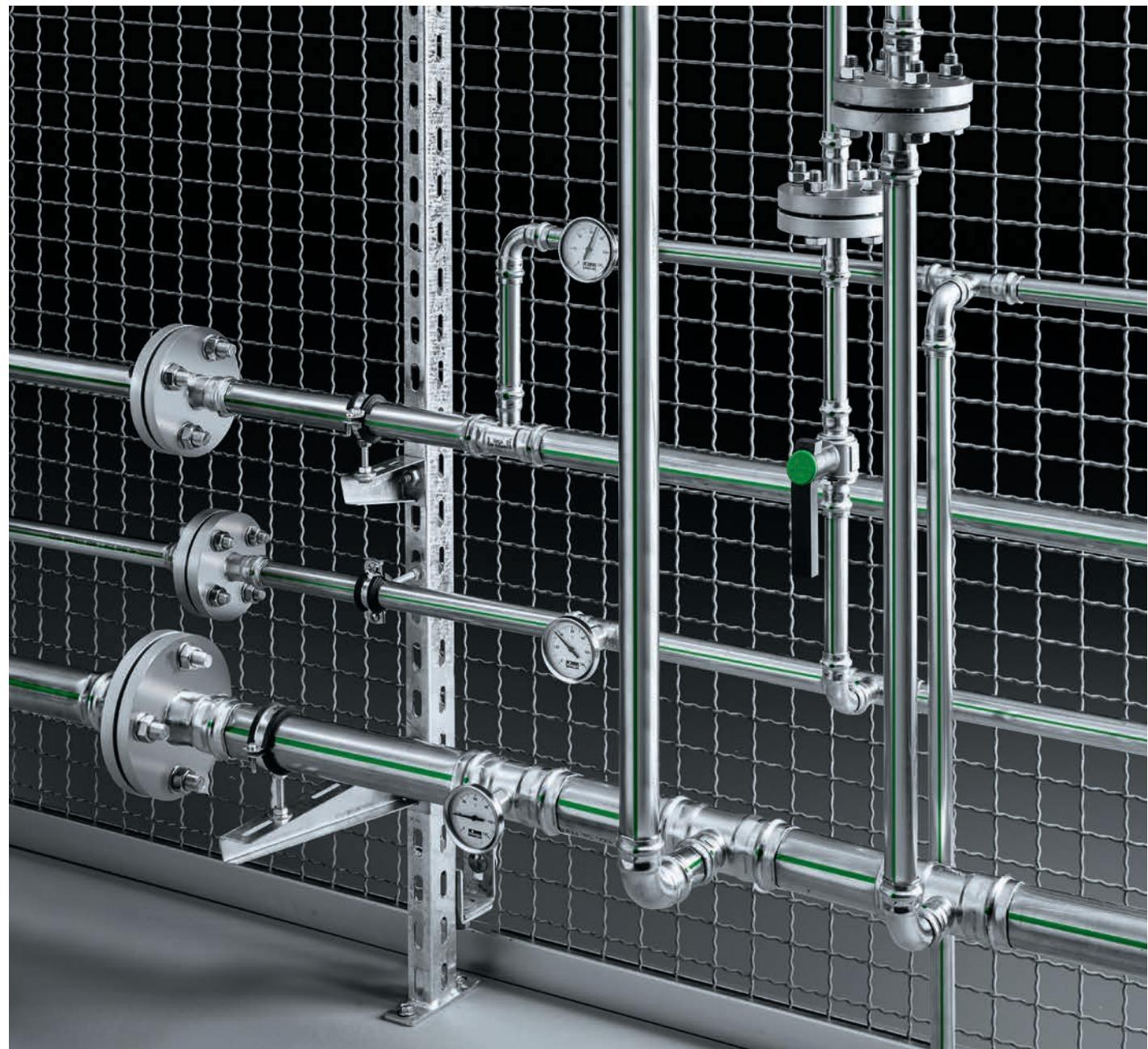


Information for planning and execution

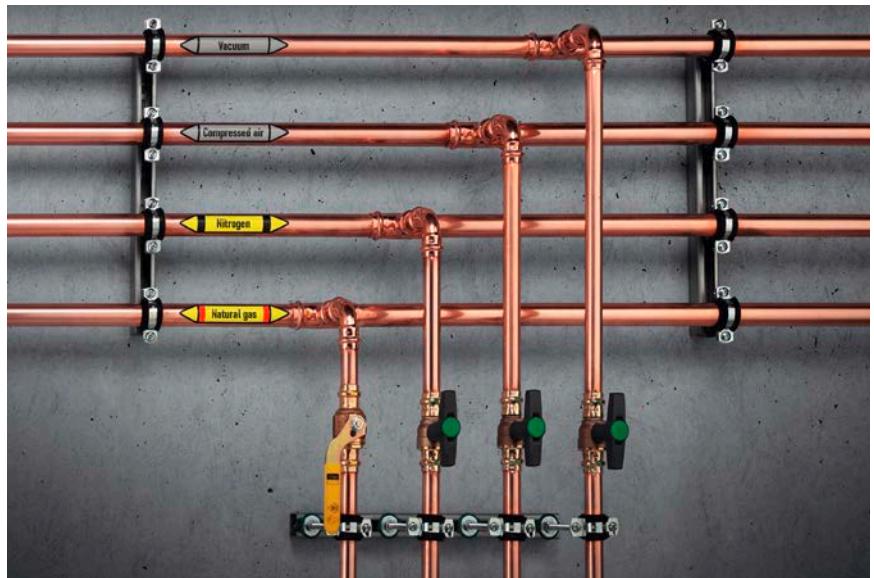
**Fields of applications
for metal installation systems**



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 press connector systems are not approved for pharmaceutical and food installations.

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	1000	100000	100	1000	0.1
0.001	1	100	0.1	1	0.0001
0.01	10	1000	1	10	0.001
0.1	100	10000	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	polished black
HNBR	Acrylonitrile butadiene rubber	Sanpress Inox G / Profipress G / Megapress G	yellow
FKM	Fluor rubber	Sanpress Inox / Sanpress / Profipress / Megapress S	matt black

1 Pipes and press connectors – transported media

1.1 Waters, frost and corrosion protection, heat carriers

System name	ProfiPress	ProfiPress S	Sanpress	Prestab	Mega-press	Mega-press S	Sea-press
