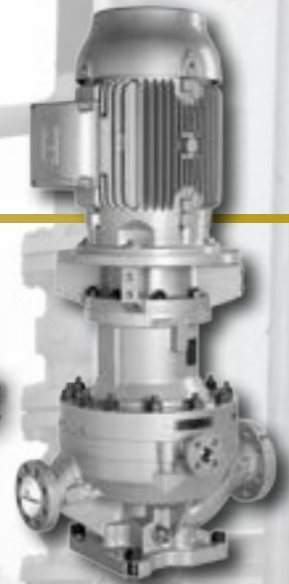


**LMV Direct Drive
API 610 Centrifugal Pumps**

Setting the industry standard
in vertical pump design.

LMV-801S



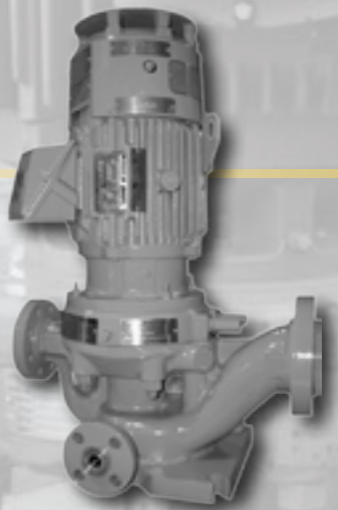
LMV-801



LMV-803Lr



LMV-802



LMV-806



Innovators In Pump Technology

The Sundyne Flagship

For over 50 years, Sundyne Line-Mounted Vertical (LMV) integrally gear-driven centrifugal pumps have set the industry standard for high-head, low-flow fluid handling technology. Featuring a modular design with an independent gearbox and wet-end, our engineers custom build every pump to meet the unique Best Efficiency Point (BEP) of each customer's application. With over one million possible configurations available, Sundyne pumps deliver multi-stage performance in a single-stage design.

Sundyne vertical direct drive pumps are built to meet standard OH3 and OH5 configurations, and are available in several flexible models, capable of delivering a broad range of flows and heads to suit virtually any application.

These API 610 pumps deliver rugged reliability in a compact footprint; equating to maximized uptime, reduced maintenance costs and optimized productivity over the lifecycle of the unit. Backed by our global network of Authorized Service Centers,

Sundyne pumps are the best in class option for a wide range of critical applications in the refining, petrochemical, chemical, gas production and offshore sectors.

◀ Sundyne OH3 pumps are designed for suction pressures up to 1000 PSIG – Nema or IEC motor.



▲ The Sundyne LMV-806 OH5 has delivered years of proven reliability in de-ethanizer booster service for this Oklahoma gas plant.

Key Innovative Features Drive Our Competitive Advantage

Customers around the world depend on Sundyne to build the equipment they require to drive productivity, and our robust engineered solutions deliver the level of quality and reliability they demand. With a range of comprehensive features, service and support, Sundyne is committed to fulfilling our customer's long-term needs.

Optimized Efficiency With Low Specific-Speed Hydraulics

Sundyne LMV series pumps boast diffuser style hydraulics to optimize efficiency in low specific-speed applications. Efficiency up to 60%.

Low NPSHr As Low As 5 feet (1.5m)

Sundyne inducers are designed to reduce your NPSHr considerably, thus eliminating the need for costly design requirements, such as elevated suction vessels, boost pumps or installation below grade.

Flexible Mechanical Seal and Sealless Configurations

Sundyne direct drive pumps can be configured with single, double or tandem seal arrangements, which can be easily converted in the field. With the recent introduction of the LMV-801S sealless magnetic drive, any LMV-801 sealed pump can be converted to an ultra-reliable, leak-free sealless configuration.

Materials of Construction

The Sundyne direct drive line of pumps are available with a broad variety of metallurgies and machineable alloys, such as:

- Carbon Steel
- Hastelloy B
- 316SS
- Monel
- Titanium

Engineered Best Efficiency Point

We size your pump so rated point is Best Efficiency Point (B.E.P.), providing an ultra-efficient, reliable flow rate.

BEP

- Compact Footprint For Modular Design

- Simple By Design

- Standard Or Custom Engineered Options

- Worldwide Support Network



- Seal Configurations Available: Single, Double, Tandem, Sealless

- Solids Range: 0.015" (0.381mm), 400 microns

- Mounting Configurations: Vertical

- Number of Available Hydraulics: Numerous

- Available Inducer: Yes

- Available Flanges: 300# RF 600# RF, 900# RF, RTJ



Industries

- Refining
- Petrochemical
- Chemical

Applications

Sundyne direct drive API pumps are suitable for use in applications across the process industries like:

