

## VSH XPress Stainless 304



# Environmental Product Declaration

in accordance with  
ISO 14044, ISO 14040 and EN 15804

## 1 general information

### 1.1 note on this document

The original document was written in English, all other versions are a translation of the original document.

### 1.2 declaration holder

#### Aalberts integrated piping systems B.V.

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Aalberts integrated piping systems develops the most advanced integrated piping systems for distribution and control of liquids and gases. These systems are used in various markets such as industry, utility and residential construction. We offer fully integrated piping systems in valve, connection, fastening and piping technology. In close cooperation with our customers, we build the perfect integrated piping system that meets all their requirements. Our piping systems are easy to specify, install, check and maintain, saving you considerable time on preparation and installation. We meet the highest quality and industry standards required in our markets. The Aalberts integrated systems production locations mentioned in this document, Hilversum and Zeewolde, are certified acc. ISO 9001, ISO 14001 and ISO 45001.

### 1.3 declared Product

This document applies to the VSH XPress Stainless 304 fittings listed in the appendix -chapter 5- of this document. Articles with brass or gunmetal components are not covered in this declaration. A VSH XPress Stainless 304 bend 90° (2 x press), dimension 22 mm, article number 123460514, has been used as a reference article.

### 1.4 verification

The European standard EN15804:2012 +A2:2019 has been used as the core PCR. Environmental product declarations for construction products may not be comparable if they do not comply with the EN15804. It is only possible to make a limited comparison between life cycle assessment results when different background databases are used and/or different assumptions as described in chapter 3.3.

This is a Self-Declared Environmental Product Declaration acc. NEN-EN ISO 14025.

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Production data: 2021

Hilversum, January 2026  
Aalberts integrated piping systems B.V.

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Roland Voermans  
COO

## 2 product

### 2.1 description and application purpose

VSH XPress Stainless 304 is a complete piping system suitable for a wide variety of applications, from drinking water, gas, heating and solar installations to cooling water, sprinkler and compressed air systems. The VSH XPress range consists of press fittings, valves, tubes and pressing tools. The VSH XPress fittings have a M-profile (15 to 108 mm).

- VSH XPress Stainless 304 fittings are made of 1.4307 (AISI 304).
- VSH XPress Stainless 304 fittings can be used with VSH SudoXPress stainless tubes

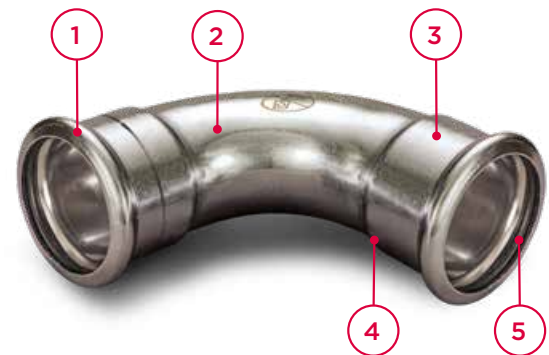
The o-ring has decisive influence on the performance of the system in different applications, with different media and parameters. Depending on the application, different o-rings can be inserted in the fittings:

- EPDM (Ethylene Propylene Diene Monomer / black)
  - standard
- FPM (Fluoroelastomer / green)
  - for use in specific applications

The VSH XPress LBP function is achieved using a special designed o-ring up to dimension 54 mm. For the dimensions 76.1 to 108 mm, the LBP-function is based on the tolerance between the diameter of the o-rings and the inner diameter of the fitting. Fittings with a Leak Before Pressed function have the advantage that connections which have not been pressed will leak water during pressure testing.

### 2.2 VSH XPress Stainless 304 fittings

All VSH XPress Stainless 304 fittings are produced in our modern, automated factory in the Netherlands. The VSH XPress product range includes fittings, valves, tubes and tools. VSH XPress fittings are compatible with various press tool brands. Use our online tool selector to find the right tool for the right material. During the pressing process, bead, socket and tube are deformed to form a leak-tight and mechanically strong, permanent connection.



1. fitting bead
2. fitting body
3. colour coding
4. insertion socket
5. o-ring

For the composition of the components, see chapter 3.2 “product composition”

### 2.3 range and conversion factors

The reference product for this declaration is the VSH XPress Stainless 304 bend 90° (2 x press), 22 mm. This article was chosen as a reference because it is the most common product in the VSH XPress Stainless 304 article range. The life cycle assessment results in chapter 4 can be converted to other articles listed in the appendix of this document. This can be done by multiplying the results with the conversion factor for a specific product. For products and their corresponding conversion factors, see the appendix -chapter 5-.

