>1</sub> |      |     |     |      |
| Branch Ød <sub>3</sub>    |      |     |     |      |
| Specification             |      |     |     |      |

| Ød <sub>1</sub><br>nom | Ød <sub>3</sub><br>mm | I<br>mm | I <sub>3</sub><br>mm | m<br>kg |
|------------------------|-----------------------|---------|----------------------|---------|
| 80*                    | 80                    | 140     | 80                   | 0,33    |
| 100                    | 100                   | 130     | 85                   | 0,27    |
| 125                    | 100                   | 130     | 100                  | 0,44    |
| 125                    | 125                   | 165     | 100                  | 0,53    |
| 160                    | 160                   | 229     | 117                  | 0,82    |

\* Made with saddle PS

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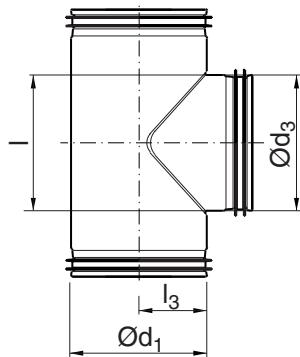
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# T-piece – Casting-in programme

TCPU

## Dimensions



### Description

Short branch and short installation lengths.

### Ordering example

|                         |      |     |     |      |
|-------------------------|------|-----|-----|------|
| Product                 | TCPU | 100 | 100 | KORT |
| Dimension $\text{Ød}_1$ |      |     |     |      |
| Branch $\text{Ød}_3$    |      |     |     |      |
| Specification           |      |     |     |      |

| $\text{Ød}_1$<br>nom | $\text{Ød}_3$<br>mm | I<br>mm | $l_3$<br>mm | m<br>kg |
|----------------------|---------------------|---------|-------------|---------|
| 100                  | 100                 | 100     | 50          | 0,35    |
| 125                  | 125                 | 125     | 63          | 0,50    |
| 160                  | 160                 | 160     | 80          | 0,66    |



# T-pieces

TCU, TU



## Description

### TCU

Centric –

- with hand made T-piece TSTCU.

### TU

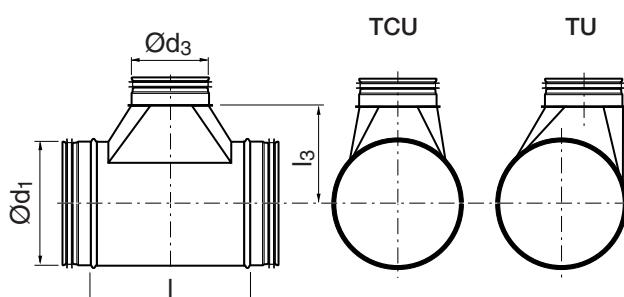
Tangential –

- with hand made T-piece TSTU.

## Ordering example

|                           |     |     |     |
|---------------------------|-----|-----|-----|
| Product                   | TCU | 400 | 250 |
| Dimension Ød <sub>1</sub> |     |     |     |
| Dimension Ød <sub>3</sub> |     |     |     |

## Dimensions



| Ød <sub>1</sub><br>nom | Ød <sub>3</sub><br>nom | l<br>mm | l <sub>3</sub><br>mm | m<br>kg |
|------------------------|------------------------|---------|----------------------|---------|
| 63                     | 63                     | 178     | 77                   | 0,28    |
| 63                     | 80                     | 195     | 77                   | 0,33    |
| 63                     | 100                    | 215     | 77                   | 0,38    |
| 80                     | 63                     | 178     | 85                   | 0,34    |
| 80                     | 80                     | 195     | 85                   | 0,38    |
| 80                     | 100                    | 215     | 85                   | 0,44    |
| 80                     | 112                    | 225     | 85                   | 0,48    |
| 80                     | 125                    | 240     | 85                   | 0,53    |
| 100                    | 63                     | 178     | 95                   | 0,41    |
| 100                    | 80                     | 195     | 95                   | 0,45    |
| 100                    | 100                    | 215     | 95                   | 0,49    |
| 100                    | 112                    | 225     | 95                   | 0,52    |
| 100                    | 125                    | 240     | 95                   | 0,56    |
| 100                    | 140                    | 260     | 100                  | 0,63    |
| 100                    | 150                    | 270     | 100                  | 0,63    |
| 100                    | 160                    | 280     | 100                  | 0,68    |
| 112                    | 63                     | 178     | 100                  | 0,50    |
| 112                    | 80                     | 195     | 100                  | 0,54    |
| 112                    | 100                    | 215     | 100                  | 0,59    |
| 112                    | 112                    | 225     | 100                  | 0,60    |
| 112                    | 125                    | 240     | 100                  | 0,65    |
| 112                    | 140                    | 260     | 105                  | 0,71    |
| 112                    | 150                    | 270     | 105                  | 0,74    |
| 112                    | 160                    | 280     | 105                  | 0,77    |
| 112                    | 180                    | 300     | 105                  | 0,83    |
| 125                    | 63                     | 178     | 110                  | 0,51    |
| 125                    | 80                     | 195     | 110                  | 0,55    |
| 125                    | 100                    | 215     | 110                  | 0,59    |
| 125                    | 112                    | 225     | 110                  | 0,61    |
| 125                    | 125                    | 240     | 110                  | 0,65    |
| 125                    | 140                    | 260     | 115                  | 0,72    |
| 125                    | 150                    | 270     | 115                  | 0,75    |
| 125                    | 160                    | 280     | 115                  | 0,77    |
| 125                    | 180                    | 300     | 115                  | 0,85    |
| 125                    | 200                    | 335     | 130                  | 1,01    |
| 140                    | 63                     | 178     | 115                  | 0,60    |

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# T-pieces

# TCU, TU

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 140                           | 80                            | 195             | 115                         | 0,65            |
| 140                           | 100                           | 215             | 115                         | 0,69            |
| 140                           | 112                           | 225             | 115                         | 0,72            |
| 140                           | 125                           | 240             | 115                         | 0,75            |
| 140                           | 140                           | 260             | 120                         | 0,81            |
| 140                           | 150                           | 270             | 120                         | 0,85            |
| 140                           | 160                           | 280             | 120                         | 0,88            |
| 140                           | 180                           | 300             | 120                         | 0,95            |
| 140                           | 200                           | 335             | 135                         | 1,09            |
| 140                           | 224                           | 360             | 135                         | 1,19            |
| 150                           | 63                            | 178             | 120                         | 0,59            |
| 150                           | 80                            | 195             | 120                         | 0,65            |
| 150                           | 100                           | 215             | 165                         | 0,70            |
| 150                           | 112                           | 225             | 120                         | 0,75            |
| 150                           | 125                           | 240             | 120                         | 0,80            |
| 150                           | 140                           | 260             | 125                         | 0,86            |
| 150                           | 150                           | 270             | 125                         | 0,89            |
| 150                           | 160                           | 280             | 125                         | 0,92            |
| 150                           | 180                           | 300             | 125                         | 0,99            |
| 150                           | 200                           | 335             | 140                         | 1,17            |
| 150                           | 224                           | 360             | 140                         | 1,24            |
| 150                           | 250                           | 385             | 140                         | 1,40            |
| <b>160</b>                    | <b>63</b>                     | <b>178</b>      | <b>125</b>                  | <b>0,58</b>     |
| <b>160</b>                    | <b>80</b>                     | <b>195</b>      | <b>125</b>                  | <b>0,65</b>     |
| <b>160</b>                    | <b>100</b>                    | <b>215</b>      | <b>125</b>                  | <b>0,72</b>     |
| 160                           | 112                           | 225             | 125                         | 0,76            |
| <b>160</b>                    | <b>125</b>                    | <b>240</b>      | <b>125</b>                  | <b>0,82</b>     |
| 160                           | 140                           | 260             | 130                         | 0,89            |
| 160                           | 150                           | 270             | 130                         | 0,91            |
| <b>160</b>                    | <b>160</b>                    | <b>280</b>      | <b>130</b>                  | <b>0,93</b>     |
| 160                           | 180                           | 300             | 130                         | 1,04            |
| <b>160</b>                    | <b>200</b>                    | <b>335</b>      | <b>145</b>                  | <b>1,21</b>     |
| 160                           | 224                           | 360             | 145                         | 1,30            |
| <b>160</b>                    | <b>250</b>                    | <b>385</b>      | <b>145</b>                  | <b>1,52</b>     |
| 180                           | 63                            | 178             | 135                         | 0,69            |
| 180                           | 80                            | 195             | 135                         | 0,76            |
| 180                           | 100                           | 215             | 135                         | 0,82            |
| 180                           | 112                           | 225             | 135                         | 0,87            |
| 180                           | 125                           | 240             | 135                         | 0,90            |
| 180                           | 140                           | 260             | 140                         | 1,00            |
| 180                           | 150                           | 270             | 140                         | 1,03            |
| 180                           | 160                           | 280             | 140                         | 1,07            |
| 180                           | 180                           | 300             | 140                         | 1,12            |
| 180                           | 200                           | 335             | 155                         | 1,32            |
| 180                           | 224                           | 360             | 155                         | 1,41            |
| 180                           | 250                           | 385             | 155                         | 1,58            |
| 180                           | 280                           | 425             | 165                         | 1,98            |
| <b>200</b>                    | <b>63</b>                     | <b>178</b>      | <b>145</b>                  | <b>0,74</b>     |
| <b>200</b>                    | <b>80</b>                     | <b>195</b>      | <b>145</b>                  | <b>0,81</b>     |
| <b>200</b>                    | <b>100</b>                    | <b>215</b>      | <b>145</b>                  | <b>0,87</b>     |
| 200                           | 112                           | 225             | 145                         | 0,92            |
| <b>200</b>                    | <b>125</b>                    | <b>240</b>      | <b>145</b>                  | <b>0,96</b>     |
| 200                           | 140                           | 260             | 150                         | 1,07            |
| 200                           | 150                           | 270             | 150                         | 1,10            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| <b>200</b>                    | <b>160</b>                    | <b>280</b>      | <b>150</b>                  | <b>1,12</b>     |
| 200                           | 180                           | 300             | 150                         | 1,19            |
| <b>200</b>                    | <b>200</b>                    | <b>335</b>      | <b>165</b>                  | <b>1,42</b>     |
| 200                           | 224                           | 360             | 165                         | 1,50            |
| <b>200</b>                    | <b>250</b>                    | <b>385</b>      | <b>165</b>                  | <b>1,68</b>     |
| 200                           | 280                           | 425             | 175                         | 2,06            |
| 200                           | 300                           | 445             | 175                         | 2,19            |
| <b>200</b>                    | <b>315</b>                    | <b>460</b>      | <b>175</b>                  | <b>2,11</b>     |
| 224                           | 63                            | 178             | 160                         | 0,83            |
| 224                           | 80                            | 195             | 160                         | 0,90            |
| 224                           | 100                           | 215             | 160                         | 0,98            |
| 224                           | 112                           | 225             | 160                         | 1,02            |
| 224                           | 125                           | 240             | 160                         | 1,08            |
| 224                           | 140                           | 260             | 165                         | 1,18            |
| 224                           | 150                           | 270             | 165                         | 1,22            |
| 224                           | 160                           | 280             | 165                         | 1,25            |
| 224                           | 180                           | 300             | 165                         | 1,33            |
| 224                           | 200                           | 335             | 180                         | 1,54            |
| 224                           | 224                           | 360             | 180                         | 1,61            |
| 224                           | 250                           | 385             | 180                         | 1,94            |
| 224                           | 280                           | 425             | 190                         | 2,21            |
| 224                           | 300                           | 445             | 190                         | 2,33            |
| 224                           | 315                           | 460             | 190                         | 2,42            |
| 224                           | 355                           | 510             | 200                         | 2,80            |
| <b>250</b>                    | <b>63</b>                     | <b>178</b>      | <b>170</b>                  | <b>1,05</b>     |
| <b>250</b>                    | <b>80</b>                     | <b>195</b>      | <b>170</b>                  | <b>0,99</b>     |
| <b>250</b>                    | <b>100</b>                    | <b>215</b>      | <b>170</b>                  | <b>1,20</b>     |
| 250                           | 112                           | 225             | 170                         | 1,12            |
| <b>250</b>                    | <b>125</b>                    | <b>240</b>      | <b>170</b>                  | <b>1,30</b>     |
| 250                           | 140                           | 260             | 175                         | 1,29            |
| 250                           | 150                           | 270             | 175                         | 1,34            |
| <b>250</b>                    | <b>160</b>                    | <b>280</b>      | <b>175</b>                  | <b>1,49</b>     |
| 250                           | 180                           | 300             | 175                         | 1,46            |
| <b>250</b>                    | <b>200</b>                    | <b>335</b>      | <b>190</b>                  | <b>1,80</b>     |
| 250                           | 224                           | 360             | 190                         | 1,76            |
| <b>250</b>                    | <b>250</b>                    | <b>385</b>      | <b>190</b>                  | <b>2,09</b>     |
| 250                           | 280                           | 425             | 200                         | 2,36            |
| 250                           | 300                           | 445             | 200                         | 2,49            |
| <b>250</b>                    | <b>315</b>                    | <b>460</b>      | <b>200</b>                  | <b>2,55</b>     |
| 250                           | 355                           | 510             | 210                         | 2,97            |
| <b>250</b>                    | <b>400</b>                    | <b>555</b>      | <b>210</b>                  | <b>3,56</b>     |
| 280                           | 80                            | 195             | 185                         | 1,10            |
| 280                           | 100                           | 215             | 185                         | 1,20            |
| 280                           | 112                           | 225             | 185                         | 1,24            |
| 280                           | 125                           | 240             | 185                         | 1,32            |
| 280                           | 140                           | 260             | 190                         | 1,43            |
| 280                           | 150                           | 270             | 190                         | 1,48            |
| 280                           | 160                           | 280             | 190                         | 1,53            |
| 280                           | 180                           | 300             | 190                         | 1,62            |
| 280                           | 200                           | 335             | 205                         | 1,85            |
| 280                           | 224                           | 360             | 205                         | 1,96            |
| 280                           | 250                           | 385             | 205                         | 2,27            |
| 280                           | 280                           | 425             | 215                         | 2,51            |
| 280                           | 300                           | 445             | 215                         | 2,65            |



# T-pieces

# TCU, TU

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 280                           | 315                           | 460             | 215                         | 2,75            |
| 280                           | 355                           | 510             | 225                         | 3,13            |
| 280                           | 400                           | 555             | 225                         | 3,74            |
| 280                           | 450                           | 605             | 225                         | 4,14            |
| 300                           | 80                            | 195             | 195                         | 1,18            |
| 300                           | 100                           | 215             | 195                         | 1,27            |
| 300                           | 112                           | 225             | 195                         | 1,34            |
| 300                           | 125                           | 240             | 195                         | 1,40            |
| 300                           | 140                           | 260             | 200                         | 1,52            |
| 300                           | 150                           | 270             | 200                         | 1,59            |
| 300                           | 160                           | 280             | 200                         | 1,64            |
| 300                           | 180                           | 300             | 200                         | 1,74            |
| 300                           | 200                           | 335             | 215                         | 2,01            |
| 300                           | 224                           | 360             | 215                         | 2,10            |
| 300                           | 250                           | 385             | 215                         | 2,44            |
| 300                           | 280                           | 425             | 225                         | 2,64            |
| 300                           | 300                           | 445             | 225                         | 2,77            |
| 300                           | 315                           | 460             | 225                         | 2,87            |
| 300                           | 355                           | 510             | 235                         | 3,28            |
| 300                           | 400                           | 555             | 235                         | 3,81            |
| 300                           | 450                           | 605             | 235                         | 4,29            |
| <b>315</b>                    | <b>80</b>                     | <b>205</b>      | <b>205</b>                  | <b>1,22</b>     |
| <b>315</b>                    | <b>100</b>                    | <b>225</b>      | <b>205</b>                  | <b>1,33</b>     |
| 315                           | 112                           | 235             | 205                         | 1,38            |
| <b>315</b>                    | <b>125</b>                    | <b>250</b>      | <b>205</b>                  | <b>1,46</b>     |
| 315                           | 140                           | 270             | 210                         | 1,63            |
| 315                           | 150                           | 280             | 210                         | 1,69            |
| <b>315</b>                    | <b>160</b>                    | <b>290</b>      | <b>210</b>                  | <b>1,72</b>     |
| 315                           | 180                           | 310             | 210                         | 1,87            |
| <b>315</b>                    | <b>200</b>                    | <b>345</b>      | <b>225</b>                  | <b>2,09</b>     |
| 315                           | 224                           | 370             | 225                         | 2,28            |
| <b>315</b>                    | <b>250</b>                    | <b>395</b>      | <b>225</b>                  | <b>2,60</b>     |
| 315                           | 280                           | 435             | 235                         | 2,85            |
| 315                           | 300                           | 455             | 235                         | 2,90            |
| <b>315</b>                    | <b>315</b>                    | <b>470</b>      | <b>235</b>                  | <b>3,08</b>     |
| 315                           | 355                           | 520             | 245                         | 3,44            |
| <b>315</b>                    | <b>400</b>                    | <b>565</b>      | <b>245</b>                  | <b>3,99</b>     |
| 315                           | 450                           | 615             | 245                         | 4,31            |
| <b>315</b>                    | <b>500</b>                    | <b>670</b>      | <b>250</b>                  | <b>4,68</b>     |
| 355                           | 100                           | 225             | 225                         | 1,67            |
| 355                           | 112                           | 235             | 225                         | 1,76            |
| 355                           | 125                           | 250             | 225                         | 1,89            |
| 355                           | 140                           | 270             | 230                         | 2,09            |
| 355                           | 150                           | 280             | 230                         | 2,18            |
| 355                           | 160                           | 290             | 230                         | 2,26            |
| 355                           | 180                           | 310             | 230                         | 2,42            |
| 355                           | 200                           | 345             | 245                         | 2,79            |
| 355                           | 224                           | 370             | 245                         | 2,97            |
| 355                           | 250                           | 395             | 245                         | 3,45            |
| 355                           | 280                           | 435             | 245                         | 3,78            |
| 355                           | 300                           | 455             | 255                         | 3,89            |
| 355                           | 315                           | 470             | 255                         | 3,96            |
| 355                           | 355                           | 520             | 265                         | 4,44            |
| 355                           | 400                           | 565             | 265                         | 5,07            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 355                           | 450                           | 615             | 265                         | 5,50            |
| 355                           | 500                           | 670             | 270                         | 5,99            |
| 355                           | 560                           | 730             | 270                         | 6,51            |
| <b>400</b>                    | <b>100</b>                    | <b>225</b>      | <b>245</b>                  | <b>1,90</b>     |
| 400                           | 112                           | 235             | 245                         | 1,97            |
| <b>400</b>                    | <b>125</b>                    | <b>250</b>      | <b>245</b>                  | <b>2,11</b>     |
| 400                           | 140                           | 270             | 250                         | 2,31            |
| 400                           | 150                           | 280             | 250                         | 2,40            |
| <b>400</b>                    | <b>160</b>                    | <b>290</b>      | <b>250</b>                  | <b>2,50</b>     |
| 400                           | 180                           | 310             | 250                         | 2,68            |
| <b>400</b>                    | <b>200</b>                    | <b>345</b>      | <b>265</b>                  | <b>3,04</b>     |
| 400                           | 224                           | 370             | 265                         | 3,30            |
| <b>400</b>                    | <b>250</b>                    | <b>395</b>      | <b>265</b>                  | <b>3,84</b>     |
| 400                           | 280                           | 435             | 275                         | 4,16            |
| 400                           | 300                           | 455             | 275                         | 4,38            |
| <b>400</b>                    | <b>315</b>                    | <b>470</b>      | <b>275</b>                  | <b>4,43</b>     |
| 400                           | 355                           | 520             | 285                         | 4,85            |
| <b>400</b>                    | <b>400</b>                    | <b>565</b>      | <b>285</b>                  | <b>5,54</b>     |
| 400                           | 450                           | 615             | 285                         | 5,99            |
| <b>400</b>                    | <b>500</b>                    | <b>670</b>      | <b>290</b>                  | <b>6,59</b>     |
| 400                           | 560                           | 730             | 290                         | 7,11            |
| 400                           | 600                           | 770             | 290                         | 7,47            |
| <b>400</b>                    | <b>630</b>                    | <b>800</b>      | <b>290</b>                  | <b>7,73</b>     |
| 450                           | 125                           | 250             | 270                         | 2,26            |
| 450                           | 140                           | 270             | 275                         | 2,52            |
| 450                           | 150                           | 280             | 275                         | 2,62            |
| 450                           | 160                           | 290             | 275                         | 2,73            |
| 450                           | 180                           | 310             | 275                         | 2,94            |
| 450                           | 200                           | 345             | 290                         | 3,41            |
| 450                           | 224                           | 370             | 290                         | 3,66            |
| 450                           | 250                           | 395             | 290                         | 4,26            |
| 450                           | 280                           | 435             | 300                         | 4,72            |
| 450                           | 300                           | 455             | 300                         | 4,89            |
| 450                           | 315                           | 470             | 300                         | 5,02            |
| 450                           | 355                           | 520             | 310                         | 5,50            |
| 450                           | 400                           | 565             | 310                         | 6,19            |
| 450                           | 450                           | 615             | 310                         | 6,44            |
| 450                           | 500                           | 670             | 315                         | 7,16            |
| 450                           | 560                           | 730             | 315                         | 7,78            |
| 450                           | 600                           | 770             | 315                         | 8,19            |
| 450                           | 630                           | 800             | 315                         | 8,50            |
| 450                           | 710                           | 880             | 315                         | 9,85            |
| <b>500</b>                    | <b>125</b>                    | <b>250</b>      | <b>295</b>                  | <b>2,56</b>     |
| 500                           | 140                           | 270             | 300                         | 2,79            |
| 500                           | 150                           | 280             | 300                         | 2,90            |
| <b>500</b>                    | <b>160</b>                    | <b>290</b>      | <b>300</b>                  | <b>2,99</b>     |
| 500                           | 180                           | 310             | 300                         | 3,18            |
| <b>500</b>                    | <b>200</b>                    | <b>345</b>      | <b>315</b>                  | <b>3,73</b>     |
| 500                           | 224                           | 370             | 315                         | 3,87            |
| <b>500</b>                    | <b>250</b>                    | <b>395</b>      | <b>315</b>                  | <b>4,57</b>     |
| 500                           | 280                           | 435             | 325                         | 4,99            |
| 500                           | 300                           | 455             | 325                         | 5,18            |
| <b>500</b>                    | <b>315</b>                    | <b>470</b>      | <b>325</b>                  | <b>5,32</b>     |
| 500                           | 355                           | 520             | 335                         | 5,89            |