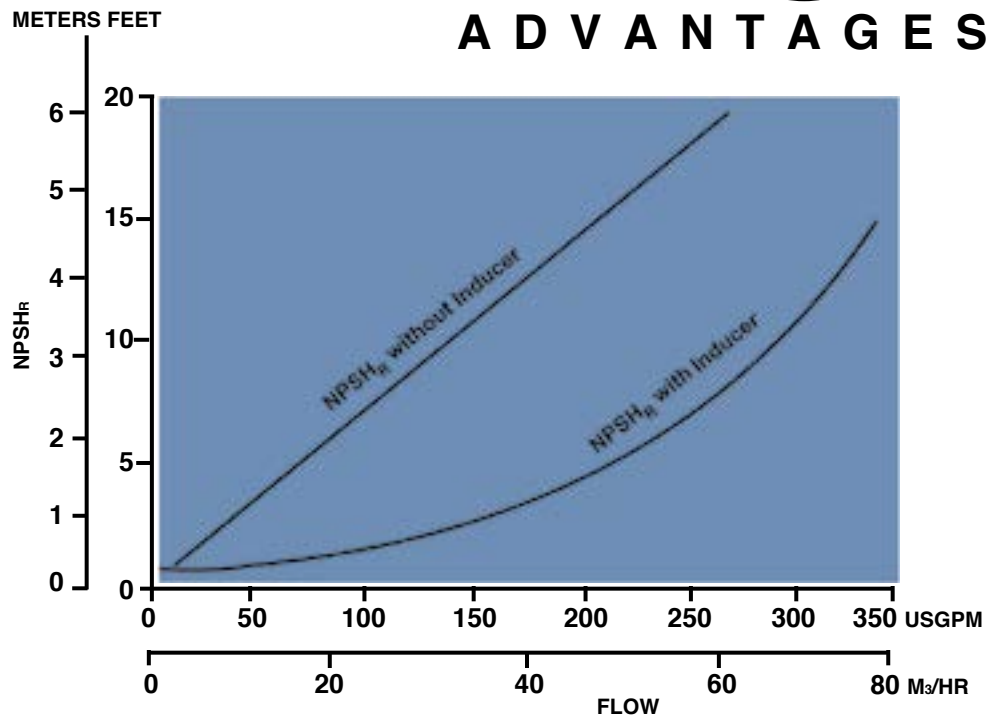
- Charge / Reactor Feed
- Transfer
- Recycle
- Bottoms
- Pipeline boost
- Boiler Feed Water
- Desuperheating
- Condensate
- Fuel Feed
- Seal Water
- Inorganic Acids
- High Pressure Wash
- Cryogenic Services
- Offshore Platform Services



NPSH

ADVANTAGES

► Sundyne inducer options reduce $NPSH_R$ considerably and often eliminates the need for costly design requirements, such as elevated suction vessels and boost pumps.



The bearing frame may be bolted directly on top of the sealhousing. This option provides added driver flexibility, such as the use of standard NEMA or IEC shaft electric motors and steam turbines. The unique piloted mounting flange eliminates the need to align the pump and motor, saving valuable installation and maintenance time. The housing has been designed to accommodate a broad range of couplings to suit your specific needs.



