2017-03-14

Sanpress

Tender texts

Specification texts

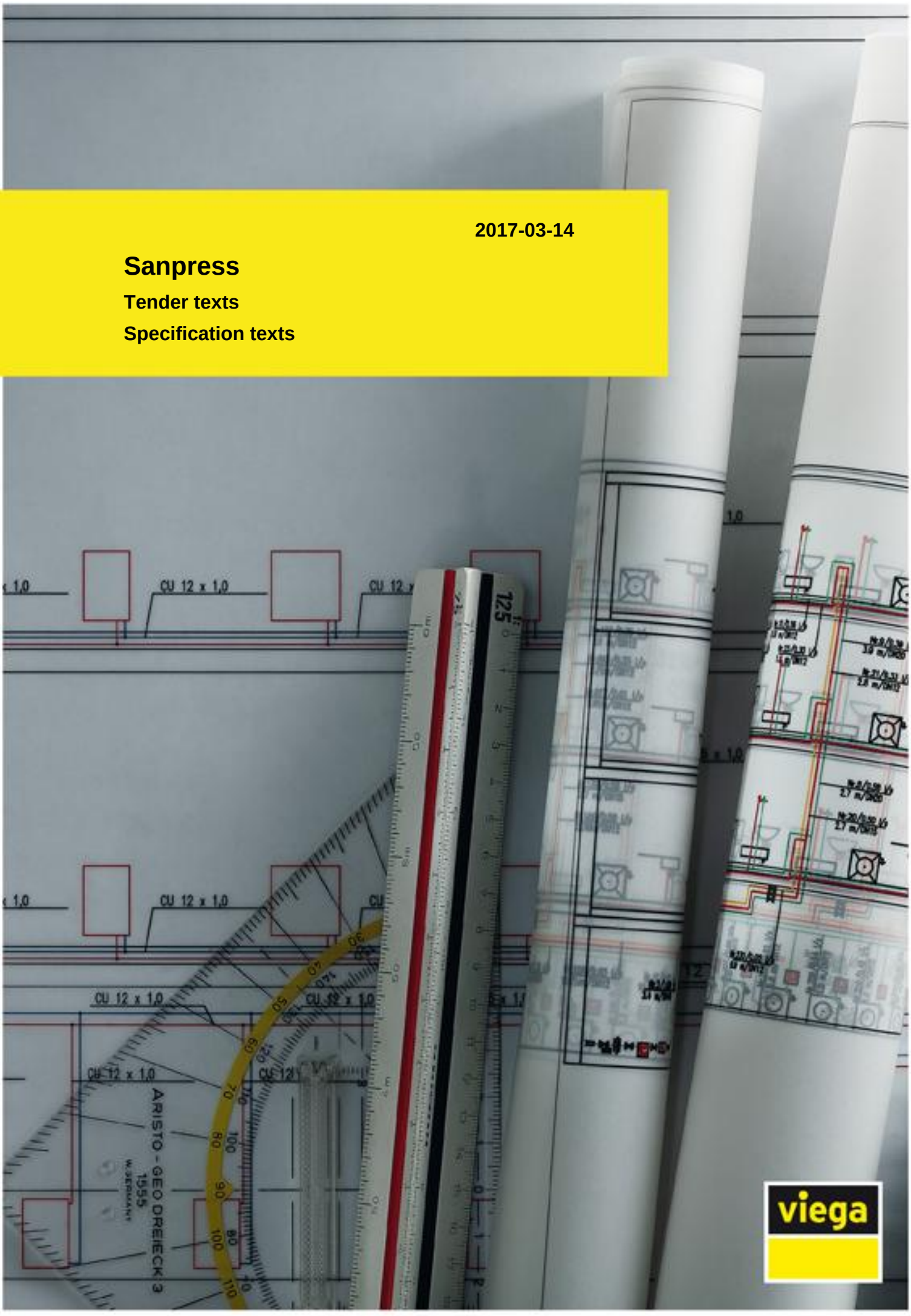

Table of contents

Sanpress

1. Sanpress pipe 1.4521 / 12 - 108 mm

Pipelines for cold and hot water in drinking water installations
according to DIN 1988 / EN 806,

made of stainless Cr-Mo-Ti steel,
bendable up to 28 mm with commercially available bending devices,

material no, 1.4521, according to DIN EN 10088,
PRE value: 24.1

Used with Sanpress connectors made of gunmetal,

with SC-Contur and DVGW certified inspection reliability with
unpressed connector across the entire inspection area from 22 hPa (22
mbar) to 0.3 MPa (3 bar) dry,