Pipe material	copper	stainless steel	stainless steel	steel	steel	steel	CuNiFe
Connector material	copper gunmetal Silicon bronze	stainless steel	1.4521 1.4401 1.4520	galvanised gummetsilicon bronze	hot dip galvanised	zinc-nickel plated	CuNiFe
Sealing element	EPDM	FKM	EPDM	EPDM	EPDM	FKM	EPDM
p _{max} [MPa]	T _{max} [°C]						
Waters							
Medium	Comment						
Drinking water	Requirement according to DWO, DIN 50 930-6	✓	✓	✓	✓	✓	✓ ₉₎
Treated water (no drinking water)	Fully desalinated, deionised, demineralised, distilled (open system)	1.6	110				
Cooling water, closed circuit	Open systems available on request			✓ ₁₇₎			
Vapour	Low pressure steam units	≥ 25	✓ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₃₎	✓ _{2) 3)}	✓ ₇₎ ₁₀₎
Well water	Requirements in acc. with DWO	≤ 0.1	120	✓ ₁₎ ₁₂₎	✓ _{1) 2)}	✓ _{1) 2)}	✓ ₈₎ _{1) 2)}
Pump hot water heating systems	in acc. with DIN EN 12 828	1.6	110	✓	✓	✓	✓ ₁₀₎
		1.6	105	✓ ₁₀₎	✓ ₁₀₎	✓ ₁₀₎	✓ ₁₀₎

