



WARRENDER, LTD.
Seal-less Mag-Drive Pumps
From Stock or Built-to-Spec™

**SEAL-LESS
MAG-DRIVE
PUMPS**

**Providing environmentally
safe seal-less magnetic
pumps of the highest quality
for over 30 years**

**Our company goal is to provide the solutions that
protect our surroundings, raise the environmental
awareness, and promote the growth of the community.**

Three Designs Provide Complete Hydraulic Coverage

- High head turbine for OEM and transfer systems
- High flow centrifugal for compressor circulation systems
- Low flow rotary vane for injection systems

Typical Applications

- Liquid Ammonia, CO2 and Fluorocarbon Refrigerants
- All EPA monitored chemicals
- Dangerous, toxic, noxious and carcinogenic liquids
- Solvents, hydrocarbons, pyrophorics and other volatile liquids
- Heat transfer fluids (up to 650° F, 840° F w/ heat exchanger).
- Hot / super heated water
- Liquefied gases
- Cryogenic fluids (down to -150°C)
- High pressure circulation systems
- Pressurizing mechanical seal pots
- Sampling, metering or chemical injection systems



***Seal-less
Zero Emissions
Low Heat Load
No Flashing***

WARRENDER SEAL-LESS MAG-DRIVE PUMPS

OEM & PROCESS PUMPS *From Stock or Built-to-Spec™*

Warrender mag-drive seal-less pumps meet EPA zero emissions regulations with versatile magnetic coupling technology. Minimal heat loads, field serviceability and lower installation costs are significant process advantages. Solve your most challenging pumping problems with reliable and cost effective solutions.

Zero Emissions and Maximum Safety

Benefit from a process free of leakage, contamination or toxic releases while avoiding constant monitoring and potential environmental fines. Eliminate all toxic and dangerous chemical releases including explosive and volatile liquids that can react with atmospheric contact.

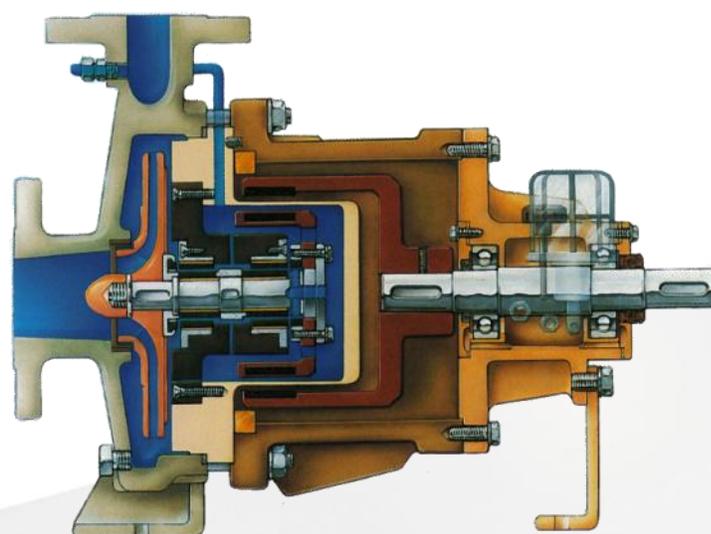
Advanced Technology and the Highest Quality for Long Pump Life

WARRENDER pump designs are built to the highest quality standards to protect your process, preventing costly maintenance and lost production time.

- Robust, high thickness pump casings
- High efficiency impellers with low NPSH requirements
- High strength, rare earth magnetic couplings suitable for extreme temperatures
- Heavy duty rear casings in single or double walled non-welded design
- Rugged internal bearing system withstands process upsets

Performances to the Extreme

- Flows from 0.1 to 2500 gpm
- Pressures up to 1,500 psig (MAWP)
- Heads to 1,500 feet
- Temperatures from -238°F to +600° F
- Pump liquefied gases or liquids with low NPSH
- Compatible with VFD control systems



Centrifugal Mag-Drive Pump - Cross-Section

Series WMTA-LN Regenerative Turbine (high heads, low to medium flows)



Regenerative Turbine Pump - 2 Stage 3D Cross-Section

Transfer Pumps: Low NPSH - High Head, Sea-less Turbine

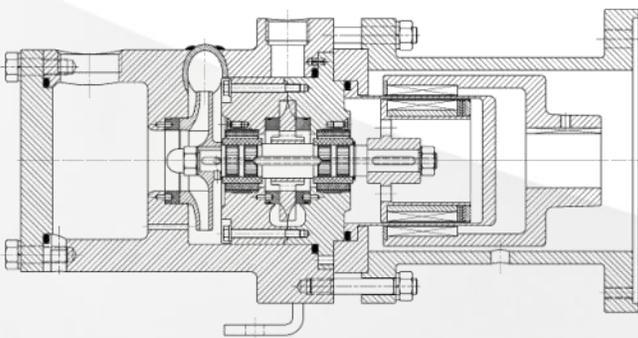
Series WMTA-LN mag-drive regenerative turbine pumps safely meet high head, low NPSHa system requirements. Dynamic turbine impeller pumping action handles entrained gases to resist vapor locking.

WMTA-LN Features

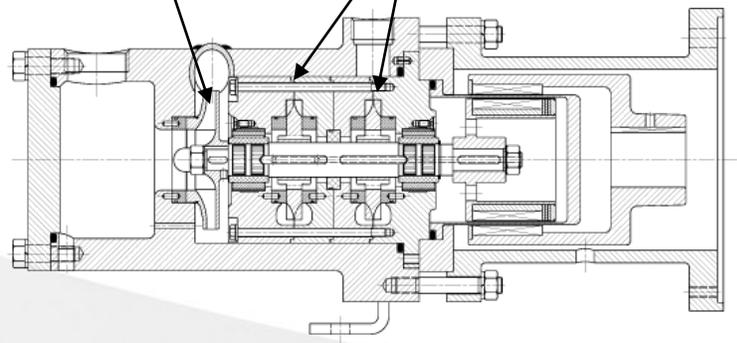
- High head pumping with pulsation free performance
- Handles up to 20% entrained gas, resists vapor locking
- Dynamic design (avoid over pressurization w/ P.D. pumps)
- Low heat induction to avoid flashing

WMTA-LN Performance Range

- Flows from 0.25 to 45 gpm (**0.5 - 10 m³/h**)
- Heads to 900 feet (**230 m**)
- System Pressures to 1450 psig (**100 bar**)
- Temperatures from -148 to +572 F (**-100 to +300 C**)
- NPSHr to 1'



Regenerative Turbine Pump - 2 Stage Cross-Section



Regenerative Turbine Pump - 3 Stage Cross-Section



WARRENDER, LTD.

821 Sivert Drive
Wood Dale, IL 60191

Phone: 847-247-8677
Toll Free: 888-24 PUMPS
Fax: 847-247-8680
Web site: www.warrender.com
Email: sales@warrender.com

Authorized Distributor: