Recommended High Temperature System Components & Suppliers

Pipe

**Flanged Installation**
To 1-1/2" diameter
ASTM A-106 Grade B schedule 40 seamless carbon steel pipe

Greater than 2"
ASTM A-53 Grade B schedule 40 seamless carbon steel pipe

**Threaded Installation**
To 1" diameter
ASTM A-106 Grade B schedule 80 carbon steel pipe

From 1" to 2"
ASTM A-106 Grade B schedule 40 carbon steel pipe

Greater than 2"
Threaded installations are not recommended

Flanges

To 4" pipe diameter
ASTM A-181 1/16" raised face 300 lb rating

Greater than 4"
ASTM A-181 1/16" raised face 150 lb rating

Flange Gaskets

Flexible graphite
(Grafoil™, Garlock™ or equal).

Expanded/filled PTFE below
450°F/232°C (Goretx™, Garlock™ or equal)

Bolts
ASTM A-193 Grade B7

Nuts
ASTM A-194 Grade 2H

Thread Sealant
Deacon 770 P or L or LA-CO Slic-tite Paste

Valves

Control valves
Globe valves provide metal to metal sealing

Isolation Valves
Gate valves provide 100% shut off, 0 pressure drop when open

Positive Displacement
Viking Internal Gear Universal Seal

Pump Seals
Tungsten carbide vs silicon carbide face type mechanical seals are recommended

O-Rings/Seals
To 250°F/121°C
Nitrile rubber

To 400°F/204°C:
Fluoroelastomer (Viton™ or equal)

Above 400°F/204°C:
Perfluoroelastomer (Chemraz™, Zalak™, Kalrez™ or equal).

Insulation
Closed cell (Pittsburgh Corning foamed glass) is recommended for all installations.

Mineral fiber, fiber glass or calcium silicate can be installed on straight pipe runs or other locations where the potential for leaks is low. The material should not be used with 2’ of a potential leak point. Flanges should not be insulated.

Questions? We’d like to hear from you. Call toll-free, 800-222-3611, or fax or e-mail us, or visit our website, www.paratherm.com.

Note: The information and recommendations in this literature are made in good faith and are believed to be correct as of the below date. You, the user or specifier, should independently determine the suitability and fitness of Paratherm heat transfer fluids for use in your specific application. We warrant that the fluids conform to the specifications in Paratherm literature. Because our assistance is furnished without charge, and because we have no control over the fluid’s end use or the conditions under which it will be used, we make no other warranties—expressed or implied, including the warranties of merchantability or fitness for a particular use or purpose (recommendations in this bulletin are not intended nor should be construed as approval to infringement on any existing patent). The user’s exclusive remedy, and Paratherm’s sole liability is limited to refund of the purchase price or replacement of any product proven to be otherwise than as warranted. Paratherm will not be liable for accidental or consequential damages of any kind. Some product names of companies found in Paratherm literature are registered trademarks. This statement is in lieu of individually noting each.