Anti-freeze / corrosion protection / cold and heat carrier

Product/manufacturer	Antifrogen N / Clariant	Antifrogen L / Clariant	Antifrogen Sol (solar installations) / Clariant	Ethyleneglycol (Ethan-1,2-diol)	Propylene glycol (1,2-Propanediol)	Tyfotix / Tyforop-Chemie	Tyfocor / Tyforop-Chemie	TEMPER® Antifrogen KF / Clariant Glysofor KF / Wittig
Anti-freeze, cooling brines concentration of 50%	✓ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₇₎ ₁₀₎
1.6 to 25	✓ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₇₎ ₁₀₎
to 110	✓ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₇₎ ₁₀₎
	✓ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₁₀₎ ₁₁₎	✓ ₇₎ ₁₀₎

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
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)

1.2 Oils

System name	Profipress	Sanpress		Profi-press G	Sanpress Inox G	Prestabo	Mega-press	Mega-press S	Mega-press G	Sea-press
		stainless steel	steel galvanised							
Pipe material	copper	1.4521	1.4520	1.4401	1.4520	1.4401	copper	stainless steel	steel galvanised	steel thick-walled
Connector material	copper gunmetal Silicon bronze	1.4521	1.4401	1.4401	1.4520	1.4401	copper gunmetal Silicon bronze	stainless steel	steel galvanised	CuNiFe
Sealing element	EPDM		EPDM		EPDM		HNBR	HNBR	EPDM	CuNiFe
Medium	Comment	p_{max} [MPa]	T_{max} [$^{\circ}$ C]							
Mineral oils SAE	15–108 mm/ $\frac{3}{8}$ –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 Flam- mable Liquids) 12–54 mm/ $\frac{1}{2}$ –2 inch	0.5	40							
Palm oil										
Rapeseed oil	DIN W 51805									
Soy oil		70								
Sunflower oil		1.0								
Biodiesel	EN 14214									
Palm oil heating		90								

¹⁾ sealing elements replaced for FKM⁴⁾ in connection with Viega stainless steel pipe 1.4521, 1.4520 and 1.4401⁸⁾ following coordination with the Attendorf factory

1.3 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													
					0	1	2	3	4	5	6	7	X	0	1	2	3	4	5	6	7	8	9	X	0	1	2	3
Profipress		EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Profipress S	Copper pipe acc. to DIN EN 1057	FKM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Profipress G		HNBR	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4521 model 2205/2205XL	FKM ⁽⁵⁾	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4520 model 2204/2204XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	FKM ⁽⁵⁾	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4521 model 2205/2205XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4520 model 2204/2204XL	EPDM	1,6	60	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	FKM ⁽⁵⁾	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4521 model 2205/2205XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4520 model 2204/2204XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	FKM ⁽⁵⁾	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	HNBR	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4521 model 2205/2205XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4520 model 2204/2204XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4401 model 2203/2203XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4521 model 2205/2205XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1.4520 model 2204/2204XL	EPDM	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

⁽²⁾ EPDM sealing element for oil concentrations < 25 mg/m³⁽³⁾ Recommendation for classes 1 to 3: Flush the line before commissioning⁽⁵⁾ 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								
					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 FKM ⁽⁵⁾	O	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Externally galvanised model 1103/1103XL	EPDM FKM ⁽⁵⁾	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Prestabo	PP coated model 1104	EPDM FKM ⁽⁵⁾	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	Externally and internally galvanised model 1106/1106XL	EPDM FKM ⁽⁵⁾	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Prestabo LF	Externally galvanised model 1103/1103XL	EPDM	1,6	60	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	PP coated model 1104	EPDM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Megapress	Externally and internally galvanised model 1106/1106XL	EPDM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Steel pipes according to DIN EN 10255	EPDM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Megapress S	DIN EN 10220	FKM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	DIN EN 10216-1	HNBR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Megapress G	DIN EN 10217-1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

⁽²⁾ EPDM sealing element for oil concentrations < 25 mg/m³⁽³⁾ Recommendation for classes 1 to 3: Flush the line before commissioning⁽⁵⁾ 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

