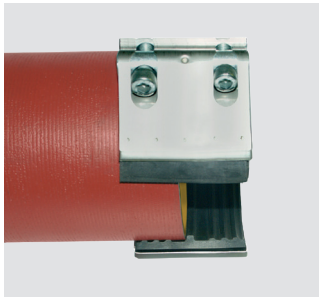
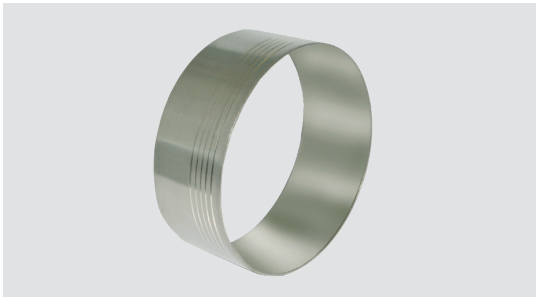
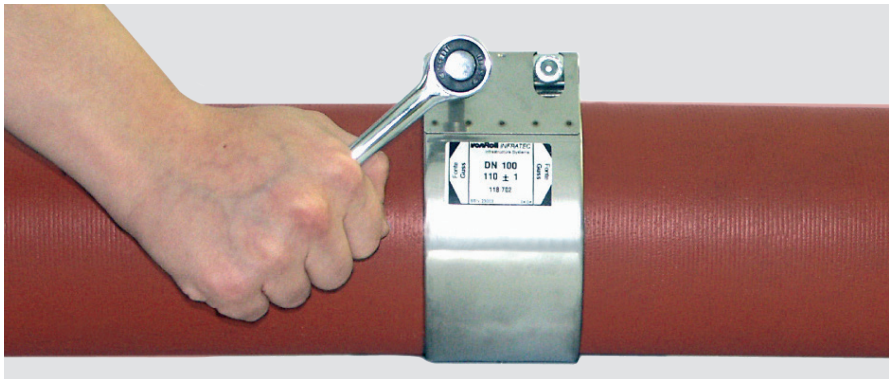
# PIPE CLAMPS/JOINT CLAMPS

## Full pricelist catalogue valid for Switzerland (excluding VAT)

Engineering support and customised products available on request – www.vonroll-hydro.world/support







DUKTUS KEULA ALTECNO

ZERO WATERLOSS
vonroll-hydro.world

# VROLL HYDRO

ZEROWATERLOSS

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# ZEROWATERLOSS VISION BECOMES REALITY

Valued customers and business partners

Water is the foundation of life – this goes without saying. Despite this (or even because of this), we are not prepared to pay the right price for good, clean and safe water, or make investments to allow water to be safely transported using sustainable infrastructure, to retain its quality and to prevent theft and waste.

After decades of engagement with the issue of water, VONROLL HYDRO has developed the ZEROWATERLOSS mission statement. In doing so, we have seen how ZEROWATERLOSS has become a global challenge. Summer 2003 was the first time that even countries in Europe with plenty of water were shown how vulnerable the foundation of our life and our quality of life is. 2018 refreshed the (gladly suppressed) memory. In many places, sinking groundwater levels have been registered for years, and a significant portion of worldwide migration movements could be attributed to the increasing lack of water or conflicts connected to the control of water reserves. In addition to climate change, the key causes of water shortages are population growth, demands on the standard of living, overexploitation and ignorance. Where the Aral Sea still stood until recently, there are now dry boatyards in the desert. In many countries, over 50 % of the water generated in an energy-intensive manner in desalination plants gets lost on the way to the consumer.

The ZEROWATERLOSS mission statement (www.zerowaterloss.world) presents the counter-thesis: Water is a key part of the intergenerational contract. We must build infrastructure today with first-class, long-lasting components. Water quality and water use must be monitored and safeguarded with innovative products and services (HYDROPORT and INFRAPORT as the foundations of smart cities and smart villages). The components required here for our infrastructure should ideally be manufactured regionally. This allows our values, which are reflected, for instance, in labour and environmental protection laws, to feed into our infrastructure. Thanks to short transport distances, $CO_2$ and exhaust gas pollution are minimised at the same time.

Together with you, our customers and business partners, we want to see ZEROWATERLOSS become a reality, with integrated and coordinated products and services worldwide. The new VONROLL HYDRO 2022 full catalogue forms a solid foundation for joint commitment. Our engineering teams are glad to have the chance to support you in planning and implementing large and small infrastructure projects.

