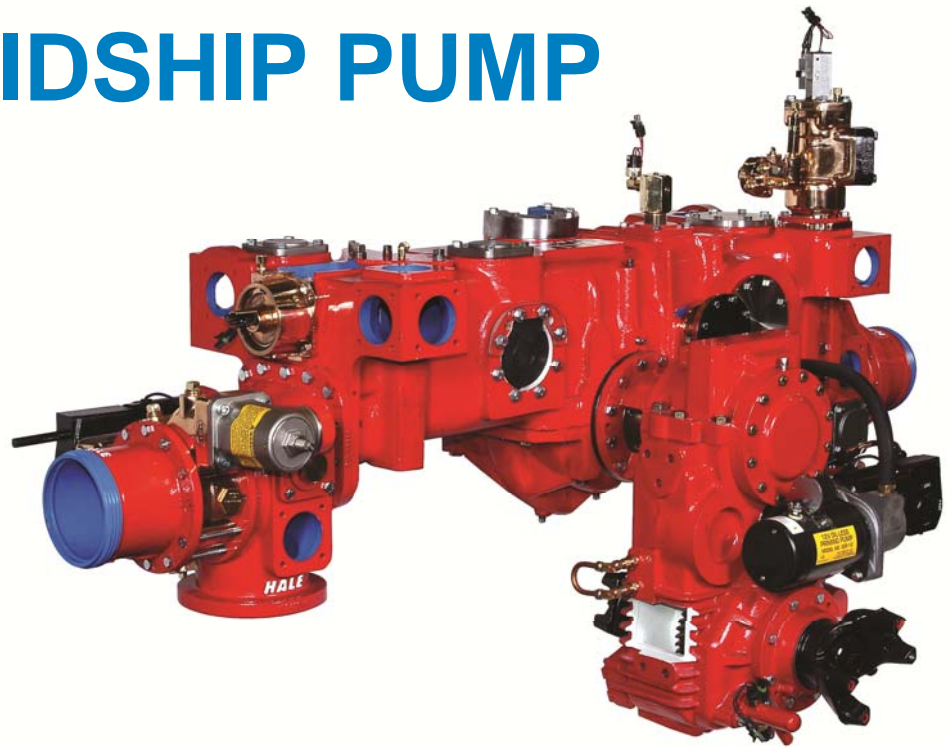




# QMAX MIDSHIP PUMP



GODIVA®

***Class 1***



# Superior Performance



GODIVA®

***Class 1***



# QMAX – Superior Performance

- The Qmax single stage mid-ship pump generates NFPA 1901 rated flows up to 2,250 GPM (8,515 LPM) from draft
- True 2,000 GPM rated pump body and impeller commonly purchased at 1,500 GPM



GODIVA®

***Class 1***



# QMAX – Superior Performance

- Exceeds **3,000 GPM** from a sufficient positive pressure water source along with an appropriate engine
  - 450 HP
  - Residual water pressure 50 psi
  - Master Intake Valve (MIV) on left and right intake



GODIVA®

***Class 1***





# QMAX – Superior Performance

- Low friction losses allow flows of up to 2,600 GPM on each of the three standard and one optional 4-inch pump body openings or 1,500 GPM on each of the twelve 3-inch ports (from a positive water source)



GODIVA®

***Class 1***



# QMAX – Superior Performance

- Large suction inlets and full flow waterways cut friction loss and deliver maximum pressure at the discharge valves
- Designed to use 6" suction Master Intake Valves (MIV) which have no impact to single hose 1,500 GPM rating



GODIVA®

***Class 1***



# QMAX – Superior Performance

- Dual cutwaters provide smooth water flow delivery to the cast pump body with no twists, turns or restrictions that add turbulence.
- Manifold is designed in a manner that the water leaves the pump assembly to the closest point of distribution.