1.4 Gases

System name	Profipress	Profi-press S	Sanpress stainless steel	Profi-press G	Sanpress Inox G	Prestabo steel	Mega-press steel	Mega-press S steel	Mega-press G steel	Sea-press G CuNi-Fe
Pipe material	stainless steel	copper	stainless steel	copper	stainless steel	galvanised	steel	thick-walled		
Connector material	copper	gummel	gummel	copper	stainless steel	galvanised	steel	zinc-nickel plated		CuNi-Fe
Sealing element	EPDM	FKM	EPDM	HNBR	HNBR	EPDM	EPDM	FKM	HNBR	EPDM
Medium		p_{\max} T _{max} [MPa] [°C]								
Natural gas										
Liquid gases, propane, butane, methane	according to G 260	0.5								
Acetylene	Test pressure 2.4 MPa	0.15								
Argon	12–54 mm/3/8–2 inch	1.6	✓	✓	✓	✓	✓	✓	✓	
Carbogen	64–108 mm/2½–4 inch	1.0	✓	✓	✓	✓	✓	✓	✓	
Oxygen – O ₂	CO ₂ + O ₂ dry	1.6	✓	✓	✓	✓	✓	✓	✓	
Nitrogen – N ₂	64–108 mm/2½–4 inch	1.0	✓	✓	✓	✓	✓	✓	✓	
Hydrogen – H ₂	Keep free of oil and grease	1.0	✓	✓	✓	✓	✓	✓	✓	
Carbon dioxide – CO ₂	Downstream of the vapouriser	1.6	✓	✓	✓	✓	✓	✓	✓	
Carbon monoxide – CO	dry	1.6	✓	✓	✓	✓	✓	✓	✓	
	Stainless steel parts not permitted	1.6	✓	✓	✓	✓	✓	✓	✓	
	12–54mm	1.6	✓	✓	✓	✓	✓	✓	✓	
	64–108mm	1.0	✓	✓	✓	✓	✓	✓	✓	
	12–54mm	1.6	✓	✓	✓	✓	✓	✓	✓	
	64–108mm	1.0	✓	✓	✓	✓	✓	✓	✓	
	12–54mm	1.6	✓	✓	✓	✓	✓	✓	✓	
	64–108mm	1.0	✓	✓	✓	✓	✓	✓	✓	

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

1) sealing elements replaced for FKM

4) In connection with Viega stainless steel pipe 1.4521, 1.4520 and 1.4401

7) BAM certified

8) following coordination with the Attendorf factory

14) TÜV certified

16) ≤ DN 25 / also applies for Sanpress Inox LF (abs-free)

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

System name	Profipress pipe material	Profipress S		Sanpress stainless steel		Profipress G		Sanpress Inox G		Prestabo steel		Mega-press G		Mega-press S		Mega-press G		Sea-press			
		copper	stainless steel	1.4401	1.4521	copper	stainless steel	1.4401	1.4521	copper	galvanised	steel	hot dip galvanised	steel	thick-walled	EPDM	FKM	HNBR	EPDM	HNBR	EPDM
Connector material	stainless steel	copper	1.4520	1.4521	stainless steel	gunmetal Silicon bronze	1.4520	1.4521	gunmetal Silicon bronze	stainless steel	galvanised	steel	zinc-nickel plated	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	CuNiFe
Sealing element	EPDM	FKM	EPDM	FKM	EPDM	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	HNBR	EPDM
Gases*	Medium	Comment	P _{max} [MPa]	T _{max} [°C]	70	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coarse vacuum	P _{abs} = 1 hPa	Ar + CO ₂ (e.g. corargon)	1.6	1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Forming gas, dry/inert gas	15–54 mm / ½–2 inch	1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrous oxide (laughing gas)	64–108 mm / 2½–4 inch	1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ethane	12–54 mm	1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ethane	64–108 mm	1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ethene (ethylene)	12–54 mm	1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Helium	64–108 mm	1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Krypton	12–54 mm	1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Neon	64–108 mm	1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Propene (propylene)	15–54 mm	1.6	✓ ¹⁾	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Xenon	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

