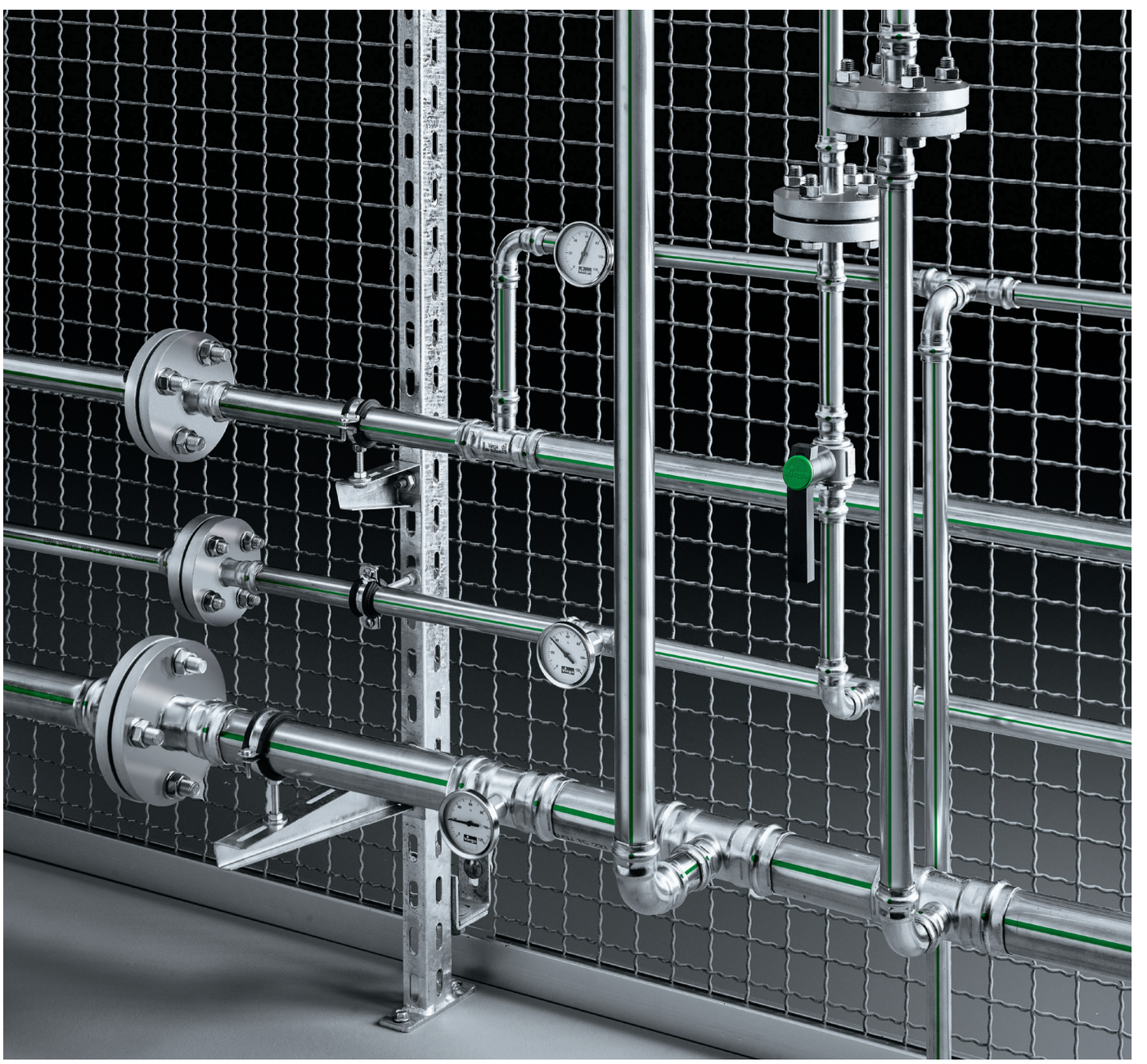
Information for planning and execution

Fields of applications for metal installation systems



viega

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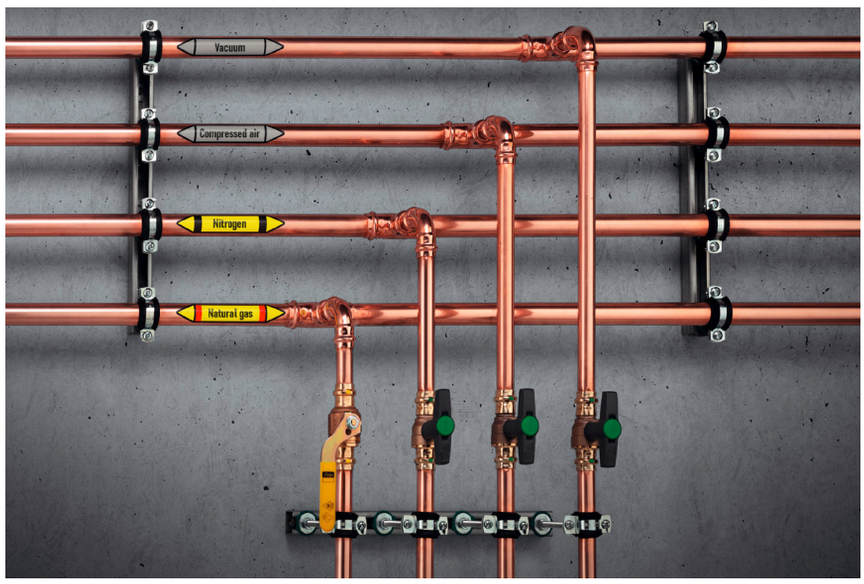

For many years, Viega press connecting technology with the Sanpress, Sanpress Inox, Prestabo and Profipress systems has proved its worth for use in drinking water and building services installations. Increasingly often, it is now used in industrial systems with special operating conditions in terms of pressure, temperature, and concentration of the transported media, requiring careful selection of the pipe and sealing materials.

This brochure intends to help with this selection. In special cases, please contact our Service Center to discuss whether your application is in compliance with the "intended use" of a system. For inquiries via fax, please use the annexed checklist.

Viega piping systems with press connectors cannot be used for piping systems in the food industry as well as for water used in the manufacture of pharmaceutical products (Aqua valde purificata) or for injection purposes (Aqua ad iniectabilia).

The contents of this product information are not binding. We reserve the right to changes reflecting new insights and technical progress.

Conversion Bar / Pascal

bar	mbar	Pa	kPa	hPa	MPa
1	1 000	100 000	100	1 000	0.1
0.001	1	100	0.1	1	0.0001
0.01	10	1 000	1	10	0.001
0.1	100	10 000	10	100	0.01

Sealing elements – Technical data

Sealing element - short name	Technical designation	Viega press connector system application	Colour
EPDM	Ethylene propylene diene rubber	Sanpress Inox / Sanpress / Profipress / Megapress	black
HNBR	Acrylonitrile butadiene rubber	Sanpress Inox G / Profipress G / Megapress G	yellow
FKM	Fluor rubber	Sanpress Inox / Sanpress / Profipress / Megapress S	black

1 Categorisation of technical gases in accordance with EU Directive 2014/68/EU (Pressure Equipment Directive (PED))

with the aid of (EC) Regulation No. 1272/2008 (CLP regulation (classification, labelling, packaging))

Group 1 (hazardous fluids)

Gas	Type	Information	H200 codes
Acetylene	Fuel gas	Unstable alkyne [3]	220 / 230 / 280
Hydrogen	Fuel gas	Fuel gas in its simplest form	220 / 280
Methane	Fuel gas	Alkane [1]	220 / 280
Ethane	Fuel gas	Alkane	220 / 280
Propane	Fuel gas	Alkane	220 / 280
Butane	Fuel gas	Alkane	220 / 280
Ethene (ethylene)	Fuel gas	Alkene [2]	220 / 280
Propene (propylene)	Fuel gas	Alkene	220 / 280
Liquid gas (LPG)	Fuel gas	Mixture of gases	220 / 280
Natural gas	Fuel gas	Mixture of gases	220 / 280
Carbon monoxide	Oxidising gas		270 / 280
Laughing gas	Oxidising gas		270 / 280
Oxygen	Oxidising gas		270 / 280
Carbogen	Oxidising gas		270 / 280

Group 2 (fluids that cannot be categorised in Group 1)

Gas	Type	H200 codes
Helium	Noble gas	280
Neon	Noble gas	280
Argon	Noble gas	280
Krypton	Noble gas	280
Xenon	Noble gas	280
Nitrogen	Inert gas	280
Forming gas, dry/inert gas	Inert gas	280
Carbon dioxide	Others	280
Synthetic air	Others	280
Coarse vacuum	Vacuum	n/a

[1] aliphatic saturated hydrocarbon

[2] aliphatic unsaturated hydrocarbon with double bond

[3] aliphatic unsaturated hydrocarbon with triple bond

H sets	Types of hazard
H200	Physical hazards
H300	Health hazards
H400	Environmental hazards

H200 codes	Physical hazards
H220	Extremely flammable gas
H230 (= EUH006)	May react explosively even in the absence of air
H270	May cause or intensify fire: oxidizer
H280	Contains gas under pressure; may explode if heated

Waters

System name				Profipress		Profipress S		Sanpress					Tempo-nox	Prestabo		Mega-press	Mega-press S	Sea-press
Pipe material				copper	stainless steel 1.4520	copper	stainless steel 1.4520	stainless steel 1.4521	stainless steel 1.4520	stainless steel 1.4401	stainless steel 1.4521	stainless steel 1.4401	stainless steel 1.4520	steel galvanised	steel hot dip galvanised	steel thick-walled	steel thick-walled	CuNiFe
Connector material				copper gunmetal Silicon bronze				stainless steel			gunmetal Silicon bronze		stainless steel	galvanised steel		steel zinc-nickel plated		CuNiFe
Sealing element				EPDM		FKM		EPDM					EPDM	EPDM		EPDM	FKM	EPDM
Medium	**Comment**	p_{max} [MPa]	T_{max} [°C]															
Drinking water	According to DIN 1988-200 and EN 806-2 material selection according to DIN EN 12502-1 [18]	1.0	80	✓				✓		✓	✓	✓				✓[9]		
Treated water (no drinking water)	Fully desalinated, deionised, demineralised, distilled (open system)	1.6	80					✓[17]		✓[17]								
Cooling water, closed circuit	Open systems available on request		≥ -25	✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]	✓[2] [3]	✓[7]	✓[7] [10]	✓
Vapour	Low pressure steam units	≤ 0.1	120	✓[1]	✓[1] [2]	✓	✓[2]	✓[1] [2]	✓[1] [2]	✓[1] [2]	✓[1] [2]	✓[1] [2]	✓[1] [2]				✓[8]	✓[1] [2]
Well water	Requirements in acc. with DWO	1.6	80	✓				✓		✓	✓	✓						
Pump hot water heating systems	in acc. with DIN EN 12 828		105	✓	✓	✓[10]	✓[10]	✓	✓	✓	✓	✓	✓	✓		✓	✓[10]	✓

Anti-freeze / corrosion protection / cold and heat carrier

	Product/manufacturer																	
Anti-freeze, cooling brines concentration of 50%	Antifrogen N / Clariant	1.6	-25 to 105	✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Antifrogen L / Clariant			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Antifrogen Sol (solar installations) / Clariant			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Ethylene glycol (Ethan-1.2-diol)			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Propylene glycol (1.2-Propandiol)			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Tyfoxit / Tyforop-Chemie			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
	Tyfocor (L) / Tyforop-Chemie			✓	✓[11]	✓[10]	✓[10] [11]	✓	✓	✓	✓	✓	✓	✓[3]		✓[7]	✓[7] [10]	✓
Potassium Acetate/-formiat brine	TEMPER® Antifrogen KF/Clariant Glysofor KF/Wittig							✓	✓	✓			✓					

[1] sealing elements replaced for FKM
[2] without additives
[3] corrosion protection acc. to AGI Q151
[7] corrosion protection for the pipes acc. to AGI Q151; thanks to their zinc-nickel coating, the Megapress connectors do not require any corrosion protection
[8] following coordination with the Attendorn factory
[9] only applicable for Megapress silicon bronze adapter, model 4213.2
[10] for operating temperatures of -5 °C to +140 °C
[11] The use of Sanpress and Sanpress Inox press connectors is recommended. When using Profipress press connectors made of copper the connection points between pipe and press connector have to be protected with a corrosion prevention agent.
[17] Resistance < 1 MΩ·cm (at 25 °C)
[18] Temperature up to max. 95 °C over a period of max. 60 min

Oils

System name		Profipress	Sanpress						Profi-press G	Sanpress Inox G	Tempo-nox	Prestabo	Mega-press	Mega-press S	Mega-press G	Sea-press
Pipe material		copper	stainless steel						copper	stainless steel 1.4401	stainless steel 1.4520	steel galvanised	steel thick-walled			CuNiFe
			1.4521	1.4520	1.4401	1.4521	1.4520	1.4401								
Connector material		copper gunmetal Silicon bronze	stainless steel			gunmetal Silicon bronze			copper gunmetal Silicon bronze	stainless steel	stainless steel 1.4301	steel galvanised	steel zinc-nickel plated			CuNiFe
Sealing element		EPDM	EPDM						HNBR	HNBR	EPDM	EPDM	EPDM	FKM	HNBR	EPDM
Medium	**Comment**	**p_{max} [MPa]**	**T_{max} [°C]**													
Mineral oils SAE	15–108 mm/⅜–4 inch	1.6	70							✓[4]				✓	✓	
Fuel oil acc. to DIN 51603-1 Diesel acc. to DIN EN 590	according to TRbF (German Technical Regulations for Flammable Liquids) 12–54 mm/½–2 inch	0.5	40						✓	✓					✓	
Palm oil		1.0	70							✓[4]				✓[8]	✓[8]	
Rapeseed oil										✓[4]				✓[8]	✓[8]	
Soy oil										✓[4]				✓[8]	✓[8]	
Sunflower oil										✓[4]				✓[8]	✓[8]	
Biodiesel	EN 14214			✓[1]	✓[1]	✓[1]					✓[1]			✓		
Palm oil heating			90	✓[1]	✓[1]	✓[1]					✓[1]					

[1] sealing elements replaced for FKM

[4] in connection with Viega stainless steel pipe 1.4521, 1.4520 and 1.4401

[8] following coordination with the Attendorn factory

2.3 Compressed air
assigned to the purity classes according to ISO 8573-1:2010-04

system name	pipe material	Sealing element[12]	p_{max} [MPa]	T_{max} [°C]	Solid particles[13] class										Residual moisture content class										Oil content class					
					0	1	2	3	4	5	6	7	X	0	1	2	3	4	5	6	7	8	9	X	0	1	2	3	4	X
Profipress		EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
Profipress S	Copper pipe acc. to DIN EN 1057	FKM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓
Profipress G		HNBR			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
Sanpress	1.4401 model 2203/2203XL	EPDM	1,6	60	○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
	1.4521 model 2205/2205XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
	1.4520 model 2204/2204XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
Sanpress Inox	1.4401 model 2203/2203XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
	1.4521 model 2205/2205XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
	1.4520 model 2204/2204XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
Sanpress Inox G	1.4401 model 2203/2203XL	HNBR			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✓	✓
Sanpress Inox LF	1.4401 model 2203/2203XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✗
	1.4521 model 2205/2205XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✗
	1.4520 model 2204/2204XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✗

[12] EPDM sealing element for oil concentrations < 25 mg/m³

[13] Recommendation for classes 1 to 3: Flush the line before commissioning

[15] The EPDM factory-fitted sealing element can be exchanged for a FKM sealing element on-site

✓ = For use

✗ = Not for use

○ = Conditional use, consultation with the Service Center required

system name	pipe material	Sealing element[12]	p_{max} [MPa]	T_{max} [°C]	Solid particles[13] class									Residual moisture content class										Oil content class					
					0	1	2	3	4	5	6	7	X	0	1	2	3	4	5	6	7	8	9	X	0	1	2	3	4	X
Seapress	Copper nickel wrought alloy to DIN 86019 WL 2.1972.11 or WL 2.1972.22	EPDM	1,6	60	○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
Temponox	1.4520 model 2204/2204XL	EPDM			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
		FKM[15]			○	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
Prestabo	Externally galvanised model 1103/1103XL	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
		FKM[15]			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
	PP coated model 1104	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
		FKM[15]			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
	Externally and internally galvanised model 1106/1106XL	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
		FKM[15]			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
Prestabo LF	Externally galvanised model 1103/1103XL	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✘
	PP coated model 1104	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✘
	Externally and internally galvanised model 1106/1106XL	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✘
Megapress	Steel pipes according to DIN EN 10255 DIN EN 10220 DIN EN 10216-1 DIN EN 10217-1	EPDM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✘
Megapress S		FKM			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓
Megapress G		HNBR			✘	✘	✘	✘	✓	✓	✓	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✘	✘	✓	✓