GODIVA®

***Class 1***





# Unmatched Reliability



GODIVA®

***Class 1***

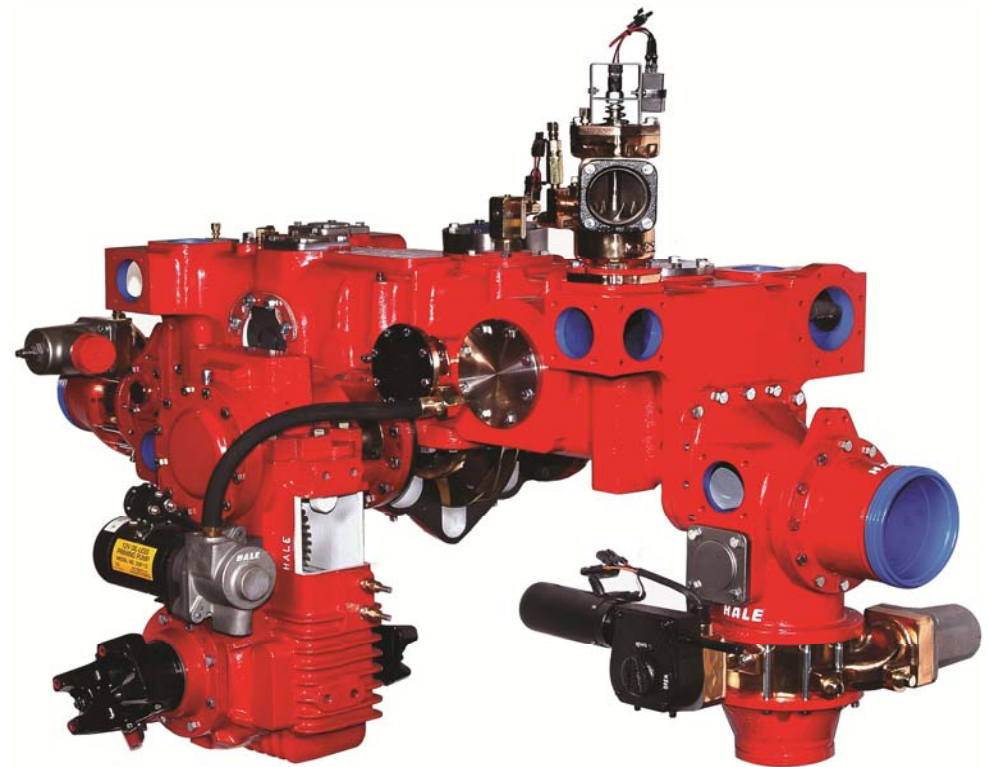




# Qmax – Unmatched Reliability

## Strong Pump Body

- A one piece upper pump body minimizes potential piping leaks and makes maintenance and service easy
- Pump body acts as a chassis cross member
- No pump body connections to loosen due to vibration or break due to body twisting.