1.5 Special media - Examined and approved

System name	ProfiPress	Sanpress	ProfiPress G	Sanpress Inox G	Prestab G	Mega-press S	Mega-press G	Sea-press
pipe material	copper stainless steel 1.4520	stainless steel 1.4521	1.4401	1.4520	1.4401	stainless steel galvanised	steel thick-walled	CuNiFe
Press connector material	copper gunmetal Silicon bronze	stainless steel	gunmetal Silicon bronze	copper gunmetal Silicon bronze	copper	steel galvanised	steel zinc-nickel plated	CuNiFe
Sealing element	EPDM	EPDM	EPDM	HNBR	HNBR	EPDM	FKM	HNBR EPDM
	p_{max} [MPa]	T_{max} [°C]						
Medium	Comment							
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		✓	✓	✓		
Condensate of vapour		110		✓	✓	✓	✓	✓
Glycerine triacetate	0.1			✓	✓	✓		
Caustic soda	30 % aqueous solution		20	✓	✓	✓		
Caustic soda	50 % aqueous solution	1.0		✓	✓	✓		
Acetone	liquid	0.5	-10 to 40	✓	✓	✓	✓	
Ammoniac	Medium free from $\text{CO}_2 + \text{H}_2\text{O}$ Caution: toxic!	0.2	25	✓	✓	✓		
Biogas – before biogas treatment	45–70 % $\text{CH}_4 / 20–45 % \text{CO}_2 / \text{H}_2\text{S} < 30 \text{ mg/m}^3$	0.5	70				✓	
Biogas – after biogas treatment	according to G260 and G262					✓	✓	
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 $p_{max} = 0.1 \text{ MPa}$
 ⑥) without contamination
 ⑧ following coordination with the Attendorf factory

2 Valves – transported media

2.1 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, 2270.1, 2270.2, 2270.10, 2275, 2275.1, 2275.2, 2275.3, 2275.4	2242, 2278	2370	2670, 2670.4, 2671, 2671.3	G2101
Medium	Press connector material	Seal	EPDM	EPDM	HNBR	
Drinking water	Requirement acc. to DWO, DIN 50 930-6		✓	✓	✓	✓
Treated water (no drinking water)	Fully desalinated, deionised, demineralised, distilled (open system)		110			✓
Cooling water, closed circuit	Open systems available on request	1.6	✓	✓	✓	✓
Well water	Requirements in acc. with DWO	≥ -25	✓	✓	✓	✓
Pump hot water heating systems	in acc. with DIN EN 12 828	-110	✓	✓	✓	✓
		105	✓	✓	✓	✓

Product/manufacturer	Antifrogen N / Clariant	Antifrogen L / Clariant	Antifrogen Sol (solar installations) / Clariant	Ethylene glycol (Ethan-1,2-diol)	Propylene glycol (1,2-Propanediol)	Tyfoxit / Tyforop-Chemie	Tyfocor / Tyforop-Chemie	Kemper® Antifrogen KF / Clariant
Anti-freeze, cooling brines concentration of 50%	1.6	-25 to -110	✓	✓	✓	✓	✓	✓
Potassium Acetate/-formic acid				✓	✓	✓	✓	✓

Anti-freeze / corrosion protection / cold and heat carrier

2.2 Oils

Oils	Product name	Easytop ball valve	Free-flow valve	Easytop Inox ball valve	ProfiPress G gas ball valve	Gas ball valve
Medium	Comment	P _{max} [MPa]	T _{max} [°C]			
Mineral oils SAE		1.6			✓	✓
Palm oil					✓	✓
Rapeseed oil	DIN W51805		70		✓	✓
Soy oil					✓	✓
Sunflower oil					✓	✓
Palm oil heating	Valves not in palm oil	90	✓	✓	✓	✓