[12] EPDM sealing element for oil concentrations < 25 mg/m³

[13] Recommendation for classes 1 to 3: Flush the line before commissioning

[15] The EPDM factory-fitted sealing element can be exchanged for a FKM sealing element on-site

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Gases*

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	System name	Profipress			Profi-press S			Sanpress					Profi-press G	Sanpress Inox G	Tempo-nox	Prestabo		Mega-press	Mega-press S	Mega-press G	Sea-press
				Pipe material	copper	stainless steel 1.4520		copper	stainless steel 1.4520		stainless steel 1.4521	1.4520	1.4401	1.4521	1.4401	copper	stainless steel 1.4401	stainless steel 1.4520	galva-nised	hot dip galvani-sed	steel thick-walled			CuNi-Fe
				Connector material	copper gunmetal Silicon bronze						stainless steel			gunmetal Silicon bronze		copper gunmetal Silicon bronze	stainless steel	stainless steel 1.4301	galvanised steel		steel zinc-nickel plated			CuNi-Fe
				Sealing element	EPDM			FKM			EPDM					HNBR	HNBR	EPDM	EPDM		EPDM	FKM	HNBR	EPDM
Natural gas		0.5	60													✓[5]	✓[5]						✓	
Liquid gases, propane, butane, methane	according to G 260	0.5	60													✓[5]	✓[5]						✓	
Acetylene	Test pressure 2.4 MPa 15–28 mm	0.15	60								✓[16]													
Argon	12–54 mm / ⅜–2 inch	1.6	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	
	64–108 mm / 2½–4 inch	1.0	60																					
Carbogen	$CO_2 + O_2$ dry 12–54 mm / ⅜–2 inch	1.6	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓	
	64–108 mm / 2½–4 inch	1.0	60																					
Oxygen – O_2	Keep free of oil and grease 12–54 mm / ⅜–2 inch	1.0	60	✓				✓[14]		✓[14]							✓[14]				✓[19]			
Nitrogen – N_2	Downstream of the vaporiser 12–54 mm / ⅜–2 inch	1.6	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	
	64–108 mm / 2½–4 inch	1.0	60																					
Hydrogen – H_2	12–108 mm / ⅜–2 inch	0.5	60	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓[8]		✓[8]	
Carbon dioxide – CO_2	dry 12–54 mm	1.6	60	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
	64–108 mm	1.0	60																					
Carbon monoxide – CO	Stainless steel parts not permitted 12–54 mm	1.6	60	✓												✓								
	64–108 mm	1.0	60																					

* Purity requirements acc. to DIN EN 437 available on request

[1] sealing elements replaced for FKM

[5] in case of HTR (higher thermal resistance) requirement, max. permitted operating pressure p_{max} = 0.1 MPa

[8] following coordination with the Attendorn factory

[14] 15–54 mm, Expert opinion TÜV Rheinland (suitability for the medium of oxygen) / also applies to Sanpress Inox LF (free of paint-wetting impairment substances)

[16] ≤ DN 25 / also applies for Sanpress Inox LF (labs-free)

[19] 3/8–2 inch, Expert opinion TÜV Rheinland (suitability for the medium of oxygen)

