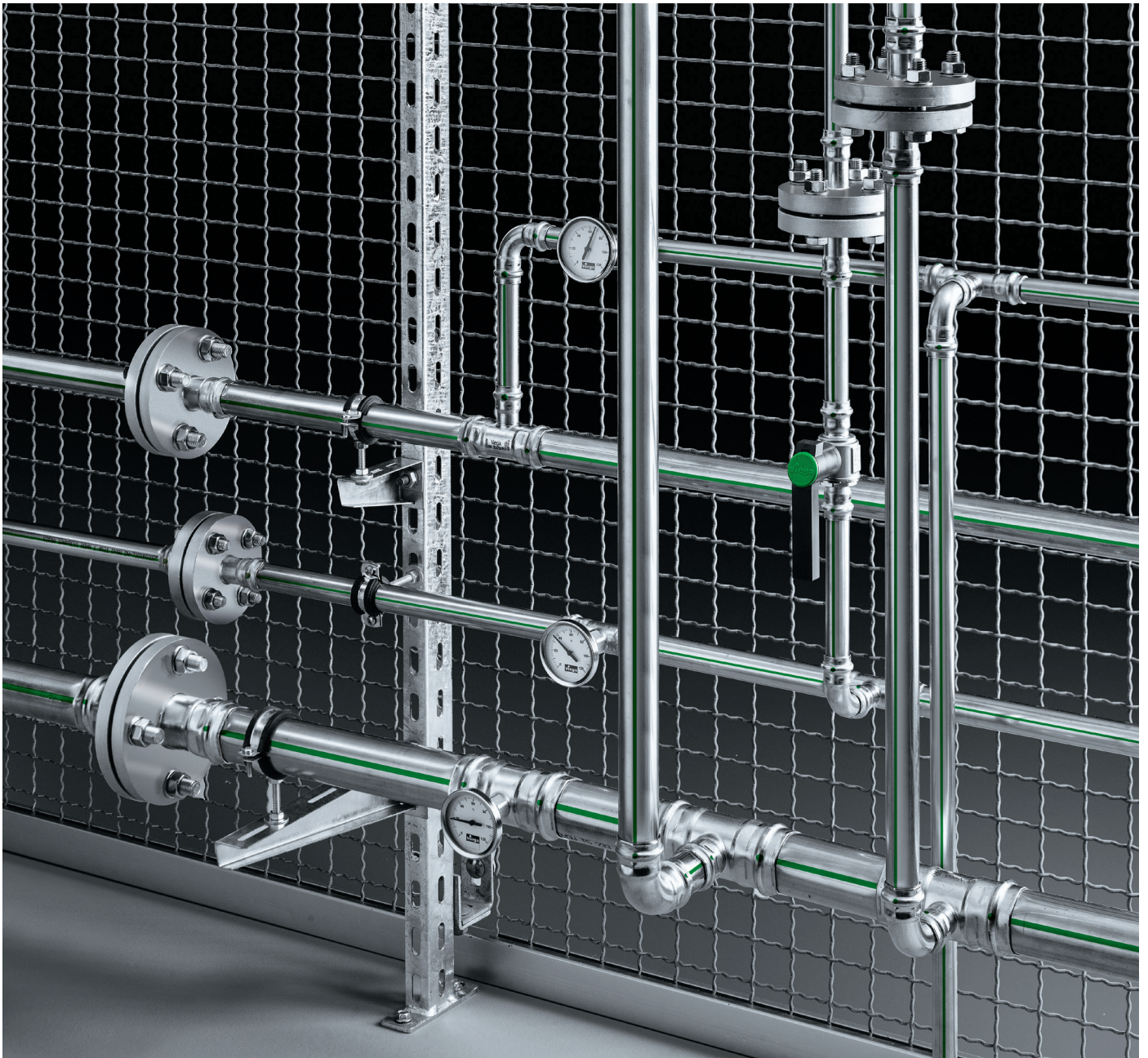


Information for planning and execution

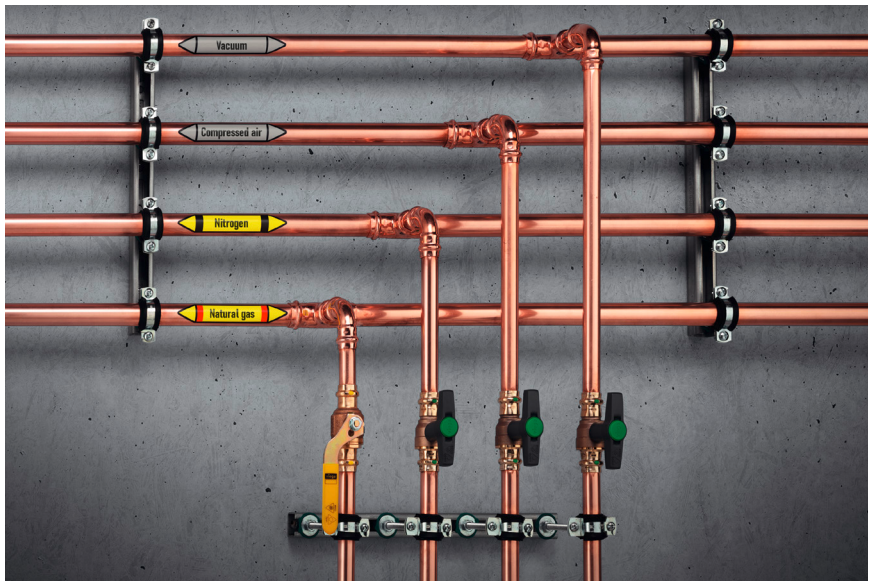
Fields of applications for metal installation systems



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 iniectionabilia).

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 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	

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

¹⁾ aliphatic saturated hydrocarbon

²⁾ aliphatic unsaturated hydrocarbon with double bond

³⁾ aliphatic unsaturated hydrocarbon with triple bond

H sets	Types of hazard	H200 codes	Physical hazards
H200	Physical hazards	H220	Extremely flammable gas
H300	Health hazards	H230 (= EUH006)	May react explosively even in the absence of air
H400	Environmental hazards	H270	May cause or intensify fire: oxidizer
		H280	Contains gas under pressure; may explode if heated

2 Pipes and press connectors – transported media

2.1 Waters, frost and corrosion protection, heat carriers

Waters

System name		Profipress		Profipress S		Sanpress			Tempo- nox	Prestabo		Mega- press	Mega- press S	Sea- press		
		copper stainless steel 1.4520	copper stainless steel 1.4520	copper gunmetal Silicon bronze	stainless steel 1.4521	1.4520	1.4401	1.4521		1.4401	stainless steel galvanised hot dip galvanised					
