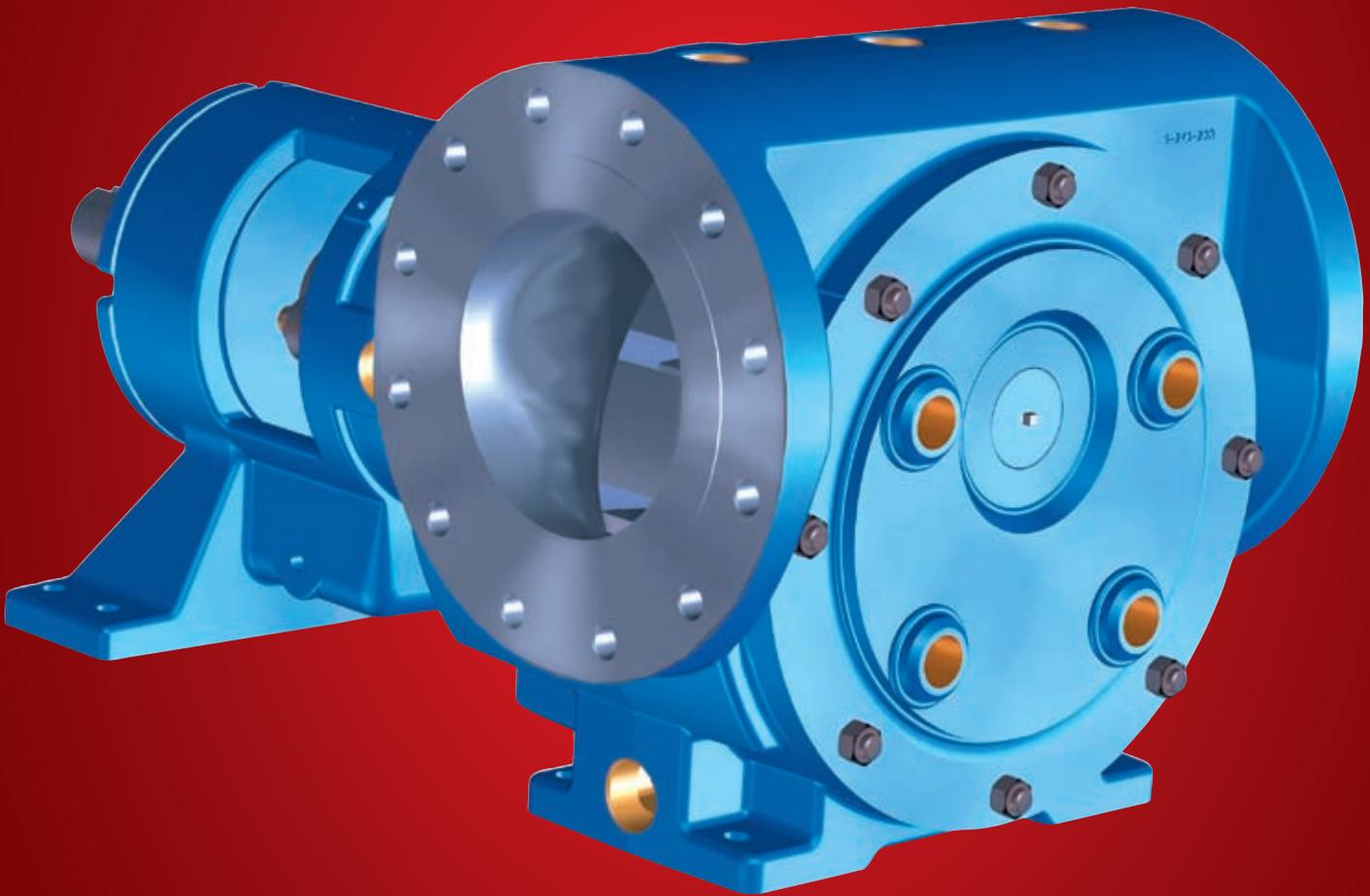


## Jacketed Internal Gear Pumps

# VIKING

**Serving Applications For:**

- **Ambient-Temperature Solids**
- **Temperature-Critical Processes**
- **Extreme Environments**