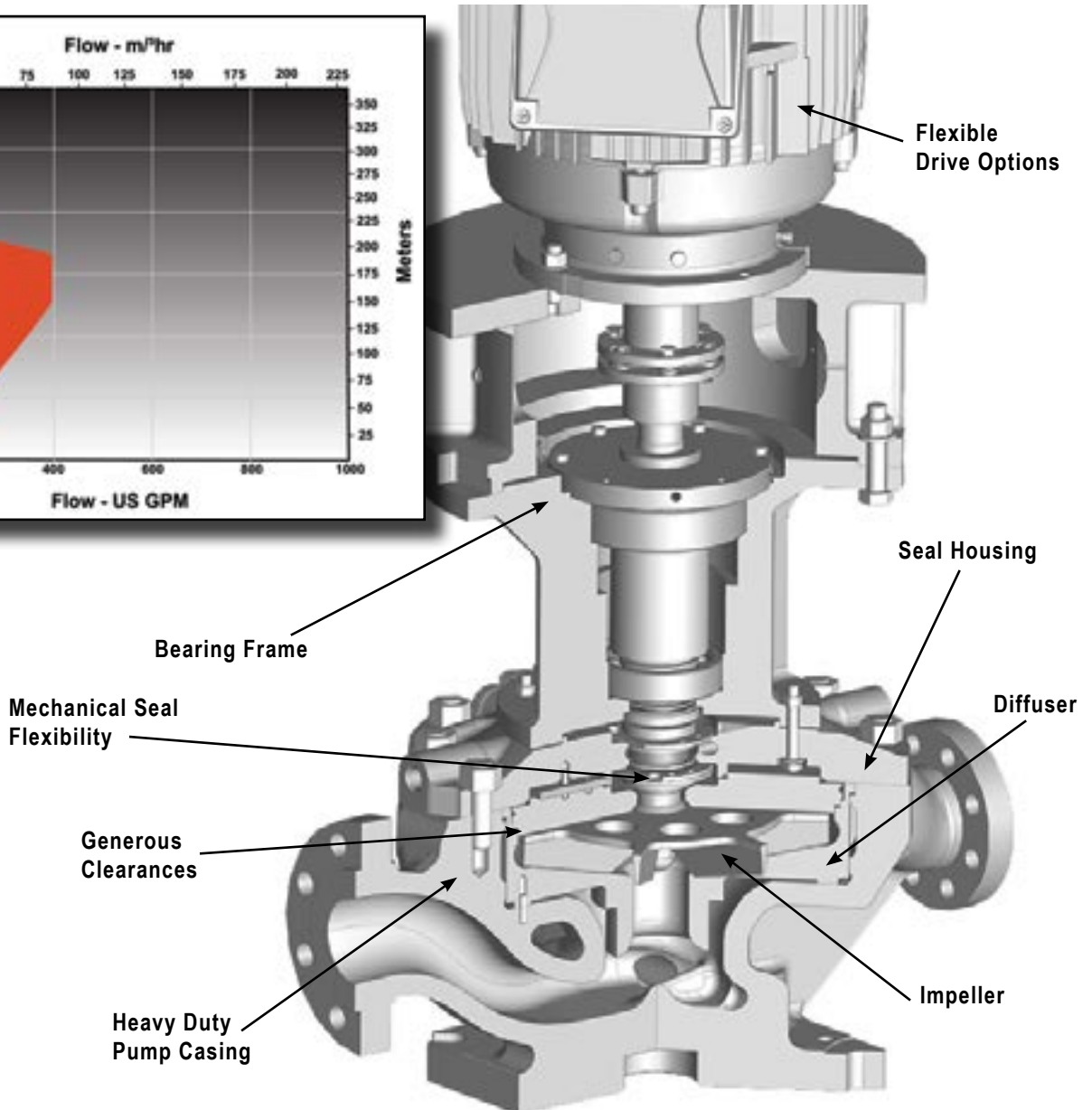
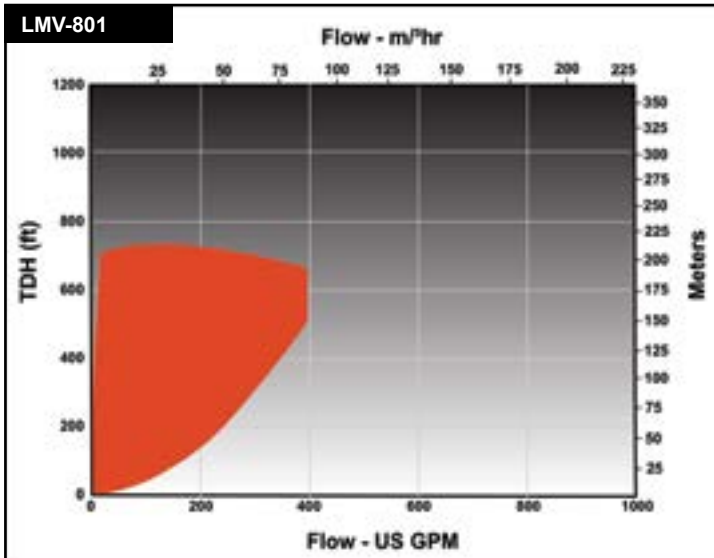
The Sundyne LMV-801 API 610, is a direct drive centrifugal pump in a standard OH5 configuration. OH3 when used with the bearing frame option. This model delivers:

Flows to 380 gpm (86 m3/hr)
Heads to 720 ft (219 m)

This heavy duty API 610 pump is ideal for the HPI, CPI, gas and specialty processing industries.

Obtaining a re-rate or removing the diffuser while the pump case remains in place has never been easier.

LMV-801



The LMV-801S is an API 685 sealless configuration of Sundyne direct drive pump technology. Based on Sundyne HMD Kontro sealless magnetic drive technology. This model delivers:

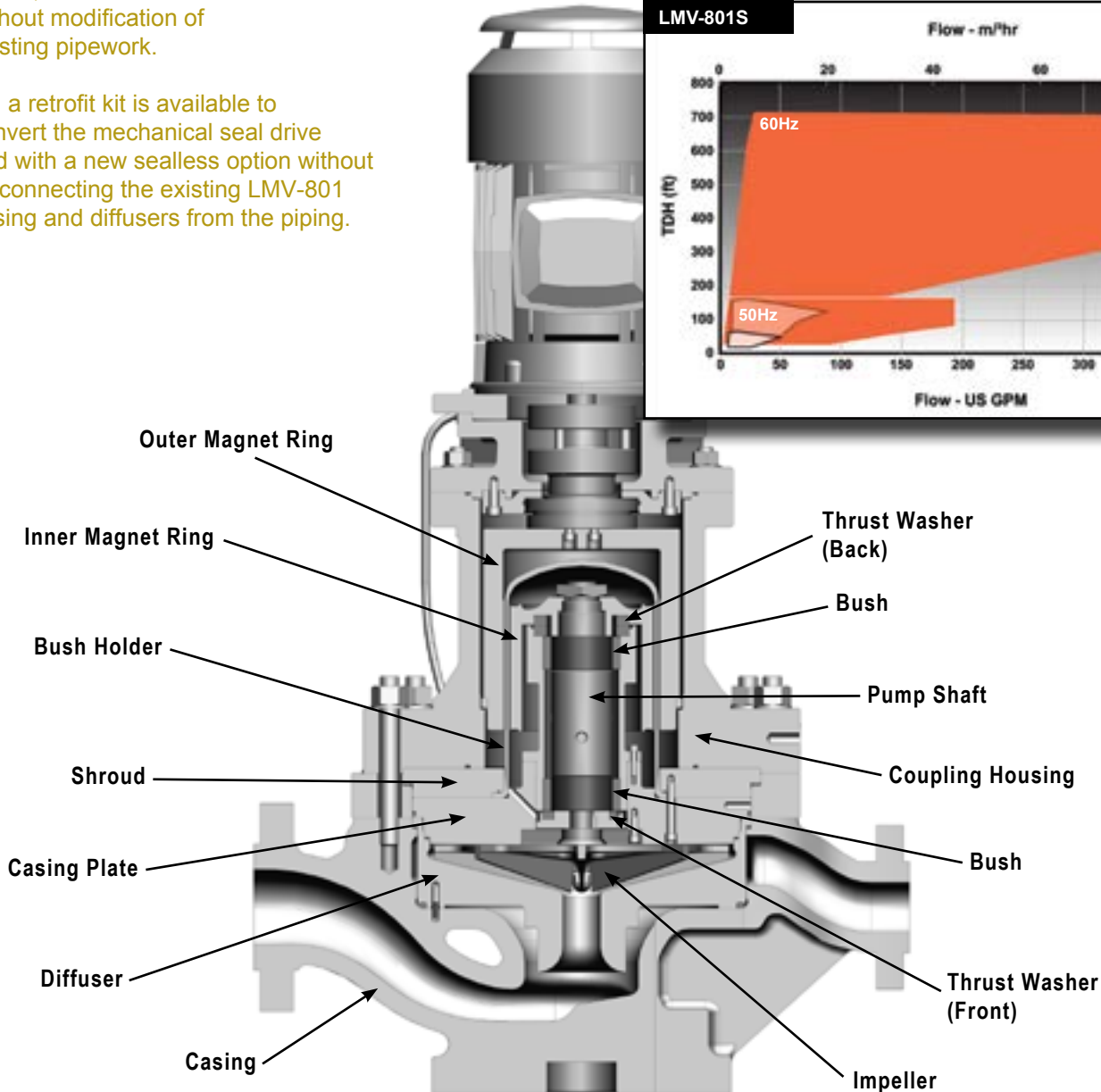
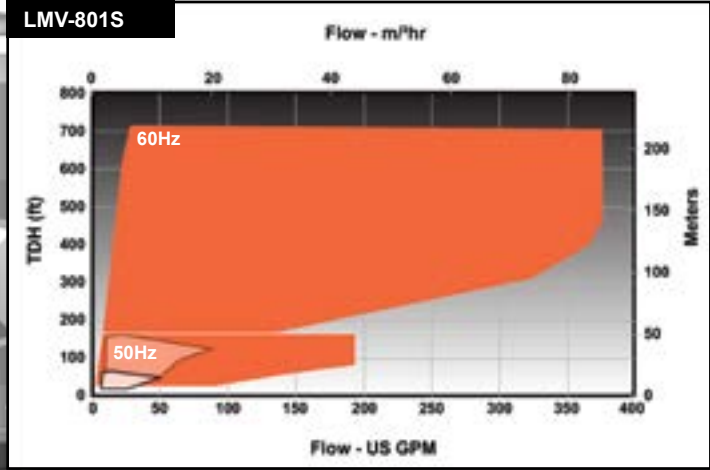
Flows to 380 gpm (86 m3/hr)
Heads to 720 ft (219 m)

Ideal for light hydrocarbon services in HPI, CPI and Offshore applications.

The LMV-801S is dimensionally interchangeable with our mechanically sealed LMV-801 model, and can be installed without modification of existing pipework.

Or, a retrofit kit is available to convert the mechanical seal drive end with a new sealless option without disconnecting the existing LMV-801 casing and diffusers from the piping.