# T-pieces

# TCU, TU

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 500                           | 400                           | 565             | 335                         | 6,15            |
| 500                           | 450                           | 615             | 335                         | 7,15            |
| <b>500</b>                    | <b>500</b>                    | <b>670</b>      | <b>340</b>                  | <b>7,81</b>     |
| 500                           | 560                           | 730             | 340                         | 8,60            |
| 500                           | 600                           | 770             | 340                         | 9,19            |
| <b>500</b>                    | <b>630</b>                    | <b>800</b>      | <b>340</b>                  | <b>9,41</b>     |
| 500                           | 710                           | 880             | 340                         | 11,5            |
| <b>500</b>                    | <b>800</b>                    | <b>970</b>      | <b>340</b>                  | <b>13,0</b>     |
| 560                           | 200                           | 345             | 345                         | 4,07            |
| 560                           | 224                           | 370             | 345                         | 4,33            |
| 560                           | 250                           | 395             | 345                         | 5,03            |
| 560                           | 280                           | 435             | 355                         | 5,56            |
| 560                           | 300                           | 455             | 355                         | 5,77            |
| 560                           | 315                           | 470             | 355                         | 5,93            |
| 560                           | 355                           | 520             | 365                         | 6,56            |
| 560                           | 400                           | 565             | 365                         | 7,52            |
| 560                           | 450                           | 615             | 365                         | 8,01            |
| 560                           | 500                           | 670             | 370                         | 8,56            |
| 560                           | 560                           | 730             | 370                         | 9,21            |
| 560                           | 600                           | 770             | 370                         | 9,80            |
| 560                           | 630                           | 800             | 370                         | 10,3            |
| 560                           | 710                           | 880             | 370                         | 12,1            |
| 560                           | 800                           | 970             | 370                         | 13,7            |
| 560                           | 900                           | 1090            | 370                         | 15,6            |
| 600                           | 200                           | 345             | 365                         | 4,34            |
| 600                           | 224                           | 370             | 365                         | 4,62            |
| 600                           | 250                           | 395             | 365                         | 5,37            |
| 600                           | 280                           | 435             | 375                         | 5,93            |
| 600                           | 300                           | 455             | 375                         | 6,15            |
| 600                           | 315                           | 470             | 375                         | 6,32            |
| 600                           | 355                           | 520             | 385                         | 6,99            |
| 600                           | 400                           | 565             | 385                         | 8,01            |
| 600                           | 450                           | 615             | 385                         | 8,55            |
| 600                           | 500                           | 670             | 390                         | 9,16            |
| 600                           | 560                           | 730             | 390                         | 9,63            |
| 600                           | 600                           | 770             | 390                         | 10,5            |
| 600                           | 630                           | 800             | 390                         | 10,7            |
| 600                           | 710                           | 880             | 390                         | 12,6            |
| 600                           | 800                           | 970             | 390                         | 14,1            |
| 600                           | 900                           | 1090            | 390                         | 16,1            |
| <b>630</b>                    | <b>200</b>                    | <b>355</b>      | <b>380</b>                  | <b>4,56</b>     |
| 630                           | 224                           | 380             | 380                         | 4,84            |
| <b>630</b>                    | <b>250</b>                    | <b>405</b>      | <b>380</b>                  | <b>5,62</b>     |
| 630                           | 280                           | 445             | 390                         | 6,21            |
| 630                           | 300                           | 465             | 390                         | 6,44            |
| <b>630</b>                    | <b>315</b>                    | <b>480</b>      | <b>390</b>                  | <b>6,62</b>     |
| 630                           | 355                           | 530             | 400                         | 7,23            |
| <b>630</b>                    | <b>400</b>                    | <b>575</b>      | <b>400</b>                  | <b>8,48</b>     |
| 630                           | 450                           | 625             | 400                         | 8,95            |
| <b>630</b>                    | <b>500</b>                    | <b>680</b>      | <b>405</b>                  | <b>9,72</b>     |
| 630                           | 560                           | 740             | 405                         | 10,2            |
| 630                           | 600                           | 780             | 405                         | 10,4            |
| <b>630</b>                    | <b>630</b>                    | <b>810</b>      | <b>405</b>                  | <b>10,8</b>     |
| 630                           | 710                           | 890             | 405                         | 12,9            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 630                           | 800                           | 980             | 405                         | 14,4            |
| 630                           | 900                           | 1100            | 405                         | 16,4            |
| <b>630</b>                    | <b>1000</b>                   | <b>1200</b>     | <b>405</b>                  | <b>18,3</b>     |
| 710                           | 250                           | 455             | 420                         | 6,34            |
| 710                           | 280                           | 495             | 420                         | 7,00            |
| 710                           | 300                           | 515             | 430                         | 7,26            |
| 710                           | 315                           | 530             | 430                         | 7,46            |
| 710                           | 355                           | 580             | 440                         | 8,24            |
| 710                           | 400                           | 625             | 440                         | 9,49            |
| 710                           | 450                           | 675             | 440                         | 10,1            |
| 710                           | 500                           | 730             | 445                         | 10,9            |
| 710                           | 560                           | 790             | 445                         | 11,6            |
| 710                           | 600                           | 830             | 445                         | 12,1            |
| 710                           | 630                           | 860             | 445                         | 12,3            |
| 710                           | 710                           | 940             | 445                         | 14,1            |
| 710                           | 800                           | 1030            | 445                         | 15,7            |
| 710                           | 900                           | 1150            | 445                         | 17,8            |
| 710                           | 1000                          | 1250            | 445                         | 19,8            |
| 710                           | 1120                          | 1370            | 445                         | 23,2            |
| <b>800</b>                    | <b>250</b>                    | <b>455</b>      | <b>465</b>                  | <b>8,49</b>     |
| 800                           | 280                           | 495             | 475                         | 9,46            |
| 800                           | 300                           | 515             | 475                         | 9,80            |
| <b>800</b>                    | <b>315</b>                    | <b>530</b>      | <b>475</b>                  | <b>9,99</b>     |
| 800                           | 355                           | 580             | 485                         | 11,1            |
| <b>800</b>                    | <b>400</b>                    | <b>625</b>      | <b>485</b>                  | <b>12,6</b>     |
| 800                           | 450                           | 675             | 485                         | 13,4            |
| <b>800</b>                    | <b>500</b>                    | <b>730</b>      | <b>490</b>                  | <b>14,6</b>     |
| 800                           | 560                           | 790             | 490                         | 15,3            |
| 800                           | 600                           | 830             | 490                         | 15,8            |
| <b>800</b>                    | <b>630</b>                    | <b>860</b>      | <b>490</b>                  | <b>16,5</b>     |
| 800                           | 710                           | 940             | 490                         | 18,0            |
| <b>800</b>                    | <b>800</b>                    | <b>1030</b>     | <b>490</b>                  | <b>19,5</b>     |
| 800                           | 900                           | 1150            | 490                         | 21,5            |
| <b>800</b>                    | <b>1000</b>                   | <b>1250</b>     | <b>490</b>                  | <b>22,6</b>     |
| 800                           | 1120                          | 1370            | 490                         | 27,6            |
| <b>800</b>                    | <b>1250</b>                   | <b>1500</b>     | <b>490</b>                  | <b>30,8</b>     |
| 900                           | 315                           | 530             | 525                         | 11,5            |
| 900                           | 355                           | 580             | 535                         | 12,8            |
| 900                           | 400                           | 625             | 535                         | 15,0            |
| 900                           | 450                           | 675             | 535                         | 15,7            |
| 900                           | 500                           | 730             | 540                         | 16,9            |
| 900                           | 560                           | 790             | 540                         | 18,2            |
| 900                           | 600                           | 830             | 540                         | 19,0            |
| 900                           | 630                           | 860             | 540                         | 19,6            |
| 900                           | 710                           | 940             | 540                         | 22,2            |
| 900                           | 800                           | 1030            | 540                         | 23,8            |
| 900                           | 900                           | 1150            | 540                         | 26,1            |
| 900                           | 1000                          | 1250            | 540                         | 29,1            |
| 900                           | 1120                          | 1370            | 540                         | 34,1            |
| 900                           | 1250                          | 1500            | 540                         | 38,5            |
| <b>1000</b>                   | <b>315</b>                    | <b>530</b>      | <b>575</b>                  | <b>12,7</b>     |
| 1000                          | 355                           | 580             | 585                         | 14,1            |
| <b>1000</b>                   | <b>400</b>                    | <b>625</b>      | <b>585</b>                  | <b>16,1</b>     |
| 1000                          | 450                           | 675             | 585                         | 17,3            |



# T-pieces

TCU, TU

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| <b>1000</b>                   | <b>500</b>                    | <b>730</b>      | <b>590</b>                  | <b>18,4</b>     |
| 1000                          | 560                           | 790             | 590                         | 20,1            |
| 1000                          | 600                           | 830             | 590                         | 21,0            |
| <b>1000</b>                   | <b>630</b>                    | <b>860</b>      | <b>590</b>                  | <b>22,0</b>     |
| 1000                          | 710                           | 940             | 590                         | 24,7            |
| <b>1000</b>                   | <b>800</b>                    | <b>1030</b>     | <b>590</b>                  | <b>26,8</b>     |
| 1000                          | 900                           | 1150            | 590                         | 29,1            |
| <b>1000</b>                   | <b>1000</b>                   | <b>1250</b>     | <b>590</b>                  | <b>31,8</b>     |
| 1000                          | 1120                          | 1370            | 590                         | 37,4            |
| <b>1000</b>                   | <b>1250</b>                   | <b>1500</b>     | <b>590</b>                  | <b>42,5</b>     |
| 1120                          | 500                           | 730             | 650                         | 20,5            |
| 1120                          | 560                           | 790             | 650                         | 22,3            |
| 1120                          | 600                           | 830             | 650                         | 23,3            |
| 1120                          | 630                           | 860             | 650                         | 24,1            |
| 1120                          | 710                           | 940             | 650                         | 27,5            |
| 1120                          | 800                           | 1030            | 650                         | 29,9            |
| 1120                          | 900                           | 1150            | 650                         | 32,9            |
| 1120                          | 1000                          | 1250            | 650                         | 35,0            |
| 1120                          | 1120                          | 1370            | 650                         | 40,0            |
| 1120                          | 1250                          | 1500            | 650                         | 45,3            |
| <b>1250</b>                   | <b>500</b>                    | <b>730</b>      | <b>715</b>                  | <b>22,9</b>     |
| 1250                          | 560                           | 790             | 715                         | 24,6            |
| 1250                          | 600                           | 830             | 715                         | 25,8            |
| <b>1250</b>                   | <b>630</b>                    | <b>860</b>      | <b>715</b>                  | <b>26,7</b>     |
| 1250                          | 710                           | 940             | 715                         | 30,4            |
| <b>1250</b>                   | <b>800</b>                    | <b>1030</b>     | <b>715</b>                  | <b>33,1</b>     |
| 1250                          | 900                           | 1150            | 715                         | 36,5            |
| <b>1250</b>                   | <b>1000</b>                   | <b>1250</b>     | <b>715</b>                  | <b>39,2</b>     |
| 1250                          | 1120                          | 1370            | 715                         | 43,9            |
| <b>1250</b>                   | <b>1250</b>                   | <b>1500</b>     | <b>715</b>                  | <b>48,4</b>     |



# X-piece

XCU



## Description

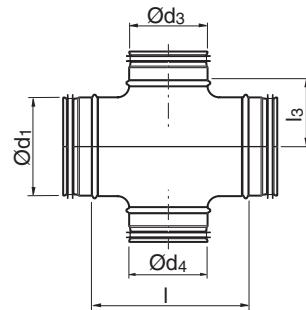
Centric –

- fully pressed or
- with saddle PSU or
- with hand made T-piece TSTCU

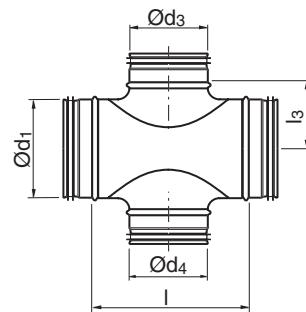
## Ordering example

|   |     |     |     |
|---|-----|-----|-----|
| Product                                     | XCU | 400 | 250 |
| Dimension Ød <sub>1</sub>                   |     |     |     |
| Dimension Ød <sub>3</sub> , Ød <sub>4</sub> |     |     |     |

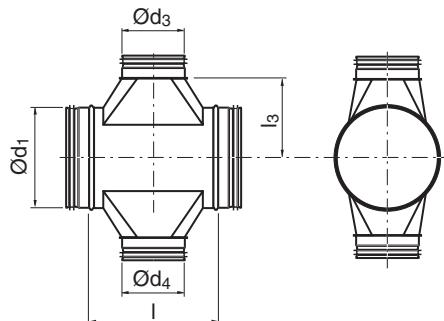
## Dimensions



Centric – fully pressed



\* Centric – with saddle PSU



\*\* Centric – with hand made T-piece TSTCU

| Ød <sub>1</sub><br>nom | Ød <sub>3</sub> , Ød <sub>4</sub><br>nom | l<br>mm | l <sub>3</sub><br>mm | m<br>kg |
|------------------------|--|---------|----------------------|---------|
| 63*                    | 63                                       | 125     | 42                   | 0,38    |
| 80*                    | 63                                       | 125     | 50                   | 0,31    |
| 80*                    | 80                                       | 140     | 52                   | 0,36    |
| 100*                   | 63                                       | 125     | 60                   | 0,35    |
| 100*                   | 80                                       | 126     | 65                   | 0,43    |
| 100                    | 100                                      | 130     | 65                   | 0,37    |
| 112                    | 63                                       | 125     | 66                   | 0,68    |
| 112                    | 80                                       | 140     | 68                   | 0,73    |
| 112                    | 100                                      | 175     | 71                   | 0,77    |
| 112                    | 112                                      | 225     | 100                  | 0,80    |
| 125*                   | 63                                       | 125     | 73                   | 0,44    |
| 125*                   | 80                                       | 146     | 75                   | 0,51    |
| 125*                   | 100                                      | 175     | 78                   | 0,45    |
| 125                    | 112                                      | 225     | 110                  | 0,77    |
| 125                    | 125                                      | 165     | 83                   | 0,57    |