Pipe material																
Connector material																
Sealing element		EPDM	FKM	EPDM			1.4520			stainless steel	galvanised steel	EPDM	FKM	EPDM		
Medium		p _{max} [MPa]	T _{max} [°C]	Comment												
Waters	Drinking water	1.0	80	✓				✓					✓ ⁹⁾			
	Treated water (no drinking water)	1.6						✓ ¹⁷⁾								
	Cooling water, closed circuit			✓												
	Vapour	≤0.1	120	✓ ¹⁾	✓ ¹⁾²⁾	✓ ²⁾	✓ ¹⁾²⁾	✓ ¹⁾²⁾	✓ ¹⁾²⁾	✓ ¹⁾²⁾	✓ ³⁾	✓ ²⁾³⁾	✓ ⁷⁾	✓ ⁷⁾¹⁰⁾	✓ ¹⁾²⁾	
	Well water	80	80	✓				✓								
Pump hot water heating systems	1.6	105	✓	✓	✓ ¹⁰⁾	✓	✓	✓	✓	✓	✓	✓	✓ ¹⁰⁾	✓	✓	
Anti-freeze / corrosion protection / cold and heat carrier																
Anti-freeze, cooling brines concentration of 50%		Product/manufacturer														
		Antifrogen N / Clariant	✓ 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⁾	✓	✓
		Tyfofor (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 FKM²⁾ without additives

³⁾ corrosion protection acc. to AGL Q151

corrosion protection acc. to EN 12078 for operating temperatures of 0 to 110 °C.
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

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)