ZEROWATERLOSS – so that water also remains a safe foundation of life for our descendants.

On behalf of the companies of the VONROLL HYDRO Group

Jürg Brand
*President of the Board of Directors*

Marta Lozano
*Director ZEROWATERLOSS*

**1**

**We recognise**

discrimination-free access to clean water as a universal human right.

**2**

**We are committed to**

not using more water than can sustainably flow back – Supplying our customers with high-quality water – Feeding used water back into circulation once purified.

**3**

**We favour**

recycled and recyclable materials (ideally with no degradation), which are manufactured and transported with as little $CO_2$ and exhaust gas pollution as possible.

**4**

**We respect**

the intergenerational contract by using high-quality and long-lasting products and services, and paying the right price for them.

# FIX-PIPE CLAMPS/JOINT CLAMPS

## Overview

| DN | Part no. | cast-iron/cast-iron without supporting ring page 5 $DE_1$ x $DE_2$ | cast-iron/PE with supporting ring page 6 $DE_1$ x $DE_2$ | cast-iron/PE without supporting ring page 6 $DE_1$ x $DE_2$ | cast-iron/steel without supporting ring page 7 $DE_1$ x $DE_2$ | Steel/PE with supporting ring page 8 $DE_1$ x $DE_2$ | Steel/PE without supporting ring page 9 $DE_1$ x $DE_2$ |
|---|---|---|---|---|---|---|---|
| **50** | 116653 | | | 58 x 50 | | | |
| | 116766 | | 58 x 56 | | | | |
| | 116815 | | | | | 48.3 x 50 | |
| | 116819 | | 58 x 50 | | | | |
| | 116820 | | | | | 54 x 50 | |
| | 116826 | | | | | 54 x 56 | |
| | 118716 | 58 x 58 | | | | | |
| **60** | 116656 | | | | | | 60.3 x 63 |
| | 116658 | | | 68 x 63 | | | |
| | 116810 | | | | 68 x 64 | | |
| | 116816 | | | | | 60.3 x 63 | |
| | 116821 | | | | | 64 x 63 | |
| | 116830** | | 68 x 50 | | | | |
| | 116831 | | 68 x 63 | | | | |
| | 116836 | | 68 x 56 | | | | |
| | 118700** | 68 x 68 | | | | | |
| **70** | 116772 | | | 78 x 75 | | | 76.1 x 75 |
| | 116829 | | 78 x 75 | | | 76.1 x 75 | |
| **80** | 116660 | | | | | | 83 x 75 |
| | 116740 | | | | | 83 x 90 | |
| + | 116822 | | | | | 83 x 90 | |
| | 116827 | | | | | 83 x 75 | |
| | 118717 | 83 x 83 | | | | | |
| **90** | 116762 | | 89 x 90 | | | 88.9 x 90 | |
| | 116811 | | | | 89 x 83 | | |
| + | 116832 | | 89 x 90 | | | 88.9 x 90 | |
| | 116837 | | 89 x 75 | | | | |
| | 118701 | 89 x 89 | | 89 x 90 | | | 88.9 x 90 |
| **100** | 116647 | | | | | 114.3 x 110 | |
| | 116741 | | | | | 106 x 110 | |
| | 116763 | | 110 x 110 | | | | |
| | 116780 | | | | | | 114.3 x 110 |
| | 116812 | | | | 110 x 106 | | |
| + | 116823 | | | | | 106 x 110 | |
| + | 116833 | | 110 x 110 | | | 108 x 110 | |
| | 118702 | 110 x 110 | | 110 x 110 | | | 108 x 110 |
| **125** | 116649 | | | | | 152 x 160 | |
| | 116742 | | | | | 131/133 x 125 | |
| | 116764 | | 135 x 125 | | | | |
| | 116813 | | | | 135 x 131 | | |
| + | 116824 | | | | | 131/133 x 125 | |
| + | 116825 | | | | | 152 x 160 | |
| + | 116834 | | 135 x 125 | | | | |
| | 118703 | 135 x 135 | | | | | |
| **150** | 116672 | | | | | | 168.3 x 160 |
| | 116765 | | 160 x 160 | | | | |
| | 116814 | | | | 160 x 152 | | |
| + | 116835 | | 160 x 160 | | | 159 x 160 | |
| | 118704 | 160 x 160 | | 160 x 160 | | | 159 x 160 |
| **200** | 116769 | | 210 x 200 | | | | |
| | 116773 | | | 210 x 200 | | | |
| | 118713 | 210 x 210 | | | | | |
| **250** | 116758** | | | 274 x 250 | | | |