# X-piece

**XCU**

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| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 140                           | 63  | 178             | 115                         | 0,79            |
| 140                           | 80  | 140             | 82                          | 0,79            |
| 140                           | 100   | 175             | 85                          | 0,86            |
| 140                           | 112   | 225             | 115                         | 0,88            |
| 140                           | 125   | 240             | 115                         | 0,92            |
| 140                           | 140   | 230             | 90                          | 0,99            |
| 150                           | 63  | 178             | 120                         | 0,67            |
| 150                           | 80  | 140             | 87                          | 0,77            |
| 150                           | 100   | 175             | 90                          | 0,86            |
| 150                           | 112   | 225             | 120                         | 0,90            |
| 150                           | 125   | 215             | 95                          | 0,96            |
| 150                           | 140   | 230             | 95                          | 1,03            |
| 150                           | 150   | 260             | 95                          | 1,08            |
| <b>160**</b>                  | <b>63</b>                                     | <b>178</b>      | <b>125</b>                  | <b>0,62</b>     |
| <b>160*</b>                   | <b>80</b>                                     | <b>140</b>      | <b>92</b>                   | <b>0,59</b>     |
| <b>160*</b>                   | <b>100</b>                                    | <b>175</b>      | <b>95</b>                   | <b>0,91</b>     |
| 160                           | 112   | 225             | 125                         | 0,89            |
| <b>160*</b>                   | <b>125</b>                                    | <b>215</b>      | <b>100</b>                  | <b>0,91</b>     |
| 160                           | 140   | 230             | 100                         | 1,05            |
| 160                           | 150   | 260             | 100                         | 1,08            |
| <b>160</b>                    | <b>160</b>                                    | <b>209</b>      | <b>105</b>                  | <b>0,67</b>     |
| 180                           | 63  | 178             | 135                         | 0,79            |
| 180                           | 80  | 140             | 102                         | 0,88            |
| 180                           | 100   | 175             | 105                         | 0,97            |
| 180                           | 112   | 225             | 135                         | 1,01            |
| 180                           | 125   | 215             | 110                         | 1,08            |
| 180                           | 140   | 230             | 110                         | 1,18            |
| 180                           | 150   | 260             | 110                         | 1,21            |
| 180                           | 160   | 260             | 115                         | 1,26            |
| 180                           | 180   | 285             | 115                         | 1,33            |
| <b>200**</b>                  | <b>63</b>                                     | <b>178</b>      | <b>145</b>                  | <b>0,83</b>     |
| <b>200*</b>                   | <b>80</b>                                     | <b>140</b>      | <b>112</b>                  | <b>0,77</b>     |
| <b>200*</b>                   | <b>100</b>                                    | <b>175</b>      | <b>115</b>                  | <b>0,88</b>     |
| 200                           | 112   | 200             | 145                         | 1,05            |
| <b>200*</b>                   | <b>125</b>                                    | <b>215</b>      | <b>115</b>                  | <b>1,02</b>     |
| 200                           | 140   | 230             | 120                         | 1,22            |
| 200                           | 150   | 260             | 120                         | 1,26            |
| <b>200*</b>                   | <b>160</b>                                    | <b>260</b>      | <b>125</b>                  | <b>0,77</b>     |
| 200                           | 180   | 285             | 125                         | 1,36            |
| <b>200</b>                    | <b>200</b>                                    | <b>249</b>      | <b>125</b>                  | <b>1,70</b>     |
| 224                           | 63  | 178             | 160                         | 0,91            |
| 224                           | 80  | 140             | 124                         | 0,99            |
| 224                           | 100   | 175             | 127                         | 1,09            |
| 224                           | 112   | 200             | 160                         | 1,14            |
| 224                           | 125   | 215             | 132                         | 1,22            |
| 224                           | 140   | 230             | 132                         | 1,33            |
| 224                           | 150   | 260             | 132                         | 1,38            |
| 224                           | 160   | 260             | 137                         | 1,42            |
| 224                           | 180   | 285             | 137                         | 1,50            |
| 224                           | 200   | 346             | 137                         | 1,81            |
| 224                           | 224   | 346             | 137                         | 1,83            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| <b>250**</b>                  | <b>63</b>                                     | <b>178</b>      | <b>170</b>                  | <b>0,99</b>     |
| <b>250*</b>                   | <b>80</b>                                     | <b>156</b>      | <b>137</b>                  | <b>1,13</b>     |
| <b>250*</b>                   | <b>100</b>                                    | <b>175</b>      | <b>140</b>                  | <b>1,22</b>     |
| 250                           | 112   | 200             | 170                         | 1,24            |
| <b>250*</b>                   | <b>125</b>                                    | <b>220</b>      | <b>145</b>                  | <b>1,48</b>     |
| 250                           | 140   | 230             | 145                         | 1,45            |
| 250                           | 150   | 255             | 145                         | 1,50            |
| <b>250*</b>                   | <b>160</b>                                    | <b>256</b>      | <b>150</b>                  | <b>1,58</b>     |
| 250                           | 180   | 306             | 150                         | 1,65            |
| <b>250*</b>                   | <b>200</b>                                    | <b>306</b>      | <b>150</b>                  | <b>1,78</b>     |
| 250                           | 224   | 350             | 150                         | 1,98            |
| <b>250</b>                    | <b>250</b>                                    | <b>296</b>      | <b>150</b>                  | <b>1,78</b>     |
| 280                           | 80  | 156             | 152                         | 1,20            |
| 280                           | 100   | 175             | 155                         | 1,31            |
| 280                           | 112   | 200             | 185                         | 1,37            |
| 280                           | 125   | 220             | 160                         | 1,46            |
| 280                           | 140   | 230             | 160                         | 1,59            |
| 280                           | 150   | 255             | 160                         | 1,65            |
| 280                           | 160   | 256             | 165                         | 1,71            |
| 280                           | 180   | 306             | 165                         | 1,81            |
| 280                           | 200   | 306             | 165                         | 2,08            |
| 280                           | 224   | 350             | 165                         | 2,19            |
| 280                           | 250   | 385             | 205                         | 2,57            |
| 280                           | 280   | 425             | 215                         | 2,86            |
| 300                           | 80  | 156             | 162                         | 1,29            |
| 300                           | 100   | 175             | 165                         | 1,38            |
| 300                           | 112   | 200             | 195                         | 1,47            |
| 300                           | 125   | 220             | 170                         | 1,53            |
| 300                           | 140   | 230             | 170                         | 1,66            |
| 300                           | 150   | 255             | 170                         | 1,76            |
| 300                           | 160   | 256             | 175                         | 1,82            |
| 300                           | 180   | 306             | 175                         | 1,93            |
| 300                           | 200   | 306             | 175                         | 2,27            |
| 300                           | 224   | 350             | 175                         | 2,34            |
| 300                           | 250   | 350             | 175                         | 2,75            |
| 300                           | 280   | 425             | 225                         | 2,95            |
| 300                           | 300   | 445             | 225                         | 3,12            |
| <b>315*</b>                   | <b>80</b>                                     | <b>156</b>      | <b>170</b>                  | <b>1,43</b>     |
| <b>315*</b>                   | <b>100</b>                                    | <b>175</b>      | <b>173</b>                  | <b>1,50</b>     |
| 315                           | 112   | 200             | 205                         | 1,49            |
| <b>315*</b>                   | <b>125</b>                                    | <b>220</b>      | <b>178</b>                  | <b>1,76</b>     |
| 315                           | 140   | 230             | 178                         | 1,81            |
| 315                           | 150   | 255             | 178                         | 1,90            |
| <b>315*</b>                   | <b>160</b>                                    | <b>256</b>      | <b>182</b>                  | <b>1,96</b>     |
| 315                           | 180   | 306             | 182                         | 2,13            |
| <b>315*</b>                   | <b>200</b>                                    | <b>306</b>      | <b>182</b>                  | <b>2,14</b>     |
| 315                           | 224   | 350             | 182                         | 2,61            |
| <b>315*</b>                   | <b>250</b>                                    | <b>350</b>      | <b>182</b>                  | <b>2,59</b>     |
| 315                           | 280   | 435             | 235                         | 3,26            |
| 315                           | 300   | 430             | 182                         | 3,26            |
| <b>315</b>                    | <b>315</b>                                    | <b>363</b>      | <b>182</b>                  | <b>3,73</b>     |



# X-piece

XCU

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 355                           | 100   | 175             | 193                         | 1,74            |
| 355                           | 112   | 200             | 225                         | 1,85            |
| 355                           | 125   | 220             | 198                         | 2,03            |
| 355                           | 140   | 230             | 198                         | 2,29            |
| 355                           | 150   | 255             | 198                         | 2,40            |
| 355                           | 160   | 256             | 203                         | 2,50            |
| 355                           | 180   | 306             | 203                         | 2,71            |
| 355                           | 200   | 306             | 203                         | 3,15            |
| 355                           | 224   | 350             | 203                         | 3,37            |
| 355                           | 250   | 350             | 203                         | 3,96            |
| 355                           | 280   | 435             | 245                         | 4,33            |
| 355                           | 300   | 430             | 203                         | 4,43            |
| 355                           | 315   | 470             | 255                         | 4,48            |
| 355                           | 355   | 520             | 265                         | 5,09            |
| <b>400*</b>                   | <b>100</b>                                    | <b>175</b>      | <b>215</b>                  | <b>2,27</b>     |
| 400                           | 112   | 200             | 245                         | 2,05            |
| <b>400*</b>                   | <b>125</b>                                    | <b>225</b>      | <b>220</b>                  | <b>2,81</b>     |
| 400                           | 140   | 270             | 250                         | 2,47            |
| 400                           | 150   | 255             | 220                         | 2,60            |
| <b>400*</b>                   | <b>160</b>                                    | <b>266</b>      | <b>225</b>                  | <b>3,02</b>     |
| 400                           | 180   | 310             | 250                         | 2,95            |
| <b>400*</b>                   | <b>200</b>                                    | <b>300</b>      | <b>225</b>                  | <b>3,37</b>     |
| 400                           | 224   | 350             | 225                         | 3,71            |
| <b>400*</b>                   | <b>250</b>                                    | <b>350</b>      | <b>225</b>                  | <b>3,79</b>     |
| 400                           | 280   | 435             | 275                         | 4,68            |
| 400                           | 300   | 430             | 225                         | 4,97            |
| <b>400*</b>                   | <b>315</b>                                    | <b>415</b>      | <b>225</b>                  | <b>4,42</b>     |
| 400                           | 355   | 470             | 225                         | 5,42            |
| <b>400*</b>                   | <b>400</b>                                    | <b>510</b>      | <b>225</b>                  | <b>6,20</b>     |
| 450                           | 125   | 225             | 245                         | 2,30            |
| 450                           | 140   | 270             | 275                         | 2,62            |
| 450                           | 150   | 255             | 245                         | 2,76            |
| 450                           | 160   | 266             | 250                         | 2,90            |
| 450                           | 180   | 310             | 275                         | 3,17            |
| 450                           | 200   | 300             | 250                         | 3,75            |
| 450                           | 224   | 350             | 250                         | 4,06            |
| 450                           | 250   | 350             | 250                         | 4,79            |
| 450                           | 280   | 435             | 300                         | 5,33            |
| 450                           | 300   | 430             | 250                         | 5,54            |
| 450                           | 315   | 415             | 250                         | 5,68            |
| 450                           | 355   | 525             | 310                         | 6,19            |
| 450                           | 400   | 510             | 250                         | 6,96            |
| 450                           | 450   | 615             | 310                         | 7,08            |
| <b>500*</b>                   | <b>125</b>                                    | <b>225</b>      | <b>270</b>                  | <b>3,35</b>     |
| 500                           | 140   | 270             | 300                         | 2,91            |
| 500                           | 150   | 255             | 270                         | 3,04            |
| <b>500*</b>                   | <b>160</b>                                    | <b>266</b>      | <b>275</b>                  | <b>3,77</b>     |
| 500                           | 180   | 310             | 300                         | 3,35            |
| <b>500*</b>                   | <b>200</b>                                    | <b>300</b>      | <b>275</b>                  | <b>4,14</b>     |
| 500                           | 224   | 350             | 275                         | 4,12            |
| <b>500*</b>                   | <b>250</b>                                    | <b>350</b>      | <b>275</b>                  | <b>4,68</b>     |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 500                           | 280   | 435             | 325                         | 5,42            |
| 500                           | 300   | 430             | 275                         | 5,64            |
| <b>500*</b>                   | <b>315</b>                                    | <b>415</b>      | <b>275</b>                  | <b>5,30</b>     |
| 500                           | 355   | 470             | 275                         | 6,45            |
| <b>500*</b>                   | <b>400</b>                                    | <b>510</b>      | <b>275</b>                  | <b>6,34</b>     |
| 500                           | 450   | 615             | 335                         | 7,86            |
| <b>500**</b>                  | <b>500</b>                                    | <b>670</b>      | <b>340</b>                  | <b>8,69</b>     |
| 560                           | 200   | 300             | 305                         | 4,30            |
| 560                           | 224   | 350             | 305                         | 4,59            |
| 560                           | 250   | 350             | 305                         | 5,41            |
| 560                           | 280   | 435             | 355                         | 6,01            |
| 560                           | 300   | 430             | 305                         | 6,25            |
| 560                           | 315   | 415             | 305                         | 6,43            |
| 560                           | 355   | 520             | 365                         | 7,15            |
| 560                           | 400   | 510             | 305                         | 8,28            |
| 560                           | 450   | 615             | 365                         | 8,82            |
| 560                           | 500   | 670             | 370                         | 9,35            |
| 560                           | 560   | 730             | 370                         | 10,1            |
| 600                           | 200   | 300             | 325                         | 4,59            |
| 600                           | 224   | 350             | 325                         | 4,89            |
| 600                           | 250   | 350             | 325                         | 5,75            |
| 600                           | 280   | 430             | 325                         | 6,38            |
| 600                           | 300   | 430             | 325                         | 6,64            |
| 600                           | 315   | 415             | 325                         | 6,83            |
| 600                           | 355   | 510             | 325                         | 7,59            |
| 600                           | 400   | 510             | 325                         | 8,78            |
| 600                           | 450   | 615             | 385                         | 9,38            |
| 600                           | 500   | 670             | 390                         | 10,0            |
| 600                           | 560   | 730             | 390                         | 10,4            |
| 600                           | 600   | 770             | 390                         | 11,7            |
| <b>630*</b>                   | <b>200</b>                                    | <b>300</b>      | <b>340</b>                  | <b>5,35</b>     |
| 630                           | 224   | 350             | 340                         | 5,12            |
| <b>630*</b>                   | <b>250</b>                                    | <b>350</b>      | <b>340</b>                  | <b>6,00</b>     |
| 630                           | 280   | 445             | 390                         | 6,67            |
| 630                           | 300   | 430             | 340                         | 6,93            |
| <b>630*</b>                   | <b>315</b>                                    | <b>415</b>      | <b>340</b>                  | <b>6,77</b>     |
| 630                           | 355   | 530             | 400                         | 7,74            |
| <b>630*</b>                   | <b>400</b>                                    | <b>510</b>      | <b>340</b>                  | <b>7,69</b>     |
| 630                           | 450   | 625             | 400                         | 9,78            |
| <b>630**</b>                  | <b>500</b>                                    | <b>680</b>      | <b>405</b>                  | <b>10,7</b>     |
| 630                           | 560   | 740             | 405                         | 11,0            |
| 630                           | 600   | 780             | 405                         | 11,1            |
| <b>630**</b>                  | <b>630</b>                                    | <b>810</b>      | <b>405</b>                  | <b>11,6</b>     |
| 710                           | 250   | 455             | 420                         | 6,78            |
| 710                           | 280   | 495             | 420                         | 7,52            |
| 710                           | 300   | 515             | 430                         | 7,82            |
| 710                           | 315   | 530             | 430                         | 8,05            |
| 710                           | 355   | 580             | 440                         | 8,91            |
| 710                           | 400   | 625             | 440                         | 10,4            |
| 710                           | 450   | 675             | 440                         | 11,1            |
| 710                           | 500   | 730             | 445                         | 12,0            |



# X-piece

XCU

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11

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 710                           | 560   | 790             | 445                         | 12,7            |
| 710                           | 600   | 830             | 445                         | 13,2            |
| 710                           | 630   | 860             | 445                         | 13,4            |
| 710                           | 710   | 940             | 445                         | 15,5            |
| <b>800**</b>                  | <b>250</b>                                    | <b>455</b>      | <b>465</b>                  | <b>7,08</b>     |
| 800                           | 280   | 495             | 475                         | 8,10            |
| 800                           | 300   | 515             | 475                         | 8,42            |
| <b>800**</b>                  | <b>315</b>                                    | <b>530</b>      | <b>475</b>                  | <b>8,54</b>     |
| 800                           | 355   | 580             | 485                         | 9,60            |
| <b>800**</b>                  | <b>400</b>                                    | <b>625</b>      | <b>485</b>                  | <b>11,1</b>     |
| 800                           | 450   | 675             | 485                         | 11,9            |
| <b>800**</b>                  | <b>500</b>                                    | <b>730</b>      | <b>490</b>                  | <b>13,3</b>     |
| 800                           | 560   | 790             | 490                         | 13,7            |
| 800                           | 600   | 830             | 490                         | 14,2            |
| <b>800**</b>                  | <b>630</b>                                    | <b>860</b>      | <b>490</b>                  | <b>15,2</b>     |
| 800                           | 710   | 940             | 490                         | 16,3            |
| <b>800**</b>                  | <b>800</b>                                    | <b>1030</b>     | <b>490</b>                  | <b>17,9</b>     |
| 900                           | 315   | 530             | 525                         | 11,9            |
| 900                           | 355   | 580             | 535                         | 13,2            |
| 900                           | 400   | 625             | 535                         | 16,0            |
| 900                           | 450   | 675             | 535                         | 16,5            |
| 900                           | 500   | 730             | 540                         | 17,9            |
| 900                           | 560   | 790             | 540                         | 19,2            |
| 900                           | 600   | 830             | 540                         | 20,1            |
| 900                           | 630   | 860             | 540                         | 20,7            |
| 900                           | 710   | 940             | 540                         | 23,7            |
| 900                           | 800   | 1030            | 540                         | 25,1            |
| 900                           | 900   | 1150            | 540                         | 27,8            |
| <b>1000**</b>                 | <b>315</b>                                    | <b>530</b>      | <b>575</b>                  | <b>13,0</b>     |
| 1000                          | 355   | 580             | 585                         | 14,3            |
| <b>1000**</b>                 | <b>400</b>                                    | <b>625</b>      | <b>585</b>                  | <b>16,6</b>     |
| 1000                          | 450   | 675             | 585                         | 17,9            |
| <b>1000**</b>                 | <b>500</b>                                    | <b>730</b>      | <b>590</b>                  | <b>19,0</b>     |
| 1000                          | 560   | 790             | 590                         | 21,0            |
| 1000                          | 600   | 830             | 590                         | 22,1            |
| <b>1000**</b>                 | <b>630</b>                                    | <b>860</b>      | <b>590</b>                  | <b>23,4</b>     |
| 1000                          | 710   | 940             | 590                         | 26,4            |
| <b>1000**</b>                 | <b>800</b>                                    | <b>1030</b>     | <b>590</b>                  | <b>28,5</b>     |
| 1000                          | 900   | 1150            | 590                         | 31,0            |
| <b>1000**</b>                 | <b>1000</b>                                   | <b>1250</b>     | <b>590</b>                  | <b>34,3</b>     |
| 1120                          | 500   | 730             | 650                         | 21,4            |
| 1120                          | 560   | 790             | 650                         | 23,1            |
| 1120                          | 600   | 830             | 650                         | 24,3            |
| 1120                          | 630   | 860             | 650                         | 25,2            |
| 1120                          | 710   | 940             | 650                         | 29,1            |
| 1120                          | 800   | 1030            | 650                         | 31,7            |
| 1120                          | 900   | 1150            | 650                         | 35,4            |
| 1120                          | 1000  | 1250            | 650                         | 37,3            |
| 1120                          | 1120  | 1370            | 650                         | 43,5            |
| <b>1250**</b>                 | <b>500</b>                                    | <b>730</b>      | <b>715</b>                  | <b>23,4</b>     |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 1250                          | 560   | 790             | 715                         | 25,3            |
| 1250                          | 600   | 830             | 715                         | 26,6            |
| <b>1250**</b>                 | <b>630</b>                                    | <b>860</b>      | <b>715</b>                  | <b>27,6</b>     |
| 1250                          | 710   | 940             | 715                         | 31,9            |
| <b>1250**</b>                 | <b>800</b>                                    | <b>1030</b>     | <b>715</b>                  | <b>34,9</b>     |
| 1250                          | 900   | 1150            | 715                         | 39,1            |
| <b>1250**</b>                 | <b>1000</b>                                   | <b>1250</b>     | <b>715</b>                  | <b>41,9</b>     |
| 1250                          | 1120  | 1370            | 715                         | 47,1            |
| <b>1250**</b>                 | <b>1250</b>                                   | <b>1500</b>     | <b>715</b>                  | <b>52,6</b>     |

