## Viega Approved Applications



## **Metals Systems**

			Product Line, Material, and Sealing Element <sup>2</sup>									
Media <sup>1</sup>	System Operating Conditions			ProPress		MegaPress Stainless		ProPress and MegaPress Stainless		MegaPress N		
				Copper			304	316		Carbon Steel		eel
	Comments	Max Pressure (psig)	Temperature Range (°F)	EPDM	FKM	HNBR	FKM	EPDM	FKM	EPDM	FKM	HNBR
Water/Liquids												
Hot and Cold Potable Water Test pressure 600 psi		300		✓				1				
Rainwater / Graywater		ProPress	See note <sup>3</sup>	✓	1		✓	1	✓			
Chilled Water	≤50% Ethylene / Propylene glycol	Copper		✓	✓		✓	1	1	✓	1	
Hydronic Heating Water9	≤50% Ethylene / Propylene glycol	250	250 ProPress Valves		✓		✓	1	1	✓	1	
Treated Water	Fully desalinated, deionized, demineralized, distilled (open system)	ProPress					1	1	1			
Reverse Osmosis Water	<1 ΜΩ	200 32° to 250° ProPress Stainless and all MegaPress					1	1	1			
Paraffin Wax			Max 100°				1		1			
Methyl Ethyl Ketone								1				
Isopropyl Alcohol		200	Ambient <sup>5</sup>				1	1	1	1	1	
Nitric Acid	Concentration ≤10%						/	1	1			
Phosphoric Acid	Concentration ≤25%							1	1			
Fire Sprinkler	NFPA 13, 13D, 13R	175					/	1	1	1	1	
Steam	Low-pressure	15	Max 250°		<b>/</b> 4		✓4		<b>√</b> 4		<b>J</b> 4	
	Residential	5	Max 227°	<b>/</b> 4	<b>/</b> 4		<b>/</b> 4	<b>√</b> <sup>4</sup>	<b>J</b> 4	<b>/</b> 4	<b>/</b> 4	
Fuels/Oils/Lubricants	Down amain also had											
Ethanol	Pure grain alcohol		Ambient⁵	<b>√</b>			,	1				
Mineral Oil	Detrologies have d	200	M 4.500				1		1		<b>/</b>	/
Lube Oil	Petroleum based		Max 150° See note 3			1	1		1		1	/
Diesel Exhaust Fluid (DEF)			(10° minimum)				✓	1	✓			
Biodiesel	ASTM D6751	140	Max 150°						1		1	
Propane			-40° to 180°  Max 100°									<b>√</b> 6
Butane												<b>√</b> 6
Natural Gas	Primarily methane											<b>√</b> 6
Heating Fuel Oil						1	1		1		1	<b>√</b> 10
Diesel Fuel		125				1	1		1		1	<b>√</b> 10
Kerosene			Max 68°				1		1		1	
Gear Oil	Lubricant		See note <sup>3</sup>				1		1		1	1
Automatic Transmission Fluid							1		1		1	1
Hydraulic Oil							1		1		1	<b>√</b> 8
Engine Oil							1		1		1	<b>√</b> 8, 10
Engine Coolant							1	1	1	1	1	
Waste Oil							1		1		1	<b>√</b> 8, 10

- 1 It is recommended that all systems be clearly labeled with the media being conveyed. For further information please consult Viega Technical Services.
- <sup>2</sup> All Viega systems must be used with the manufacturer's recommended sealing element. Contact your local Viega representative or Viega Technical Services for specific application temperature, pressure, and concentration limits.
- System pressure and temperature ranges depend on sealing element. Any ranges listed above will be overruled by the sealing element limits here: EPDM temperature ranges are typically 0°F to 250°F.
   FKM temperature ranges are typically 14°F to 284°F with temperature spikes (24 hours) up to 356°F.
- <sup>3c</sup> HNBR temperature ranges are typically -40°F to 180°F.
- System must contain adequate condensate drainage.
   Ambient temperatures should be taken as normal operating conditions for the applications not to exceed sealing element limitations.
- Compliant with CSA 6.32 / ANSI LC-4.
- 7 All copper or copper alloy components that are exposed in ammonia environments require lacquer or paint coating.
  8 HNBR sealing elements are not recommended for silicone based oils.
- It is a Viega engineering best practice that for heating applications using EPDM, where the media will be running continuously, non-stop at 200°F or above, to consider switching to an FKM sealing element.
   MegaPressG fittings with HNBR sealing elements are compliant with standard UL 180 for combustible liquid applications.
   Tubing with oxygen barrier should be used for systems with ferrous components.



Viega ProPress and MegaPress systems are approved for over 2,500 applications. For information on additional applications to those listed, please contact technicalservices@viega.us.