LMV-801S

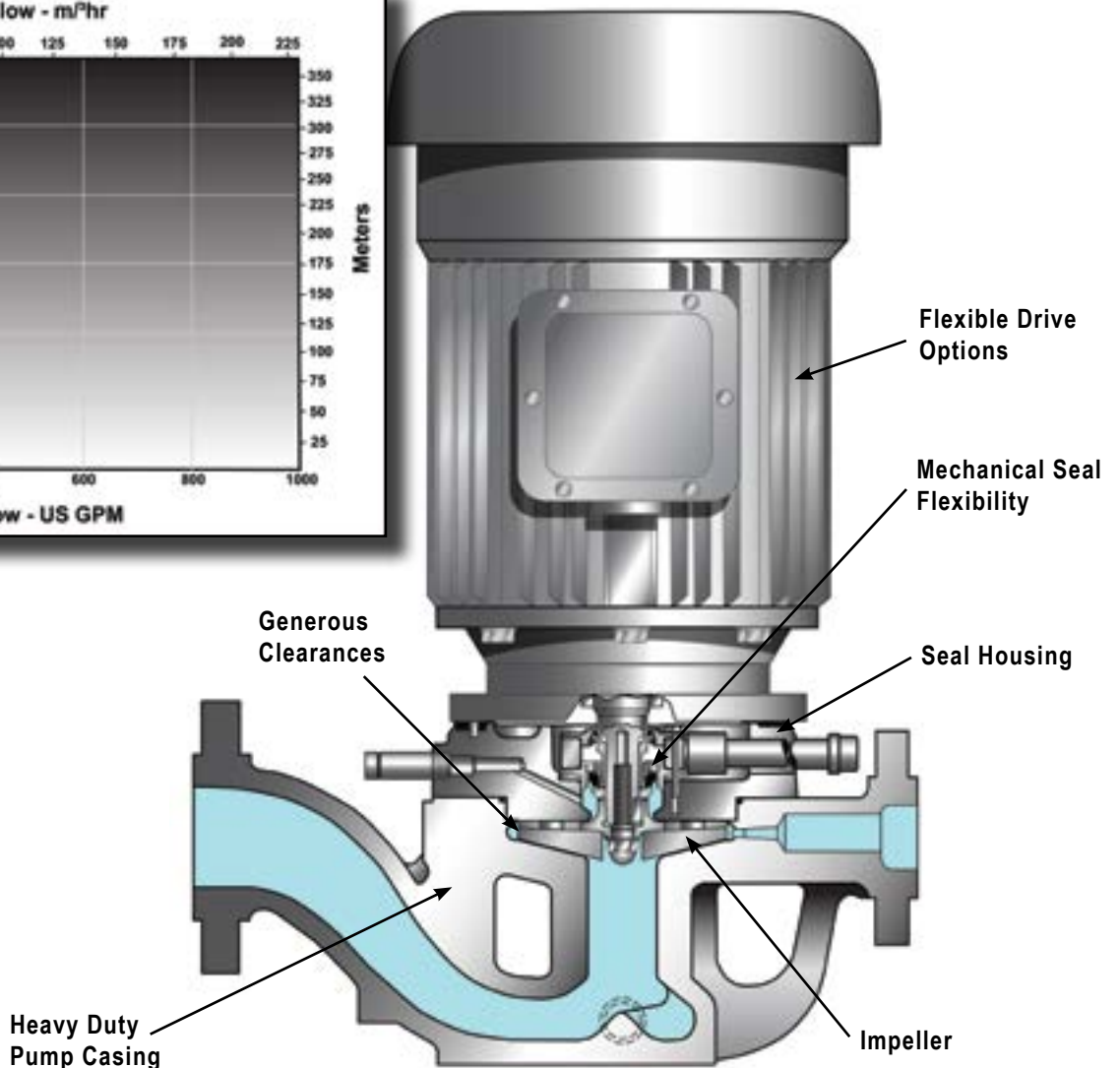
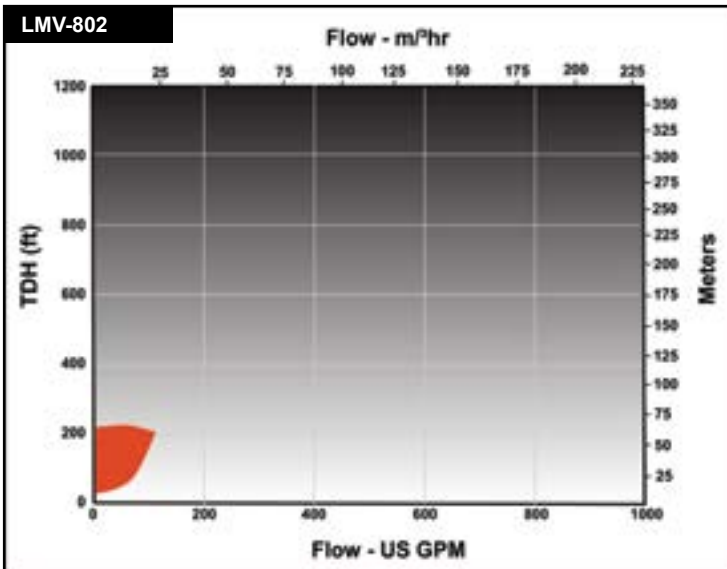


The Sundyne LMV-802 is a direct drive centrifugal API 610, pump available in an OH5 configuration. OH3, when used with the bearing frame option. This model delivers:

Flows to 150 gpm (34 m³/hr)
Heads to 210 ft (64 m)

A reliable heavy duty API pump for use in the HPI,
CPI, gas and specialty processing industri

LMV-802



The LMV-803Lr is a high flow ultra low NPSHr (5 ft / 1.5 m) direct drive pump. Featuring Sundyne inducer technology and a backswept impeller, making it possible to reach lower NPSH requirements without risk of cavitation.

