

Information for planning and execution
Fields of applications
for metal installation systems

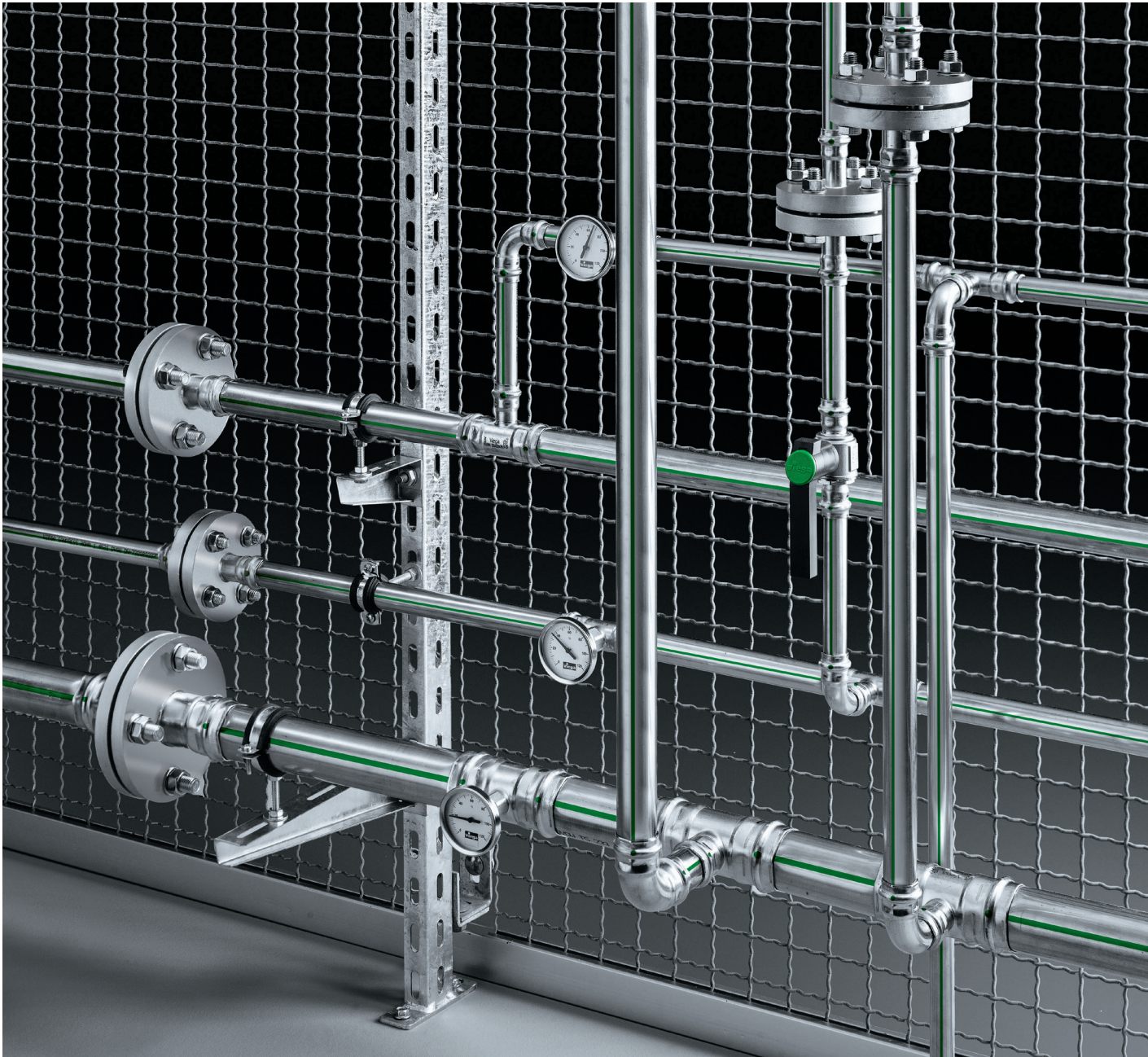
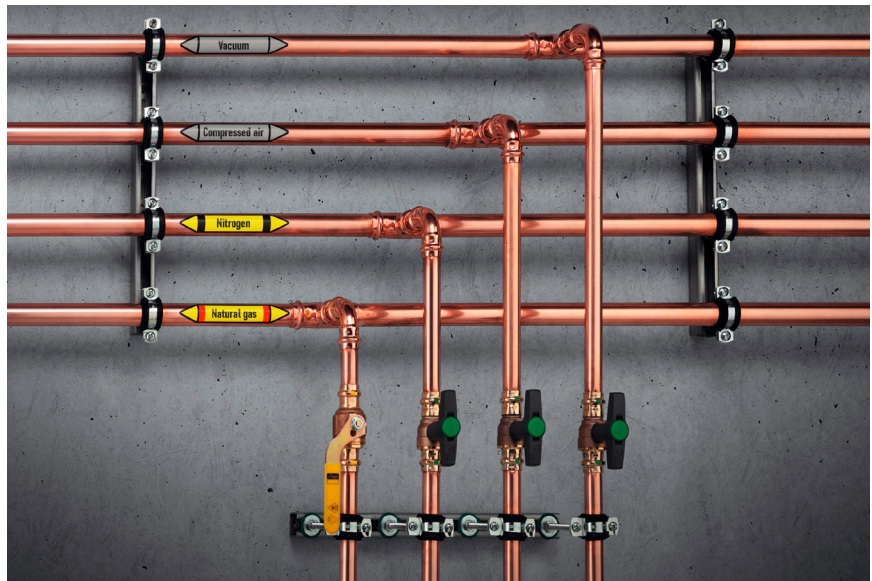


