

# POLYURETHANES



Polyurethane foam is produced when a polyether is treated with an isocyanate in the presence of water and a catalyst, as well as fillers, dispersing and emulsifying agents, etc. The water reacts with the isocyanate group to cause cross linking and curing, and also produces carbon dioxide which causes foaming.

## POLYURETHANE APPLICATIONS:

- Polyurethane Manufacturing Plants (transfer from railcar to tank farm, continuous recirculation to feed impingement mixing systems, high pressure metering)
- Portable Systems (insulation, bedliners, etc.)

## VIKING IN THE PROCESS:

Viking internal gear pumps are able to handle wide variations in viscosities between the polyols and isocyanates, enabling use of the same pump model for both to provide commonality of spares. Because isocyanates are hazardous, and contact with air causes crystallization at seal faces, sealless magnetically coupled pumps are usually used. Their low NPSHr capabilities allow the top-unloading of railcars required to eliminate atmospheric release of isocyanate vapors.

Viking external gear pumps develop high pressures and can directly feed small streams into the mixing system. They are available with double lip seals with a grease barrier, with mechanical seals or sealless mag drive, and may be directly mounted to the motor for portable systems.

## SUGGESTED PUMPS:

### 1124A SERIES™



- Cast Iron
- O-Pro™ Barrier Seal with grease barrier provides air tight sealing
- Capacities to 400 GPM

### 8124A SERIES™



- Cast Iron
- Sealless mag drive design
- Bushing options for compatibility
- Capacities to 500 GPM

### SG SERIES™



- Cast Iron
- Sealless mag drive design
- Bearing option for compatibility
- Higher pressure capability
- Capacities to 190 GPM



**VIKING PUMP®**

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