\+ or S16 PE pipes
** Leaving while stocks last

# PIPE CLAMPS

## FIX pipe clamps cast-iron/cast-iron, without supporting ring

Interconnection: of pipes and fittings in cast-iron | non-tensile strength

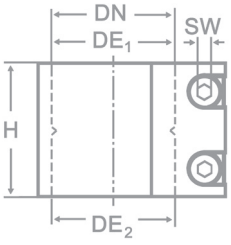
Pipe collar: in chromium-nickel steel

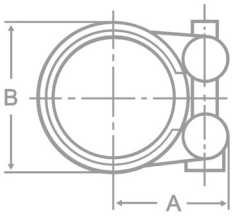
Sealing-cuff: provides compensation for varying outside diameters | It also absorbs and dampens any shocks and vibrations | At half the insertion depth, there is a 4 mm-wide stop-ring | It is therefore not necessary to mark-off the insertion depth on the ends of the pipes | At the same time, the stop-ring provides noise reduction and prevents the transmission of mechanical vibrations

Deployment: for gravity system, up to 80°C, tightening torque 20 Nm | not suitable in areas with high concentrations of chlorine or salt

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | SPC | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **50** | 58 | 58 | 45 | 66 | 45 | 5 | 50 | 0.3 | 118716 | – | **14.50** |
| **60**** | 68 | 68 | 52 | 78 | 55 | 5 | 50 | 0.3 | 118700 | 427.131 | **14.50** |
| **80** | 83 | 83 | 62 | 100 | 65 | 5 | 20 | 0.4 | 118717 | – | **17.50** |
| **90** | 89 | 89 | 62 | 100 | 65 | 5 | 20 | 0.4 | 118701 | 427.132 | **17.50** |
| **100** | 110 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 118702 | 427.133 | **18.50** |
| **125** | 135 | 135 | 88 | 145 | 90 | 6 | 10 | 0.8 | 118703 | 427.134 | **24.50** |
| **150** | 160 | 160 | 104 | 175 | 90 | 6 | 10 | 1.4 | 118704 | 427.135 | **50.50** |
| **200** | 210 | 210 | 130 | 225 | 90 | 6 | 8 | 1.0 | 118713 | 427.136 | **79.00** |

* GP= packing unit
** Leaving while stocks last



# FIX JOINT CLAMPS

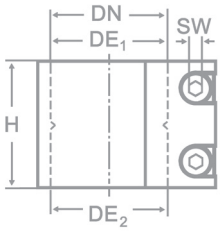
## FIX joint clamps cast-iron/PE

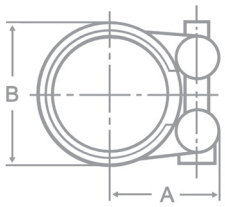
| | |
|---|---|
| Interconnection: | of pipes and fittings, cast-iron / various materials \| non-tensile strength |
| Pipe collar: | in chromium-nickel steel |
| Sealing-cuff: | provides compensation for varying outside diameters \| It also absorbs and dampens any shocks and vibrations \| At half the insertion depth, there is a 4 mm-wide stop-ring \| It is therefore not necessary to mark-off the insertion depth on the ends of the pipes \| At the same time, the stop-ring provides noise reduction and prevents the transmission of mechanical vibrations |
| Deployment: | for gravity system, up to 80°C, tightening torque 20 Nm \| not suitable in areas with high concentrations of chlorine or salt |