0.1 MPa (1 bar) to 0.65 MPa (6.5 bar) wet,
press connection up to DN 50 with double press contour (upstream and
downstream of the sealing element),

EPDM sealing element,
non-detachable,
pipe and connector in a system connection
including system approval,
with DVGW type examination test certificate

Fire protection
Viega piping system seal-off
R 30 - R 90, abP P-2400/003/15-MPA BS,
zero distance possible

make: Viega
type: Sanpress

deliver and mount

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
12 x 1.0 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
15 x 1.0 mm

Sanpress

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
18 x 1.0 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
22 x 1.2 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
28 x 1.2 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
35 x 1.5 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
42 x 1.5 mm

Sanpress pipe 1.4521
made of stainless steel,
PRE value: 24.1,
54 x 1.5 mm

Sanpress XL pipe 1.4521
made of stainless steel,
PRE value: 24.1,
76.1 x 2.0 mm

Sanpress XL pipe 1.4521
made of stainless steel,
PRE value: 24.1,
88.9 x 2.0 mm

Sanpress XL pipe 1.4521
made of stainless steel,
PRE value: 24.1,
108.0 x 2.0 mm

Sanpress

Surcharge for pipeline items for Sanpress connectors including all accessories

Surcharge on the pipeline items for pipe clamps, fixing material for fixed points, push-over pipes for wall and floor lead-ins, and all accessories.

2. Sanpress pipe 1.4401 / 12 - 108 mm

Pipelines for cold and hot water in drinking water installations according to DIN 1988 / EN 806,

made of high-alloy austenitic stainless steel Cr-Ni-Mo according to DVGW Worksheet GW541, bendable with commercially available bending devices up to 28 mm,

Material no. 1.4401, according to DIN EN 10088,
PRE value: 24 (min. molybdenum content 2.2%),

Used with Sanpress connectors made of gunmetal,

with SC-Contur and DVGW certified inspection reliability with unpressed connector across the entire inspection area from 22 hPa (22 mbar) to 0.3 MPa (3 bar) dry,

0.1 MPa (1 bar) to 0.65 MPa (6.5 bar) wet,
press connection up to DN 50 with double press contour (upstream and downstream of the sealing element),

EPDM sealing element,
non-detachable,
pipe and connector in a system connection, including system approval,

with DVGW type examination test certificate

Fire protection
Viega piping system seal-off
R 30 - R 90, abP P-2400/003/15-MPA BS,
zero distance possible

make: Viega
type: Sanpress

deliver and mount

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
12 x 1.0 mm

Sanpress

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
15 x 1.0 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
18 x 1.0 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
22 x 1.2 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
28 x 1.2 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
35 x 1.5 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
42 x 1.5 mm

Sanpress pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
54 x 1.5 mm

Sanpress XL pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
76.1 x 2.0 mm

Sanpress XL pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
88.9 x 2.0 mm

Sanpress

Sanpress XL pipe 1.4401
made of stainless steel,
PRE value: 24 (min. molybdenum content 2.2%),
108.0 x 2.0 mm

Surcharge for pipeline items for Sanpress connectors including all accessories

Surcharge on the pipeline items for pipe clamps, fixing material for fixed points, push-over pipes for wall and floor lead-ins, and all accessories.

3. Fire protection - Notes on the Viega abP P-2400/003/15-MPA BS

3.1. General description

"Viega piping system seal-off"
R 30 - R 90, for ceiling and wall, or for light partitions.