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For many years, Viega press connecting technology with the Propress and Sanpress Inox systems has proved its worth for use in drinking water and mechanical services installations. Increasingly often, it is now used in industrial systems with special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

This document 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.



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.

Sealing elements – Technical data

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

1 Pipes and press connectors – transported media

1.1 Waters, frost and corrosion protection, heat carriers

System name	P	T [°C]	Propress	Propress G		Sanpress Inox		Sanpress Inox G		Sea-press
				copper	copper bronze	stainless steel	1.4401	stainless steel	1.4401	
Water supply systems										
Medium			Remark							
Hot and cold potable water			Australian Watermark approved, N.B. Watermark certification for all plumbing products is restricted 1400 kPa at 95 °C which is below this system's capability	✓		✓				
Treated water (Not drinking water)	1600	110	Partially and fully desalinated water, softened, deionised demineralised distilled (open system)	✓		✓				
Chilled water, closed circuit		≥ -25	Open systems available on request	✓		✓			✓	
Steam	≤ 100	120	low pressure steam equipment	✓ ²⁾		✓ ^{1/2)}			✓ ^{1/2)}	
Well Water		110		✓		✓				
Pump circulated HW systems		105	Compliant with EN 12828	✓		✓				✓
Solar systems (flat-panel collectors)			System capable of handling 200 °C as a peak temperature	✓		✓				
Solar systems (Evacuated tube collectors)	1600			✓ ³⁾		✓ ^{1/2)}				
Fire Services		110	Capable of handling the required test pressure of 1700 kPa or 1.5 times the design pressure as specified by AS2419.1	✓		✓				
Greywater / Rainwater				✓						
Reverse Osmosis	1300	120	< 1 M ohm			✓				
Anti-freeze / Corrosion protection/Inhibitors										
			Remark							
			Antifrogen N / Clariant	✓		✓				✓
			Antifrogen L / Clariant	✓		✓				✓
			Antifrogen Sol (solar installations) / Clariant	✓		✓				✓
Anti-freeze, cooling brines concentration 50 %		-25 to 110	Ethylene glycol (Ethan-1.2-diol)	✓		✓				✓
	1600		Propylene glycol (1.2-Propandiol)	✓		✓				✓
			Tyfoxit / Tyforop-Chemie	✓		✓				✓
			Tyforop / Tyforop-Chemie	✓		✓				✓
Potassium Acetate/ -formiat brine			TEMPER®	✓		✓				✓
			Antifrogen KF / Clariant							
			Glysofor KF / Wittig							
<p>P [kPa] Maximum safe working pressure (continuous operating pressure), greater short duration peaks possible</p> <p>T [°C] Maximum continuous operating temperature, greater short duration peaks possible</p> <p>¹⁾ Sealing elements replaced for FKM</p> <p>²⁾ Without additives</p> <p>³⁾ Fittings must not be installed within two metre of the manifold.</p>										