\* Centric – with saddle PSU

\*\* Centric – with han made T-piece TSTCU

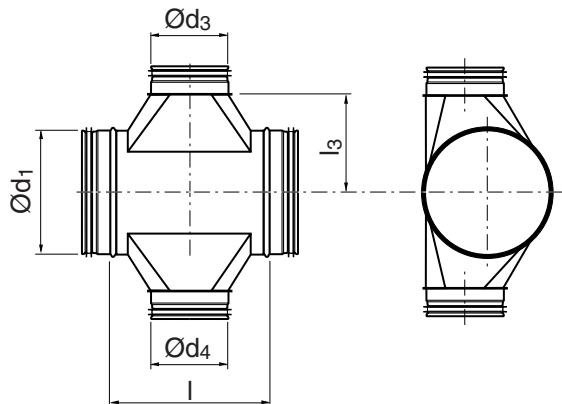


# X-piece

XU



## Dimensions



## Description

Tangential –

- with hand made T-piece TSTU

## Ordering example

|                                      |    |     |     |
|--------------------------------------|----|-----|-----|
| Product                              | XU | 400 | 250 |
| Dimension $\text{Ød}_1$              |    |     |     |
| Dimension $\text{Ød}_3, \text{Ød}_4$ |    |     |     |

| $\text{Ød}_1$<br>nom | $\text{Ød}_3, \text{Ød}_4$<br>nom | I<br>mm | $l_3$<br>mm | m<br>kg |
|----------------------|-----------------------------------|---------|-------------|---------|
| 80                   | 63                                | 178     | 85          | 0,46    |
| 100                  | 63                                | 178     | 95          | 0,54    |
| 100                  | 80                                | 195     | 95          | 0,58    |
| 112                  | 63                                | 178     | 100         | 0,68    |
| 112                  | 80                                | 195     | 100         | 0,73    |
| 112                  | 100                               | 215     | 100         | 0,77    |
| 125                  | 63                                | 178     | 110         | 0,65    |
| 125                  | 80                                | 195     | 110         | 0,70    |
| 125                  | 100                               | 215     | 110         | 0,75    |
| 125                  | 112                               | 225     | 110         | 0,77    |
| 140                  | 63                                | 178     | 115         | 0,79    |
| 140                  | 80                                | 195     | 115         | 0,79    |
| 140                  | 100                               | 215     | 115         | 0,86    |
| 140                  | 112                               | 225     | 115         | 0,88    |
| 140                  | 125                               | 240     | 115         | 0,92    |
| 150                  | 63                                | 178     | 120         | 0,67    |
| 150                  | 80                                | 195     | 120         | 0,77    |
| 150                  | 100                               | 215     | 120         | 0,86    |
| 150                  | 112                               | 225     | 120         | 0,90    |
| 150                  | 125                               | 240     | 120         | 0,96    |
| 150                  | 140                               | 260     | 125         | 1,03    |
| 160                  | 63                                | 178     | 125         | 0,62    |
| 160                  | 80                                | 195     | 125         | 0,72    |
| 160                  | 100                               | 215     | 125         | 0,82    |
| 160                  | 112                               | 225     | 125         | 0,89    |
| 160                  | 125                               | 240     | 125         | 0,97    |
| 160                  | 140                               | 260     | 130         | 1,05    |
| 160                  | 150                               | 270     | 130         | 1,08    |
| 180                  | 63                                | 178     | 135         | 0,79    |
| 180                  | 80                                | 195     | 135         | 0,88    |
| 180                  | 100                               | 215     | 135         | 0,97    |
| 180                  | 112                               | 225     | 135         | 1,01    |
| 180                  | 125                               | 240     | 135         | 1,08    |
| 180                  | 140                               | 260     | 140         | 1,18    |
| 180                  | 150                               | 270     | 140         | 1,21    |
| 180                  | 160                               | 280     | 140         | 1,26    |
| 200                  | 63                                | 178     | 145         | 0,83    |
| 200                  | 80                                | 195     | 145         | 0,91    |
| 200                  | 100                               | 215     | 145         | 1,00    |



# X-piece

XU

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11

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 200                           | 112   | 225             | 145                         | 1,05            |
| <b>200</b>                    | <b>125</b>                                    | <b>240</b>      | <b>145</b>                  | <b>1,11</b>     |
| 200                           | 140   | 260             | 150                         | 1,22            |
| 200                           | 150   | 270             | 150                         | 1,26            |
| <b>200</b>                    | <b>160</b>                                    | <b>280</b>      | <b>150</b>                  | <b>1,30</b>     |
| 200                           | 180   | 300             | 150                         | 1,36            |
| 224                           | 63  | 178             | 160                         | 0,91            |
| 224                           | 80  | 195             | 160                         | 0,99            |
| 224                           | 100   | 215             | 160                         | 1,09            |
| 224                           | 112   | 225             | 160                         | 1,14            |
| 224                           | 125   | 240             | 160                         | 1,22            |
| 224                           | 140   | 260             | 165                         | 1,33            |
| 224                           | 150   | 270             | 165                         | 1,38            |
| 224                           | 160   | 280             | 165                         | 1,42            |
| 224                           | 180   | 300             | 165                         | 1,50            |
| 224                           | 200   | 335             | 180                         | 1,81            |
| <b>250</b>                    | <b>63</b>                                     | <b>178</b>      | <b>170</b>                  | <b>0,99</b>     |
| <b>250</b>                    | <b>80</b>                                     | <b>195</b>      | <b>170</b>                  | <b>1,08</b>     |
| <b>250</b>                    | <b>100</b>                                    | <b>215</b>      | <b>170</b>                  | <b>1,19</b>     |
| 250                           | 112   | 225             | 170                         | 1,24            |
| <b>250</b>                    | <b>125</b>                                    | <b>240</b>      | <b>170</b>                  | <b>1,31</b>     |
| 250                           | 140   | 260             | 175                         | 1,45            |
| 250                           | 150   | 270             | 175                         | 1,50            |
| <b>250</b>                    | <b>160</b>                                    | <b>280</b>      | <b>175</b>                  | <b>1,55</b>     |
| 250                           | 180   | 300             | 175                         | 1,65            |
| <b>250</b>                    | <b>200</b>                                    | <b>335</b>      | <b>190</b>                  | <b>1,95</b>     |
| 250                           | 224   | 360             | 190                         | 1,98            |
| 280                           | 80  | 195             | 185                         | 1,20            |
| 280                           | 100   | 215             | 185                         | 1,31            |
| 280                           | 112   | 225             | 185                         | 1,37            |
| 280                           | 125   | 240             | 185                         | 1,46            |
| 280                           | 140   | 260             | 190                         | 1,59            |
| 280                           | 150   | 270             | 190                         | 1,65            |
| 280                           | 160   | 280             | 190                         | 1,71            |
| 280                           | 180   | 300             | 190                         | 1,81            |
| 280                           | 200   | 335             | 205                         | 2,08            |
| 280                           | 224   | 360             | 205                         | 2,19            |
| 280                           | 250   | 385             | 205                         | 2,57            |
| 300                           | 80  | 195             | 195                         | 1,29            |
| 300                           | 100   | 215             | 195                         | 1,38            |
| 300                           | 112   | 225             | 195                         | 1,47            |
| 300                           | 125   | 240             | 195                         | 1,53            |
| 300                           | 140   | 260             | 200                         | 1,66            |
| 300                           | 150   | 270             | 200                         | 1,76            |
| 300                           | 160   | 280             | 200                         | 1,82            |
| 300                           | 180   | 300             | 200                         | 1,93            |
| 300                           | 200   | 335             | 215                         | 2,27            |
| 300                           | 224   | 360             | 215                         | 2,34            |
| 300                           | 250   | 385             | 215                         | 2,75            |
| 300                           | 280   | 425             | 225                         | 2,95            |
| <b>315</b>                    | <b>80</b>                                     | <b>205</b>      | <b>205</b>                  | <b>1,31</b>     |
| <b>315</b>                    | <b>100</b>                                    | <b>225</b>      | <b>205</b>                  | <b>1,44</b>     |
| 315                           | 112   | 235             | 205                         | 1,49            |
| <b>315</b>                    | <b>125</b>                                    | <b>250</b>      | <b>205</b>                  | <b>1,59</b>     |
| 315                           | 140   | 270             | 210                         | 1,81            |
| 315                           | 150   | 280             | 210                         | 1,90            |
| <b>315</b>                    | <b>160</b>                                    | <b>290</b>      | <b>210</b>                  | <b>1,91</b>     |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>I<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 315                           | 180   | 310             | 210                         | 2,13            |
| <b>315</b>                    | <b>200</b>                                    | <b>345</b>      | <b>225</b>                  | <b>2,35</b>     |
| 315                           | 224   | 370             | 225                         | 2,61            |
| <b>315</b>                    | <b>250</b>                                    | <b>395</b>      | <b>225</b>                  | <b>2,97</b>     |
| 315                           | 280   | 435             | 235                         | 3,26            |
| 315                           | 300   | 455             | 235                         | 3,26            |
| 355                           | 100   | 225             | 250                         | 1,74            |
| 355                           | 112   | 235             | 250                         | 1,85            |
| 355                           | 125   | 250             | 250                         | 2,03            |
| 355                           | 140   | 270             | 230                         | 2,29            |
| 355                           | 150   | 280             | 230                         | 2,40            |
| 355                           | 160   | 290             | 230                         | 2,50            |
| 355                           | 180   | 310             | 230                         | 2,71            |
| 355                           | 200   | 345             | 245                         | 3,15            |
| 355                           | 224   | 370             | 245                         | 3,37            |
| 355                           | 250   | 395             | 245                         | 3,96            |
| 355                           | 280   | 435             | 245                         | 4,33            |
| 355                           | 300   | 455             | 255                         | 4,43            |
| 355                           | 315   | 470             | 255                         | 4,48            |
| <b>400</b>                    | <b>100</b>                                    | <b>225</b>      | <b>245</b>                  | <b>1,99</b>     |
| 400                           | 112   | 235             | 245                         | 2,05            |
| <b>400</b>                    | <b>125</b>                                    | <b>250</b>      | <b>245</b>                  | <b>2,24</b>     |
| 400                           | 140   | 270             | 250                         | 2,47            |
| 400                           | 150   | 280             | 250                         | 2,60            |
| <b>400</b>                    | <b>160</b>                                    | <b>290</b>      | <b>250</b>                  | <b>2,72</b>     |
| 400                           | 180   | 310             | 250                         | 2,95            |
| <b>400</b>                    | <b>200</b>                                    | <b>345</b>      | <b>265</b>                  | <b>3,35</b>     |
| 400                           | 224   | 370             | 265                         | 3,71            |
| <b>400</b>                    | <b>250</b>                                    | <b>395</b>      | <b>265</b>                  | <b>4,37</b>     |
| 400                           | 280   | 435             | 275                         | 4,68            |
| 400                           | 300   | 455             | 275                         | 4,97            |
| <b>400</b>                    | <b>315</b>                                    | <b>470</b>      | <b>275</b>                  | <b>4,99</b>     |
| 400                           | 355   | 520             | 285                         | 5,42            |
| 450                           | 125   | 250             | 270                         | 2,30            |
| 450                           | 140   | 270             | 275                         | 2,62            |
| 450                           | 150   | 280             | 275                         | 2,76            |
| 450                           | 160   | 290             | 275                         | 2,90            |
| 450                           | 180   | 310             | 275                         | 3,17            |
| 450                           | 200   | 345             | 290                         | 3,75            |
| 450                           | 224   | 370             | 290                         | 4,06            |
| 450                           | 250   | 395             | 290                         | 4,79            |
| 450                           | 280   | 435             | 300                         | 5,33            |
| 450                           | 300   | 455             | 300                         | 5,54            |
| 450                           | 315   | 470             | 300                         | 5,68            |
| 450                           | 355   | 520             | 310                         | 6,19            |
| 450                           | 400   | 565             | 310                         | 6,96            |
| <b>500</b>                    | <b>125</b>                                    | <b>250</b>      | <b>295</b>                  | <b>2,65</b>     |
| 500                           | 140   | 270             | 300                         | 2,91            |
| 500                           | 150   | 280             | 300                         | 3,04            |
| <b>500</b>                    | <b>160</b>                                    | <b>290</b>      | <b>300</b>                  | <b>3,14</b>     |
| 500                           | 180   | 310             | 300                         | 3,35            |
| <b>500</b>                    | <b>200</b>                                    | <b>345</b>      | <b>315</b>                  | <b>4,05</b>     |
| 500                           | 224   | 370             | 315                         | 4,12            |
| <b>500</b>                    | <b>250</b>                                    | <b>395</b>      | <b>315</b>                  | <b>4,99</b>     |
| 500                           | 280   | 435             | 325                         | 5,42            |
| 500                           | 300   | 455             | 325                         | 5,64            |
| <b>500</b>                    | <b>315</b>                                    | <b>470</b>      | <b>325</b>                  | <b>5,80</b>     |



# X-piece

XU

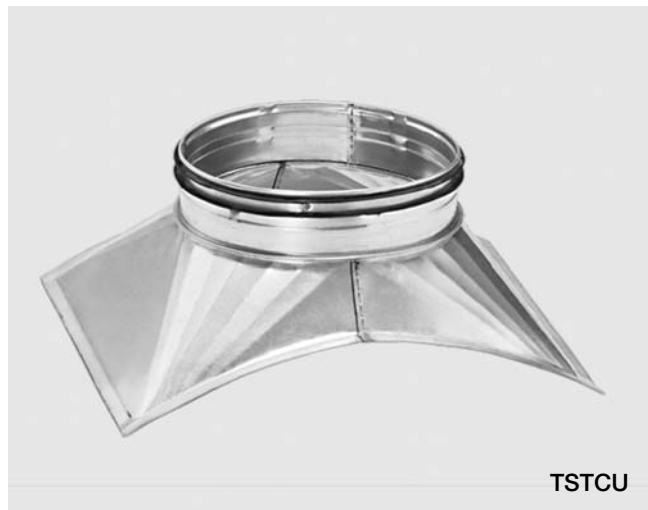
| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| 500                           | 355   | 520             | 335                         | 6,45            |
| <b>500</b>                    | <b>400</b>                                    | <b>565</b>      | <b>335</b>                  | <b>6,81</b>     |
| 500                           | 450   | 615             | 335                         | 7,86            |
| 560                           | 200   | 345             | 345                         | 4,30            |
| 560                           | 224   | 370             | 345                         | 4,59            |
| 560                           | 250   | 395             | 345                         | 5,41            |
| 560                           | 280   | 435             | 355                         | 6,01            |
| 560                           | 300   | 455             | 355                         | 6,25            |
| 560                           | 315   | 470             | 355                         | 6,43            |
| 560                           | 355   | 520             | 365                         | 7,15            |
| 560                           | 400   | 565             | 365                         | 8,28            |
| 560                           | 450   | 615             | 365                         | 8,82            |
| 560                           | 500   | 670             | 370                         | 9,35            |
| 600                           | 200   | 345             | 365                         | 4,59            |
| 600                           | 224   | 370             | 365                         | 4,89            |
| 600                           | 250   | 395             | 365                         | 5,75            |
| 600                           | 280   | 435             | 375                         | 6,38            |
| 600                           | 300   | 455             | 375                         | 6,64            |
| 600                           | 315   | 470             | 375                         | 6,83            |
| 600                           | 355   | 520             | 385                         | 7,59            |
| 600                           | 400   | 565             | 385                         | 8,78            |
| 600                           | 450   | 615             | 385                         | 9,38            |
| 600                           | 500   | 670             | 390                         | 10,0            |
| 600                           | 560   | 730             | 390                         | 10,4            |
| <b>630</b>                    | <b>200</b>                                    | <b>355</b>      | <b>380</b>                  | <b>4,81</b>     |
| 630                           | 224   | 380             | 380                         | 5,12            |
| <b>630</b>                    | <b>250</b>                                    | <b>405</b>      | <b>380</b>                  | <b>6,01</b>     |
| 630                           | 280   | 445             | 390                         | 6,67            |
| 630                           | 300   | 465             | 390                         | 6,93            |
| <b>630</b>                    | <b>315</b>                                    | <b>480</b>      | <b>390</b>                  | <b>7,13</b>     |
| 630                           | 355   | 530             | 400                         | 7,74            |
| <b>630</b>                    | <b>400</b>                                    | <b>575</b>      | <b>400</b>                  | <b>9,36</b>     |
| 630                           | 450   | 625             | 400                         | 9,78            |
| <b>630</b>                    | <b>500</b>                                    | <b>680</b>      | <b>405</b>                  | <b>10,7</b>     |
| 630                           | 560   | 740             | 405                         | 11,0            |
| 630                           | 600   | 780             | 405                         | 11,1            |
| 710                           | 250   | 455             | 420                         | 6,78            |
| 710                           | 280   | 495             | 420                         | 7,52            |
| 710                           | 300   | 515             | 430                         | 7,82            |
| 710                           | 315   | 530             | 430                         | 8,05            |
| 710                           | 355   | 580             | 440                         | 8,91            |
| 710                           | 400   | 625             | 440                         | 10,4            |
| 710                           | 450   | 675             | 440                         | 11,1            |
| 710                           | 500   | 730             | 445                         | 12,0            |
| 710                           | 560   | 790             | 445                         | 12,7            |
| 710                           | 600   | 830             | 445                         | 13,2            |
| 710                           | 630   | 860             | 445                         | 13,4            |
| <b>800</b>                    | <b>250</b>                                    | <b>455</b>      | <b>465</b>                  | <b>7,08</b>     |
| 800                           | 280   | 495             | 475                         | 8,10            |
| 800                           | 300   | 515             | 475                         | 8,42            |
| <b>800</b>                    | <b>315</b>                                    | <b>530</b>      | <b>475</b>                  | <b>8,54</b>     |
| 800                           | 355   | 580             | 485                         | 9,60            |
| <b>800</b>                    | <b>400</b>                                    | <b>625</b>      | <b>485</b>                  | <b>11,1</b>     |
| 800                           | 450   | 675             | 485                         | 11,9            |
| <b>800</b>                    | <b>500</b>                                    | <b>730</b>      | <b>490</b>                  | <b>13,3</b>     |
| 800                           | 560   | 790             | 490                         | 13,7            |
| 800                           | 600   | 830             | 490                         | 14,2            |

| <b>Ød<sub>1</sub><br/>nom</b> | <b>Ød<sub>3</sub>, Ød<sub>4</sub><br/>nom</b> | <b>I<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------------------|---|-----------------|-----------------------------|-----------------|
| <b>800</b>                    | <b>630</b>                                    | <b>860</b>      | <b>490</b>                  | <b>15,2</b>     |
| 800                           | 710   | 940             | 490                         | 16,3            |
| 900                           | 315   | 530             | 525                         | 11,9            |
| 900                           | 355   | 580             | 535                         | 13,2            |
| 900                           | 400   | 625             | 535                         | 16,0            |
| 900                           | 450   | 675             | 535                         | 16,5            |
| 900                           | 500   | 730             | 540                         | 17,9            |
| 900                           | 560   | 790             | 540                         | 19,2            |
| 900                           | 600   | 830             | 540                         | 20,1            |
| 900                           | 630   | 860             | 540                         | 20,7            |
| 900                           | 710   | 940             | 540                         | 23,7            |
| 900                           | 800   | 1030            | 540                         | 25,1            |
| <b>1000</b>                   | <b>315</b>                                    | <b>530</b>      | <b>575</b>                  | <b>13,0</b>     |
| 1000                          | 355   | 580             | 585                         | 14,3            |
| <b>1000</b>                   | <b>400</b>                                    | <b>625</b>      | <b>585</b>                  | <b>16,6</b>     |
| 1000                          | 450   | 675             | 585                         | 17,9            |
| <b>1000</b>                   | <b>500</b>                                    | <b>730</b>      | <b>590</b>                  | <b>19,0</b>     |
| 1000                          | 560   | 790             | 590                         | 21,0            |
| 1000                          | 600   | 830             | 590                         | 22,1            |
| <b>1000</b>                   | <b>630</b>                                    | <b>860</b>      | <b>590</b>                  | <b>23,4</b>     |
| 1000                          | 710   | 940             | 590                         | 26,4            |
| <b>1000</b>                   | <b>800</b>                                    | <b>1030</b>     | <b>590</b>                  | <b>28,5</b>     |
| 1000                          | 900   | 1150            | 590                         | 31,0            |
| 1120                          | 500   | 730             | 650                         | 21,4            |
| 1120                          | 560   | 790             | 650                         | 23,1            |
| 1120                          | 600   | 830             | 650                         | 24,3            |
| 1120                          | 630   | 860             | 650                         | 25,2            |
| 1120                          | 710   | 940             | 650                         | 29,1            |
| 1120                          | 800   | 1030            | 650                         | 31,7            |
| 1120                          | 900   | 1150            | 650                         | 35,4            |
| 1120                          | 1000  | 1250            | 650                         | 37,3            |
| <b>1250</b>                   | <b>500</b>                                    | <b>730</b>      | <b>715</b>                  | <b>23,4</b>     |
| 1250                          | 560   | 790             | 715                         | 25,3            |
| 1250                          | 600   | 830             | 715                         | 26,6            |
| <b>1250</b>                   | <b>630</b>                                    | <b>860</b>      | <b>715</b>                  | <b>27,6</b>     |
| 1250                          | 710   | 940             | 715                         | 31,9            |
| <b>1250</b>                   | <b>800</b>                                    | <b>1030</b>     | <b>715</b>                  | <b>34,9</b>     |
| 1250                          | 900   | 1150            | 715                         | 39,1            |
| <b>1250</b>                   | <b>1000</b>                                   | <b>1250</b>     | <b>715</b>                  | <b>41,9</b>     |
| 1250                          | 1120  | 1370            | 715                         | 47,1            |



# T-pieces

## TSTCU, TSTU



TSTCU



TSTU

### Description

Hand made T-piece.