Fire protection seal-off system (ceiling / wall) with zero distance for supply lines with the following Viega press connector systems, comprising press connectors and pipes:

- Profipress, Profipress S (copper)
- Sanpress Inox, Sanpress (stainless steel)
- Prestabo (C steel)
- Megapress (steel)
- Sanfix Fosta (multilayer pipe)
- Raxofix (multilayer pipe)
- Raxinox (stainless steel multilayer pipe)
- Sanpress Inox labs-free
- Sanpress labs-free
- Prestabo labs-free

With a flexible choice of wastewater pipes (combustible, non-combustible, mixed installation),

WC exhaust air pipes according to 18017-3
and cables

Solid ceilings >= 150 mm / >= 200 mm
Walls / light partitions >= 100 mm

Requirements: R30, R60, R90 according to DIN 4102-11
acc. to abP P-2400/003/15-MPA BS
Material: mineral wool shells and mats
acc. to abP
Fire rating class: A2 according to DIN 4102-1
Melting point: > 1000 degrees according to DIN 4102-17

Installation/ring gap cover (ceiling):
<= 170 mm ring gap, hollow filled with dimensionally stable, non-combustible materials,

such as mortar, concrete, gypsum, according to abP

Installation/ring gap cover (wall):
<= 70 mm ring gap, hollow filled with
dimensionally stable, non-combustible materials,
such as mortar, concrete, gypsum, according to abP

Sanpress

It can be assumed that the actual values for the minimum distances between insulated and non-insulated pipelines will fall below those of DIN 4140.

When using installation variants classified by the holder of the test certificate as "positively tested, extension of the proof of usability has been applied for", the manufacturer of the type shall assess and certify the type as 'not significant' in the frame of generating the Declaration of Conformity.

3.2. Viega supply lines

- copper with the press connector systems
  Profipress, Profipress S
  up to OD 108 mm
- stainless steel with the press connector systems
  Sanpress Inox, Sanpress,
  Sanpress Inox labs-free, Sanpress labs-free
  up to OD 108 mm
- C steel with the press connector systems
  Prestabo, Prestabo labs-free
  up to OD 108 mm
- steel pipe according to DIN EN 10255,10220 with the
  press connector system Megapress
  up to OD 60.3 mm
- multilayer pipe with the
  press connector systems
  Sanfix Fosta, Raxofix
  up to OD 63 mm
- stainless steel multilayer pipe with the
  press connector systems
  Raxinox
  up to OD 20 mm
- copper and stainless steel systems also possible with
  Smartloop inliner technology (internal
  circulation pipe) OD 28 + 35 mm

3.3. Viega piping system for use with non-combustible drain pipelines made of cast iron (RAL GEG) up to DN 150 in a line

```
Zero distance possible to non-combustible
wastewater pipes(RAL-GEG, mixed installation):
- Düker, Saint Gobain, Preiss up to OD 160 mm
  line pipeline
- Sealed off with Doyma Konfix Pro
  (Z-19.17-2074)
- Sealed off with Düker BSV-90
  (Z-19.17-1893)
- Sealed off with SVB plug connector
  (Z-19.17-2130, Annex 4)
```

3.4. Viega piping system for use with combustible drain pipelines up to DN 100 – Variant 1

```
Zero distance possible to combustible
wastewater pipes:
- pipes according to DIN 8062, 6660, 19532, 8079, 19538,
  DIN EN 1451-1, 8074, 19533, 19535-1, 19537-1,
  8072, 8077, 16891, 16893, 16969,
  Geberit Silent db20, Geberit Silent pp,
  Conel drain, Rehau Raupiano plus,
  Rehau Raupiano plus light, Wavin AS,
  Wavin Sitech, Ostendorf Skolan dB,
  Polo KAL 3S, Polo KAL NG, Polo XS,
  Friaphon, Master 3, Coes Blue Power

sealed-off pipe, straight, up to DN 100, fitted
collar:
- Doyma fire protection collar Curaflam XS Pro
  (Z-19.53-2182)
- Doyma fire protection collar Curaflam ECO Pro
  (Z-19.17-1989)
- Conel fire protection collar Conelflam
  (Z-19.17-1986)
- Pfeiffer & May fire protection collar XtraFlam
  Collar (Z-19.17-1989)
- Polo KAL fire protection collar Polo-Flamm BSM
  (Z-19.17-1923)
- Wavin fire protection collar system BM – R 90
  (Z-19.17-1924)
```

