SLM-AV

Sealless Magnet Drive Pump

ANSI/ASME B73.3M-1997

KLAUS UNION
Klaus Union introduces the new SLM-AV centrifugal magnet drive pump.

Klaus Union has more than 50 years experience in development, construction, production and application of magnet drive pumps. Our considerable experience in the chemical industry handling aggressive, toxic and explosive fluids under severe environmental and safety conditions has taught us that maximum flexibility is of prime importance. This includes customer requirements of optimum interchangability of parts and accessories with short delivery times.

Satisfying these requirements resulted in a new, innovative approach to sealless technology.

The SLM-AV is a completely new ANSI-dimensional pump that is more than just another modification to a well established range of centrifugal pumps. It is manufactured to the highest standards and designed to offer the best and most economic solution to various pumping requirements.

The SLM-AV uses the seallex® magnet drive system, eliminating the need for a mechanical seal, since the motor torque is transmitted through the hermetically sealed chamber without mechanical contact.

The “V” of the SLM-AV means “variable.” Fewer parts and increased interchangability, result in greater flexibility and availability for all design variations and accessories.

The new SLM-AV allows optional variations within standard designs. Customer’s individual demands can be realized quicker with reduced inventory requirements.

The modular concept makes everything possible

The modular approach provides the flexibility to construct a pump meeting the customer’s special requirements – with an emphasis on price, delivery and interchangability.
Rub Rings
Internal and external mechanical rub rings protect isolation shell.

Isolation Shell
Self-venting and fully drainable.

Flushing System
Sufficient pressure is maintained with an internal recirculation which safely controls liquids being processed close to their boiling point. Flush flow is taken from an area with reduced solids and is separated into two distinct flow paths. One flow path dissipates the frictional heat generated by the journal bearing. The second flow path dissipates the heat generated by eddy current losses in the isolation shell. This flushing system provides an almost constant flush flow rate and pressure.

Lantern Heating
External heating is provided by the integral jacket with direct heat transfer to the isolation shell.

Thermal Barrier
Protects the ball bearings from high process fluid temperatures. It works like an air cooler providing a large surface area for the dissipation of heat by convection. The thermal barrier permits the use of close coupled pumps in high operating temperatures.

Drive Frame
Oil lubricated design incorporates a large oil reservoir. The spacing and size of the deep groove ball bearings provide substantial support for the outer magnet carrier. Inboard and outboard lip seals prevent debris from entering oil sump. Ball bearing replacement can be achieved without breaking hermetic seal of the process fluid.

Balanced Thrust Load
Axial thrust loads are reduced throughout the entire operating range of the pump.

Journal Bearing
Wear resistant double bearing is made of silicon carbide. Counter centered combinations ensure the universal use with different temperatures.

Magnet Drive
High efficiency magnet drive system incorporating samarium cobalt rare earth magnets.

Secondary Sealing
In case of internal leakage, the seal temporarily prevents the pressurized process fluid from entering the atmosphere.
Sample variations:

1. SLM-AVN: Basic design • grease lubrication • –184°F (−120°C) to +482°F (+250°C)
2. SLM-AVO: Basic design • oil lubrication • thermal barrier • secondary sealing • –184°F (−120°C) to +572°F (+300°C)
3. SLM-AVO-H1/2: Oil lubrication • secondary sealing • heated casing • heated bearing lantern • –184°F (−120°C) to +572°F (+300°C)
4. SLM-AVO-OT: Dry running capability • oil lubrication • thermal barrier • secondary sealing • –4°F (−20°C) to +248°F (+120°C)
5. SLM-AVB: Basic design • close coupled • –184°F (−120°C) to +320°F (+160°C)
6. SLM-AVB: Close coupled • thermal barrier • secondary sealing • –184°F (−120°C) to +482°F (+250°C)
7. SLM-GVO: Oil lubrication • 1-8 stages • thermal barrier • secondary sealing • –184°F (−120°C) to +482°F (+250°C)
8. SLM-SVO: Side channel • oil lubrication • 1-8 stages • fully heated • thermal barrier • secondary sealing • –184°F (−120°C) to +482°F (+250°C)
Klaus Union, Inc. is conveniently situated centrally in the United States to service the North American markets. The strategic location near Houston Intercontinental Airport allows easy access for domestic and international shipping and transportation.