Paratherm™
HEAT TRANSFER FLUIDS
A Division of Lubrizol

Rev. 716

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 (Goretex™, 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

Pumps

Centrifugal
Dean (RA2000/3000 series),
MP (HTO series)

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**.

2009 Renaissance Boulevard ▪ King of Prussia, PA 19406 USA ▪ +1 610-941-4900 ▪ +1 **800-222-3611** ▪ FAX +1 610-941-9191
E-mail: info@paratherm.com ▪ Web: www.paratherm.com