## 3 life cycle assessment scope

### 3.1 system boundaries

This EPD can be regarded as a Cradle-to-Gate with options, module C2 and D. The following phases are considered not relevant for this product range: A5, B, C1, C3 and C4.

### 3.2 declared unit composition

The reference article, VSH XPress Stainless 304 bend 90°, 22 mm, consists of the following raw materials:

stainless steel:	79 gram
elastomers:	2 gram
total:	81 gram

### 3.3 assumptions and background information

**A1:** For the raw material supply 100% of the materials on the bill of materials were modelled using data from the Ecoinvent database.

**A2:** For transport of materials to Aalberts integrated piping systems in Hilversum specific transport distances from materials suppliers were used. Class Euro5 trucks are used as the main means of transport and were used for calculation.

**A3:** VSH XPress products are manufactured in the factory of Aalberts integrated piping systems located in Hilversum, Netherlands. This factory makes use of green electricity for manufacturing the VSH XPress products. Therefore the green electricity Netherlands mix, was used for calculating the electricity consumption. Water and auxiliary materials were considered negligible.

Assembly of products is done at a separate Aalberts integrated piping systems warehouse located in Zeewolde, the Netherlands. This warehouse also uses green electricity. The electricity consumption for this process was estimated and modelled at 10% of the electricity consumed for manufacturing.

**A4:** Transport from the factory in Hilversum to production partners and the warehouse is done by Aalberts integrated piping systems and logistical partners. The main means of transport is by Class Euro5 trucks. The transportation distance is calculated at 715 km. Transportation to customers within Europe is done by logistical partners. The main means of transport in Europe is by Class Euro5 trucks.

The average transportation distance is calculated at 730 km.

**A5:** The installation is done by use of a press tool which uses a considered negligible amount of energy.

**B1-B7:** A VSH XPress Stainless 304 fitting is designed for a lifetime of 50+ years of service and needs no maintenance, repair, replacement or refurbishment and has no operational water or energy use during its lifetime.

**C1-C4:** The piping system is assumed to be stripped as a whole from a building in the demolition process and separate energy used for the fitting de-construction is considered negligible in this process. Transportation to a waste processing site is assumed at 30 km and modelled by use of Class Euro5 trucks. The waste processing is assumed to be done at a material level rather than component level since the fittings are permanently fitted onto piping. Therefore energy consumption for the waste processing of fittings was considered negligible. Partial disposal was considered to happen at a recycler rather than a waste processor and is therefore calculated in phase D.

**D:** Average recycling rates for building materials in Europe were used to calculate the amount of material that went for recycling, incineration and landfill. 90% of steel will be recycled, the O-ring incinerated and remainder of the product was calculated to go to landfill.

### 3.4 quality of life cycle assessment, data and reporting

This Environmental Product Declaration is based on a life cycle assessment conducted according to the ISO 14040 and ISO 14044 and meets further requirements from the EN 15804:2012 + A2:2019. The modelling and calculation was done in the Ecochain software tool "Helix", which uses the Ecoinvent database. Inventory data was mainly provided by Aalberts integrated piping systems B.V. and was peer reviewed by several internal partners. The Environmental Product Declaration report is automatically generated to prevent human errors and ensure its quality. Improved quality of the life cycle assessment will be achieved when it would get externally verified according to ISO 14025. Because of the nature of a life cycle assessment and accompanying assumptions, the environmental impact of a product will remain an underestimate. Care must be taken when comparing EPDs from different sources. Aalberts integrated piping systems B.V. is committed to providing the most accurate environmental impact possible to its customers and will continue to improve the quality of the data, model and results.

## 4 life cycle assessment results

The following environmental profile shows the results of the life cycle assessment of a single unit of the declared product.

### Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804  
Ecochain v3.5.71



Product: XPress SS bend 90° 22mm EPDM  
Unit: 1 units  
Manufacturer: Aalberts integrated piping systems

LCA standard: EN15804+A2 (2019)  
Standard database: Dutch - Nationale Milieudatabase v3.3 (obv Ecoinvent 3.6)  
Externally verified: No  
Export date: 13-02-2023



The LCA background information and project dossier have been registered in the online Ecochain application in the account Aalberts integrated piping systems (2021). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	MND	MND	☑
<b>Product stage</b>					<b>Use stage</b>							<b>End-of-Life stage</b>				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment							C1 De-construction demolition C2 Transport C3 Waste processing				
<b>Construction process stage</b>												<b>Benefits and loads beyond the system boundaries</b>				
A4 Transport gate to site												D Reuse- Recovery- Recycling- potential				
A5 Assembly / Construction installation process																

#### environmental impacts and parameters

GWP-total = EF Climate Change [kg CO<sub>2</sub> eq]; GWP-f = EF Climate change - Fossil [kg CO<sub>2</sub> eq]; GWP-b = EF Climate Change - Biogenic [kg CO<sub>2</sub> eq];  
GWP-luluc = EF Climate Change - Land use and LU change [kg CO<sub>2</sub> eq]; ODP = EF Ozone depletion [kg CFC11 eq]; AP = EF Acidification [mol H+ eq];  
EP-fw = EF Eutrophication, freshwater [kg P eq]; EP-m = EF Eutrophication, marine [kg N eq]; EP-T = EF Eutrophication, terrestrial [mol N eq]; POCP  
= EF Photochemical ozone formation [kg NMVOC eq]; ADP-mm = EF Resource use, minerals and metals [kg Sb eq]; ADP-f = EF Resource use, fossils [MJ];  
WDP = EF Water use [m<sup>3</sup> depriv.]; PM = EF Particulate matter [disease inc.]; IR = EF Ionising radiation [kBq U-235 eq]; ETP-fw = EF Ecotoxicity, freshwater [CTUe];  
HTP-c = EF Human toxicity, cancer [CTUh]; HTP-nc = EF Human toxicity, non-cancer [CTUh]; SQP = EF Land use [Pt]; PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ];  
PERM = Use of renewable primary energy resources used as raw materials [MJ]; PERT = Total use of renewable primary energy resources [MJ];  
PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; PENRM = Use of non-renewable primary energy resources used as raw materials [MJ];  
PENRT = Total use of non-renewable primary energy resources [MJ]; PET = Total energy [MJ]; SM = Use of secondary material [kg]; RSF = Use of renewable secondary fuels [MJ]; NRSF = Use of non-renewable secondary fuels [MJ];  
FW = Use of net fresh water [m<sup>3</sup>]; HWD = Hazardous waste disposed [kg]; NHWD = Non-hazardous waste disposed [kg]; RWD = Radioactive waste disposed [kg];  
CRU = Components for re-use [kg]; MFR = Materials for recycling [kg]; MER = Materials for energy recovery [kg]; EE = Exported energy [MJ]; EET = Exported energy thermic [MJ]; EEE = Exported energy electric [MJ]

#### statement of confidentiality

This document and supporting material contain confidential and proprietary business information of Aalberts integrated piping systems. These materials may be printed or (photo) copied or otherwise used only with the written consent of Aalberts integrated piping systems.