GODIVA®

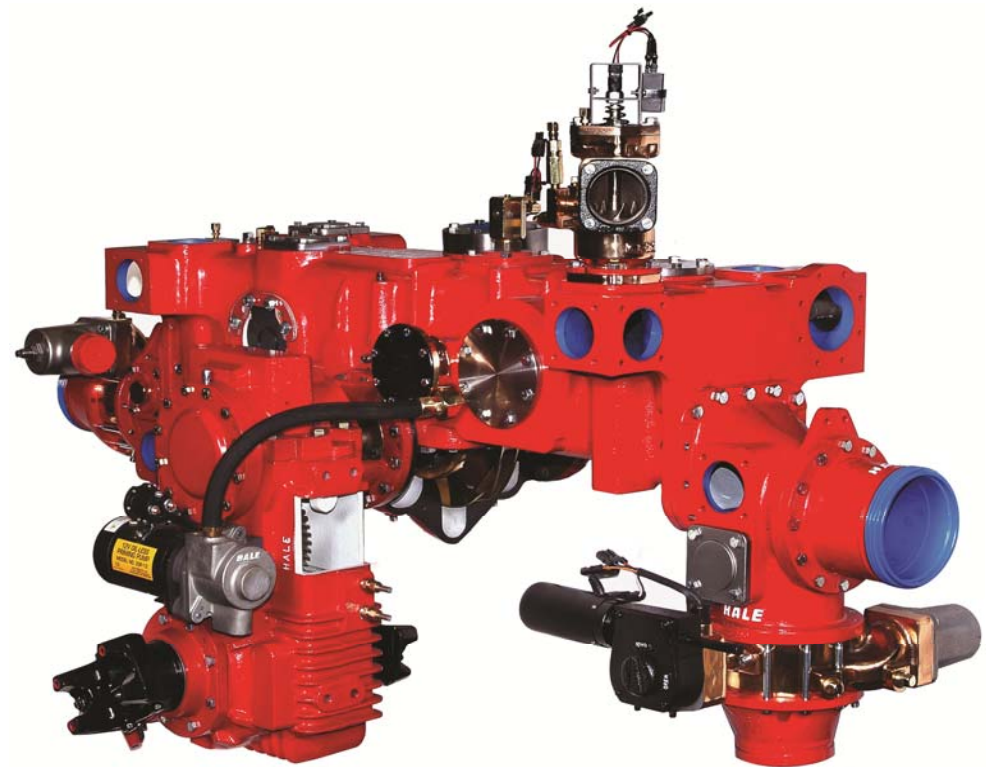
**Class 1**



# Qmax – Unmatched Reliability

## Strong Pump Body

- Complete body constructed out of 30,000 psi tensile fine grain cast iron
- Design allows for easy pump rebuilds without removing pump body and plumbing for less downtime



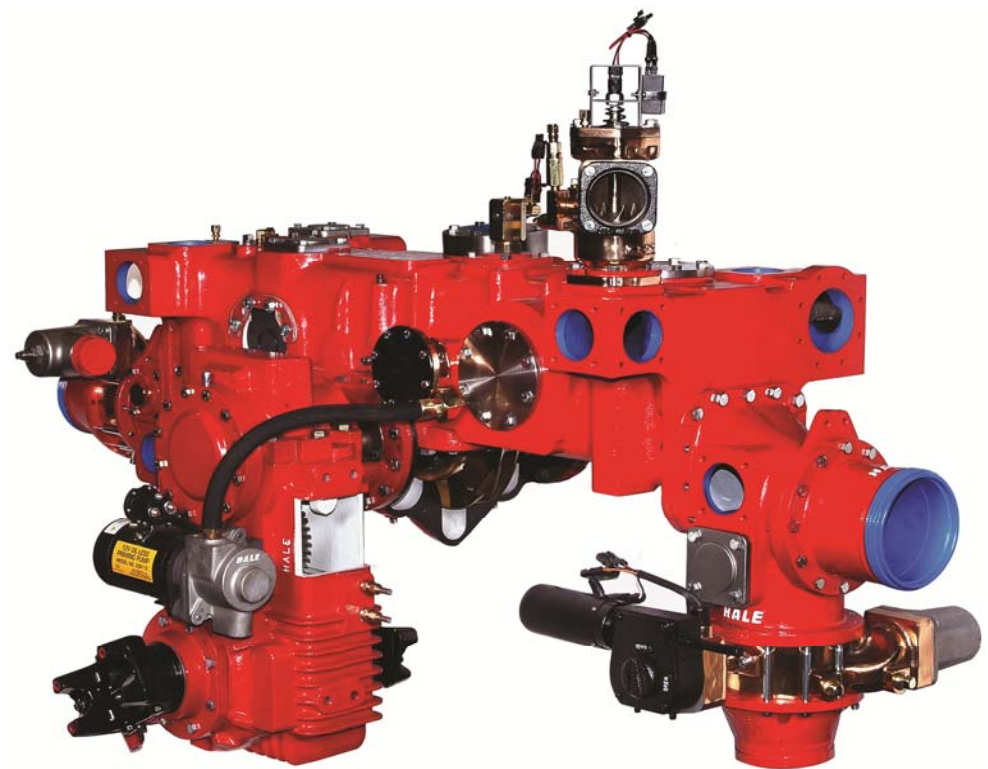
GODIVA®

**Class 1**



# Qmax – Unmatched Reliability

- Double suction impeller with dual cutwater design minimizes shaft loading for long life while increasing suction performance and efficiency
- Pump shaft supported close to the impeller to minimize shaft deflection. Decreased shaft deflection reduces wear on the shaft, impeller, clearance ring, and bearings



GODIVA®

***Class 1***





# Qmax - Unmatched Reliability

## Qmax – Split-Shaft G Gearbox

- Transfer of full engine horsepower to the pump
- Capable of handling 16,000 lb. feet of torque (Optional K gearbox capable of handling 18,500 lb. feet of torque)
- Most reliable shifting transmission in the industry (over 32,000 installed)
- Parts and service — well established service network
- Fewer components mean faster and simpler rebuilds





# Innovation



GODIVA®

***Class 1***



# QMAX – Innovation

- Qmax pump's one piece, compact body profile design minimizes piping requirements and leaves more room for storage compartment space on your apparatus.
- Pump design allows discharge configuration flexibility while minimizing friction loss and maximizing output GPM at the lowest engine speed.



