

# **RECOMMENDED HIGH TEMPERATURE SYSTEM COMPONENTS & SUPPLIERS**



## 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<sup>™</sup>, Garlock<sup>™</sup> or equal).

**Expanded/filled PTFE below** 450°F/232°C (Goretex<sup>™</sup>, Garlock<sup>™</sup> 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<sup>™</sup> or equal)

Above 400°F/204°C: Perfluoroelastomer (Chemraz<sup>™</sup>, Zalak<sup>™</sup>, Kalrez<sup>™</sup> 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.

Founded in 1988, Paratherm—Heat Transfer Fluids has become a leading U.S. manufacturer of specialized heat transfer fluids and system cleaners. The firm offers a wide range of heat transfer fluids (currently 8 fluids and 3 cleaners) covering temperatures from -137°F to +650°F. The company has a network of distributors and warehousing locations throughout North America and globally to offer regional service and quick delivery.

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