2.3 Gases

		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	2370	2670, 2670.4, 2671, 2671.3
		Press connector material	gummatal Silicon bronze	gummatal Silicon bronze	stainless steel	gunmetal Silicon bronze	brass
Medium	Comment	p_{max} [MPa]	T_{max} [°C]				
Compressed air	Oil concentration ≤ 25 mg/m³ 12–54 mm 64–108 mm	1.6		✓	✓	✓	✓
Natural gas	according to G 260	0.5					
Liquid gases, propane, butane, methane							
Argon	12–54 mm 64–108 mm	1.6 1.0		✓	✓	✓	✓
Carbogen	$CO_2 + O_2$ dry	1.6 60	12–54 mm 64–108 mm	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Nitrogen – N₂						✓	✓
Hydrogen – H₂						✓	✓
Carbon dioxide – CO₂	dry	1.6	12–54 mm 64–108 mm	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Carbon monoxide – CO	Stainless steel parts not permitted	1.6 1.0	12–54 mm 64–108 mm	✓ ✓	✓ ✓	✓ ✓	✓ ✓

* Purity requirements acc. to DIN EN 437 available on request
⁵⁾ in case of HTR (higher thermal resistance) requirement, max. permitted operating pressure $p_{max} = 0.1 \text{ MPa}$

	Product name	Easytop ball valve	Free-flow valve	Easytop Inox ball valve	Profiplus G gas ball valve	Gas ball valve
Gases*	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	2370	2670, 2670.4, 2671, 2671.3
	Press connector material	gunmetal Silicon bronze	stainless steel	stainless steel	EPDM	gumminal Silicon bronze
	Seal	EPDM	EPDM	EPDM	HNBR	
Medium	Comment	P _{max} [MPa]	T _{max} [°C]			
Coarse vacuum	P _{abs} = 1hPa	70	✓	✓	✓	✓
Forming gas, dry/inert gas	Ar + CO ₂ (e.g. cargon)	1.6	✓	✓	✓	✓
Nitrous oxide (laughing gas)	12–54 mm 64–108 mm	1.0				
Ethane	12–54 mm 64–108 mm	1.6 1.0	✓	✓	✓	✓
Ethene (ethylene)	12–54 mm 64–108 mm	1.6 1.0		✓	✓	
Helium	15–54 mm 64–108 mm	1.6 1.0	60	✓	✓	
Krypton	15–54 mm 64–108 mm	1.6 1.0		✓	✓	
Neon	15–54 mm 64–108 mm	1.0		✓	✓	
Xenon	15–54 mm 64–108 mm	1.6 1.0		✓	✓	
Synthetic air	12–54 mm 64–108 mm	1.6 1.0		✓	✓	✓

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

2.4 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.	Press connector material	Seal	EPDM	EPDM	HNBR	G2101			
Urea solution	2270, 2270.4, 2270.10, 2275, 2275.3, 2275.4	2270.1, 2270.2, 2275.1, 2275.2, 2275.5, 2275.6	gummel Silicon bronze	stainless steel	gummel	stainless steel	gummel	2670, 2670.4, 2671, 2671.3	2670, 2670.4, 2671, 2671.3	2670, 2670.4, 2671, 2671.3	G2101
Ethanol											
Methanol	Caution: toxic!		25		✓	✓	✓				
Condensate	from gas-powered calorific value devices, not from oil-powered calorific value devices!	1.6	110			✓					
Condensate of vapour				✓ 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⁾	✓ 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 $p_{max} = 0.1 \text{ MPa}$

⁶⁾ without contamination

3 Appendix – Form

3.1 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*	<input type="checkbox"/> Indoor	<input type="checkbox"/> Outdoor		
Type of installation*	<input type="checkbox"/> open	<input type="checkbox"/> closed		
Stagnation*	<input type="checkbox"/> yes	<input type="checkbox"/> no		
Ambient conditions*	<input type="checkbox"/> Interior spaces	<input type="checkbox"/> Country air	<input type="checkbox"/> City air	<input type="checkbox"/> Sea air
	<input type="checkbox"/> Industrial air	<input type="checkbox"/> Other:		
desired service life*	<input type="checkbox"/> < 1 year	<input type="checkbox"/> 1–5 years	<input type="checkbox"/> 5–10 years	<input type="checkbox"/> > 10 years

Free text field	

¹ Mandatory fields



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