3.5. Viega piping system for use with combustible drain pipelines up to DN 100 – Variant 2

```
Zero distance possible to combustible
wastewater pipes:
- pipes according to DIN 8062, 6660, 19532, 8079, 19538,
  DIN EN 1451-1, 8074, 19533, 19535-1, 19537-1,
  8072, 8077, 16891, 16893, 16969,
  Geberit Silent db20, Geberit Silent pp,
  Rehau Raupiano plus,
  Wavin AS,
  Wavin Sitech, Ostendorf Skolan dB,
  Polo KAL 3S, Polo KAL NG,
  Friaphon

sealed-off pipe, straight, up to DN 100, fitted
collar:
- BTI AWM II (Z-19.17-1194)
- Roku system AWM II (Z-19.17-1194)
- BIS Walraven AWM II (Z-19.17-1194)
- Würth RK (Z-19.17-1374)
- OBO Pyrocomb (Z-19.17-2036)
- Rockwool Conlit fire protection collar
  (Z-19.17-2124)
```

3.6. Viega piping system for use with combustible drain pipelines up to DN 100 – Variant 3

```
Zero distance possible to combustible
wastewater pipes:
  Geberit Silent db20, Geberit Silent pp,

sealed off, straight pipe, fitted collar
DN 100 only:
- Geberit fire protection collar Rohrschott90 Plus
  (only in DN 100) (Z-19.17-1927)
```

3.7. Viega piping system for use with combustible drain pipelines up to DN 100 via 2 x 45 degrees elbow

```
Zero distance possible to combustible
wastewater pipes:
- pipes according to DIN 8062, 6660, 19532, 8079, 19538,
  DIN EN 1451-1, 8074, 19533, 19535-1, 19537-1,
  8072, 8077, 16891, 16893, 16969,
  Geberit Silent db20, Geberit Silent pp,
  Conel drain, Rehau Raupiano plus,
  Wavin AS, Wavin Sitech, Ostendorf Skolan dB,
  Polo KAL 3S, Polo KAL NG, Polo XS,
  Friaphon, Master 3, Coes Blue Power

sealed off via 2x45 degrees elbow up to DN 100:
- Doyma fire protection collar Curaflam XS Pro
  (Z-19.53-2182)
- Doyma fire protection collar Curaflam ECO Pro
  (Z-19.17-1989)
- Conel fire protection collar Conelflam
  (Z-19.17-1986)
- Pfeiffer & May fire protection collar XtraFlam
  Collar (Z-19.17-1989)
- Polo KAL fire protection collar Polo-Flamm BSM
  (Z-19.17-1923)
```

3.8. Viega piping system for use with combustible drain pipelines DN 125 and DN 150

```
Zero distance possible to combustible
wastewater pipes:
- pipes according to DIN 8062, 6660, 19532, 8079, 19538,
  DIN EN 1451-1, 8074, 19533, 19535-1, 19537-1,
  8072, 8077, 16891, 16893, 16969,
  Geberit Silent db20, Geberit Silent pp,
  Conel drain, Rehau Raupiano plus,
  Wavin AS,Wavin Sitech, Ostendorf Skolan dB,
  Polo KAL 3S, Polo KAL NG, Polo XS,
  Friaphon, Master 3, Coes Blue Power

sealed off, straight pipe, fitted collar
up to DN 150:
- Doyma fire protection collar Curaflam XS Pro
  (Z-19.53-2182)
- Doyma fire protection collar Curaflam ECO Pro
  (Z-19.17-1989)
```

3.9. Viega piping system for use with WC exhaust air pipes according to 18017-3 up to DN 200

```
Zero distance possible to WC exhaust air lines (18017-3),

tested positively:
System AVR
- spiral-seam pipe up to DN 200
- sealed off with shut-off valve type AVR
  Bartholomäus (Z-41.3-686)
- DN 80, 100, 125, 140,160, 180
  Installation following certification
- DN 200 Installation following certification under the ceiling only
or up into the ceiling (fold seam flush

  underside of ceiling)
System TS 18
- spiral-seam pipe DN 80, DN 200
- sealed off with Wildeboer TS 18
  (Z-41.3-556)
- DN 80, DN 200 installation below the ceiling
- The "Viega pipelines" installed
  at zero distance must be insulated
  in the entire fire protection section
```