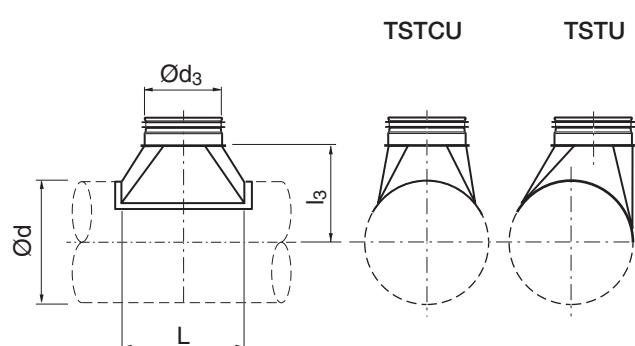
TSTCU = centric T-piece

TSTU = tangential T-piece

### Ordering example

|                           |       |     |     |
|---------------------------|-------|-----|-----|
| Product                   | TSTCU | 400 | 250 |
| Dimension Ød              |       |     |     |
| Dimension Ød <sub>3</sub> |       |     |     |

### Dimensions



| Ød<br>nom | Ød <sub>3</sub><br>nom | L<br>mm | l <sub>3</sub><br>mm | m<br>kg |
|-----------|------------------------|---------|----------------------|---------|
| 63        | 63                     | 128     | 77                   | 0,12    |
| 63        | 80                     | 145     | 77                   | 0,15    |
| 63        | 100                    | 165     | 77                   | 0,20    |
| 80        | 63                     | 128     | 85                   | 0,12    |
| 80        | 80                     | 145     | 85                   | 0,16    |
| 80        | 100                    | 165     | 85                   | 0,21    |
| 80        | 112                    | 175     | 85                   | 0,24    |
| 80        | 125                    | 190     | 85                   | 0,29    |
| 100       | 63                     | 128     | 95                   | 0,13    |
| 100       | 80                     | 145     | 95                   | 0,16    |
| 100       | 100                    | 165     | 95                   | 0,20    |
| 100       | 112                    | 175     | 95                   | 0,22    |
| 100       | 125                    | 190     | 95                   | 0,25    |
| 100       | 140                    | 210     | 100                  | 0,30    |
| 100       | 150                    | 220     | 100                  | 0,30    |
| 100       | 160                    | 230     | 100                  | 0,36    |
| 112       | 63                     | 128     | 100                  | 0,18    |
| 112       | 80                     | 145     | 100                  | 0,21    |
| 112       | 100                    | 165     | 100                  | 0,25    |
| 112       | 112                    | 175     | 100                  | 0,27    |
| 112       | 125                    | 190     | 100                  | 0,30    |
| 112       | 140                    | 210     | 105                  | 0,34    |
| 112       | 150                    | 220     | 105                  | 0,37    |
| 112       | 160                    | 230     | 105                  | 0,39    |
| 112       | 180                    | 250     | 105                  | 0,43    |
| 125       | 63                     | 128     | 110                  | 0,14    |
| 125       | 80                     | 145     | 110                  | 0,17    |
| 125       | 100                    | 165     | 110                  | 0,21    |
| 125       | 112                    | 175     | 110                  | 0,23    |
| 125       | 125                    | 190     | 110                  | 0,27    |
| 125       | 140                    | 210     | 115                  | 0,31    |
| 125       | 150                    | 220     | 115                  | 0,33    |
| 125       | 160                    | 230     | 115                  | 0,35    |
| 125       | 180                    | 250     | 115                  | 0,41    |
| 125       | 200                    | 285     | 130                  | 0,50    |
| 140       | 63                     | 128     | 115                  | 0,18    |
| 140       | 80                     | 145     | 115                  | 0,22    |
| 140       | 100                    | 165     | 115                  | 0,26    |
| 140       | 112                    | 175     | 115                  | 0,28    |

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# T-pieces

# TSTCU, TSTU

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 140               | 125                           | 190             | 115                         | 0,31            |
| 140               | 140                           | 210             | 120                         | 0,36            |
| 140               | 150                           | 220             | 120                         | 0,38            |
| 140               | 160                           | 230             | 120                         | 0,40            |
| 140               | 180                           | 250             | 120                         | 0,45            |
| 140               | 200                           | 285             | 135                         | 0,53            |
| 140               | 224                           | 310             | 135                         | 0,59            |
| 150               | 63                            | 128             | 120                         | 0,14            |
| 150               | 80                            | 145             | 120                         | 0,19            |
| 150               | 100                           | 165             | 120                         | 0,24            |
| 150               | 112                           | 175             | 120                         | 0,27            |
| 150               | 125                           | 190             | 120                         | 0,31            |
| 150               | 140                           | 210             | 125                         | 0,37            |
| 150               | 150                           | 220             | 125                         | 0,39            |
| 150               | 160                           | 230             | 125                         | 0,43            |
| 150               | 180                           | 250             | 125                         | 0,47            |
| 150               | 200                           | 285             | 140                         | 0,57            |
| 150               | 224                           | 310             | 140                         | 0,64            |
| 150               | 250                           | 335             | 140                         | 0,77            |
| <b>160</b>        | <b>63</b>                     | <b>128</b>      | <b>125</b>                  | <b>0,10</b>     |
| <b>160</b>        | <b>80</b>                     | <b>145</b>      | <b>125</b>                  | <b>0,15</b>     |
| <b>160</b>        | <b>100</b>                    | <b>165</b>      | <b>125</b>                  | <b>0,22</b>     |
| <b>160</b>        | <b>112</b>                    | <b>175</b>      | <b>125</b>                  | <b>0,25</b>     |
| <b>160</b>        | <b>125</b>                    | <b>190</b>      | <b>125</b>                  | <b>0,29</b>     |
| 160               | 140                           | 210             | 130                         | 0,35            |
| 160               | 150                           | 220             | 130                         | 0,38            |
| <b>160</b>        | <b>160</b>                    | <b>230</b>      | <b>130</b>                  | <b>0,41</b>     |
| 160               | 180                           | 250             | 130                         | 0,47            |
| <b>160</b>        | <b>200</b>                    | <b>285</b>      | <b>145</b>                  | <b>0,57</b>     |
| 160               | 224                           | 310             | 145                         | 0,65            |
| <b>160</b>        | <b>250</b>                    | <b>335</b>      | <b>145</b>                  | <b>0,85</b>     |
| 180               | 63                            | 128             | 135                         | 0,16            |
| 180               | 80                            | 145             | 135                         | 0,20            |
| 180               | 100                           | 165             | 135                         | 0,25            |
| 180               | 112                           | 175             | 135                         | 0,27            |
| 180               | 125                           | 190             | 135                         | 0,31            |
| 180               | 140                           | 210             | 140                         | 0,36            |
| 180               | 150                           | 220             | 140                         | 0,39            |
| 180               | 160                           | 230             | 140                         | 0,43            |
| 180               | 180                           | 250             | 140                         | 0,49            |
| 180               | 200                           | 285             | 155                         | 0,62            |
| 180               | 224                           | 310             | 155                         | 0,69            |
| 180               | 250                           | 335             | 155                         | 0,82            |
| 180               | 280                           | 375             | 165                         | 1,02            |
| <b>200</b>        | <b>63</b>                     | <b>128</b>      | <b>145</b>                  | <b>0,14</b>     |
| <b>200</b>        | <b>80</b>                     | <b>145</b>      | <b>145</b>                  | <b>0,18</b>     |
| <b>200</b>        | <b>100</b>                    | <b>165</b>      | <b>145</b>                  | <b>0,23</b>     |
| 200               | 112                           | 175             | 145                         | 0,25            |
| <b>200</b>        | <b>125</b>                    | <b>190</b>      | <b>145</b>                  | <b>0,29</b>     |
| 200               | 140                           | 210             | 150                         | 0,34            |
| 200               | 150                           | 220             | 150                         | 0,37            |
| <b>200</b>        | <b>160</b>                    | <b>230</b>      | <b>150</b>                  | <b>0,40</b>     |
| 200               | 180                           | 250             | 150                         | 0,46            |
| <b>200</b>        | <b>200</b>                    | <b>285</b>      | <b>165</b>                  | <b>0,64</b>     |
| 200               | 224                           | 310             | 165                         | 0,66            |
| <b>200</b>        | <b>250</b>                    | <b>335</b>      | <b>165</b>                  | <b>0,79</b>     |
| 200               | 280                           | 375             | 175                         | 1,00            |
| 200               | 300                           | 395             | 175                         | 1,09            |
| <b>200</b>        | <b>315</b>                    | <b>410</b>      | <b>175</b>                  | <b>1,13</b>     |
| 224               | 63                            | 128             | 160                         | 0,15            |

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 224               | 80                            | 145             | 160                         | 0,18            |
| 224               | 100                           | 165             | 160                         | 0,23            |
| 224               | 112                           | 175             | 160                         | 0,25            |
| 224               | 125                           | 190             | 160                         | 0,29            |
| 224               | 140                           | 210             | 165                         | 0,35            |
| 224               | 150                           | 220             | 165                         | 0,37            |
| 224               | 160                           | 230             | 165                         | 0,40            |
| 224               | 180                           | 250             | 165                         | 0,47            |
| 224               | 200                           | 285             | 180                         | 0,63            |
| 224               | 224                           | 310             | 180                         | 0,67            |
| 224               | 250                           | 335             | 180                         | 0,84            |
| 224               | 280                           | 375             | 190                         | 1,01            |
| 224               | 300                           | 395             | 190                         | 1,11            |
| 224               | 315                           | 410             | 190                         | 1,18            |
| 224               | 355                           | 460             | 200                         | 1,44            |
| <b>250</b>        | <b>63</b>                     | <b>128</b>      | <b>170</b>                  | <b>0,15</b>     |
| <b>250</b>        | <b>80</b>                     | <b>145</b>      | <b>170</b>                  | <b>0,18</b>     |
| <b>250</b>        | <b>100</b>                    | <b>165</b>      | <b>170</b>                  | <b>0,23</b>     |
| 250               | 112                           | 175             | 170                         | 0,26            |
| <b>250</b>        | <b>125</b>                    | <b>190</b>      | <b>170</b>                  | <b>0,29</b>     |
| 250               | 140                           | 210             | 175                         | 0,35            |
| 250               | 150                           | 220             | 175                         | 0,38            |
| <b>250</b>        | <b>160</b>                    | <b>230</b>      | <b>175</b>                  | <b>0,41</b>     |
| 250               | 180                           | 250             | 175                         | 0,47            |
| <b>250</b>        | <b>200</b>                    | <b>285</b>      | <b>190</b>                  | <b>0,62</b>     |
| 250               | 224                           | 310             | 190                         | 0,68            |
| <b>250</b>        | <b>250</b>                    | <b>335</b>      | <b>190</b>                  | <b>0,89</b>     |
| 250               | 280                           | 375             | 200                         | 1,03            |
| 250               | 300                           | 395             | 200                         | 1,12            |
| <b>250</b>        | <b>315</b>                    | <b>410</b>      | <b>200</b>                  | <b>1,13</b>     |
| 250               | 355                           | 460             | 210                         | 1,46            |
| <b>250</b>        | <b>400</b>                    | <b>505</b>      | <b>210</b>                  | <b>1,83</b>     |
| 280               | 80                            | 145             | 185                         | 0,20            |
| 280               | 100                           | 165             | 185                         | 0,24            |
| 280               | 112                           | 175             | 185                         | 0,27            |
| 280               | 125                           | 190             | 185                         | 0,31            |
| 280               | 140                           | 210             | 190                         | 0,36            |
| 280               | 150                           | 220             | 190                         | 0,39            |
| 280               | 160                           | 230             | 190                         | 0,42            |
| 280               | 180                           | 250             | 190                         | 0,49            |
| 280               | 200                           | 285             | 205                         | 0,60            |
| 280               | 224                           | 310             | 205                         | 0,69            |
| 280               | 250                           | 335             | 205                         | 0,86            |
| 280               | 280                           | 375             | 215                         | 1,03            |
| 280               | 300                           | 395             | 215                         | 1,12            |
| 280               | 315                           | 410             | 215                         | 1,19            |
| 280               | 355                           | 460             | 225                         | 1,44            |
| 280               | 400                           | 505             | 225                         | 1,80            |
| 280               | 450                           | 555             | 225                         | 2,11            |
| 300               | 80                            | 145             | 195                         | 0,20            |
| 300               | 100                           | 165             | 195                         | 0,24            |
| 300               | 112                           | 175             | 195                         | 0,28            |
| 300               | 125                           | 190             | 195                         | 0,30            |
| 300               | 140                           | 210             | 200                         | 0,35            |
| 300               | 150                           | 220             | 200                         | 0,40            |
| 300               | 160                           | 230             | 200                         | 0,43            |
| 300               | 180                           | 250             | 200                         | 0,49            |
| 300               | 200                           | 285             | 215                         | 0,63            |
| 300               | 224                           | 310             | 215                         | 0,70            |
| 300               | 250                           | 335             | 215                         | 0,86            |



# T-pieces

# TSTCU, TSTU

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| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 300               | 280                           | 375             | 225                         | 1,03            |
| 300               | 300                           | 395             | 225                         | 1,13            |
| 300               | 315                           | 410             | 225                         | 1,20            |
| 300               | 355                           | 460             | 235                         | 1,45            |
| 300               | 400                           | 505             | 235                         | 1,73            |
| 300               | 450                           | 555             | 235                         | 2,10            |
| <b>315</b>        | <b>80</b>                     | <b>145</b>      | <b>205</b>                  | <b>0,19</b>     |
| <b>315</b>        | <b>100</b>                    | <b>165</b>      | <b>205</b>                  | <b>0,24</b>     |
| 315               | 112                           | 175             | 205                         | 0,26            |
| <b>315</b>        | <b>125</b>                    | <b>190</b>      | <b>205</b>                  | <b>0,31</b>     |
| 315               | 140                           | 210             | 210                         | 0,40            |
| 315               | 150                           | 220             | 210                         | 0,44            |
| <b>315</b>        | <b>160</b>                    | <b>230</b>      | <b>210</b>                  | <b>0,45</b>     |
| 315               | 180                           | 250             | 210                         | 0,56            |
| <b>315</b>        | <b>200</b>                    | <b>285</b>      | <b>225</b>                  | <b>0,63</b>     |
| 315               | 224                           | 310             | 225                         | 0,79            |
| <b>315</b>        | <b>250</b>                    | <b>335</b>      | <b>225</b>                  | <b>0,92</b>     |
| 315               | 280                           | 375             | 235                         | 1,11            |
| 315               | 300                           | 395             | 235                         | 1,19            |
| <b>315</b>        | <b>315</b>                    | <b>410</b>      | <b>235</b>                  | <b>1,32</b>     |
| 315               | 355                           | 460             | 245                         | 1,53            |
| <b>315</b>        | <b>400</b>                    | <b>505</b>      | <b>245</b>                  | <b>1,80</b>     |
| 315               | 450                           | 555             | 245                         | 2,01            |
| <b>315</b>        | <b>500</b>                    | <b>610</b>      | <b>250</b>                  | <b>2,24</b>     |
| 355               | 100                           | 165             | 225                         | 0,23            |
| 355               | 112                           | 175             | 225                         | 0,28            |
| 355               | 125                           | 195             | 225                         | 0,36            |
| 355               | 140                           | 210             | 230                         | 0,45            |
| 355               | 150                           | 220             | 230                         | 0,50            |
| 355               | 160                           | 230             | 230                         | 0,55            |
| 355               | 180                           | 250             | 230                         | 0,65            |
| 355               | 200                           | 285             | 245                         | 0,82            |
| 355               | 224                           | 310             | 245                         | 0,95            |
| 355               | 250                           | 335             | 245                         | 1,16            |
| 355               | 280                           | 375             | 245                         | 1,36            |
| 355               | 300                           | 395             | 255                         | 1,47            |
| 355               | 315                           | 410             | 255                         | 1,55            |
| 355               | 355                           | 460             | 265                         | 1,91            |
| 355               | 400                           | 505             | 265                         | 2,18            |
| 355               | 450                           | 555             | 265                         | 2,46            |
| 355               | 500                           | 610             | 270                         | 2,77            |
| 355               | 560                           | 670             | 270                         | 3,11            |
| <b>400</b>        | <b>100</b>                    | <b>165</b>      | <b>245</b>                  | <b>0,26</b>     |
| 400               | 112                           | 175             | 245                         | 0,28            |
| <b>400</b>        | <b>125</b>                    | <b>195</b>      | <b>245</b>                  | <b>0,36</b>     |
| 400               | 140                           | 210             | 250                         | 0,44            |
| 400               | 150                           | 220             | 250                         | 0,50            |
| <b>400</b>        | <b>160</b>                    | <b>230</b>      | <b>250</b>                  | <b>0,55</b>     |
| 400               | 180                           | 250             | 250                         | 0,66            |
| <b>400</b>        | <b>200</b>                    | <b>285</b>      | <b>265</b>                  | <b>0,78</b>     |
| 400               | 224                           | 310             | 265                         | 0,97            |
| <b>400</b>        | <b>250</b>                    | <b>335</b>      | <b>265</b>                  | <b>1,19</b>     |
| 400               | 280                           | 375             | 275                         | 1,34            |
| 400               | 300                           | 395             | 275                         | 1,52            |
| <b>400</b>        | <b>315</b>                    | <b>410</b>      | <b>275</b>                  | <b>1,56</b>     |
| 400               | 355                           | 460             | 285                         | 1,89            |
| <b>400</b>        | <b>400</b>                    | <b>505</b>      | <b>285</b>                  | <b>2,29</b>     |
| 400               | 450                           | 555             | 285                         | 2,58            |
| <b>400</b>        | <b>500</b>                    | <b>610</b>      | <b>290</b>                  | <b>2,96</b>     |
| 400               | 560                           | 670             | 290                         | 3,29            |