				Product Line, Material, and Sealing Element <sup>2</sup>									
Media¹	System Operating Conditions			ProPress Copper			MegaPress Stainless	ProPress and MegaPress Stainless 316		MegaPress MegaPre		MegaPressG	
							304					teel	
	Comments	Max Pressure (psig)	Temperature Range (°F)	EPDM	FKM	HNBR	FKM	EPDM	FKM	EPDM	FKM	HNBR	
Gases													
Compressed Air	Oil Concentration ≤25 mg/m³ Oil Concentration >25 mg/m³		Max 140°	√	√ √	✓ ✓	✓ ✓	✓	√ √	√4	√4 √4	√4 √4	
Nitrogen - N <sub>2</sub>				1	1	1	✓	1	1	✓	1	1	
Carbon Dioxide - CO <sub>2</sub>	Dry			✓	1	1	✓	1	1	1	1	1	
Carbon Monoxide - CO		200		1	1	1							
Argon - Ar		1		1	1	1	1	1	1	✓	1	1	
Ammonia	Anhydrous	7 [	Max 120°					1					
Ammonia	Ammonia environment <sup>7</sup>			1	1	1	1	1	1	✓	1	1	
Oxygen - O <sub>2</sub>	Non-medical Keep free of oil and grease	140	140 Max 140°					1		✓			
Hydrogen - H <sub>2</sub>		125		✓	1	✓	✓	1	1	✓	✓	<b>√</b>	
Acetylene	Test pressure 350 psi	20	Ambient <sup>5</sup>				✓	1	1	✓	✓	1	
Vacuum	Minimum absolute pressure Maximum differential pressure	750µm Hg 29.2" Hg	Max 160°	1	1	1	1	1	1	✓	1	1	
Special Media													
Methanol		200	75°					1					
Latex Paint		200	32° to 250°					1	1				
Urea Solution	Concentration ≤40%	140	100°					1					
Caustic Soda	Concentration ≤50%	140	140°					1					
Acetone	Liquid	70	-14° to 104°	1				1					

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- Pressure, and concentration limits.

  System pressure and temperature ranges depend on sealing element. Any ranges listed above will be overruled by the sealing element limits here:

  BYPDM temperature ranges are typically 10°F to 250°F.

  KM temperature ranges are typically 14°F to 284°F with temperature spikes (24 hours) up to 356°F.

  KNBR temperature ranges are typically -40°F to 180°F.

  System must contain adequate condensate drainage.
- Ambient temperatures should be taken as normal operating conditions for the applications not to exceed sealing element limitations.
   Compliant with CSA 6.32 / ANSI LC-4.
- All copper or copper alloy components that are exposed in ammonia environments require lacquer or paint coating.
   HNBR sealing elements are not recommended for silicone based oils.
- It is a Viega engineering best practice that for heating applications using EPDM, where the media will be running continuously, non-stop at 200°F or above, to consider switching to an FKM sealing element. 

  MegaPressG fittings with HNBR sealing elements are compliant with standard UL 180 for combustible liquid applications. 

  Tubing with oxygen barrier should be used for systems with ferrous components.

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## **Plastics Systems**

Media <sup>1</sup>	System Operatin	ng Conditions	Product Line				
wedia.	Comments Temperature / Pressure F		PureFlow PEX, Barrier PEX <sup>11</sup>				
Batalia Matar / Bairmatar / Ownerstan		160 psi @ 73°F	,				
Potable Water / Rainwater / Greywater		100 psi @ 180°F	<b>Y</b>				
		160 psi @ 73°F					
Chilled Water / Hydronic Heating Water <sup>11</sup>	≤50% Ethylene / Propylene glycol	100 psi @ 180°F	✓				
		80 psi @ 200°F11					

- 1 It is recommended that all systems be clearly labeled with the media being conveyed. For further information please consult Viega Technical Services.

  2 All Viega systems must be used with the manufacturer's recommended sealing element. Contact your local Viega representative or Viega Technical Services for specific application temperature, pressure, and concentration limits.
- System pressure and temperature ranges depend on sealing element. Any ranges listed above will be overruled by the sealing element limits here:
   EPDM temperature ranges are typically 0°F to 250°F.
   FKM temperature ranges are typically 14°F to 284°F with temperature spikes (24 hours) up to 356°F.
- 3c HNBR temperature ranges are typically -40°F to 180°F. System must contain adequate condensate drainage.
- <sup>5</sup> Ambient temperatures should be taken as normal operating conditions for the applications not to exceed sealing element limitations.
- <sup>6</sup> Compliant with CSA 6.32 / ANSI LC-4.
- All copper or copper alloy components that are exposed in ammonia environments require lacquer or paint coating.
- <sup>8</sup> HNBR sealing elements are not recommended for silicone based oils.
- It is a Viega engineering best practice that for heating applications using EPDM, where the media will be running continuously, non-stop at 200°F or above, to consider switching to an FKM sealing element. 

  10 MegaPressG fittings with HNBR sealing elements are compliant with standard UL 180 for combustible liquid applications.
- <sup>11</sup>Tubing with oxygen barrier should be used for systems with ferrous components.



This document is subject to updates. For the most current Viega technical literature please visit www.viega.us.



Viega products are designed to be installed by licensed and trained plumbing and mechanical professionals who are familiar with Viega products and their installation. Installation by

non-professionals may void Viega LLC's warranty.



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