## with supporting ring

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | SPC | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **50** | 58 | 50 | 37 | 66 | 45 | 5 | 50 | 0.3 | 116819 | – | **23.00** |
| **50** | 58 | 56 | 37 | 66 | 45 | 5 | 50 | 0.2 | 116766 | – | **27.00** |
| **60**** | 68 | 50 | 52 | 78 | 55 | 5 | 50 | 0.4 | 116830 | 427.231 | **28.50** |
| **60** | 68 | 56 | 52 | 78 | 55 | 5 | 50 | 0.4 | 116836 | 427.231 | **24.50** |
| **60** | 68 | 63 | 52 | 78 | 55 | 5 | 50 | 0.3 | 116831 | 427.231 | **24.50** |
| **70** | 78 | 75 | 56 | 88 | 65 | 5 | 20 | 0.4 | 116829 | 427.232 | **36.50** |
| **90** | 89 | 75 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116837 | 427.232 | **30.50** |
| **90** | 89 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116762 | 427.232 | **30.50** |
| **90+** | 89 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116832 | 427.232 | **30.50** |
| **100** | 110 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116763 | 427.233 | **37.50** |
| **100+** | 110 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116833 | 427.233 | **37.50** |
| **125** | 135 | 125 | 88 | 145 | 90 | 6 | 10 | 0.9 | 116764 | 427.234 | **47.00** |
| **125+** | 135 | 125 | 88 | 145 | 90 | 6 | 10 | 0.9 | 116834 | 427.234 | **46.00** |
| **150+** | 160 | 160 | 104 | 175 | 90 | 6 | 10 | 1.2 | 116835 | 427.235 | **71.50** |
| **150** | 160 | 160 | 104 | 175 | 90 | 6 | 10 | 1.2 | 116765 | 427.235 | **71.50** |
| **200** | 210 | 200 | 130 | 225 | 90 | 6 | 8 | 1.3 | 116769 | 427.236 | **121.50** |

\+ for S16 PE-pipes
* GP= packing unit
** Leaving while stocks last

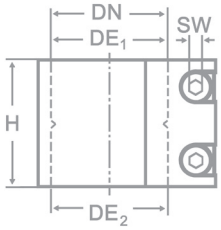


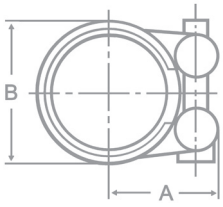




## without supporting ring

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | SPC | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **50** | 58 | 50 | 37 | 66 | 45 | 5 | 50 | 0.2 | 116653 | – | **15.00** |
| **60** | 68 | 63 | 52 | 78 | 55 | 5 | 50 | 0.3 | 116658 | 427.151 | **16.00** |
| **70** | 78 | 75 | 56 | 88 | 65 | 5 | 20 | 0.4 | 116772 | 427.152 | **28.50** |
| **90** | 89 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 118701 | 427.152 | **17.50** |
| **100** | 110 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 118702 | 427.153 | **18.50** |
| **150** | 160 | 160 | 104 | 175 | 90 | 6 | 10 | 1.4 | 118704 | 427.155 | **50.50** |
| **200** | 210 | 200 | 130 | 225 | 90 | 6 | 8 | 1.4 | 116773 | 427.156 | **107.00** |
| **250**** | 274 | 250 | 162 | 291 | 90 | 6 | 1 | 1.4 | 116758 | 427.157 | **180.50** |

* GP= packing unit
** Leaving while stocks last



# FIX JOINT CLAMPS

## FIX joint clamps cast iron/steel, without support ring

Interconnection: of pipes and fittings, steel / various materials | non-tensile strength

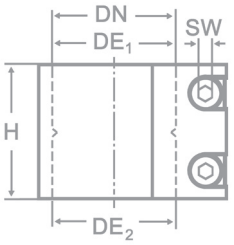
Pipe collar: in chromium-nickel steel

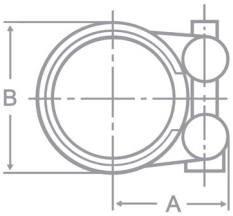
Sealing-cuff: provides compensation for varying outside diameters | It also absorbs and dampens any shocks and vibrations | At half the insertion depth, there is a 4 mm-wide stop-ring | It is therefore not necessary to mark-off the insertion depth on the ends of the pipes | DAt the same time, the stop-ring provides noise reduction and prevents the transmission of mechanical vibrations

Deployment: for gravity system, up to 80°C, tightening torque 20 Nm | not suitable in areas with high concentrations of chlorine or salt