3.10. Viega piping system to cables

```
Zero distance possible to cables,
tested positively:
System WD90
- cables + glass fibre cables,
  empty electrical pipes, hollow conductor cables, coaxial cables,
  electrical installation pipes, bundle-conductor pipes,
  optical fibres, single lines for control purposes

- sealed off with Wichmann Cable Box WD90
  ETA 13-0902
- Installation following certification
- The "Viega pipelines" installed
  at zero distance must be insulated
  in the entire fire protection section
```

4. Leakage test for drinking water installations

4.1. General notes

According to Section 4 (2) Drinking Water Supply Regulation, water from a water supply system must be free of germs, drinkable, and pure at the extraction point.

For compliance with this requirement, not only technically correct installation and careful commissioning is required but also a hygienically fault-free leakage test according to DIN EN 806-4, "Installation", section 6.1, "Filling and hydrostatic pressure test of installations in buildings for water intended for human consumption".

Leakage test with compressed air
- with extended standstill times (stagnation) between leakage test and commissioning
- with average ambient temperatures > 25 °C to exclude the possibility of bacterial growth
- for pipelines which cannot remain completely filled between leakage test and commissioning due to a period of frost

- if corrosion resistance of the material is endangered with partially emptied lines: leakage test with inert gases

- for buildings with above-average requirements in hygiene, e.g. medical facilities, hospitals, medical practices

- if use of inert gases is required

- to exclude condensation of humidity in the pipeline

4.2. Dry leakage test with inert gases

Dry leakage and load test, consisting of:

leakage test with inert gases, with at least 150 hPa (150 mbar).

With a pipe volume of up to 100 litres, the test duration must be at least 120 minutes after the test pressure has been reached.

For systems with a volume greater than 100 litres, the test time will extend by 20 minutes per 100 litres.

Load test with maximum 0.3 MPa (3 bar) test pressure with nominal widths of up to DN 50 and maximum 0.1 MPa (1 bar) test pressure with nominal widths greater than DN 50.

The test duration must be at least 10 minutes after the test pressure has been reached.

After completion of the pressure test, the responsible specialist must generate a pressure test log comprising an evaluation regarding the material used and the permitted pressure loss.

The system must be leak tight, and the leak tightness must be certified.

To be submitted according to ZVSHK Data sheet
(Leakage tests of drinking water installations with compressed air, inert gas or water).

4.3. Dry leakage test with oil-free compressed air

Dry leakage and load test, consisting of:

Leakage test with oil-free compressed air, with at least 150 hPa (150 mbar).

With a pipe volume of up to 100 litres, the test duration must be at least 120 minutes after the test pressure has been reached.

For systems with a volume greater than 100 litres, the test time will extend by 20 minutes per 100 litres.

Load test with maximum 0.3 MPa (3 bar) test pressure with nominal widths of up to DN 50 and maximum 0.1 MPa (1 bar) test pressure with nominal widths greater than DN 50.

The test duration must be at least 10 minutes after the test pressure has been reached.

After completion of the pressure test, the responsible specialist must generate a pressure test log comprising an evaluation regarding the material used and the permitted pressure loss.

The system must be leak tight, and the leak tightness must be certified.

To be submitted according to ZVSHK Data sheet
(Leakage tests of drinking water installations with compressed air, inert gas or water).

5. Smartloop inliner technology

Internal circulation,
with Viega Smartloop pipe as internal circulation pipe for hot water pipes with Sanpress Inox, Sanpress, or Profipress connectors of size 28 or 35 mm according to DVGW 551,

connection with Smartloop connection set made of gunmetal,

with integrally cast support sleeve stainless steel press sleeve

non-detachable

deliver and mount

Viega Smartloop pipe
12 x 1.0 mm

connection set,
with SC-Contur,
made of gunmetal,
for hot water pipes with internal circulation pipe,

consisting of:
an end closing piece,
a reducer and a connection socket,

with stainless steel press sleeves,

28 X 12 Viega 470289

connection set,
with SC-Contur,
made of gunmetal,
for hot water pipes with internal circulation pipe,

consisting of:
an end closing piece,
a reducer and a connection socket,

with stainless steel press sleeves,

28/35 X 12 Viega 632229

Sanpress

connection set,
with SC-Contur,
made of gunmetal,
for hot water pipes with internal circulation pipe,

consisting of:
an end closing piece,
a reducer and a connection socket,

with stainless steel press sleeves,

35 X 12 Viega 470272

6. Moulded pieces and connection pieces

6.1. Elbow

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
12 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
15 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
18 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
22 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
28 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
35 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
42 mm