results

Environmental impact		Unit	A1	A2	A3	A1-A3	A4	C2	D	Total
GWP-total	kg CO2 eq		3.645E-1	7.772E-3	5.399E-3	3.777E-1	1.581E-2	2.703E-4	-8.787E-2	3.059E-1
GWP-f	kg CO2 eq		3.617E-1	7.766E-3	4.604E-3	3.740E-1	1.580E-2	2.700E-4	-8.852E-2	3.016E-1
GWP-b	kg CO2 eq		2.614E-3	4.143E-6	7.752E-4	3.393E-3	7.292E-6	1.441E-7	6.079E-4	4.008E-3
GWP-luluc	kg CO2 eq		2.434E-4	2.715E-6	2.061E-5	2.667E-4	5.788E-6	9.439E-8	2.902E-5	3.016E-4
ODP	kg CFC11 eq		1.935E-8	1.764E-9	6.418E-10	2.176E-8	3.486E-9	6.134E-11	-2.920E-9	2.239E-8
AP	mol H+ eq		2.329E-3	3.173E-5	8.130E-5	2.442E-3	9.161E-5	1.103E-6	-3.803E-4	2.154E-3
EP-fw	kg P eq		1.408E-5	6.098E-8	1.684E-7	1.431E-5	1.593E-7	2.121E-9	-2.273E-6	1.219E-5
EP-m	kg N eq		3.925E-4	9.414E-6	1.688E-5	4.188E-4	3.228E-5	3.274E-7	-6.153E-5	3.899E-4
EP-T	mol N eq		4.478E-3	1.041E-4	2.793E-4	4.861E-3	3.559E-4	3.620E-6	-7.182E-4	4.503E-3
POCP	kg NMVOC eq		1.421E-3	3.188E-5	5.230E-5	1.505E-3	1.016E-4	1.108E-6	-5.429E-4	1.065E-3
ADP-mm	kg Sb eq		1.512E-5	2.102E-7	4.681E-7	1.580E-5	4.002E-7	7.308E-9	1.217E-7	1.633E-5
ADP-f	MJ		3.951E+0	1.171E-1	5.051E-2	4.118E+0	2.382E-1	4.072E-3	-6.638E-1	3.697E+0
WDP	m3 depriv.		4.855E-2	3.259E-4	2.146E-3	5.102E-2	8.522E-4	1.133E-5	-1.409E-2	3.779E-2
PM	disease inc.		3.193E-8	5.402E-10	8.254E-10	3.330E-8	1.419E-9	1.879E-11	-8.160E-10	3.392E-8
IR	kBq U-235 eq		9.376E-3	5.118E-4	3.830E-5	9.926E-3	9.981E-4	1.780E-5	7.289E-4	1.167E-2
ETP-fw	CTUe		1.290E+1	9.375E-2	2.580E-1	1.325E+1	2.124E-1	3.260E-3	-2.984E+0	1.049E+1
HTP-c	CTUh		5.948E-9	2.635E-12	1.327E-11	5.964E-9	6.890E-12	9.162E-14	6.012E-11	6.031E-9
HTP-nc	CTUh		1.703E-8	1.022E-10	4.015E-10	1.753E-8	2.324E-10	3.555E-12	2.001E-8	3.777E-8
SQP	Pt		2.026E+0	8.075E-2	1.778E+0	3.885E+0	2.067E-1	2.808E-3	-1.388E-1	3.956E+0
Resource use		Unit	A1	A2	A3	A1-A3	A4	C2	D	Total
PERE	MJ		5.944E-3	1.652E-3	6.811E-1	6.887E-1	2.982E-3	5.746E-5	8.868E-3	7.006E-1
PERM	MJ		1.001E+0	0	0	1.001E+0	0	0	0	1.001E+0
PERT	MJ		1.007E+0	1.652E-3	6.811E-1	1.690E+0	2.982E-3	5.746E-5	8.868E-3	1.702E+0
PENRE	MJ		1.594E-1	1.243E-1	5.379E-2	3.375E-1	2.529E-1	4.323E-3	-6.884E-1	-9.366E-2
PENRM	MJ		4.048E+0	0	0	4.048E+0	0	0	0	4.048E+0
PENRT	MJ		4.207E+0	1.243E-1	5.379E-2	4.385E+0	2.529E-1	4.323E-3	-6.884E-1	3.954E+0
PET	MJ		5.214E+0	1.260E-1	7.348E-1	6.075E+0	2.559E-1	4.380E-3	-6.795E-1	5.656E+0
SM	kg		0	0	0	0	0	0	0	0
RSF	MJ		0	0	0	0	0	0	0	0
NRSF	MJ		0	0	0	0	0	0	0	0
FW	m3		1.643E-3	1.233E-5	6.803E-5	1.723E-3	2.902E-5	4.288E-7	-3.208E-4	1.432E-3
Output flows and waste categories		Unit	A1	A2	A3	A1-A3	A4	C2	D	Total
HWD	kg		7.861E-6	3.069E-7	3.094E-11	8.168E-6	6.037E-7	1.067E-8	-1.201E-5	-3.225E-6
NHWD	kg		4.254E-1	5.597E-3	2.152E-5	4.311E-1	1.511E-2	1.946E-4	3.145E-3	4.495E-1
RWD	kg		8.979E-6	7.984E-7	1.395E-11	9.777E-6	1.564E-6	2.776E-8	-1.097E-8	1.136E-5
CRU	kg		0	0	0	0	0	0	0	0
MFR	kg		0	0	0	0	0	0	0	0
MER	kg		0	0	0	0	0	0	0	0
EE	MJ		0	0	0	0	0	0	0	0
EET	MJ		0	0	0	0	0	0	0	0
EEE	MJ		0	0	0	0	0	0	0	0

## 5 appendix

The life cycle assessment results listed in chapter 4 can be converted to the other sales articles listed using the conversion factor in accordance with the following tables.