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

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

2.2 Oils

Oils		System name		Profipress		Sanpress						Profi-press G		Sanpress Inox G		Tempo-nox		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				
Connector material		gunmetal Silicon bronze		copper		1.4521		1.4520		1.4401		1.4521		gunmetal Silicon bronze		copper gunmetal Silicon bronze		stainless steel 1.4301		steel galvanised		steel zinc-nickel plated		CuNiFe		
		EPDM		EPDM		EPDM		EPDM		EPDM		EPDM		HNBR		HNBR		EPDM		EPDM		FKM		HNBR		EPDM
Sealing element		P _{max} [MPa]		T _{max} [°C]																						
Medium		Comment																								
Mineral oils SAE	15–108 mm / 3/8–4 inch	1.6	70																							
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 / 1/2–2 inch	0.5	40																							
Palm oil		1.0	70																							
Rapeseed oil																										
Soy oil																										
Sunflower oil																										
Biodiesel	EN 14214																									
Palm oil heating			90																							

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 ⁽²⁾	p _{max} [MPa]	T _{max} [°C]	Solid particles ⁽³⁾										Residual moisture content class										Oil content class																
					class										class										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			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
	Profipress S	Copper pipe acc. to DIN EN 1057	FKM			0	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
	Profipress G		HNBR			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
Sanpress	1.4401 model 2203/2203XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
	1.4521 model 2205/2205XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
	1.4520 model 2204/2204XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Sanpress Inox	1.4401 model 2203/2203XL	EPDM		60	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	1.4521 model 2205/2205XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	1.4520 model 2204/2204XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		FKM ⁽⁵⁾			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Sanpress Inox G	1.4401 model 2203/2203XL	HNBR			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	1.4401 model 2203/2203XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Sanpress Inox LF	1.4521 model 2205/2205XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	1.4520 model 2204/2204XL	EPDM			0	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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 ⁽²⁾	p _{max} [MPa]	T _{max} [°C]	Solid particles ⁽³⁾										Residual moisture content class										Oil content class														
					Solid particles ⁽³⁾										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										
Seapress	Copper nickel wrought alloy to DIN 86019 WL 2.1972.11 or WL 2.1972.22	EPDM	1,6	60	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
		FKM ⁽¹⁵⁾			O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Temponox	1.4520 model 2204/2204XL	EPDM			O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
		FKM ⁽¹⁵⁾			O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Prestabo	Externally galvanised model 1103/1103XL	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
		FKM ⁽¹⁵⁾			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	PP coated model 1104	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		FKM ⁽¹⁵⁾			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Prestabo LF	Externally and internally galvanised model 1106/1106XL	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		FKM ⁽¹⁵⁾			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Externally galvanised model 1103/1103XL	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		FKM ⁽¹⁵⁾			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Prestabo LF	PP coated model 1104	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Externally and internally galvanised model 1106/1106XL	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Megapress	Steel pipes according to DIN EN 10255	EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		EPDM			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Megapress S	DIN EN 10220	FKM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		FKM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Megapress G	DIN EN 10216-1	HNBR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		HNBR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

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

O = Conditional use, consultation with the Service Center required

2.4 Gases

System name		Profi-press		Profi-press S		Sanpress					Profi-press G		Sanpress Inox G		Tempo-inox		Prestabo			Mega-press S			Mega-press G	
		stainless steel	1.4520	1.4520	stainless steel	1.4521	1.4520	1.4521	1.4521	1.4521	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	1.4401	
Pipe material		copper	stainless steel	copper	stainless steel	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	1.4520	1.4521	
Connector material		copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	copper	gunmetal	
Sealing element		EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	EPDM	FKM	
Medium		Comment		P _{max} [MPa]		T _{max} [°C]																		
Natural gas																								
Liquid gases, propane, butane, methane		according to G 260		0.5																				
Acetylene		Test pressure 2.4 MPa		15–28 mm		0.15																		
Argon		12–54 mm / 3/8–2 inch		1.6																				
		64–108 mm / 2 1/2–4 inch		1.0																				
Carbogen		CO ₂ + O ₂ dry		1.6																				
		12–54 mm / 3/8–2 inch		1.0																				
		64–108 mm / 2 1/2–4 inch		1.0																				
Oxygen – O ₂		Keep free of oil and grease		1.0		60																		
		12–54 mm / 3/8–2 inch		1.0																				
		Downstream of the vaporiser		1.6																				
Nitrogen – N ₂		12–54 mm / 3/8–2 inch		1.0																				
		64–108 mm / 2 1/2–4 inch		1.0																				
Hydrogen – H ₂		12–108 mm / 3/8–2 inch		0.5																				
Carbon dioxide – CO ₂		dry		1.6																				
		12–54 mm		1.0																				
		64–108 mm		1.0																				
Carbon monoxide – CO		Stainless steel parts not permitted		1.6																				
		12–54 mm		1.0																				
		64–108 mm		1.0																				