1.2 Oils

Oils, cooling materials and lubricants

Medium	Remark	System name		Propress	Propress G	Sanpress Inox	Sanpress Inox G	Sea-press
		Pipe material	Connector material					
		P [kPa]	T [°C]	copper	copper	stainless steel 1.4401	stainless steel 1.4401	CuNiFe
Mineral Oils SAE	15–108 mm / 3/8–4 inch	1600	70					
Fuel oil to DIN 51603-1 Diesel acc. to DIN EN 590		500	40		✓			
Palm Oil								
Canola Oil (Rapeseed Oil)	DIN W 51805							
Soy Oil			70					
Sunflower Oil		1000						
Biodiesel	EN 14214 / ASTM D6751					✓ ¹⁾		
Palm Oil Heating			90			✓ ¹⁾		

P [kPa] Maximum safe working pressure (continuous operating pressure), greater short duration peaks possible

T [°C] Maximum continuous operating temperature, greater short duration peaks possible

¹⁾ Sealing elements replaced for FKM

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

System name	Pipe material	Sealing element ⁹⁾ [kPa]	P	T [°C]	Solid particles ¹⁰⁾ 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					
Propress	Copper pipe acc. to AS 1432	EPDM			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					
		HNBR			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					
Sanpress Inox	1.4401 model 2203/2203XL	EPDM	1600	60	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					
Sanpress Inox G	1.4401 model 2203/2203XL	HNBR			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			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					
		FKM ¹¹⁾			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					

⁹⁾ EPDM sealing element for oil concentrations < 25 mg/m³

¹⁰⁾ Recommendation for classes 1 to 3: Flush the line before commissioning

¹¹⁾ 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

Medium	Remark	P [kPa]	T [°C]	Propress		Propress G		Sanpress Inox		Sanpress Inox G		Sea- press		
				material	Sealing element	material	Sealing element	material	Sealing element	material	Sealing element	material	Sealing element	
Natural gas	Australian Gas approved, N.B. The scope of AS5601 for all gas system is restricted 200 kPa which is below this system's capability	500	70	copper	EPDM	copper	HNBR	stainless steel	EPDM	stainless steel	1.4401	stainless steel	1.4401	CuNi- Fe
Liquid gas, Propane, Butane, Methane		1600												
Argon		1000												
Carbogen	CO ₂ + O ₂ dry	1600												
Oxygen – O ₂	Keep free of oil and grease (non medical use)	1000												
Nitrogen – N ₂	Downstream of the vaporiser, after the evaporator	1600	60											
Hydrogen – H ₂		1000												
Carbon dioxide – CO ₂	Dry	500												
Carbon monoxide – CO	Stainless steel components not permitted	1600												

P [kPa] Maximum safe working pressure (continuous operating pressure), greater short duration peaks possible

T [°C] Maximum continuous operating temperature, greater short duration peaks possible

1.5 Special media - Examined and approved

Special media

Medium	Comment	P [kPa]	T [°C]	Propress		Propress G		Sanpress Inox		Sanpress Inox G		Seapress	
				pipe material	connector material	Sealing element	pipe material	connector material	Sealing element	pipe material	connector material	Sealing element	pipe material
Urea solution	Max. concentration 40 %	1000	40				stainless steel 1.4401	stainless steel 1.4401	stainless steel 1.4401	stainless steel 1.4401			
Ethanol	Pure grain alcohol		25	✓									
Methanol	Caution: toxic!												
Condensate	From gas powered calorific value devices, not from oil-powered calorific value devices	1600	110										
Condensate	Of vapour			✓ ⁴⁾									✓
Glycerine triacetate		100	20										
Cautic soda	30 % aqueous solution	1000											
Cautic soda	50 % aqueous solution		60										
Acetone	Liquid	500	-10 to 40	✓									
Ammoniac – gaseous	Medium free from CO ₂ + H ₂ O Caution: toxic!	200	25										
Biogas – before treatment	45–70 % CH ₄ / 20–45 % CO ₂ / H ₂ S < 30 mg/m ³	500	70										✓
Biogas – after treatment													✓
Fermenter heating	Substrate temperature 65 °C	1000	105										✓

⁴⁾ without contamination

2 Appendix – Form

2.1 Inquiry regarding material durability

Inquiry regarding material durability

Global Service & Consulting-Team Application



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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