GODIVA®

***Class 1***





# QMAX – Innovation

## Autolube

- Allows for one packing or seal which greatly simplifying service/repair problems
- The Auto-Lube is an impeller shaft sleeve bearing system that automatically lubricates itself with oil plus seals out dirt and water. This puts the safest most rugged type of “extended life” bearing right in the center of the pump, next to the impeller, where it provides maximum benefit.



GODIVA®

**Class 1**



# QMAX – Innovation

- Qmax pump's internal plumbing allows for relief valves to be integrated into the pump body



GODIVA®

***Class 1***



# Product Options



GODIVA®

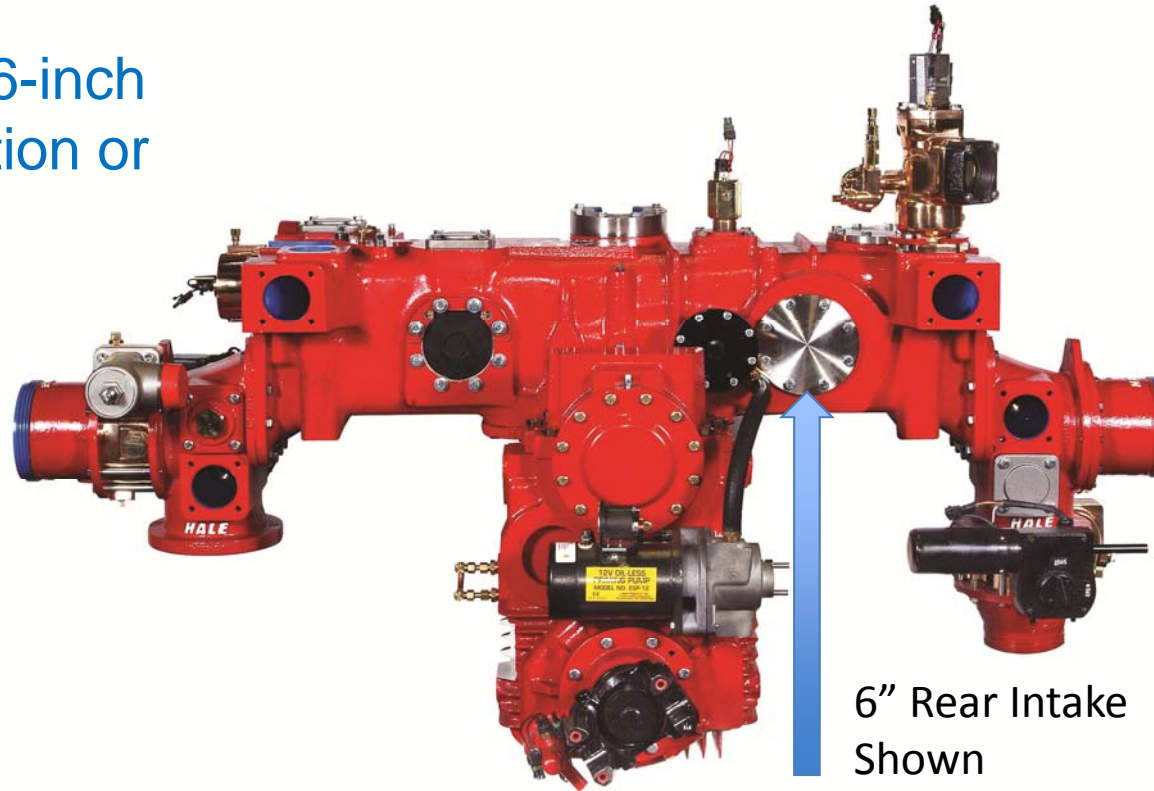
***Class 1***





# Qmax - Options

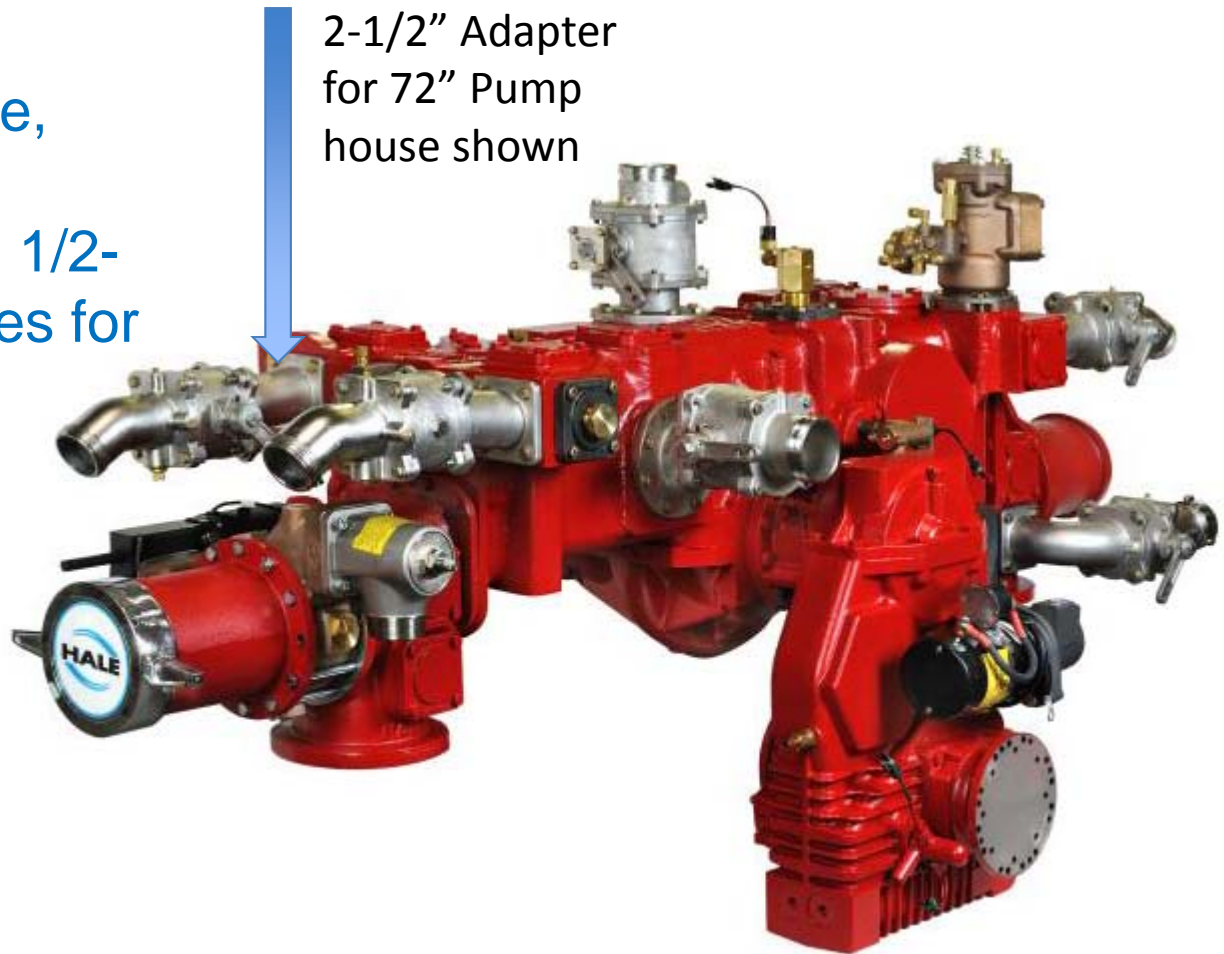
- 4-inch (8-bolt) or 6-inch (12-bolt) rear suction or 2<sup>nd</sup> tank to pump





## Qmax - Options

- Offer a range of universal valve extensions to fit Hale, Class1, Akron and Elkhart valves, for 2 1/2- to 4-inch valve bodies for pump compartment widths of 70- to 76-inches.