Gases*

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Profipress		Profipress S		Sanpress					Profi-press G	Sanpress Inox G	Tempo-nox	Prestabo		Mega-press	Mega-press S	Mega-press G	Sea-press
System name																					
pipe material				copper	stainless steel 1.4520	copper	stainless steel 1.4520	stainless steel 1.4521	stainless steel 1.4520	stainless steel 1.4401	stainless steel 1.4521	stainless steel 1.4401	copper	stainless steel 1.4401	stainless steel 1.4520	steel galvanised	steel hot dip galvanised	steel thick-walled			CuNiFe
Connector material				copper gunmetal Silicon bronze				stainless steel			gunmetal Silicon bronze		copper gunmetal Silicon bronze	stainless steel	stainless steel 1.4301	steel galvanised		steel zinc-nickel plated			CuNiFe
Sealing element				EPDM		FKM		EPDM					HNBR	HNBR	EPDM	EPDM		EPDM	FKM	HNBR	EPDM
Coarse vacuum	P_{abs} = 1hPa		70	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓
Forming gas, dry/inert gas	Ar + CO_2 (e.g. corgon) 15–54 mm/⅜–2 inch	1.6		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	
	64–108 mm/2½–4 inch	1.0																			
Nitrous oxide (laughing gas)	12–54 mm	1.6						✓	✓	✓					✓						
	64–108 mm	1.0																			
Ethane	12–54 mm	1.6												✓							
	64–108 mm	1.0																			
Ethene (ethylene)	12–54 mm	1.6												✓							
	64–108 mm	1.0																			
Helium	12–54 mm	1.6											✓	✓							
	64–108 mm	1.0	60																		
Krypton	15–54 mm	1.6		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓						
	64–108 mm	1.0																			
Neon	15–54 mm	1.6		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓						
	64–108 mm	1.0																			
Propene (propylene)	15–54 mm	1.6								✓[1]											
	64–108 mm	1.0																			
Xenon	15–54 mm	1.6		✓	✓			✓	✓	✓	✓	✓	✓	✓	✓						
	64–108 mm	1.0																			
Synthetic air	12–54 mm	1.6		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						✓
	64–108 mm	1.0																			

* Purity requirements acc. to DIN EN 437 available on request

[1] sealing elements replaced for FKM

Special media*

System name	Profipress		Sanpress					Profi-press G	Sanpress Inox G	Tempo-nox	Prestabo	Mega-press	Mega-press S	Mega-press G	Sea-press
pipe material	copper	stainless steel 1.4520	stainless steel 1.4521	stainless steel 1.4520	stainless steel 1.4401	stainless steel 1.4521	stainless steel 1.4401	copper	Stainless steel 1.4401	Stainless steel 1.4520	steel galvanised	steel thick-walled			CuNiFe
Press connector material	copper gunmetal Silicon bronze		stainless steel			gunmetal Silicon bronze		copper gunmetal Silicon bronze	stainless steel	Stainless steel 1.4301	steel galvanised	steel zinc-nickel plated			CuNiFe
Sealing element	EPDM		EPDM					HNBR	HNBR	EPDM	EPDM	EPDM	FKM	HNBR	EPDM

Medium	Comment	p_{max} [MPa]	T_{max} [°C]														
Urea solution	Max. concentration 40 %	1.0	40			✓	✓	✓					✓						
Ethanol		1.6	25	✓	✓	✓	✓	✓	✓	✓			✓						
Methanol	Caution: toxic!					✓	✓	✓					✓						
Condensate	from gas-powered calorific value devices, not from oil-powered calorific value devices!		105			✓	✓	✓					✓						
Condensate	of vapour			✓[6]	✓[6]	✓	✓	✓	✓[6]	✓[6]			✓		✓[8]	✓[8]			✓
Glycerine triacetate		0.1	20			✓	✓	✓					✓						
Caustic soda	30 % aqueous solution	1.0				✓		✓											
Caustic soda	50 % aqueous solution		60					✓											
Acetone	liquid	0.5	-10 to 40	✓	✓	✓	✓	✓	✓	✓			✓						
Ammoniac	Medium free from CO_2 + H_2O Caution: toxic!	0.2	25			✓	✓	✓					✓						
Biogas – before biogas treatment	45–70 % CH_4 / 20–45 % CO_2 / H_2S < 30 mg/m³	0.5	70								✓								
Biogas – after biogas treatment	according to G260 and G262									✓[5]	✓						✓		
Fermenter heating	Substrate temperature 65 °C	1.0	105					✓											

* Purity requirements acc. to DIN EN 437 available on request

[5] in case of HTR (higher thermal resistance) requirement, max. permitted operating pressure p_{max} = 0.1 MPa