Gases*

* 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 (abs-free)

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

System name		Profi-press		Profi-press S		Sanpress					Profi-press G	Sanpress Inox G	Tempo-inox	Prestabo		Mega-press S		Mega-press G	Sea-press
		copper stainless steel 1.4520	copper stainless steel 1.4520	copper stainless steel 1.4520	1.4521	1.4520	1.4401	1.4521	1.4401	1.4521	1.4401	copper	stainless steel 1.4401	stainless steel 1.4520	galvani- sed	steel hot dip galvanised	steel thick-walled	CuNiFe	
Connector material		copper gunmetal Silicon bronze		copper gunmetal Silicon bronze		stainless steel		stainless steel		gunmetal Silicon bronze	copper gunmetal Silicon bronze	stainless steel 1.4301	stainless steel galvanised	steel zinc-nickel plated		CuNiFe			
Sealing element		EPDM	FKM	EPDM					HNBR	HNBR	EPDM	EPDM	EPDM	EPDM	FKM	HNBR	EPDM		
Gases*		Medium		Comment		P _{max} [MPa]	T _{max} [°C]												
Coarse vacuum	Forming gas, dry/inert gas	P _{abs} = 1hPa	Ar + CO ₂ (e.g. corgon) 15–54 mm / 3/8–2 inch 64–108 mm / 2½–4 inch	1.6	1.0	70	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrous oxide (laughing gas)	Ethane	12–54 mm 64–108 mm	1.6 1.0	1.6 1.0	1.6 1.0	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ethene (ethylene)	Helium	12–54 mm 64–108 mm	1.6 1.0	1.6 1.0	1.6 1.0	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Krypton	Neon	15–54 mm 64–108 mm	1.6 1.0	1.6 1.0	1.6 1.0	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Propene (propylene)	Xenon	15–54 mm 64–108 mm	1.6 1.0	1.6 1.0	1.6 1.0	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Synthetic air		12–54 mm 64–108 mm	1.6 1.0	1.6 1.0	1.6 1.0	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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

¹⁾ sealing elements replaced for FKM

2.5 Special media - Examined and approved

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	1.4521	1.4520	1.4401	1.4521	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	FKM	HNBR	EPDM
P _{max} [MPa] T _{max} [°C]														
Urea solution	1.0	40		✓	✓	✓	✓			✓				
Ethanol		25	✓	✓	✓	✓	✓			✓				
Methanol				✓						✓				
Condensate	1.6	105		✓	✓	✓	✓			✓				
Condensate			✓ ⁶⁾	✓ ⁶⁾	✓ ⁶⁾	✓ ⁶⁾	✓ ⁶⁾			✓ ⁸⁾	✓ ⁸⁾	✓ ⁸⁾		✓
Glycerine triacetate	0.1	20		✓	✓	✓	✓			✓				
Caustic soda	1.0				✓									
Caustic soda		60			✓									
Acetone	0.5	-10 to 40	✓	✓	✓	✓	✓			✓				
Ammoniac	0.2	25		✓	✓	✓	✓			✓				
Biogas – before bio-gas treatment									✓					
Biogas – after biogas treatment	0.5	70						✓ ⁵⁾	✓				✓	
Fermenter heating	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									
Product name				Easytop ball valve		Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
Model no.		2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6	2242, 2278	2375	2670, 2670.4, 2671, 2671.3	G2101		
Press connector material		gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass		
Seal		EPDM		EPDM	EPDM	HNBR			
Medium		P _{max} [MPa]	T _{max} [°C]						
Drinking water	Requirement acc. to DWO ¹⁸⁾	1.0		✓	✓	✓			
Treated water (no drinking water)	Fully desalinated, deionised, demineralised, distilled (open system)	80				✓			
Cooling water, closed circuit	Open systems available on request	1.6	≥-25	✓	✓	✓			
Well water	Requirements in acc. with DWO		80	✓	✓	✓			
Pump hot water heating systems	in acc. with DIN EN 12 828		105	✓	✓	✓			
Anti-freeze / corrosion protection / cold and heat carrier									
Product/manufacturer				✓	✓	✓	✓		
Antifrogen N / Clariant				✓	✓	✓	✓		
Antifrogen L / Clariant				✓	✓	✓	✓		
Antifrogen Sol (solar installations) / Clariant				✓	✓	✓	✓		
Anti-freeze, cooling brines concentration of 50%	Ethylene glycol (Ethan-1,2-diol)	1.6	-25 to 105	✓	✓	✓	✓		
	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