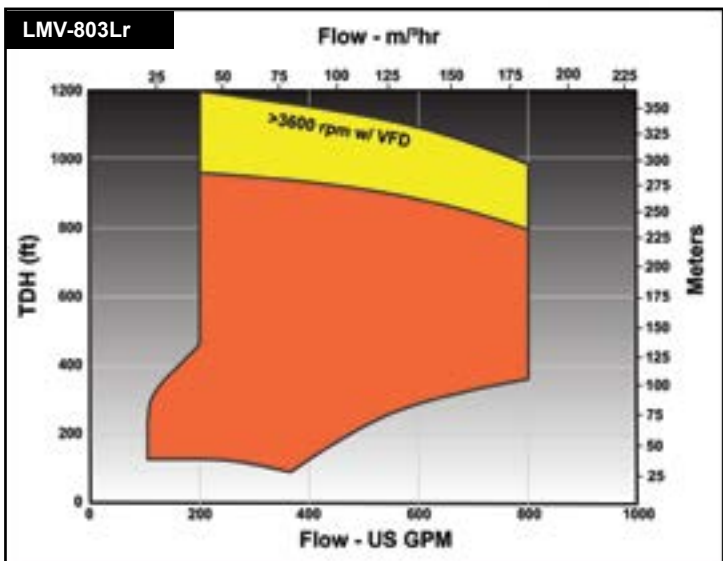
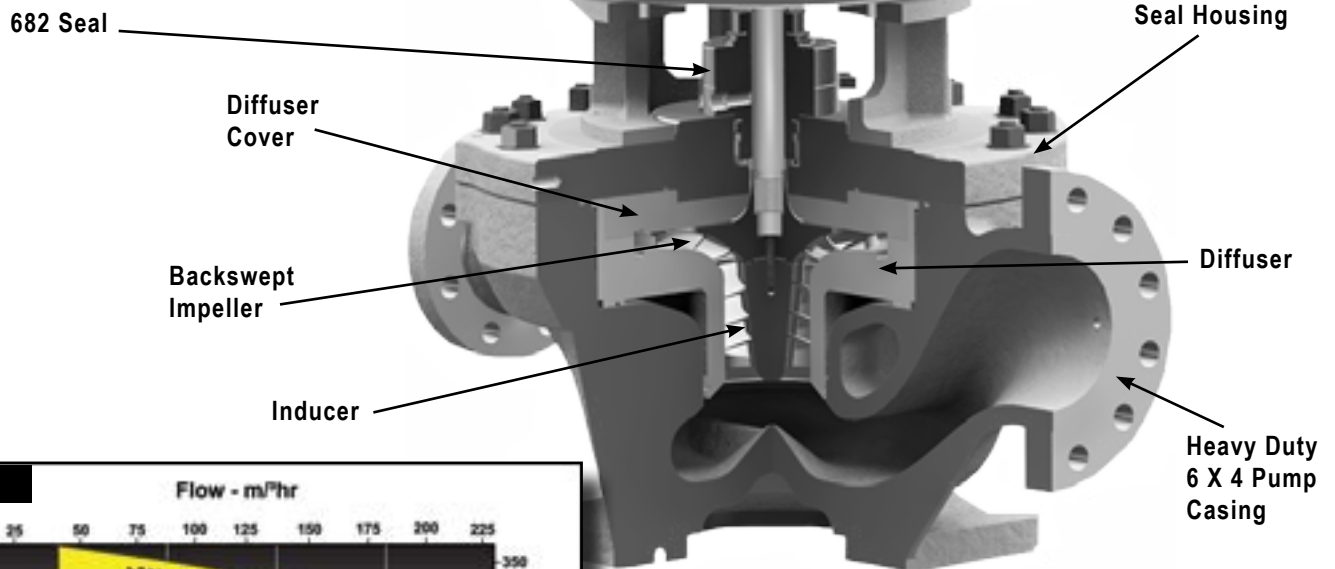
Built to comply with OH3 and OH5 standards and fully compliant with API 610 A-8 material guidelines, the LMV-803Lr also boasts a robust new 6x4 casing design that is purpose-built to withstand the rigors of high pressure applications

Flows to 800 gpm (180 m³/hr)
 Heads to 1,000 ft (305 m)
 Max Case Work Pressure to 1,000 psig (70 kg/cm²)

Ideal for midstream LNG processing, booster / charge, fractionation bottoms and more.

LMV-803Lr

A Centrifugal High Flow, Low NPSH Pump. NPSH Less Than 5 FT at 500 GPM!