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 400               | 600                           | 710             | 290                         | 3,51            |
| <b>400</b>        | <b>630</b>                    | <b>740</b>      | <b>290</b>                  | <b>3,68</b>     |
| 450               | 125                           | 190             | 270                         | 0,28            |
| 450               | 140                           | 210             | 275                         | 0,40            |
| 450               | 150                           | 220             | 275                         | 0,46            |
| 450               | 160                           | 230             | 275                         | 0,52            |
| 450               | 180                           | 250             | 275                         | 0,64            |
| 450               | 200                           | 285             | 290                         | 0,84            |
| 450               | 224                           | 310             | 290                         | 0,98            |
| 450               | 250                           | 335             | 290                         | 1,22            |
| 450               | 280                           | 375             | 300                         | 1,46            |
| 450               | 300                           | 395             | 300                         | 1,58            |
| 450               | 315                           | 410             | 300                         | 1,68            |
| 450               | 355                           | 460             | 310                         | 1,98            |
| 450               | 400                           | 505             | 310                         | 2,39            |
| 450               | 450                           | 555             | 310                         | 2,60            |
| 450               | 500                           | 610             | 315                         | 3,08            |
| 450               | 560                           | 670             | 315                         | 3,48            |
| 450               | 600                           | 710             | 315                         | 3,74            |
| 450               | 630                           | 740             | 315                         | 3,94            |
| 450               | 710                           | 820             | 315                         | 4,70            |
| <b>500</b>        | <b>125</b>                    | <b>190</b>      | <b>295</b>                  | <b>0,35</b>     |
| 500               | 140                           | 210             | 300                         | 0,43            |
| 500               | 150                           | 220             | 300                         | 0,48            |
| <b>500</b>        | <b>160</b>                    | <b>230</b>      | <b>300</b>                  | <b>0,52</b>     |
| 500               | 180                           | 250             | 300                         | 0,60            |
| <b>500</b>        | <b>200</b>                    | <b>285</b>      | <b>315</b>                  | <b>0,84</b>     |
| 500               | 224                           | 310             | 315                         | 0,86            |
| <b>500</b>        | <b>250</b>                    | <b>335</b>      | <b>315</b>                  | <b>1,13</b>     |
| 500               | 280                           | 375             | 325                         | 1,29            |
| 500               | 300                           | 395             | 325                         | 1,42            |
| <b>500</b>        | <b>315</b>                    | <b>410</b>      | <b>325</b>                  | <b>1,52</b>     |
| 500               | 355                           | 460             | 335                         | 1,85            |
| <b>500</b>        | <b>400</b>                    | <b>505</b>      | <b>335</b>                  | <b>2,26</b>     |
| 500               | 450                           | 555             | 335                         | 2,74            |
| <b>500</b>        | <b>500</b>                    | <b>610</b>      | <b>340</b>                  | <b>3,28</b>     |
| 500               | 560                           | 670             | 340                         | 3,83            |
| 500               | 600                           | 710             | 340                         | 4,25            |
| <b>500</b>        | <b>630</b>                    | <b>740</b>      | <b>340</b>                  | <b>4,35</b>     |
| 500               | 710                           | 820             | 340                         | 5,74            |
| <b>500</b>        | <b>800</b>                    | <b>910</b>      | <b>340</b>                  | <b>6,91</b>     |
| 560               | 200                           | 285             | 345                         | 0,78            |
| 560               | 224                           | 310             | 345                         | 0,90            |
| 560               | 250                           | 335             | 345                         | 1,12            |
| 560               | 280                           | 375             | 355                         | 1,34            |
| 560               | 300                           | 395             | 355                         | 1,47            |
| 560               | 315                           | 410             | 355                         | 1,57            |
| 560               | 355                           | 460             | 365                         | 1,98            |
| 560               | 400                           | 505             | 365                         | 2,38            |
| 560               | 450                           | 555             | 365                         | 2,78            |
| 560               | 500                           | 610             | 370                         | 3,27            |
| 560               | 560                           | 670             | 370                         | 3,85            |
| 560               | 600                           | 710             | 370                         | 4,26            |
| 560               | 630                           | 740             | 370                         | 4,58            |
| 560               | 710                           | 820             | 370                         | 5,71            |
| 560               | 800                           | 910             | 370                         | 6,34            |
| 560               | 900                           | 1030            | 370                         | 8,45            |
| 600               | 200                           | 285             | 365                         | 0,81            |
| 600               | 224                           | 310             | 365                         | 0,93            |
| 600               | 250                           | 335             | 365                         | 1,14            |



# T-pieces

# TSTCU, TSTU

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 600               | 280                           | 375             | 375                         | 1,37            |
| 600               | 300                           | 395             | 375                         | 1,50            |
| 600               | 315                           | 410             | 375                         | 1,59            |
| 600               | 355                           | 460             | 385                         | 1,93            |
| 600               | 400                           | 505             | 385                         | 2,39            |
| 600               | 450                           | 555             | 385                         | 2,81            |
| 600               | 500                           | 610             | 390                         | 3,29            |
| 600               | 560                           | 670             | 390                         | 3,86            |
| 600               | 600                           | 710             | 390                         | 4,54            |
| 600               | 630                           | 740             | 390                         | 4,58            |
| 600               | 710                           | 820             | 390                         | 5,69            |
| 600               | 800                           | 910             | 390                         | 6,79            |
| 600               | 900                           | 1030            | 390                         | 8,36            |
| <b>630</b>        | <b>200</b>                    | <b>285</b>      | <b>380</b>                  | <b>0,83</b>     |
| 630               | 224                           | 310             | 380                         | 0,95            |
| <b>630</b>        | <b>250</b>                    | <b>335</b>      | <b>380</b>                  | <b>1,16</b>     |
| 630               | 280                           | 375             | 390                         | 1,39            |
| 630               | 300                           | 395             | 390                         | 1,52            |
| <b>630</b>        | <b>315</b>                    | <b>410</b>      | <b>390</b>                  | <b>1,62</b>     |
| 630               | 355                           | 460             | 400                         | 1,86            |
| <b>630</b>        | <b>400</b>                    | <b>505</b>      | <b>400</b>                  | <b>2,51</b>     |
| 630               | 450                           | 555             | 400                         | 2,83            |
| <b>630</b>        | <b>500</b>                    | <b>610</b>      | <b>405</b>                  | <b>3,42</b>     |
| 630               | 560                           | 670             | 405                         | 3,87            |
| 630               | 600                           | 710             | 405                         | 4,27            |
| <b>630</b>        | <b>630</b>                    | <b>740</b>      | <b>405</b>                  | <b>4,45</b>     |
| 630               | 710                           | 820             | 405                         | 5,68            |
| <b>630</b>        | <b>800</b>                    | <b>910</b>      | <b>405</b>                  | <b>6,76</b>     |
| 630               | 900                           | 1030            | 405                         | 8,30            |
| <b>630</b>        | <b>1000</b>                   | <b>1130</b>     | <b>405</b>                  | <b>9,71</b>     |
| 710               | 250                           | 335             | 420                         | 1,26            |
| 710               | 280                           | 375             | 420                         | 1,50            |
| 710               | 300                           | 395             | 430                         | 1,64            |
| 710               | 315                           | 410             | 430                         | 1,74            |
| 710               | 355                           | 460             | 440                         | 2,08            |
| 710               | 400                           | 505             | 440                         | 2,61            |
| 710               | 450                           | 555             | 440                         | 3,01            |
| 710               | 500                           | 610             | 445                         | 3,52            |
| 710               | 560                           | 670             | 445                         | 4,11            |
| 710               | 600                           | 710             | 445                         | 4,52            |
| 710               | 630                           | 740             | 445                         | 4,81            |
| 710               | 710                           | 820             | 445                         | 6,00            |
| 710               | 800                           | 910             | 445                         | 7,10            |
| 710               | 900                           | 1030            | 445                         | 8,69            |
| 710               | 1000                          | 1130            | 445                         | 10,2            |
| 710               | 1120                          | 1250            | 445                         | 12,4            |
| <b>800</b>        | <b>250</b>                    | <b>335</b>      | <b>465</b>                  | <b>1,08</b>     |
| 800               | 280                           | 375             | 475                         | 1,44            |
| 800               | 300                           | 395             | 475                         | 1,57            |
| <b>800</b>        | <b>315</b>                    | <b>410</b>      | <b>475</b>                  | <b>1,61</b>     |
| 800               | 355                           | 460             | 485                         | 2,00            |
| <b>800</b>        | <b>400</b>                    | <b>505</b>      | <b>485</b>                  | <b>2,50</b>     |
| 800               | 450                           | 555             | 485                         | 2,88            |
| <b>800</b>        | <b>500</b>                    | <b>610</b>      | <b>490</b>                  | <b>3,59</b>     |
| 800               | 560                           | 670             | 490                         | 3,93            |
| 800               | 600                           | 710             | 490                         | 4,32            |
| <b>800</b>        | <b>630</b>                    | <b>740</b>      | <b>490</b>                  | <b>4,94</b>     |
| 800               | 710                           | 820             | 490                         | 5,73            |
| <b>800</b>        | <b>800</b>                    | <b>910</b>      | <b>490</b>                  | <b>6,99</b>     |
| 800               | 900                           | 1030            | 490                         | 8,32            |

| <b>Ød<br/>nom</b> | <b>Ød<sub>3</sub><br/>nom</b> | <b>L<br/>mm</b> | <b>l<sub>3</sub><br/>mm</b> | <b>m<br/>kg</b> |
|-------------------|-------------------------------|-----------------|-----------------------------|-----------------|
| 800               | 1000                          | 1130            | 490                         | 8,61            |
| 800               | 1120                          | 1250            | 490                         | 11,9            |
| <b>800</b>        | <b>1250</b>                   | <b>1380</b>     | <b>490</b>                  | <b>14,0</b>     |
| 900               | 315                           | 410             | 525                         | 2,00            |
| 900               | 355                           | 460             | 535                         | 2,43            |
| 900               | 400                           | 505             | 535                         | 3,41            |
| 900               | 450                           | 555             | 535                         | 3,59            |
| 900               | 500                           | 610             | 540                         | 4,24            |
| 900               | 560                           | 670             | 540                         | 5,01            |
| 900               | 600                           | 710             | 540                         | 5,56            |
| 900               | 630                           | 740             | 540                         | 5,99            |
| 900               | 710                           | 820             | 540                         | 7,50            |
| 900               | 800                           | 910             | 540                         | 9,03            |
| 900               | 900                           | 1030            | 540                         | 11,2            |
| 900               | 1000                          | 1130            | 540                         | 13,3            |
| 900               | 1120                          | 1250            | 540                         | 16,4            |
| 900               | 1250                          | 1380            | 540                         | 19,7            |
| <b>1000</b>       | <b>315</b>                    | <b>410</b>      | <b>575</b>                  | <b>1,95</b>     |
| 1000              | 355                           | 460             | 585                         | 2,36            |
| <b>1000</b>       | <b>400</b>                    | <b>505</b>      | <b>585</b>                  | <b>2,97</b>     |
| 1000              | 450                           | 555             | 585                         | 3,54            |
| <b>1000</b>       | <b>500</b>                    | <b>610</b>      | <b>590</b>                  | <b>3,99</b>     |
| 1000              | 560                           | 670             | 590                         | 5,02            |
| 1000              | 600                           | 710             | 590                         | 5,66            |
| <b>1000</b>       | <b>630</b>                    | <b>740</b>      | <b>590</b>                  | <b>6,34</b>     |
| 1000              | 710                           | 820             | 590                         | 7,67            |
| <b>1000</b>       | <b>800</b>                    | <b>910</b>      | <b>590</b>                  | <b>9,31</b>     |
| 1000              | 900                           | 1030            | 590                         | 11,8            |
| <b>1000</b>       | <b>1000</b>                   | <b>1130</b>     | <b>590</b>                  | <b>14,2</b>     |
| 1000              | 1120                          | 1250            | 590                         | 17,7            |
| <b>1000</b>       | <b>1250</b>                   | <b>1380</b>     | <b>590</b>                  | <b>21,5</b>     |
| 1120              | 500                           | 610             | 650                         | 4,25            |
| 1120              | 560                           | 670             | 650                         | 5,07            |
| 1120              | 600                           | 710             | 650                         | 5,66            |
| 1120              | 630                           | 740             | 650                         | 6,12            |
| 1120              | 710                           | 820             | 650                         | 7,75            |
| 1120              | 800                           | 910             | 650                         | 9,45            |
| 1120              | 900                           | 1030            | 650                         | 12,2            |
| 1120              | 1000                          | 1130            | 650                         | 14,3            |
| 1120              | 1120                          | 1250            | 650                         | 17,9            |
| 1120              | 1250                          | 1380            | 650                         | 21,7            |
| 1250              | 500                           | 610             | 715                         | 4,28            |
| 1250              | 560                           | 670             | 715                         | 5,11            |
| 1250              | 600                           | 710             | 715                         | 5,71            |
| <b>1250</b>       | <b>630</b>                    | <b>740</b>      | <b>715</b>                  | <b>6,18</b>     |
| 1250              | 710                           | 820             | 715                         | 7,83            |
| <b>1250</b>       | <b>800</b>                    | <b>910</b>      | <b>715</b>                  | <b>9,55</b>     |
| 1250              | 900                           | 1030            | 715                         | 12,5            |
| <b>1250</b>       | <b>1000</b>                   | <b>1130</b>     | <b>715</b>                  | <b>14,5</b>     |
| 1250              | 1120                          | 1250            | 715                         | 18,2            |
| <b>1250</b>       | <b>1250</b>                   | <b>1380</b>     | <b>715</b>                  | <b>22,0</b>     |



# Take-off

ILRU

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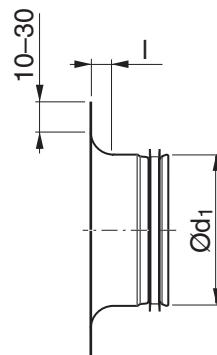
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## Dimensions



### Description

Take-off with radius.

### Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | ILRU | 250 |
| Dimension Ød <sub>1</sub> |      |     |

| Ød <sub>1</sub><br>nom | I<br>mm   | m<br>kg     |
|------------------------|-----------|-------------|
| 63                     | 10        | 0,07        |
| 80                     | 12        | 0,10        |
| 100                    | 15        | 0,11        |
| <b>125</b>             | <b>20</b> | <b>0,14</b> |
| 140                    | 20        | 0,22        |
| 150                    | 20        | 0,24        |
| <b>160</b>             | <b>25</b> | <b>0,19</b> |
| 180                    | 25        | 0,30        |
| <b>200</b>             | <b>25</b> | <b>0,26</b> |
| 224                    | 25        | 0,46        |
| <b>250</b>             | <b>25</b> | <b>0,57</b> |
| 300                    | 25        | 0,68        |
| <b>315</b>             | <b>25</b> | <b>0,72</b> |
| 355                    | 25        | 0,53        |
| <b>400</b>             | <b>25</b> | <b>0,97</b> |
| <b>500</b>             | <b>25</b> | <b>1,35</b> |
| <b>630</b>             | <b>25</b> | <b>1,77</b> |

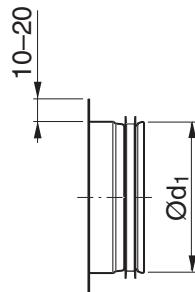


# Take-off

ILU



## Dimensions



### Description

Take-off without radius.

### Ordering example

|                           |     |     |
|---------------------------|-----|-----|
| Product                   | ILU | 200 |
| Dimension Ød <sub>1</sub> |     |     |

| Ød <sub>1</sub><br>nom | m<br>kg     |
|------------------------|-------------|
| 63                     | 0,06        |
| 80                     | 0,08        |
| 100                    | 0,07        |
| 112                    | 0,10        |
| <b>125</b>             | <b>0,11</b> |
| 140                    | 0,15        |
| 150                    | 0,15        |
| <b>160</b>             | <b>0,16</b> |
| 180                    | 0,19        |
| <b>200</b>             | <b>0,21</b> |
| 224                    | 0,36        |
| <b>250</b>             | <b>0,36</b> |
| 280                    | 0,30        |
| 300                    | 0,36        |
| <b>315</b>             | <b>0,54</b> |
| 355                    | 0,41        |
| <b>400</b>             | <b>0,58</b> |
| 450                    | 0,71        |
| <b>500</b>             | <b>0,83</b> |
| 560                    | 0,96        |
| 600                    | 0,99        |
| <b>630</b>             | <b>1,13</b> |
| 710                    | 1,58        |
| <b>800</b>             | <b>2,11</b> |
| 900                    | 2,70        |
| <b>1000</b>            | <b>3,23</b> |
| 1120                   | 4,10        |
| <b>1250</b>            | <b>4,55</b> |



# Take-off

ILF

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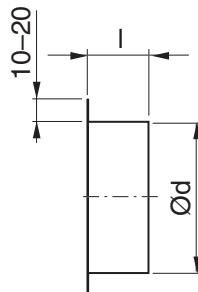
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## Dimensions



### Description

Take-off without radius. With female end – fits outside a Safe fitting.

### Ordering example

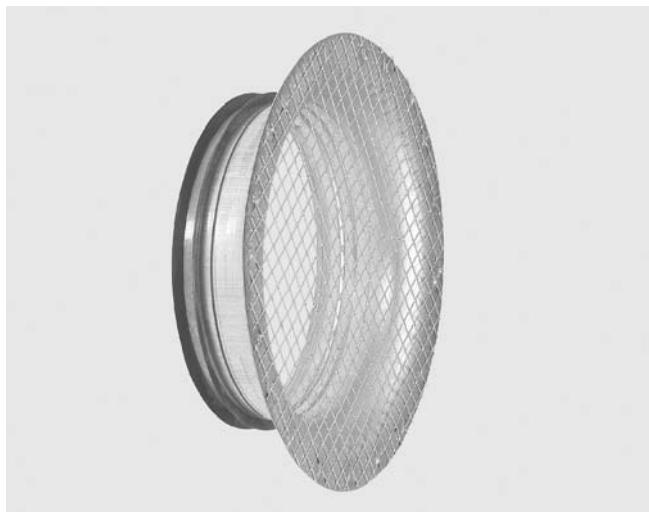
|              |     |     |
|--------------|-----|-----|
| Product      | ILF | 200 |
| Dimension Ød |     |     |

| Ød<br>nom  | I<br>mm   | m<br>kg     |
|------------|-----------|-------------|
| 63         | 45        | 0,06        |
| 80         | 45        | 0,08        |
| 100        | 45        | 0,06        |
| 112        | 45        | 0,10        |
| <b>125</b> | <b>45</b> | <b>0,08</b> |
| 140        | 45        | 0,15        |
| 150        | 45        | 0,15        |
| <b>160</b> | <b>45</b> | <b>0,16</b> |
| 180        | 45        | 0,19        |
| <b>200</b> | <b>45</b> | <b>0,21</b> |
| 224        | 45        | 0,26        |
| <b>250</b> | <b>65</b> | <b>0,31</b> |
| 280        | 65        | 0,30        |
| 300        | 65        | 0,41        |
| <b>315</b> | <b>65</b> | <b>0,46</b> |
| 355        | 65        | 0,41        |
| <b>400</b> | <b>90</b> | <b>0,58</b> |
| 450        | 90        | 0,71        |
| <b>500</b> | <b>90</b> | <b>0,83</b> |
| 560        | 90        | 0,96        |
| 600        | 90        | 0,99        |
| <b>630</b> | <b>90</b> | <b>1,13</b> |

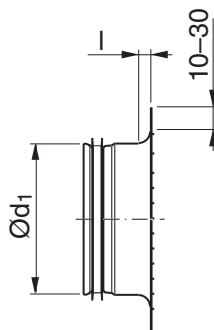


# Take-off with mesh

ILRNU



## Dimensions



## Description

To terminate an inlet duct.