3.2 Oils

Product name		Easytop ball valve				Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve
		2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6	gunmetal Silicon bronze					
Oils	Model no.					2242, 2278	2375	2670, 2670.4, 2671, 2671.3	G2101
	Press connector material					gunmetal Silicon bronze			
	Seal	EPDM				EPDM	EPDM	HNBR	brass
		p _{max} [MPa]		T _{max} [°C]					
	Mineral oils SAE	1.6	70					✓	✓
	Palm oil	1.0	70					✓	✓
	Rapeseed oil		70					✓	✓
Soy oil	70					✓	✓		
Sunflower oil							✓	✓	
Palm oil heating	Valves not in palm oil		90	✓	✓	✓	✓		

3.3 Gases

Product name		Easytop ball valve		Free-flow valve	Easytop Inox ball valve	ProfiPress G gas ball valve	Gas ball valve
		2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6		2375	2670, 2670.4, 2671, 2671.3	G2101
Press connector material		gunmetal Silicon bronze			stainless steel	gunmetal Silicon bronze	brass
Seal		EPDM		EPDM	EPDM	HNBR	
Medium		p _{max} [MPa]		T _{max} [°C]			
		Comment					
Compressed air	Oil concentration ≤ 25 mg/m ³ 12–54 mm						
	Oil concentration ≥ 25 mg/m ³ 12–54 mm						
Natural gas	according to G 260						
Argon	12–54 mm						
Carbogen	CO ₂ + O ₂ dry 12–54 mm						
Nitrogen – N ₂	Downstream of the vaporiser 12–54 mm						
Hydrogen – H ₂	12–108 mm						
Carbon dioxide – CO ₂	dry 12–54 mm						
Carbon monoxide – CO	Stainless steel parts not permitted 12–54 mm						

* 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]	Product name		Easytop ball valve		Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve	
				Model no.	Press connector material	2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6					
						EPDM	gunmetal Silicon bronze	EPDM	stainless steel	gunmetal Silicon bronze	brass	
								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	60		✓	✓			✓	✓	✓	
	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									✓	✓
	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

3.4 Special media - Examined and approved

Special media*									
Product name		Easytop ball valve		Free-flow valve	Easytop Inox ball valve	Profipress G gas ball valve	Gas ball valve		
Model no.	2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6	2242, 2278	2375	2670, 2670.4, 2671, 2671.3	G2101			
Press connector material	gunmetal Silicon bronze		stainless steel	gunmetal Silicon bronze	brass				
Seal	EPDM	EPDM	EPDM	HNBR					
Medium	Comment	P _{max} [MPa]	T _{max} [°C]						
Urea solution	Max. concentration 40 %	1.0	40			✓			
Ethanol			25	✓	✓	✓			
Methanol	Caution: toxic!					✓			
Condensate	from gas-powered calorific value devices, not from oil-powered calorific value devices!	1.6	110			✓			
Condensate	of vapour			✓ ⁶⁾	✓ ⁶⁾	✓ ⁶⁾			
Caustic soda	50 % aqueous solution	1.0	60			✓			
Acetone	liquid		-10 to 40	✓	✓	✓			
Biogas – after biogas treatment	according to G260 and G262	0.5	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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