Sanpress elbow
in the required angles,
made of gunmetal, with SC-Contur,
54 mm

Sanpress

Sanpress XL elbow
in the required angles,
made of gunmetal,
76.1 mm

Sanpress XL elbow
in the required angles,
made of gunmetal,
88.9 mm

Sanpress XL elbow
in the required angles,
made of gunmetal,
108.0 mm

Sanpress

6.2. T-piece

Sanpress T-piece
made of gunmetal, with SC-Contur,
12 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
15 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
18 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
22 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
28 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
35 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
42 mm

Sanpress T-piece
with the required reducers,
made of gunmetal, with SC-Contur,
54 mm

Sanpress XL T-piece
with the required reducers,
made of gunmetal,
76.1 mm

Sanpress

Sanpress XL T-piece
with the required reducers,
made of gunmetal,
88.9 mm

Sanpress XL T-piece
with the required reducers,
made of gunmetal,
108.0 mm

Sanpress

6.3. sleeve

Sanpress sleeve
made of gunmetal, with SC-Contur,
12 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
15 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
18 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
22 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
28 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
35 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
42 mm

Sanpress sleeve
made of gunmetal, with SC-Contur,
54 mm

Sanpress XL sleeve
made of gunmetal,
76.1 mm

Sanpress XL sleeve
made of gunmetal,
88.9 mm

Sanpress

Sanpress XL sleeve
made of gunmetal,
108.0 mm

6.4. Reducer

Sanpress reducer
made of gunmetal, with SC-Contur,
15 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
18 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
22 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
28 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
35 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
42 mm

Sanpress reducer
made of gunmetal, with SC-Contur,
54 mm

Sanpress XL reducer
made of gunmetal,
76.1 mm

Sanpress XL reducer
made of gunmetal,
88.9 mm

Sanpress XL reducer
made of gunmetal,
108.0 mm

6.5. Adapter

Sanpress adapter
made of gunmetal, with SC-Contur,
12 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
15 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
18 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
22 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
28 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
35 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
42 mm

Sanpress adapter
made of gunmetal, with SC-Contur,
54 mm

Sanpress XL adapter
made of gunmetal,
76.1 mm

Sanpress XL adapter
made of gunmetal,
88.9 mm

Sanpress

Sanpress XL adapter
made of gunmetal,
108.0 mm

Sanpress

6.6. wall plate

Sanpress wall plate
made of gunmetal, with SC-Contur,
12 mm

Sanpress wall plate
made of gunmetal, with SC-Contur,
15 mm

Sanpress wall plate
made of gunmetal, with SC-Contur,
18 mm

Sanpress wall plate
made of gunmetal, with SC-Contur,
22 mm

Sanpress double wall plate
made of gunmetal, with SC-Contur,
15 mm

Sanpress double wall plate
made of gunmetal, with SC-Contur,
18 mm

Sanpress double wall plate
made of gunmetal, with SC-Contur,
22 mm

Sanpress

6.7. Screw fitting

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
15 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
18 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
22 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
28 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
35 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
42 mm

Sanpress screw fitting,
flat sealing,
made of gunmetal, with SC-Contur,
54 mm

Sanpress

6.8. flange

Sanpress flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
28 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
35 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
42 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
54 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress

Sanpress XL flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
76.1 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress XL flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
88.9 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free

Sanpress XL flange adapter,
made of gunmetal, with press connection,
with loose flange PN 10/16,
made of black powder-coated steel,
108.0 mm

with all screws, nuts and washers,

with seal made of AFM 34, asbestos-free