2-1/2" Adapter  
for 72" Pump  
house shown



GODIVA

**Class 1**

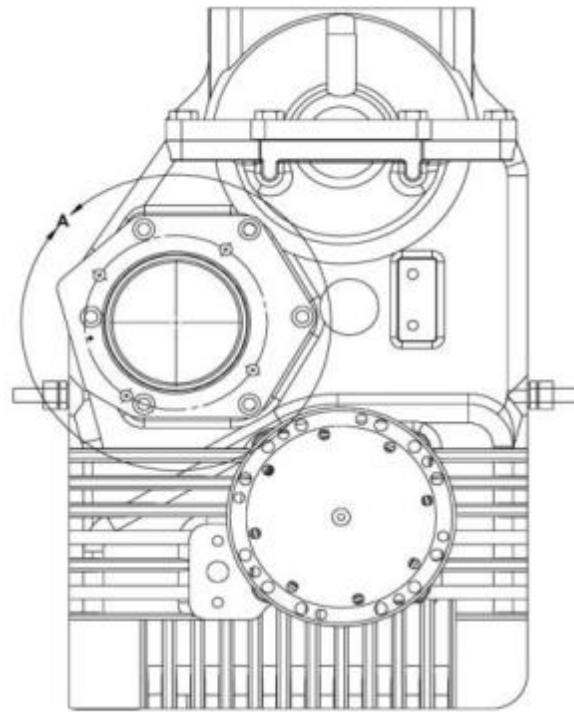


# Qmax - Options

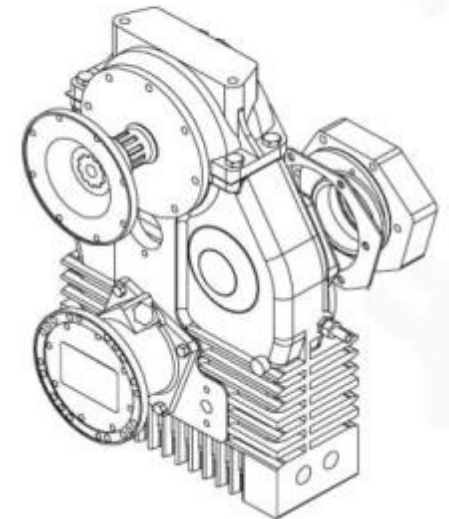
With the G gearbox the pump can be ordered with an auxiliary drive

- SAE B Adapter (50 HP)
- SAE C Adapter (75 HP)
- Bore only

Drive can be used to run compressors, foam system, or hydraulics



REAR ELEVATION OF HALE 'RGA' GEARBOX







# Pump Options - TRV

## Thermal Relief Valve

*Insurance policy from overheating pump components*

- Valve dumps “Hot” water to atmosphere or tank
- Automatically engages and disengages
- Available with indicator light and alarm





# Pump Options - Primer

## ESP – Oil less primer

- Pulls 24 Hg on one pull in about 1 minute (NPFA = 22 Hg)
- Primes 10 foot lift with 20 foot of 6 inch suction hose in 15 to 20 seconds
- Does not need a special compressor
- Air primers can't handle the lift
- 3 different actuation options
  - T-Handle
  - SPV
  - Air Activated