With radius. Mesh size 10 × 10 mm

## Ordering example

|                           |       |     |
|---------------------------|-------|-----|
| Product                   | ILRNU | 200 |
| Dimension Ød <sub>1</sub> |       |     |

| Ød <sub>1</sub><br>nom | I<br>mm   | m<br>kg     |
|------------------------|-----------|-------------|
| 63                     | 10        | 0,07        |
| 80                     | 12        | 0,11        |
| 100                    | 15        | 0,16        |
| <b>125</b>             | <b>20</b> | <b>0,21</b> |
| 140                    | 20        | 0,24        |
| 150                    | 20        | 0,27        |
| <b>160</b>             | <b>25</b> | <b>0,22</b> |
| 180                    | 25        | 0,34        |
| <b>200</b>             | <b>25</b> | <b>0,39</b> |
| 224                    | 25        | 0,51        |
| <b>250</b>             | <b>25</b> | <b>0,64</b> |
| 300                    | 25        | 0,77        |
| <b>315</b>             | <b>25</b> | <b>0,83</b> |
| 355                    | 25        | 0,89        |
| <b>400</b>             | <b>25</b> | <b>1,14</b> |
| <b>500</b>             | <b>25</b> | <b>1,61</b> |
| <b>630</b>             | <b>25</b> | <b>2,19</b> |



# Take-off with mesh

ESNU

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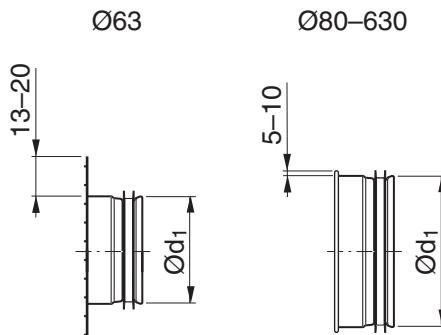
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## Dimensions



## Description

To terminate an inlet duct.  
Mesh size 10 × 10 mm.

## Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | ESNU | 200 |
| Dimension Ød <sub>1</sub> |      |     |

| Ød <sub>1</sub><br>nom | m<br>kg     |
|------------------------|-------------|
| 63                     | 0,06        |
| 80                     | 0,09        |
| 100                    | 0,10        |
| 112                    | 0,12        |
| <b>125</b>             | <b>0,13</b> |
| 140                    | 0,17        |
| 150                    | 0,16        |
| <b>160</b>             | <b>0,17</b> |
| 180                    | 0,21        |
| <b>200</b>             | <b>0,25</b> |
| 224                    | 0,31        |
| <b>250</b>             | <b>0,38</b> |
| 280                    | 0,37        |
| 300                    | 0,51        |
| <b>315</b>             | <b>0,57</b> |
| 355                    | 0,54        |
| <b>400</b>             | <b>0,75</b> |
| 450                    | 0,92        |
| <b>500</b>             | <b>1,09</b> |
| 560                    | 1,26        |
| 600                    | 1,34        |
| <b>630</b>             | <b>1,55</b> |

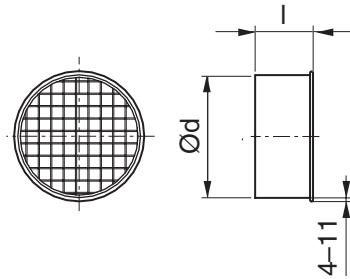


# Take-off with mesh

EPNF



## Dimensions



### Description

To terminate an inlet duct. With female end – fits outside a Safe fitting.  
Mesh size 10 × 10 mm.

### Ordering example

|              |      |     |
|--------------|------|-----|
| Product      | EPNF | 250 |
| Dimension Ød |      |     |

| Ød<br>nom  | I<br>mm   | m<br>kg     |
|------------|-----------|-------------|
| 80         | 48        | 0,07        |
| 100        | 48        | 0,09        |
| 112        | 48        | 0,10        |
| <b>125</b> | <b>48</b> | <b>0,11</b> |
| 140        | 48        | 0,13        |
| 150        | 48        | 0,14        |
| <b>160</b> | <b>48</b> | <b>0,15</b> |
| 180        | 48        | 0,17        |
| <b>200</b> | <b>48</b> | <b>0,19</b> |
| 224        | 48        | 0,22        |
| <b>250</b> | <b>68</b> | <b>0,34</b> |
| 280        | 68        | 0,38        |
| 300        | 68        | 0,42        |
| <b>315</b> | <b>68</b> | <b>0,44</b> |
| 355        | 68        | 0,50        |
| <b>400</b> | <b>93</b> | <b>0,69</b> |
| 450        | 93        | 0,81        |
| <b>500</b> | <b>93</b> | <b>0,92</b> |
| 560        | 93        | 1,07        |
| 600        | 93        | 1,16        |
| <b>630</b> | <b>93</b> | <b>1,23</b> |



# Take-off with mesh and cone

# ILKNU 50

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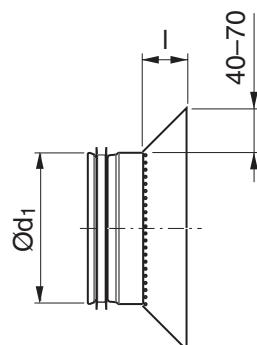
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## Dimensions



## Description

To terminate an inlet duct.  
Mesh size 10 × 10 mm.

## Ordering example

|                           |       |     |    |
|---------------------------|-------|-----|----|
| Product                   | ILKNU | 200 | 50 |
| Dimension Ød <sub>1</sub> |       |     |    |
| Cone height, nominal      |       |     |    |

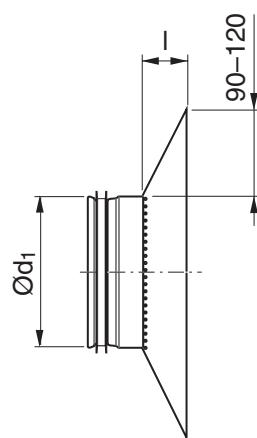
| Ød <sub>1</sub><br>nom | I<br>mm | m<br>kg |
|------------------------|---------|---------|
| 100                    | 50      | 0,15    |
| 125                    | 50      | 0,22    |
| 160                    | 50      | 0,25    |
| 200                    | 50      | 0,32    |
| 250                    | 53      | 0,65    |
| 315                    | 68      | 0,89    |
| 400                    | 50      | 1,00    |
| 500                    | 50      | 1,24    |
| 630                    | 40      | 1,43    |
| 800                    | 50      | 1,79    |



# Take-off with mesh and cone ILKNU 100



## Dimensions



## Description

To terminate an inlet duct.  
Mesh size 10 × 10 mm.

## Ordering example

|                           |       |     |     |
|---------------------------|-------|-----|-----|
| Product                   | ILKNU | 200 | 100 |
| Dimension Ød <sub>1</sub> |       |     |     |
| Cone heigh, nominal       |       |     |     |

| Ød <sub>1</sub><br>nom | I<br>mm | m<br>kg |
|------------------------|---------|---------|
| 100                    | 100     | 0,48    |
| 125                    | 95      | 0,54    |
| 160                    | 98      | 0,68    |
| 200                    | 100     | 0,99    |
| 250                    | 100     | 1,23    |
| 315                    | 93      | 1,43    |
| 400                    | 100     | 1,73    |
| 500                    | 105     | 2,14    |
| 630                    | 115     | 2,87    |
| 800                    | 100     | 4,21    |



# Take-off with mesh and cone

ILKNF 50

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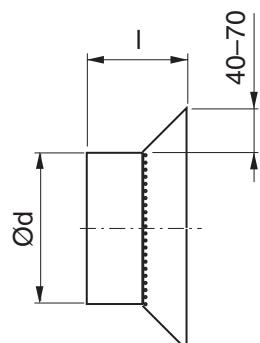
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## Dimensions



## Description

To terminate an inlet duct. With female end – fits outside a Safe fitting.  
Mesh size 10 × 10 mm.

## Ordering example

|                      |       |     |    |
|----------------------|-------|-----|----|
| Product              | ILKNF | 200 | 50 |
| Dimension Ød         |       |     |    |
| Cone height, nominal |       |     |    |

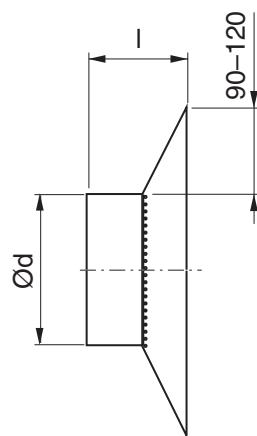
| Ød<br>nom | I<br>mm | m<br>kg |
|-----------|---------|---------|
| 100       | 92      | 0,15    |
| 125       | 92      | 0,22    |
| 160       | 92      | 0,25    |
| 200       | 92      | 0,32    |
| 250       | 115     | 0,65    |
| 315       | 130     | 0,89    |
| 400       | 132     | 1,00    |
| 500       | 132     | 1,24    |
| 630       | 122     | 1,43    |
| 800       | 152     | 1,79    |



# Take-off with mesh and cone ILKNF 100



## Dimensions



## Description

To terminate an inlet duct. With female end – fits outside a Safe fitting.  
Mesh size 10 × 10 mm.

## Ordering example

|                      |       |     |     |
|----------------------|-------|-----|-----|
| Product              | ILKNF | 200 | 100 |
| Dimension Ød         |       |     |     |
| Cone height, nominal |       |     |     |

| Ød<br>nom | I<br>mm | m<br>kg |
|-----------|---------|---------|
| 100       | 142     | 0,48    |
| 125       | 137     | 0,54    |
| 160       | 140     | 0,68    |
| 200       | 142     | 0,99    |
| 250       | 162     | 1,23    |
| 315       | 155     | 1,43    |
| 400       | 182     | 1,73    |
| 500       | 187     | 2,14    |
| 630       | 197     | 2,87    |
| 800       | 202     | 4,21    |

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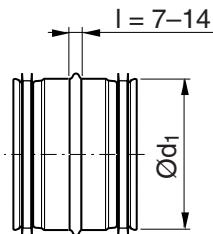


# Coupling

NPU



## Dimensions



## Description

Coupling connector for joining circular ducts.

## Ordering example

|                           |     |     |
|---------------------------|-----|-----|
| Product                   | NPU | 200 |
| Dimension Ød <sub>1</sub> |     |     |

| Ød <sub>1</sub><br>nom | m<br>kg     |
|------------------------|-------------|
| 63                     | 0,07        |
| 80                     | 0,09        |
| 100                    | 0,12        |
| 112                    | 0,14        |
| <b>125</b>             | <b>0,15</b> |
| 140                    | 0,16        |
| 150                    | 0,18        |
| <b>160</b>             | <b>0,19</b> |
| 180                    | 0,25        |
| <b>200</b>             | <b>0,30</b> |
| 224                    | 0,30        |
| <b>250</b>             | <b>0,52</b> |
| 280                    | 0,56        |
| 300                    | 0,64        |
| <b>315</b>             | <b>0,66</b> |
| 355                    | 0,76        |
| <b>400</b>             | <b>1,10</b> |
| 450                    | 1,34        |
| <b>500</b>             | <b>1,52</b> |
| 560                    | 1,90        |
| 600                    | 2,10        |
| <b>630</b>             | <b>2,24</b> |
| 710                    | 2,65        |
| <b>800</b>             | <b>3,10</b> |
| 900                    | 4,52        |
| <b>1000</b>            | <b>5,30</b> |
| 1120                   | 7,03        |
| <b>1250</b>            | <b>7,70</b> |

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# Expanding coupling

NPEU



## Description

Expanding coupling, intended for installation of ventilation ducts and components of larger dimensions. The coupling makes installation easier and can also be used between circular ducts and fittings without a rubber seal.

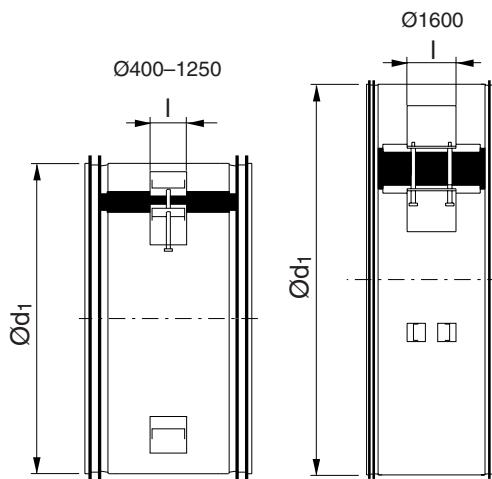
The coupling is expanded by means of a threaded bolt, socket no. 13.

Can achieve maximum tightness class C.

## Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | NPEU | 630 |
| Dimension Ød <sub>1</sub> |      |     |

## Dimensions



| Ød <sub>1</sub><br>nom | I<br>mm    | m<br>kg     |
|------------------------|------------|-------------|
| 355                    | 45         | 1,24        |
| <b>400</b>             | <b>45</b>  | <b>1,64</b> |
| 450                    | 45         | 1,83        |
| <b>500</b>             | <b>45</b>  | <b>2,50</b> |
| 560                    | 45         | 2,95        |
| 600                    | 45         | 3,15        |
| <b>630</b>             | <b>45</b>  | <b>3,30</b> |
| 710                    | 45         | 4,30        |
| <b>800</b>             | <b>45</b>  | <b>4,81</b> |
| 900                    | 45         | 5,40        |
| <b>1000</b>            | <b>45</b>  | <b>8,48</b> |
| 1120                   | 45         | 10,8        |
| <b>1250</b>            | <b>45</b>  | <b>12,1</b> |
| 1400                   | 120        | 15,2        |
| 1500                   | 120        | 16,4        |
| <b>1600</b>            | <b>120</b> | <b>17,5</b> |



# Slide-in coupling

SKNPU

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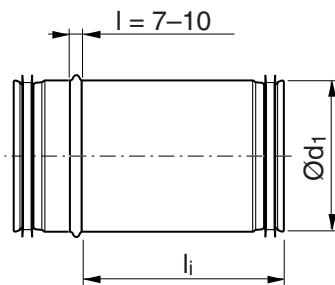
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## Dimensions



## Description

Slide-in coupling intended for greater flexibility when joining SR ducts.

Other applications could be:

- To eliminate the accurate cutting of ducts which the ordinary NPU connector requires in some cases.
- To add a piece of duct to a system to replace a damaged piece of duct.

## Ordering example

|                           |       |     |
|---------------------------|-------|-----|
| Product                   | SKNPU | 200 |
| Dimension Ød <sub>1</sub> |       |     |

| Ød <sub>1</sub><br>nom | l <sub>i</sub><br>mm | m<br>kg     |
|------------------------|----------------------|-------------|
| 80                     | 133                  | 0,18        |
| 100                    | 133                  | 0,22        |
| 112                    | 133                  | 0,24        |
| <b>125</b>             | <b>133</b>           | <b>0,28</b> |
| 140                    | 133                  | 0,31        |
| 150                    | 133                  | 0,33        |
| <b>160</b>             | <b>133</b>           | <b>0,36</b> |
| 180                    | 133                  | 0,40        |
| <b>200</b>             | <b>133</b>           | <b>0,56</b> |
| 224                    | 133                  | 0,62        |
| <b>250</b>             | <b>172</b>           | <b>0,90</b> |
| 280                    | 172                  | 1,00        |
| 300                    | 172                  | 1,10        |
| <b>315</b>             | <b>172</b>           | <b>1,16</b> |
| 355                    | 172                  | 1,30        |
| <b>400</b>             | <b>170</b>           | <b>2,07</b> |
| 450                    | 170                  | 2,33        |
| <b>500</b>             | <b>170</b>           | <b>2,60</b> |

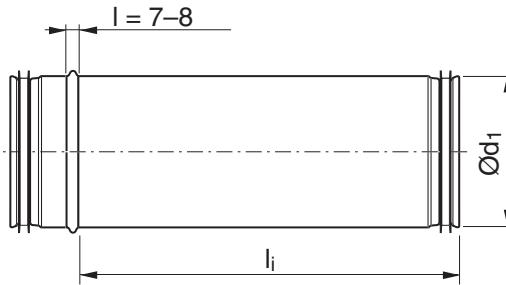


# Slide-in coupling

SNPU



## Dimensions



## Description

Slide-in coupling intended for greater flexibility when joining SR ducts.

Other applications could be:

- To eliminate the accurate cutting of ducts which the ordinary NPU connector requires in some cases.
- To add a piece of duct to a system to replace a damaged piece of duct.

## Ordering example

|                           |             |            |
|---------------------------|-------------|------------|
| Product                   | <b>SNPU</b> | <b>200</b> |
| Dimension Ød <sub>1</sub> |             |            |

| Ød <sub>1</sub><br>nom | l <sub>i</sub><br>mm | m<br>kg     |
|------------------------|----------------------|-------------|
| <b>100</b>             | <b>395</b>           | <b>0,51</b> |
| 112                    | 395                  | 0,55        |
| <b>125</b>             | <b>395</b>           | <b>0,65</b> |
| 140                    | 395                  | 0,72        |
| 150                    | 395                  | 0,76        |
| <b>160</b>             | <b>395</b>           | <b>0,83</b> |
| 180                    | 395                  | 0,93        |
| <b>200</b>             | <b>395</b>           | <b>1,28</b> |
| 224                    | 395                  | 1,41        |
| <b>250</b>             | <b>395</b>           | <b>1,66</b> |
| 280                    | 395                  | 1,85        |
| 300                    | 395                  | 2,01        |
| <b>315</b>             | <b>395</b>           | <b>2,12</b> |

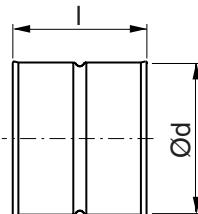


# Female coupling

MF



## Dimensions



### Description

Female coupling for joining fittings.