**Flows: to 1500 GPM (340 m<sup>3</sup>/hr)**

**Pressures: to 280 PSI (20 Bar)**

**Viscosities: to 2,000,000 SSU (440,000 cSt)**

**Temperatures: to 800 °F (425 °C)**

**IDEX**

IDEX CORPORATION

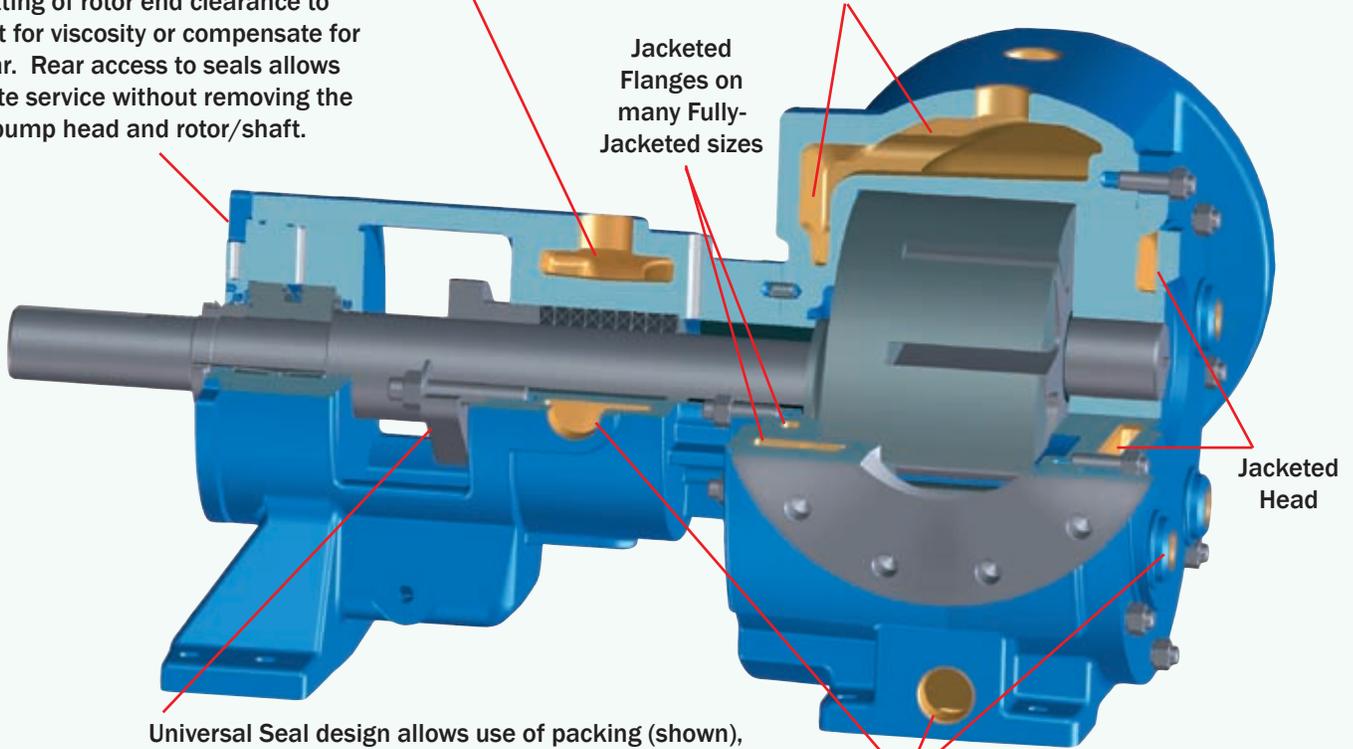
# Specially Designed for the Most Demanding Applications

Universal Seal design allows precise setting of rotor end clearance to adjust for viscosity or compensate for wear. Rear access to seals allows on-site service without removing the pump head and rotor/shaft.

Jacketed Bracket

Jacketed Casing on Fully-Jacketed Models

Jacketed Flanges on many Fully-Jacketed sizes



Jacketed Head

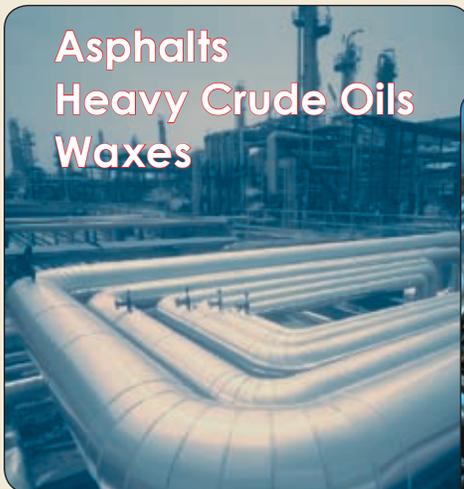
Universal Seal design allows use of packing (shown), component mechanical seals or cartridge-style mechanical or lip seals. Behind-the-rotor seals available.

Jacketing ports available with flanged, weld neck or threaded connections.

**Fully-Jacketed pumps provide faster startup of cold processes, improving production efficiency. The internal gear pumping process, with only two fluid-contacted bearings, reduces maintenance, providing superior cost of ownership.**

## Typical Applications

Asphalts  
Heavy Crude Oils  
Waxes



Ambient-Temperature Solids

Monomers  
Oligomers  
Pre-Polymers  
Polymers  
Polyesters  
Epoxy Resins



Temperature-Critical Processes

Cold Climates



Extreme Environments

# The Most Complete Selection of Jacketed Positive Displacement Pumps in the World

## Standard-Jacketed Design

Standard-Jacketed pumps feature **jacketing on the head and bracket**, through which steam or heat transfer oil can be passed for “melting” ambient temperature solids, such as asphalt, to make them pumpable. Standard-Jacketed pumps are available in the economical General Purpose series and in the Heavy Duty Universal Seal series.

### Capacities

Cast Iron: 12 sizes to 1500 GPM (340 m<sup>3</sup>/hr)  
Max. Displacement 24638 CC/Rev, 230 RPM Max.  
Ductile Iron: 9 sizes to 500 GPM (114 m<sup>3</sup>/hr)  
Max. Displacement 3654 CC/Rev, 520 RPM Max.  
Steel: 11 sizes to 1100 GPM (250 m<sup>3</sup>/hr)  
Max. Displacement 14881 CC/Rev, 280 RPM Max.  
Stainless Steel: 11 sizes to 1100 GPM (250 m<sup>3</sup>/hr)  
Max. Displacement 14881 CC/Rev, 280 RPM Max.

### Port Types:

125# or 150# Flange, NPT Threads (small sizes only)

## Fully-Jacketed Design

Fully-Jacketed pumps feature **jacketing on the head, casing and bracket, and even jacketed flanges** on many models, through which steam or heat transfer oil can be passed for *precisely maintaining a uniform, predetermined temperature*. Fully-jacketed pumps take less time to heat solid material in the casing to a pumpable state.

### Capacities

Cast Iron: 2 sizes to 600 GPM (136 m<sup>3</sup>/hr)  
Max. Displacement 6476 CC/Rev, 350 RPM Max.  
Ductile Iron: 2 sizes to 600 GPM (136 m<sup>3</sup>/hr)  
Max. Displacement 6476 CC/Rev, 350 RPM Max.  
Steel: 11 sizes to 1100 GPM (250 m<sup>3</sup>/hr)  
Max. Displacement 14881 CC/Rev, 280 RPM Max.  
Stainless Steel: 11 sizes to 1100 GPM (250 m<sup>3</sup>/hr)  
Max. Displacement 14881 CC/Rev, 280 RPM Max.