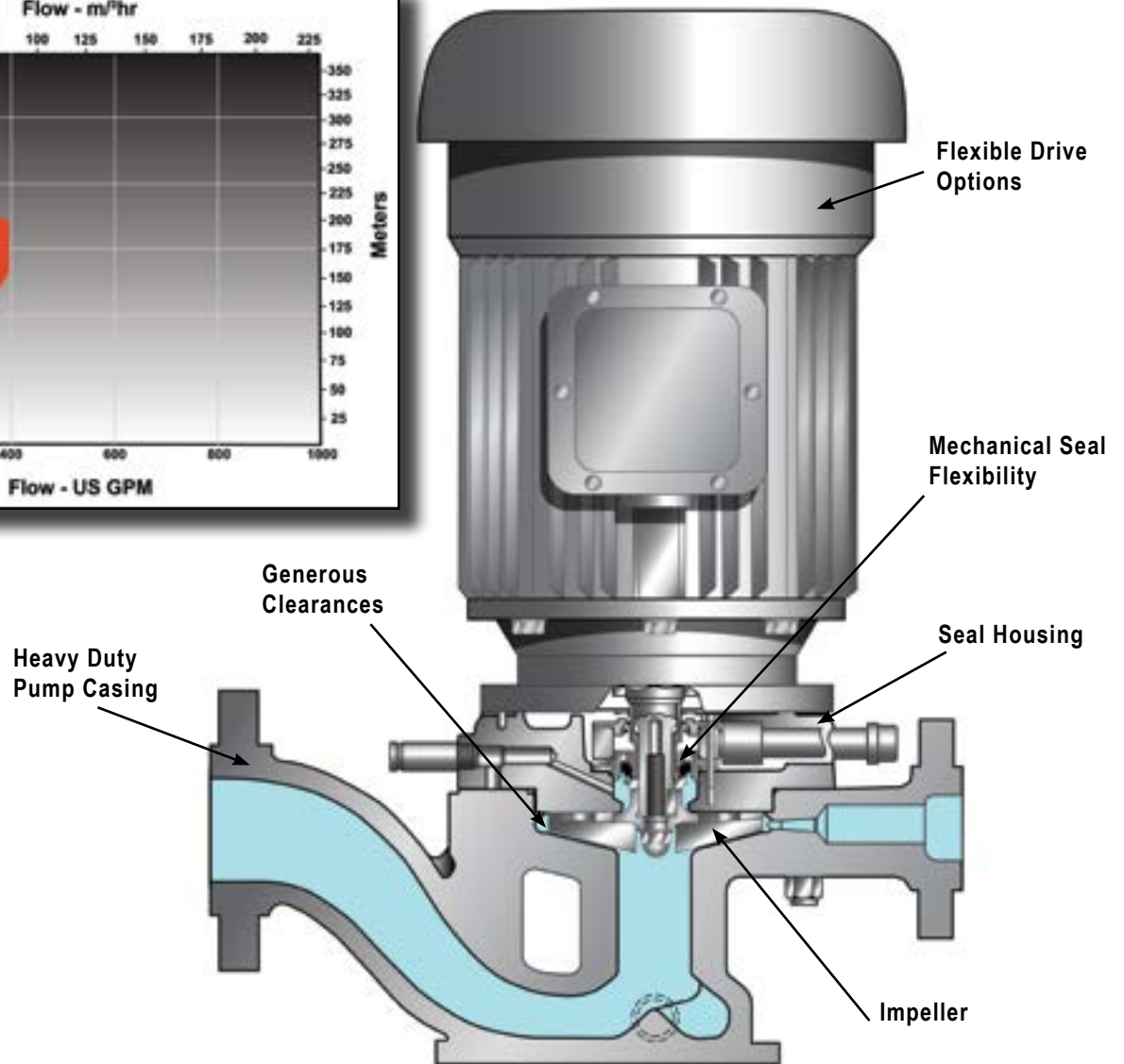
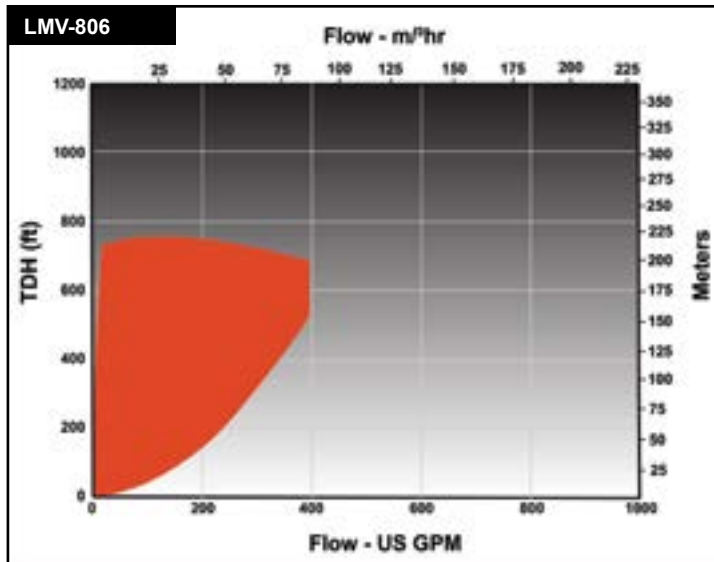


The Sundyne LMV-806 is a direct drive centrifugal API 610, pump in a standard OH5 configuration. OH3, when used with the bearing frame option.

Flows to 380 gpm (86 m³/hr)
Heads to 760 ft (232 m)

A reliable heavy duty API pump for use in the HPI, CPI, gas and specialty processing industries.