### Ordering example

|              |    |     |
|--------------|----|-----|
| Product      | MF | 200 |
| Dimension Ød |    |     |

| Ød<br>nom   | I<br>mm    | m<br>kg     |
|-------------|------------|-------------|
| 63*         | 95         | 0,06        |
| 80*         | 95         | 0,08        |
| 100*        | 95         | 0,10        |
| 112         | 95         | 0,11        |
| <b>125*</b> | <b>95</b>  | <b>0,13</b> |
| 140         | 95         | 0,17        |
| 150*        | 95         | 0,18        |
| <b>160*</b> | <b>95</b>  | <b>0,20</b> |
| 180         | 95         | 0,22        |
| <b>200*</b> | <b>95</b>  | <b>0,25</b> |
| 224         | 95         | 0,27        |
| <b>250*</b> | <b>140</b> | <b>0,42</b> |
| 280         | 130        | 0,50        |
| 300         | 130        | 0,51        |
| <b>315*</b> | <b>140</b> | <b>0,54</b> |
| 355         | 130        | 0,62        |
| <b>400*</b> | <b>180</b> | <b>0,96</b> |
| 450         | 170        | 1,17        |
| <b>500*</b> | <b>180</b> | <b>1,46</b> |
| 560         | 170        | 1,57        |
| 600         | 170        | 1,65        |
| <b>630</b>  | <b>170</b> | <b>1,74</b> |
| 710         | 210        | 1,96        |
| <b>800</b>  | <b>210</b> | <b>2,24</b> |
| 900         | 210        | 4,00        |
| <b>1000</b> | <b>210</b> | <b>4,43</b> |
| 1120        | 250        | 5,90        |
| <b>1250</b> | <b>250</b> | <b>6,52</b> |

\* With turned-over edge

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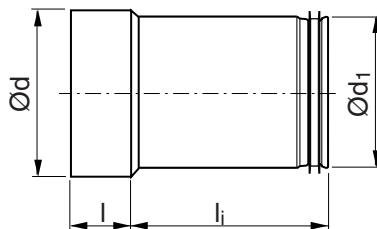


# Slide-in female coupling

SKMF



## Dimensions



## Description

Slide-in female coupling, intended to add fittings to an existing system.

Other applications could be:

- To extend the distance between a T-piece and a cleaning cover, to get it outside any insulation.
- To take up the often varying distance between the stub on an air supply terminal and the duct junction.
- To facilitate the access when inspecting and cleaning the duct system.

## Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | SKMF | 200 |
| Dimension Ød <sub>1</sub> |      |     |

| Ød <sub>1</sub><br>nom | I<br>mm    | I <sub>i</sub><br>mm | m<br>kg     |
|------------------------|------------|----------------------|-------------|
| 80                     | 130        | 40                   | 0,16        |
| 100                    | 130        | 40                   | 0,20        |
| 112                    | 130        | 40                   | 0,23        |
| <b>125</b>             | <b>130</b> | <b>40</b>            | <b>0,25</b> |
| 140                    | 130        | 40                   | 0,28        |
| 150                    | 130        | 40                   | 0,30        |
| <b>160</b>             | <b>130</b> | <b>40</b>            | <b>0,32</b> |
| 180                    | 130        | 40                   | 0,36        |
| <b>200</b>             | <b>130</b> | <b>40</b>            | <b>0,50</b> |
| 224                    | 130        | 40                   | 0,56        |
| <b>250</b>             | <b>185</b> | <b>60</b>            | <b>0,88</b> |
| 280                    | 185        | 60                   | 0,99        |
| 300                    | 185        | 60                   | 1,07        |
| <b>315*</b>            | <b>185</b> | <b>60</b>            | <b>1,12</b> |
| 355*                   | 185        | 60                   | 1,27        |
| 400*                   | 240        | 80                   | 2,67        |
| <b>450**</b>           | 242        | 80                   | 3,04        |
| <b>500**</b>           | <b>242</b> | <b>80</b>            | <b>3,37</b> |

\* With stiffening bead

\*\* Design with lockseam



# Slide-in female coupling

SMFU

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## Dimensions



## Description

Slide-in female coupling, intended to add fittings to an existing system.

Other applications could be:

- To extend the distance between a T-piece and a cleaning cover, to get it outside any insulation.
- To take up the often varying distance between the stub on an air supply terminal and the duct junction.
- To facilitate the access when inspecting and cleaning the duct system.

## Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | SMFU | 200 |
| Dimension Ød <sub>1</sub> |      |     |

| Ød <sub>1</sub><br>nom | l<br>mm    | l <sub>i</sub><br>mm | m<br>kg     |
|------------------------|------------|----------------------|-------------|
| 100                    | 405        | 40                   | 0,51        |
| 112                    | 405        | 40                   | 0,59        |
| <b>125</b>             | <b>405</b> | <b>40</b>            | <b>0,64</b> |
| 140                    | 405        | 40                   | 0,71        |
| 150                    | 405        | 40                   | 0,76        |
| <b>160</b>             | <b>405</b> | <b>40</b>            | <b>0,81</b> |
| 180                    | 405        | 40                   | 0,92        |
| <b>200</b>             | <b>405</b> | <b>40</b>            | <b>1,26</b> |
| 224                    | 405        | 40                   | 1,41        |
| <b>250</b>             | <b>405</b> | <b>60</b>            | <b>1,64</b> |
| 280                    | 405        | 60                   | 1,84        |
| 300                    | 405        | 60                   | 1,98        |
| <b>315*</b>            | <b>405</b> | <b>60</b>            | <b>2,07</b> |

\* With stiffening bead



# End caps and cleaning covers

## Cleaning of duct systems

Some duct units have parts which more or less block the duct system, and thus obstruct or prevent cleaning of it. Such units are silencers with baffles, most dampers and some flow measurement units.

You can choose one of the following approaches, to permit cleaning at such units:

- d You can install cleaning covers such as KCU (page 126), EPFH (page 124), KCRU (page 128) or KC (page 284) on each side of the unit.
- e You can use sealing clamp SVK (page 282) to make it easy to remove the unit from the system.
- f You can use slide-in coupling SKMF (page 119) to make it easy to remove the unit from the system.  
**NOTE!** To prevent the system from inadvertently coming apart during operation, locate the slide-in coupling **upstream** of the unit, seen from the direction of the air flow.
- g You can locally switch over to Transfer to make it easy to remove the unit from the system.

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# End cap

EPF

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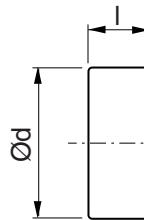
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## Dimensions



### Description

End cap, which fits outside a Safe fitting.

### Ordering example

|              |     |     |
|--------------|-----|-----|
| Product      | EPF | 250 |
| Dimension Ød |     |     |

| Ød<br>nom     | I<br>mm    | m<br>kg     |
|---------------|------------|-------------|
| 63            | 40         | 0,04        |
| 80*           | 48         | 0,07        |
| 100*          | 48         | 0,11        |
| 112           | 48         | 0,10        |
| <b>125*</b>   | <b>48</b>  | <b>0,14</b> |
| 140           | 48         | 0,16        |
| 150           | 48         | 0,14        |
| <b>160*</b>   | <b>48</b>  | <b>0,17</b> |
| 180           | 48         | 0,24        |
| <b>200*</b>   | <b>46</b>  | <b>0,21</b> |
| 224           | 46         | 0,35        |
| <b>250*</b>   | <b>68</b>  | <b>0,50</b> |
| 280           | 60         | 0,61        |
| 300           | 60         | 0,63        |
| <b>315*</b>   | <b>60</b>  | <b>0,67</b> |
| 355           | 60         | 0,84        |
| <b>400*</b>   | <b>91</b>  | <b>1,17</b> |
| 450           | 80         | 1,48        |
| <b>500**</b>  | <b>80</b>  | <b>1,81</b> |
| 560           | 80         | 2,14        |
| 600           | 80         | 2,37        |
| <b>630**</b>  | <b>80</b>  | <b>2,54</b> |
| 710           | 100        | 3,00        |
| <b>800**</b>  | <b>100</b> | <b>3,54</b> |
| 900           | 100        | 6,10        |
| <b>1000**</b> | <b>100</b> | <b>7,30</b> |
| 1120          | 120        | 9,40        |
| <b>1250**</b> | <b>120</b> | <b>11,3</b> |

\* With turned-over edge

\*\* Hand made

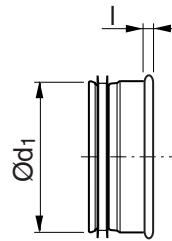


# End cap

ESU



## Dimensions



### Description

End cap, which fits inside SR duct.

### Ordering example

|                             |     |     |
|-----------------------------|-----|-----|
| Product                     | ESU | 160 |
| Dimension $\varnothing d_1$ |     |     |

| $\varnothing d_1$<br>nom | I<br>mm   | m<br>kg     |
|--------------------------|-----------|-------------|
| 63                       | 4         | 0,08        |
| 80                       | 10        | 0,08        |
| 100                      | 10        | 0,12        |
| 112                      | 4         | 0,13        |
| <b>125</b>               | <b>10</b> | <b>0,14</b> |
| 140                      | 10        | 0,19        |
| 150                      | 10        | 0,17        |
| <b>160</b>               | <b>10</b> | <b>0,24</b> |
| 180                      | 10        | 0,28        |
| <b>200</b>               | <b>10</b> | <b>0,32</b> |
| 224                      | 10        | 0,40        |
| <b>250</b>               | <b>10</b> | <b>0,37</b> |
| 280                      | 4         | 0,62        |
| 300                      | 10        | 0,70        |
| <b>315</b>               | <b>10</b> | <b>0,80</b> |
| 355                      | 12        | 0,91        |
| <b>400</b>               | <b>12</b> | <b>1,26</b> |
| 450                      | 4         | 1,48        |
| <b>500</b>               | <b>12</b> | <b>2,00</b> |
| 560                      | 4         | 2,04        |
| 600                      | 4         | 2,38        |
| <b>630</b>               | <b>4</b>  | <b>2,90</b> |
| 710                      | 4         | 3,21        |
| <b>800</b>               | <b>4</b>  | <b>5,00</b> |
| 900                      | 4         | 5,26        |
| <b>1000</b>              | <b>4</b>  | <b>9,25</b> |
| 1120                     | 4         | 7,92        |
| <b>1250</b>              | <b>4</b>  | <b>10,0</b> |



# Cleaning cover

EPFH



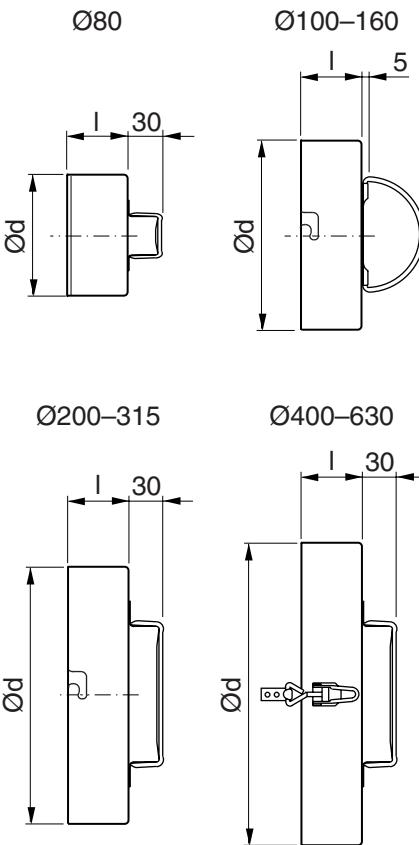
## Description

Cleaning cover, which fits outside a Safe fitting.  
 Dimensions Ø100–315 have notches for bayonet locking, in order to be better fixed in ducts with positive pressure. You must then add two rivets to the fitting.  
 Dimensions Ø400–630 have eccentric locks in order to be better fixed in ducts with positive pressure. You must then mount the hooks of the locks in the fitting.

## Ordering example

|              |      |     |
|--------------|------|-----|
| Product      | EPFH | 250 |
| Dimension Ød |      |     |

## Dimensions



| Ød<br>nom | I<br>mm | m<br>kg | Handle        | Locking   |
|-----------|---------|---------|---------------|-----------|
| 80        | 48      | 0,09    | 1 fixed small | –         |
| 100       | 40      | 0,15    | 1 folding     | bayonet   |
| 125       | 40      | 0,17    | 1 folding     | bayonet   |
| 160       | 40      | 0,22    | 1 folding     | bayonet   |
| 200       | 40      | 0,32    | 1 fixed       | bayonet   |
| 250       | 60      | 0,55    | 2 fixed       | bayonet   |
| 315       | 60      | 0,74    | 2 fixed       | bayonet   |
| 400       | 80      | 1,26    | 2 fixed       | ecccenter |
| 500       | 80      | 1,87    | 2 fixed       | ecccenter |
| 630       | 80      | 2,71    | 2 fixed       | ecccenter |

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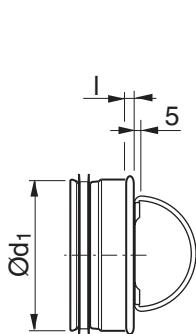
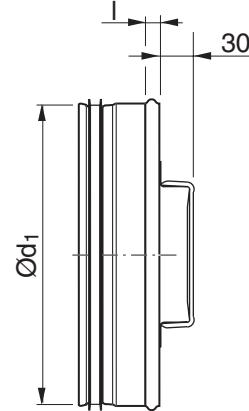


# Cleaning cover

ESHU



## Dimensions

 $\varnothing 100-160$  $\varnothing 200-630$ 

## Description

Cleaning cover, which fits inside an SR duct.

## Ordering example

Product **ESHU 160**  
Dimension  $\varnothing d_1$

| $\varnothing d_1$<br>nom | I<br>mm   | m<br>kg     | Handle           |
|--------------------------|-----------|-------------|------------------|
| <b>100</b>               | <b>10</b> | <b>0,17</b> | <b>1 folding</b> |
| 112                      | 4         | 0,18        | 1 folding        |
| <b>125</b>               | <b>10</b> | <b>0,19</b> | <b>1 folding</b> |
| 140                      | 10        | 0,24        | 1 folding        |
| 150                      | 10        | 0,22        | 1 folding        |
| <b>160</b>               | <b>10</b> | <b>0,29</b> | <b>1 folding</b> |
| 180                      | 10        | 0,32        | 1 fixed          |
| <b>200</b>               | <b>10</b> | <b>0,36</b> | <b>1 fixed</b>   |
| 224                      | 10        | 0,44        | 1 fixed          |
| <b>250</b>               | <b>10</b> | <b>0,58</b> | <b>2 fixed</b>   |
| 280                      | 4         | 0,70        | 2 fixed          |
| 300                      | 10        | 0,78        | 2 fixed          |
| <b>315</b>               | <b>10</b> | <b>0,88</b> | <b>2 fixed</b>   |
| 355                      | 10        | 0,99        | 2 fixed          |
| <b>400</b>               | <b>12</b> | <b>1,34</b> | <b>2 fixed</b>   |
| <b>500</b>               | <b>12</b> | <b>1,72</b> | <b>2 fixed</b>   |
| <b>630</b>               | <b>4</b>  | <b>2,62</b> | <b>2 fixed</b>   |



# Cleaning cover

KCU

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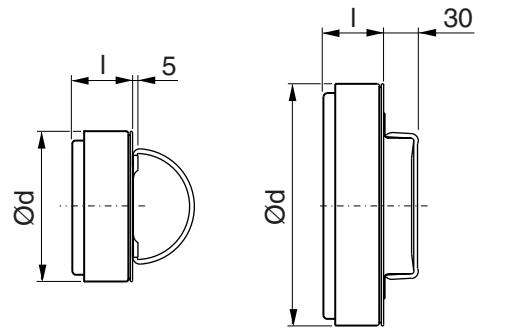
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## Dimensions

Ø100–160

Ø200–(400)



## Description

Cleaning cover which fits outside a Safe fitting.

The cover is held in place by spring clips against the inside of the Safe fitting. This does not apply to Ø400 which is held in place by two eccentric locks.

The cover is loosened by pulling it straight outwards, and is installed in the opposite manner (but not Ø400). There are one or two handles to help in the process.

$\Delta p$  in the table gives the maximum positive pressure the cleaning cover can withstand when installed from beneath.

## Ordering example

|              |     |     |
|--------------|-----|-----|
| Product      | KCU | 250 |
| Dimension Ød |     |     |

| Ød<br>nom | $\Delta p$<br>Pa | I<br>mm | m<br>kg | Handle    |
|-----------|------------------|---------|---------|-----------|
| 100       | >3400            | 40      | 0,30    | 1 folding |
| 125       | >3400            | 40      | 0,40    | 1 folding |
| 160       | >3400            | 40      | 0,60    | 1 folding |
| 200       | >3400            | 40      | 0,80    | 1 fixed   |
| 250       | >3400            | 60      | 1,28    | 2 fixed   |
| 315       | 2600             | 60      | 1,81    | 2 fixed   |
| 400       | >10000           | 90      | 2,82    | 2 fixed   |



# Cleaning cover

KCIVU



## Description

Cleaning cover which fits outside a Safe fitting.

The cover is held in place by spring clips against the inside of the Safe fitting. This does not apply to Ø400 which is held in place by two eccentric locks.

The cover is loosened by pulling it straight outwards, and is installed in the opposite manner (but not Ø400). There are one or two handles to help in the process.

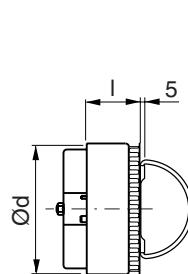
$\Delta p$  in the table gives the maximum positive pressure the cleaning cover can withstand when installed from beneath.

## Ordering example

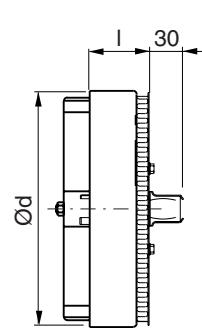
|              |       |     |
|--------------|-------|-----|
| Product      | KCIVU | 250 |
| Dimension Ød |       |     |

## Dimensions

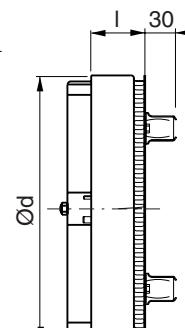
Ø100–160



Ø200



Ø250–(400)



| Ød<br>nom | $\Delta p$<br>Pa | I<br>mm | m<br>kg | Handle    |
|-----------|------------------|---------|---------|-----------|
| 100       | >3400            | 50      | 0,43    | 1 folding |
| 125       | >3400            | 50      | 0,62    | 1 folding |
| 160       | >3400            | 50      | 1,00    | 1 folding |
| 200       | >3400            | 50      | 1,41    | 1 fixed   |
| 250       | >3400            | 70      | 2,25    | 2 fixed   |
| 315       | 2600             | 70      | 3,30    | 2 fixed   |
| 400       | >10000           | 100     | 5,00    | 2 fixed   |



# Cleaning cover

KCRU

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## Description

Cleaning cover which complies with the requirements for cleaning covers in Swedish Standard SS 2645.

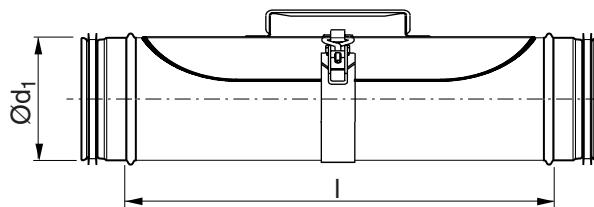
The hatch is held in place by a tension strap with adjustable eccentric lock. This offers a quick and simple opening and closing. A built-in handle also aids handling.

Can achieve maximum tightness class C.

## Ordering example

|                           |      |     |
|---------------------------|------|-----|
| Product                   | KCRU | 250 |
| Dimension Ød <sub>1</sub> |      |     |

## Dimensions



| Ød <sub>1</sub><br>nom | I<br>mm | m<br>kg |
|------------------------|---------|---------|
| 100                    | 480     | 1,06    |
| 125                    | 480     | 1,30    |
| 160                    | 480     | 1,80    |
| 200                    | 480     | 2,00    |
| 250                    | 480     | 2,92    |
| 315                    | 480     | 4,10    |
| 400                    | 480     | 5,51    |