### Port Types:

125#, 150# or 300# Flange

## Specifications

**Maximum Pressure:** 200 psi (14 bar) standard, 280 psi (20 bar) with special construction on selected models.

**Viscosity Range:** 28 to 2,000,000 SSU (1 to 440,000 cSt)

**Temperature Range:** -120°F to 800°F (-85°C to 425°C)

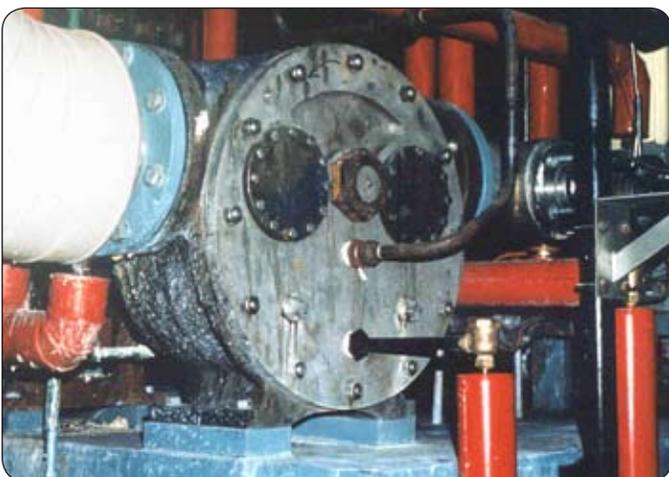
**Inlet Pressure Range:** Pulling from vacuum vessel to a maximum of 100 PSI (7 Bar)

**Max. Temperature of fluid in jackets:** Saturated Steam: 365°F (185°C) ; Heat Transfer Oil: 643°F (325°C)

**Max. Pressure of fluid in jackets:** Saturated Steam: 150 psig (10 Bar); Heat Transfer Oil: 150 psig (10 Bar)

**Port Arrangements:** Ports are Right Angle or Opposite. Ports may be rotated to different positions on most sizes.

**Direction of flow:** Either direction. Direction of flow may be reversed.

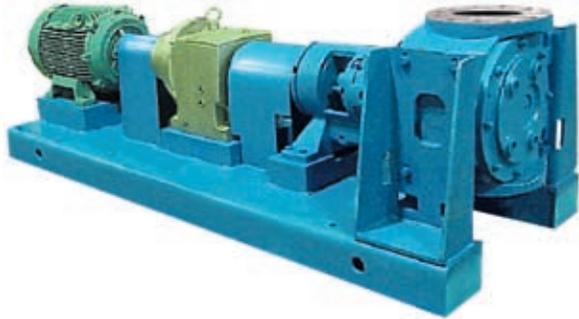


Standard-Jacketed pump on hot resin service



Fully-Jacketed pump in cold climate application

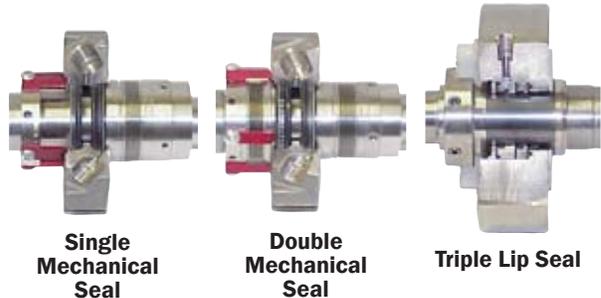
## Porting Flexibility



Viking offers a broad variety of porting options to solve difficult application problems, such as this top-suction, bottom-discharge, 500 gpm (114 m<sup>3</sup>/hr), 200 psi (14 bar) Fully-Jacketed pump, shown on baseplate with gear reducer and motor. Custom port sizes and configurations are available to fit nearly any application.

## Sealing Options

Viking simplifies shaft sealing, even at high temperatures, with a variety of sealing options from conventional braided packing to component mechanical seals located in the stuffing box or behind-the-rotor, or cartridge-style stuffing box seals shown below. Seal Plans, including Plan 53 and Plan 54, are available. For hazardous or volatile fluids, Viking Mag Drive® sealless, magnetically-coupled pumps are available in Standard-Jacketed and Fully-Jacketed versions.



Single  
Mechanical  
Seal

Double  
Mechanical  
Seal

Triple Lip Seal

# VIKING PUMP

A Unit of  
**IDEX**  
IDEX CORPORATION

An ISO-9001 and -14001 System-Certified Company

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