<b>R2401 straight coupling (2 x press)</b>		
article no.	dimensions	conversion factor
123460442	15	0.45
123460443	18	0.52
123460444	22	0.67
123460445	28	0.88
123460446	35	1.16
123460447	42	1.62
123460448	54	2.38
123460449	76.1	7.72
123460450	88.9	9.92
123460451	108	14.18

<b>R2403 slip coupling (2 x press)</b>		
article no.	dimensions	conversion factor
123460463	15	0.68
123460464	18	0.80
123460465	22	1.02
123460466	28	1.38
123460467	35	1.87
123460468	42	2.82
123460469	54	3.82
123460470	76.1	11.66
123460471	88.9	15.52
123460472	108	22.58

<b>R2408 elbow 90° (2 x press)</b>		
article no.	dimensions	conversion factor
123460512	15	0.56
123460513	18	0.71
123460514	22	1.00
123460515	28	1.45
123460516	35	2.07
123460517	42	3.15
123460518	54	4.67
123460519	76.1	12.74
123460520	88.9	17.12
123460521	108	24.60

<b>R2411 elbow 90° (press x male)</b>		
article no.	dimensions	conversion factor
123460525	15 x Ø15	0.59
123460526	18 x Ø18	0.72
123460527	22 x Ø22	0.98
123460528	28 x Ø28	1.39
123460529	35 x Ø35	2.04
123460530	42 x Ø42	3.09
123460531	54 x Ø54	4.61
123460532	76.1 x Ø76.1	12.75
123460533	88.9 x Ø88.9	16.65
123460534	108 x Ø108	24.47

<b>R2413 elbow 45° (2 x press)</b>		
article no.	dimensions	conversion factor
123460545	15	0.49
123460546	18	0.56
123460547	22	0.81
123460548	28	1.09
123460549	35	1.58
123460550	42	2.41
123460551	54	3.52
123460552	76.1	9.24
123460553	88.9	13.07
123460554	108	18.82

<b>R2412 elbow 45° (press x male)</b>		
article no.	dimensions	conversion factor
123460535	15 x Ø15	0.49
123460536	18 x Ø18	0.60
123460537	22 x Ø22	0.85
123460538	28 x Ø28	1.14
123460539	35 x Ø35	1.58
123460540	42 x Ø42	2.47
123460541	54 x Ø54	3.46
123460542	76.1 x Ø76.1	9.66
123460543	88.9 x Ø88.9	12.98
123460544	108 x Ø108	19.14

<b>R2417 crossover (2 x male)</b>		
article no.	dimensions	conversion factor
123460596	Ø15	0.94
123460597	Ø18	1.16
123460598	Ø22	1.59

<b>R2414 tee (3 x press)</b>		
article no.	dimensions	conversion factor
123460555	15	0.79
123460556	18	0.96
123460557	22	1.27
123460558	28	1.72
123460559	35	2.41
123460560	42	3.27
123460561	54	4.71
123460647	76.1	15.05
123460562	88.9	19.16
123460563	108	28.82

<b>R2415 tee reduced (3 x press)</b>		
article no.	dimensions	conversion factor
123460564	18 x 15 x 18	0.92
123460565	22 x 15 x 22	1.12
123460566	22 x 18 x 22	1.16
123460567	28 x 15 x 28	1.48
123460568	28 x 18 x 28	1.53
123460569	28 x 22 x 28	1.64
123460570	35 x 15 x 35	2.01
123460571	35 x 18 x 35	2.05
123460572	35 x 22 x 35	2.15
123460573	35 x 28 x 35	2.22
123460574	42 x 22 x 42	2.87
123460575	42 x 28 x 42	2.95
123460576	42 x 35 x 42	3.09
123460577	54 x 22 x 54	4.12
123460578	54 x 28 x 54	4.19
123460579	54 x 35 x 54	4.34
123460580	54 x 42 x 54	4.62
123460581	76.1 x 28 x 76.1	12.00
123460582	76.1 x 35 x 76.1	12.15
123460583	76.1 x 42 x 76.1	11.68
123460584	76.1 x 54 x 76.1	12.73
123460585	88.9 x 28 x 88.9	15.87
123460586	88.9 x 35 x 88.9	16.00
123460587	88.9 x 42 x 88.9	16.25
123460588	88.9 x 54 x 88.9	16.38
123460589	88.9 x 76.1 x 88.9	18.78
123460590	108 x 28 x 108	22.95
123460591	108 x 35 x 108	23.14
123460592	108 x 42 x 108	22.33
123460593	108 x 54 x 108	23.14
123460594	108 x 76.1 x 108	25.26
123460595	108 x 88.9 x 108	26.53