LMV-806





801



801S



802

Key Application:	Easy To Convert	Sealless	Low Flow
Heads To	10 to 720 ft (3 to 219 m)	10 to 720 ft (3 to 220 m)	20 to 210 ft (4 to 45 m)
Flows To	10 to 380 gpm (2.3 to 86 m ³ /hr)	20 to 380 gpm (4.5 to 86 m ³ /hr)	10 to 150 gpm (8 to 27 m ³ /hr)
Max Power	100 hp (75 KW)	100 hp (75 KW)	50 hp (37 KW)
Temp Range	-200 to 650°F (-130 to 340°C)	-40 to 400°F (-40 to 205°C)	-200 to 650°F (-130 to 340°C)
Number of Stages	1.0	1.0	1.0
Max Case Working Pressure	2,160 psig (152 kg/cm ²)	580 psig (40 bar)	1,440 psig (101 kg/cm ²)
Max Suction Pressure	1,000 psig (71 kg/cm ²)	--	600 psig (42 kg/cm ²)
Speed Range	1,450 to 3,550 rpm	1,450 to 3,550 rpm	1,450 to 3,550 rpm
Bearing Materials Available	Ball Bearings (bearing frame)	Silicone Carbide	Ball Bearings (bearing frame)
Max Viscosity	750 cp	200 cp	750 cp
Industry Standard	API 610 (OH3, OH5)	API 685	API 610 (OH3, OH5)
Solids Range	0.015" (0.381mm), 400 microns	Clean Liquids Only	0.015" (0.381mm), 400 microns
Mounting Configurations	Vertical	Vertical	Vertical
Seal Configurations Available	Single, Double, Tandem	Sealless	Single, Double, Tandem
Available Inducer	Yes	Yes	Yes
Available Flanges	600#, 900#, 1500, RF, RTJ	600#, RF	600#, RF
Pump Case Corrosion Allowance	0.125" (0.17 mm)	0.125" (0.175 mm)	0.125" (3.17 mm) 7 mm
Suction and Discharge Size	3" x 2"	3" x 2"	3" x 2"
API Plans for Sundyne Pumps	11, 12, 13, 21, 23, 31, 32, 41, 52, 53, 54, 61, 62	--	11, 12, 13, 21, 23, 31, 32, 41, 52, 53, 54, 61, 62



803Lr



806



SUNDYNE DIRECT DRIVE PUMPS

Setting the industry standard in vertical pump design.

Testing Available:

- ✓ Performance Test
- ✓ Pump Case Hydrostatic Test
- ✓ NPSH Suppression Test
- ✓ Radiography Inspection
- ✓ Liquid Penetrant Inspection
- ✓ Mill Test or Material Certs
- ✓ Magnetic Particle Inspection
- ✓ Hardness Testing

High Flow, Low NPSHr

Low First Cost

120 to 1,000 ft (37 to 305 m)	10 to 760 ft (3 to 231 m)
200 to 800 gpm (45 to 181 m ³ /hr)	10 to 380 gpm (2.5 to 86 m ³ /hr)
400 hp (298 KW)	75 hp (55 KW)
0 to 300°F (-18 to 149°C)	-40 to 350°F (-40 to 175°C)
1.0	1.0
1,000 psig (70 kg/cm ²)	710 psig (50 kg/cm ²)
--	--
1,450 to 3,550 rpm	1,450 to 3,550 rpm
Ball Bearings (bearing frame)	Ball Bearings (bearing frame)
750 cp	750 cp
API 610 (OH3, OH5)	API 610 (OH3, OH5)
0.015" (0.381mm), 400 microns	0.015" (0.381mm), 400 microns
Vertical	Vertical
Single, Double, Tandem, Cartridge	Single, Double, Tandem
Yes	Yes
600#	300#, 600#, RF
0.125" (3.17 mm)	0.125" (3.17 mm)
6" x 4"	3" x 2"
11, 12, 14, 52, 53, 61, 62	11, 12, 13, 21, 23, 31, 32, 41, 52, 53, 54, 61, 62,



Backed By Global Support

Sundyne is more than just a manufacturer of high quality compressors and pumps...much more. Not only do we offer some of the fastest delivery times in the industry via our new FastLane program, we also back each and every product shipped with a full range of aftermarket support services, extending the value of our highly engineered machines well beyond the point of sale.

The Sundyne service team is here to help you protect your investment and provide a trouble-free customer experience.

Our Aftermarket Programs Include:

- Expedite Programs
- Maintenance Kits
- Conversion Programs
- Gearbox Exchanges
- Service Schools
- On-Site Service
- Overhaul and Repair Services



Plus, our new Reliability Assurance Kits deliver trouble free maintenance at regular intervals. To learn more about this convenient new service program, visit www.sundyne.com.

Sundyne: An OSHA VPP Star Site

At Sundyne, Environmental Health and Safety (EH&S) is integral to our culture of excellence, and providing a 100% safe work environment through the manufacturing and installation phases of a project is a core priority.



COMPRESSORS

PUMPS

GENUINE PARTS

SERVICE



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