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | SPC | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **60** | 68 | 64 | 52 | 78 | 55 | 5 | 50 | 0.3 | 116810 | 427.131 | **29.50** |
| **90** | 89 | 83 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116811 | 427.132 | **18.00** |
| **100** | 110 | 106 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116812 | 427.133 | **20.00** |
| **125** | 135 | 131 | 88 | 145 | 90 | 6 | 10 | 0.7 | 116813 | 427.134 | **42.00** |
| **150** | 160 | 152 | 104 | 175 | 90 | 6 | 10 | 1.2 | 116814 | 427.135 | **47.50** |

* GP= packing unit



# FIX JOINT CLAMPS

## FIX joint clamps steel/PE, with supporting ring

Interconnection: of pipes and fittings, steel / various materials | non-tensile strength

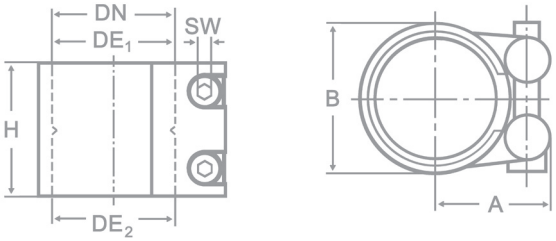
Pipe collar: in chromium-nickel steel

Sealing-cuff: provides compensation for varying outside diameters | SIt also absorbs and dampens any shocks and vibrations | At half the insertion depth, there is a 4 mm-wide stop-ring | It is therefore not necessary to mark-off the insertion depth on the ends of the pipes | At the same time, the stop-ring provides noise reduction and prevents the transmission of mechanical vibrations

Deployment: for gravity system, up to 80°C, tightening torque 20 Nm | not suitable in areas with high concentrations of chlorine or salt

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|
| **50** | 48.3 | 50 | 37 | 66 | 45 | 5 | 50 | 0.3 | 116815 | **23.00** |
| **50** | 54 | 50 | 37 | 66 | 45 | 5 | 50 | 0.3 | 116820 | **25.50** |
| **50** | 54 | 56 | 37 | 66 | 45 | 5 | 50 | 0.2 | 116826 | **24.50** |
| **60** | 60.3 | 63 | 52 | 78 | 55 | 5 | 50 | 0.4 | 116816 | **25.00** |
| **60** | 64 | 63 | 52 | 78 | 55 | 5 | 50 | 0.3 | 116821 | **24.50** |
| **70** | 76.1 | 75 | 56 | 88 | 65 | 5 | 20 | 0.4 | 116829 | **36.50** |
| **80** | 83 | 75 | 62 | 100 | 65 | 5 | 20 | 0.5 | 116827 | **30.50** |
| **80** | 83 | 90 | 62 | 100 | 65 | 5 | 20 | 0.5 | 116740 | **30.50** |
| **80+** | 83 | 90 | 62 | 100 | 65 | 5 | 20 | 0.5 | 116822 | **30.50** |
| **90** | 88.9 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116762 | **30.50** |
| **90+** | 88.9 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 116832 | **30.50** |
| **100** | 106 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116741 | **37.50** |
| **100+** | 106 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116823 | **37.50** |
| **100+** | 108 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 116833 | **37.50** |
| **100** | 114.3 | 110 | 78 | 126 | 65 | 6 | 30 | 0.7 | 116647 | **40.00** |
| **125** | 131/133 | 125 | 88 | 145 | 90 | 6 | 10 | 0.9 | 116742 | **47.00** |
| **125+** | 131/133 | 125 | 88 | 145 | 90 | 6 | 10 | 0.9 | 116824 | **47.00** |
| **125** | 152 | 160 | 104 | 175 | 90 | 6 | 10 | 1.3 | 116649 | **73.50** |
| **125+** | 152 | 160 | 104 | 175 | 90 | 6 | 10 | 1.3 | 116825 | **74.00** |
| **150+** | 159 | 160 | 104 | 175 | 90 | 6 | 10 | 1.2 | 116835 | **71.50** |

\+ for S16 PE-pipes
* GP= packing unit



# FIX JOINT CLAMPS

## FIX joint clamps steel/PE, without supporting ring

Interconnection: of pipes and fittings, steel / various materials | non-tensile strength

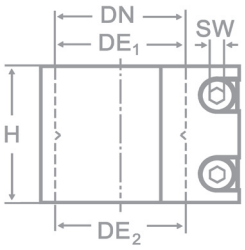
Pipe collar: in chromium-nickel steel

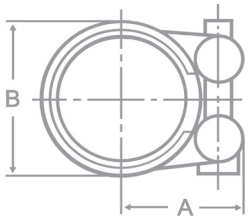
Sealing-cuff: provides compensation for varying outside diameters | SIt also absorbs and dampens any shocks and vibrations | At half the insertion depth, there is a 4 mm-wide stop-ring | It is therefore not necessary to mark-off the insertion depth on the ends of the pipes | At the same time, the stop-ring provides noise reduction and prevents the transmission of mechanical vibrations

Deployment: for gravity system, up to 80°C, tightening torque 20 Nm | not suitable in areas with high concentrations of chlorine or salt

| DN | DE1 mm | DE2 mm | A mm | B mm | H mm | SW mm | GP* unit | Weight kg | Part no. | Price / unit CHF |
|---|---|---|---|---|---|---|---|---|---|---|
| **60** | 60.3 | 63 | 52 | 78 | 55 | 5 | 50 | 0.3 | 116656 | **15.00** |
| **70** | 76.1 | 75 | 56 | 88 | 65 | 5 | 20 | 0.4 | 116772 | **28.50** |
| **80** | 83 | 75 | 62 | 100 | 65 | 5 | 20 | 0.5 | 116660 | **21.00** |
| **90** | 88.9 | 90 | 62 | 100 | 65 | 5 | 20 | 0.4 | 118701 | **17.50** |
| **100** | 108 | 110 | 75 | 120 | 65 | 6 | 30 | 0.6 | 118702 | **18.50** |
| **100** | 114.3 | 110 | 78 | 126 | 65 | 6 | 27 | 0.6 | 116780 | **34.50** |
| **150** | 159 | 160 | 104 | 175 | 90 | 6 | 10 | 1.4 | 118704 | **50.50** |
| **150** | 168.3 | 160 | 104 | 175 | 90 | 6 | 10 | 1.2 | 116672 | **67.50** |

* GP= packing unit



# SUPPORT RINGS FOR PE PIPES

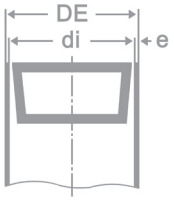
## Supporting rings for PE pipes

Interconnection: for polyethylene PE pipes a reinforcement ring is mandatory | for building drainage pipes (e.g. Geberit Silent-db20), the guidelines of the pipe manufacturer must be observed

The supporting ring: chrome nickel steel | is inserted into the plastic pipe where the joint is to be made and thus reliably protects it from being deformed

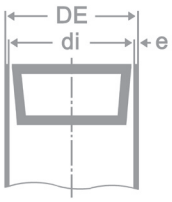
## Series PE standard

| DN | di mm | e mm | Part no. | Price / unit CHF |
|---|---|---|---|---|
| **50** | 44 | 3 | 116600 | **10.00** |
| **56** | 50 | 3 | 116601 | **10.00** |
| **63** | 57 | 3 | 116602 | **10.50** |
| **75** | 69 | 3 | 116603 | **12.00** |
| **90** | 83 | 3.5 | 116604 | **12.50** |
| **110** | 101.4 | 4.3 | 116606 | **15.00** |
| **125** | 115.4 | 4.8 | 116609 | **18.00** |
| **160** | 147.6 | 6.2 | 116612 | **21.00** |
| **200** | 187.6 | 6.2 | 116615 | **24.50** |




## Series PE S16

| DN | di mm | e mm | Part no. | Price / unit CHF |
|---|---|---|---|---|
| **90** | 84 | 3 | 116605 | **12.50** |
| **110** | 103 | 3.5 | 116607 | **15.00** |
| **125** | 117.2 | 3.9 | 116610 | **18.00** |
| **160** | 150 | 5 | 116613 | **21.00** |



# APPLICATION OPTIONS

FIX pipe and joint clamps are designed for pipes and fittings in pressureless pipelines with a load bearing capacity of up to 3 bar. FIX clamps are not high tensile; fixed points are required where fittings are used in pressure lines. They are suitable for use with pressure flow temperatures of up to +80 °C.

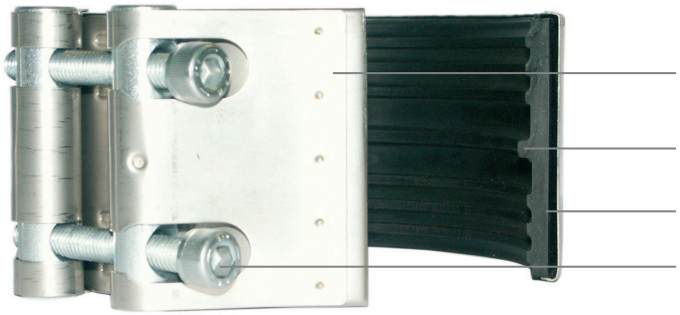
FIX pipe and joint clamps are suitable for indoor and outdoor use, with a variety of pipes:
For sewage pipes, industrial pipes, wastewater pipes, in structural and civil engineering, in industrial plant construction, in shipbuilding, etc.

**Media:**
Service water, wastewater, solids and chemical substances in line with resistance list.

vonRoll FIX pipe and joint clamps are **not suitable** for use in areas with **high concentrations of chlorine or salt** (e.g. **not** suitable for use in **seawater** or **in swimming pools**).

## Design

The clamp casing is made from chrome-nickel steel (V2A) with a galvanised screw cap for hex keys. A seal made from high-grade synthetic rubber (EPDM) seals the pipe and offsets the differences in external diameter between different pipe materials. It absorbs any shocks and/or vibrations in the pipe system.

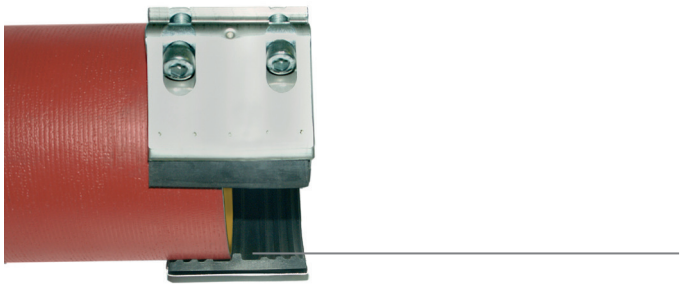


Clamp made from chrome-nickel steel (V2A)

Stop ring, 4 mm in width

Seal (EPDM)

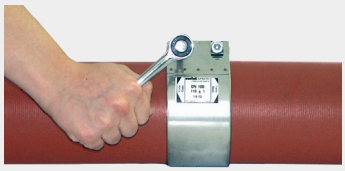
Hex screws (galvanised)



The 4-millimetre-thick stop ring at half the insertion depth spares markings having to be made on the pipe end. The stop ring simultaneously aids sound insulation by preventing the transfer of structure-borne sound.

# FITTING

The clamps can be fitted quickly and easily:
Cut the pipes to length, push the FIX pipe or joint clamps up to the stop ring and tighten the hex screws with a ratchet wrench or hex key.
(**Tightening torque: 20 Nm**)



**At joints connecting PE plastic pipes, insert one back-up ring into each of the plastic pipes.**

**Pay attention to the insertion end specified on the labels of pipe materials; this varies for different material combinations.**

## Connection

FIX pipe and joint clamps are suitable for all kinds of pipes and fittings.
They are available in diameters of DN 50–250/48.3–274 mm.
They are extremely easy and efficient to fit.

**Connection without back-up ring,**

two „hard“ pipes,
e.g. cast iron–cast iron

**Connection with one back-up ring,**

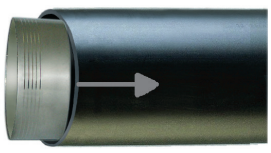
one „hard“ and one „soft“ pipe,
e.g. cast iron–plastic

**Connection with two back-up rings,**

two „soft“ pipes,
e.g. plastic–plastic

## Joints connecting PE plastic pipes

Back-up rings are required for connections involving at least one PE plastic pipe. These are inserted into the plastic pipe before fitting.



# CONNECTION OPTIONS

FIX pipe and joint clamps enable connections between pipes made from a variety of materials.

– Pipes made from the same material and with the same external diameter: Cast iron–cast iron

Cast iron with cast iron

– Pipes made from different materials and with different external diameters, e.g. cast iron–plastic, cast iron–steel, steel–plastic, etc.

Cast iron with plastic

Cast iron with steel

Steel with PE plastic

# NOTES

# NOTES

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