<b>R2418 threaded tee (press x press x female thread)</b>		
article no.	dimensions	conversion factor
123460599	15 x Rp $\frac{1}{2}$ x 15	0.92
123460600	18 x Rp $\frac{1}{2}$ x 18	1.01
123460601	22 x Rp $\frac{1}{2}$ x 22	1.24
123460602	22 x Rp $\frac{3}{4}$ x 22	1.42
123460605	28 x Rp1 x 28	2.00
123460603	28 x Rp $\frac{1}{2}$ x 28	1.64
123460604	28 x Rp $\frac{3}{4}$ x 28	1.79
123460606	35 x Rp $\frac{1}{2}$ x 35	2.11
123460607	35 x Rp $\frac{3}{4}$ x 35	2.29
123460608	42 x Rp $\frac{1}{2}$ x 42	2.82
123460609	42 x Rp $\frac{3}{4}$ x 42	2.95
123460610	54 x Rp $\frac{1}{2}$ x 54	3.99
123460611	54 x Rp $\frac{3}{4}$ x 54	4.15
123460612	76.1 x Rp $\frac{3}{4}$ x 76.1	12.01
123460613	88.9 x Rp $\frac{3}{4}$ x 88.9	15.91
123460614	108 x Rp $\frac{3}{4}$ x 108	22.94

<b>R2407 reducer (male x press)</b>		
article no.	dimensions	conversion factor
123460492	Ø18 x 15	0.46
123460493	Ø22 x 15	0.53
123460494	Ø22 x 18	0.54
123460495	Ø28 x 15	0.65
123460496	Ø28 x 18	0.65
123460497	Ø28 x 22	0.73
123460498	Ø35 x 22	0.99
123460499	Ø35 x 28	1.05
123460500	Ø42 x 22	1.27
123460501	Ø42 x 28	1.38
123460502	Ø42 x 35	1.40
123460503	Ø54 x 22	1.80
123460504	Ø54 x 28	1.87
123460505	Ø54 x 35	1.91
123460506	Ø54 x 42	2.13
123460507	Ø76.1 x 54	5.41
123460508	Ø88.9 x 54	7.00
123460509	Ø88.9 x 76.1	7.75
123460510	Ø108 x 76.1	11.65
123460511	Ø108 x 88.9	11.81

<b>R2405 straight connector (press x male thread)</b>		
article no.	dimensions	conversion factor
123460479	15 x R $\frac{1}{2}$	0.56
123460480	18 x R $\frac{1}{2}$	0.60
123460481	18 x R $\frac{3}{4}$	0.73
123460483	22 x R $\frac{1}{2}$	0.89
123460484	22 x R $\frac{3}{4}$	0.98
123460482	22 x R1	1.12
123460485	28 x R1	1.28
123460486	35 x R1	1.85
123460487	35 x R1 $\frac{1}{4}$	2.01
123460488	42 x R1 $\frac{1}{2}$	2.68
123460489	54 x R2	4.00
123460490	76.1 x R2 $\frac{1}{2}$	8.12
123460491	88.9 x R3	10.28

<b>R2402 straight connector (press x female thread)</b>		
article no.	dimensions	conversion factor
123460452	15 x Rp $\frac{1}{2}$	0.47
123460453	18 x Rp $\frac{1}{2}$	0.68
123460454	18 x Rp $\frac{3}{4}$	0.68
123460455	22 x Rp $\frac{1}{2}$	1.05
123460456	22 x Rp $\frac{3}{4}$	0.88
123460457	28 x Rp $\frac{3}{4}$	1.35
123460458	28 x Rp1	1.25
123460459	35 x Rp1	1.92
123460460	35 x Rp1 $\frac{1}{4}$	1.74
123460461	42 x Rp1 $\frac{1}{2}$	2.64
123460462	54 x Rp2	5.78