[6] without contamination

[8] following coordination with the Attendorn factory

3 Valves – transported media

3.1 Waters, frost and corrosion protection, heat carriers

Waters

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Product name: Easytop ball valve	Easytop ball valve	Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
				Model no.	2275, 2275LF, 2275.2LF, 2275.3, 2275.4, 2275.10	2275.1, 2275.2, 2275.5, 2275.6	2278	2375	2670, 2671, 2671.3	G2101
				Press connector material	gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
				Seal	EPDM		EPDM	EPDM	HNBR	
Drinking water	Requirement acc. to DWO [18]	1.0	80		✓	✓	✓	✓		
Treated water (no drinking water)	Fully desalinated, deionised, demineralised, distilled (open system)	1.6	80					✓		
Cooling water, closed circuit	Open systems available on request	1.6	≥ -25		✓	✓	✓	✓		
Well water	Requirements in acc. with DWO	1.6	80		✓	✓	✓	✓		
Pump hot water heating systems	in acc. with DIN EN 12 828	1.6	105		✓	✓	✓	✓		

Anti-freeze / corrosion protection / cold and heat carrier

	Product/manufacturer								
Anti-freeze, cooling brines concentration of 50%	Antifrogen N / Clariant	1.6	-25 to 105		✓	✓	✓	✓		
	Antifrogen L / Clariant				✓	✓	✓	✓		
	Antifrogen Sol (solar installations) / Clariant				✓	✓	✓	✓		
	Ethylene glycol (Ethan-1.2-diol)				✓	✓	✓	✓		
	Propylene glycol (1.2-Propandiol)				✓	✓	✓	✓		
	Tyfoxit / Tyforop-Chemie				✓	✓	✓	✓		
	Tyfocor (L) / Tyforop-Chemie				✓	✓	✓	✓		
Potassium Acetate/-formiat brine	TEMPER® Antifrogen KF/Clariant Glysofor KF/Wittig							✓		

[18] Temperature up to max. 95 °C over a period of max. 60 min

Oils

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Easytop ball valve	Easytop ball valve	Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
Product name									
Model no.				2275, 2275LF, 2275.2LF, 2275.3, 2275.4, 2275.10	2275.1, 2275.2, 2275.5, 2275.6	2278	2375	2670, 2671, 2671.3	G2101
Press connector material				gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
Seal				EPDM		EPDM	EPDM	HNBR	
Mineral oils SAE		1.6						✓	✓
Palm oil								✓	✓
Rapeseed oil			70					✓	✓
Soy oil		1.0						✓	✓
Sunflower oil								✓	✓
Palm oil heating	Valves not in palm oil		90	✓	✓	✓	✓		

Gases*

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Product name	Easytop ball valve		Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
				Model no.	2275, 2275LF, 2275.2LF, 2275.3, 2275.4, 2275.10	2275.1, 2275.2, 2275.5, 2275.6	2278	2375	2670, 2671, 2671.3	G2101
				Press connector material	gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
				Seal	EPDM		EPDM	EPDM	HNBR	
Compressed air	Oil concentration ≤ 25 mg/m³ 12–54 mm	1.6	60		✓	✓		✓	✓	✓
	64–108 mm									
	Oil concentration ≥ 25 mg/m³ 12–54 mm								✓	✓
	64–108 mm									
Natural gas	according to G 260	0.5							✓[5]	✓[5]
Liquid gases, propane, butane, methane									✓[5]	✓[5]
Argon	12–54 mm	1.6			✓	✓		✓	✓	✓
	64–108 mm	1.0								
Carbogen	CO_2 + O_2 dry 12–54 mm	1.6			✓	✓		✓	✓	✓
	64–108 mm	1.0								
Nitrogen – N_2	Downstream of the vaporiser 12–54 mm	1.6			✓	✓		✓	✓	✓
	64–108 mm	1.0								
Hydrogen – H_2	12–108 mm	0.5			✓	✓		✓	✓	✓
Carbon dioxide – CO_2	dry 12–54 mm	1.6			✓	✓		✓	✓	✓
	64–108 mm	1.0								
Carbon monoxide – CO	Stainless steel parts not permitted 12–54 mm	1.6			✓	✓			✓	✓
	64–108 mm	1.0								

* Purity requirements acc. to DIN EN 437 available on request

[5] in case of HTR (higher thermal resistance) requirement, max. permitted operating pressure p_{max} = 0.1 MPa