<b>R2409 angle adapter 90° (press x female thread)</b>		
article no.	dimensions	conversion factor
123460522	15 x Rp $\frac{1}{2}$	0.89
123460523	22 x Rp $\frac{3}{4}$	1.48
123460524	28 x Rp1	3.06



<b>R2428 angle adapter 90° (press x male thread)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460621	15 x R½	0.87
123460622	18 x R½	1.07
123460623	22 x R¾	1.66
123460624	28 x R1	2.22

<b>R2404 coupling with nut (press x female thread)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460648	15 x G¾	0.81
123460473	18 x G¾	0.82
123460474	22 x G1	1.20
123460475	28 x G1¼	1.66
123460476	35 x G1½	2.13
123460477	42 x G1¾	2.72
123460478	54 x G2¾	4.53

<b>R2435 straight union connector (press x male thread)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460635	15 x R½	1.52
123460636	22 x R¾	2.36
123460637	28 x R1	3.40
123460638	35 x R1¼	4.25
123460639	42 x R1½	5.40
123460640	54 x R2	8.85

<b>R2438 straight union (press x female thread)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460641	15 x Rp½	1.41
123460642	22 x Rp¾	2.19
123460643	28 x Rp1	3.21
123460644	35 x Rp1¼	4.25
123460645	42 x Rp1½	5.78
123460646	54 x Rp2	9.41

<b>R2426 flange adapter PN16 (press x flange)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460615	35 x DN32	15.54
123460616	42 x DN40	18.65
123460617	54 x DN50	21.40
123460618	76.1 x DN65	42.00
123460619	88.9 x DN80	51.39
123460620	108 x DN100	62.06

<b>R2429 stop end (1 x press)</b>		
<b>article no.</b>	<b>dimensions</b>	<b>conversion factor</b>
123460625	15	0.26
123460626	18	0.27
123460627	22	0.38
123460628	28	0.51
123460629	35	0.69
123460630	42	1.09
123460631	54	1.61
123460632	76.1	5.16
123460633	88.9	6.72
123460634	108	10.48

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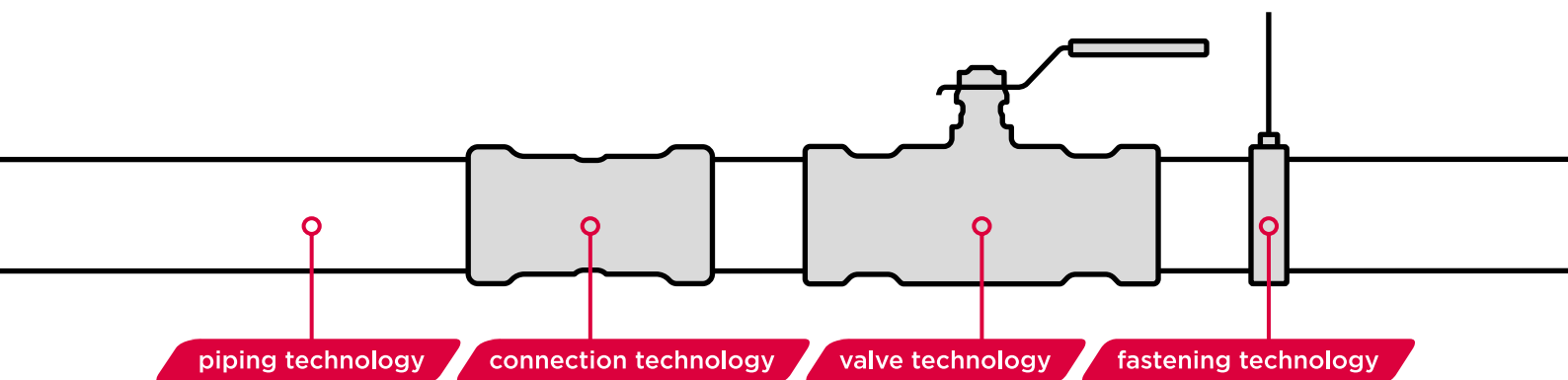
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