Gases*

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Easytop ball valve 2275, 2275LF, 2275.2LF, 2275.3, 2275.4, 2275.10	Easytop ball valve 2275.1, 2275.2, 2275.5, 2275.6	Free-flow valve 2278	Easytop Inox ball valve 2375	Profipress G gas ball valve 2670, 2671, 2671.3	Gas ball valve G2101
				Press connector material: gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
				Seal: EPDM		EPDM	EPDM	HNBR	
Coarse vacuum	P_{abs} = 1hPa		70	✓			✓	✓	✓
Forming gas, dry/inert gas	Ar + CO_2 (e.g. corgon) 15–54 mm	1.6		✓	✓		✓	✓	✓
	64–108 mm	1.0							
Nitrous oxide (laughing gas)	12–54 mm	1.6					✓		
	64–108 mm	1.0							
Ethane	12–54 mm	1.6						✓	✓
	64–108 mm	1.0							
Ethene (ethylene)	12–54 mm	1.6						✓	✓
	64–108 mm	1.0							
Helium	15–54 mm	1.6	60					✓	✓
	64–108 mm	1.0							
Krypton	15–54 mm	1.6		✓	✓		✓		
	64–108 mm	1.0							
Neon	15–54 mm	1.6		✓	✓		✓		
	64–108 mm	1.0							
Xenon	15–54 mm	1.6		✓	✓		✓		
	64–108 mm	1.0							
Synthetic air	12–54 mm	1.6		✓	✓		✓	✓	✓
	64–108 mm	1.0							

* Purity requirements acc. to DIN EN 437 available on request

Special media*

Medium	Comment	p_{max} [MPa]	T_{max} [°C]	Easytop ball valve	Easytop ball valve	Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
Product name									
Model no.				2275, 2275LF, 2275.2LF, 2275.3, 2275.4, 2275.10	2275.1, 2275.2, 2275.5, 2275.6	2278	2375	2670, 2671, 2671.3	G2101
Press connector material				gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
Seal				EPDM		EPDM	EPDM	HNBR	
Urea solution	Max. concentration 40 %	1.0	40				✓		
Ethanol		1.6	25	✓	✓	✓	✓		
Methanol	Caution: toxic!						✓		
Condensate	from gas-powered calorific value devices, not from oil-powered calorific value devices!		110				✓		
Condensate	of vapour			✓[6]	✓[6]	✓[6]	✓		
Caustic soda	50 % aqueous solution	1.0	60				✓		
Acetone	liquid	0.5	-10 to 40	✓	✓	✓	✓		
Biogas – after biogas treatment	according to G260 and G262		70					✓[5]	✓[5]
Fermenter heating	Substrate temperature 65 °C outside of the fermenter	1.0	105	✓	✓		✓		

* Purity requirements acc. to DIN EN 437 available on request

[5] in case of HTR (higher thermal resistance) requirement, max. permitted operating pressure p_{max} = 0.1 MPa

[6] without contamination

4 Appendix – Form

4.1 Inquiry regarding material durability

Inquiry regarding material durability

Global Service & Consulting-Team Application
Phone +49 (0) 2722 61 5666
material-request@viega.com

Customer		**Building project**	
Customer no.			
Customer/company*		Customer/company*	
Contact persons*		Contact persons	
Street*		Street	
Postal code/town*		Postal code/town	
Country*		Country	
Phone*		Phone	
Email*		Email	
		Potential*	

Information about the installation system	
Planned system*	
Dimension*	

Information about the medium			
Supplier/manufacturer*			
Trade name/designation*			
Application/function*			
Concentration of the medium*			
Other components			
		Time interval (Sec.)	Duration of the condition
max. temp.*			
min. temp.*			
max. pressure*			
min. pressure*			
max. pH value			
min. pH value			

Information about the system				
Function of the complete system				
Installation site*	☐ Indoor		☐ Outdoor	
Type of installation*	☐ open		☐ closed	
Stagnation*	☐ yes		☐ no	
Ambient conditions*	☐ Interior spaces	☐ Country air	☐ City air	☐ Sea air
	☐ Industrial air	☐ Other:		
desired service life*	☐ < 1 year	☐ 1–5 years	☐ 5–10 years	☐ > 10 years

Free text field	

*) Mandatory fields

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