# Pump Options - Valves

## Class 1 Valves

- Industry standard seal design
- All stainless steel design



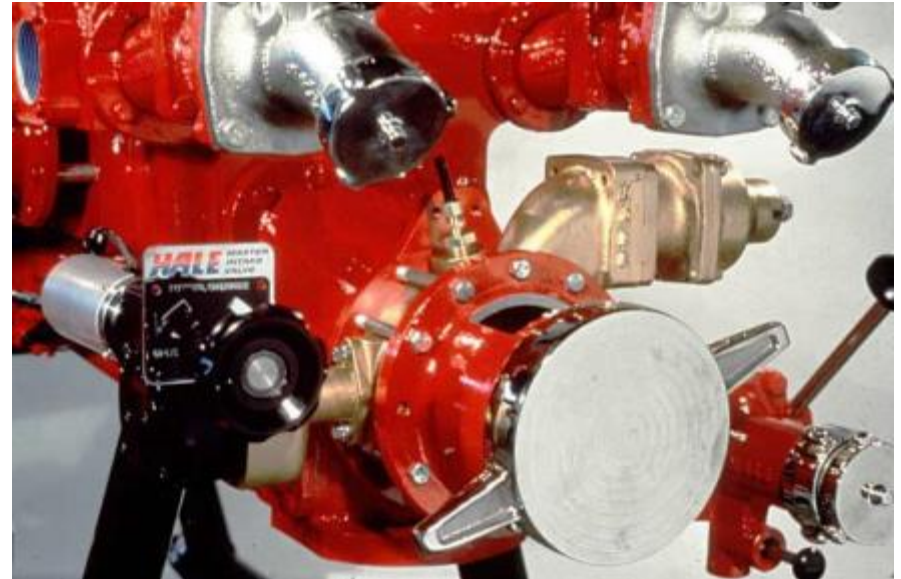




# Pump Options - MIV

MIV (Manual Intake Valve)  
Manual and Electric Version

- All Bronze construction eliminates galvanic corrosion issues
- Oversized 6-3/8" passage versus the 6" industrial standard
- Adapts to pre-prime that makes transfer to fold "a-tank" easier
- Easy access to manual override on electric version
- Electric version is a true slow close



GODIVA

Class 1



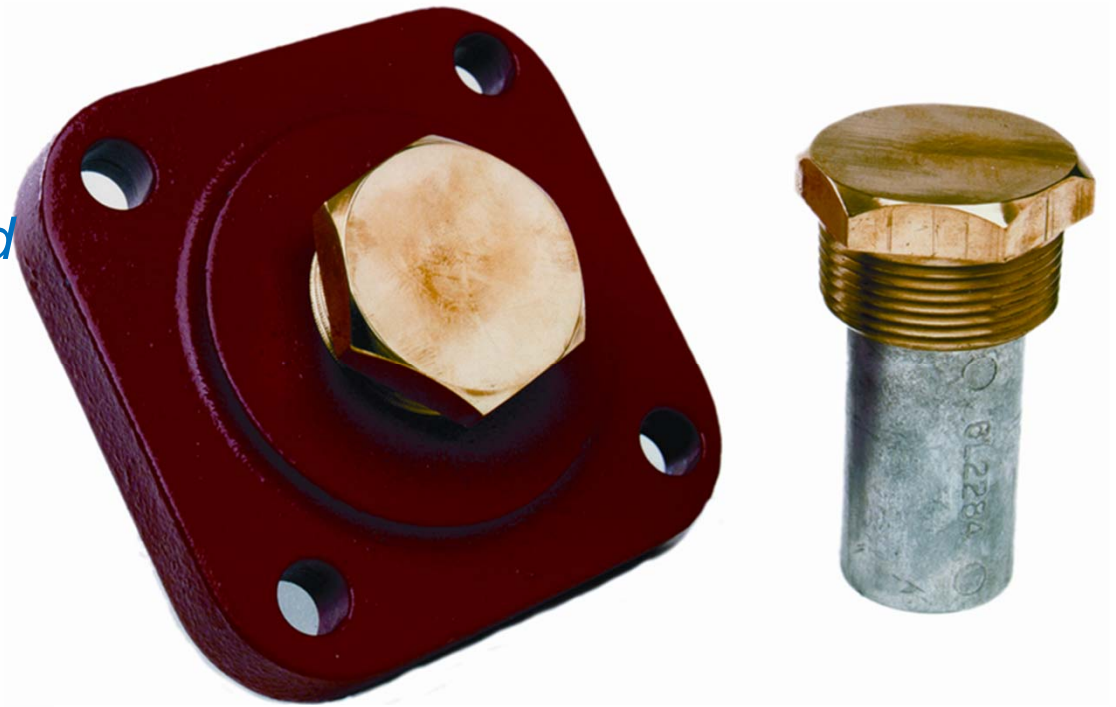


# Pump Options - Anodes

Sacrificial galvanic anode designed to help minimize the corrosion of the pumping system

*Recommend 2 suction and 1 discharge anode*

- Alloy Anodes
- Magnesium Anodes – Higher protection of pumping system





# Pump Options – Anode-Pro

- Specialized aluminum alloy anode with a stainless steel CORE (more effective than standard zinc anodes but lower annual cost than magnesium anodes)
- Notifies you when the anode needs to be replaced.
- System can monitor 1, 2 or 3 anodes at the same time
- Reduces the service “guess” work on when the anodes need to be replaced

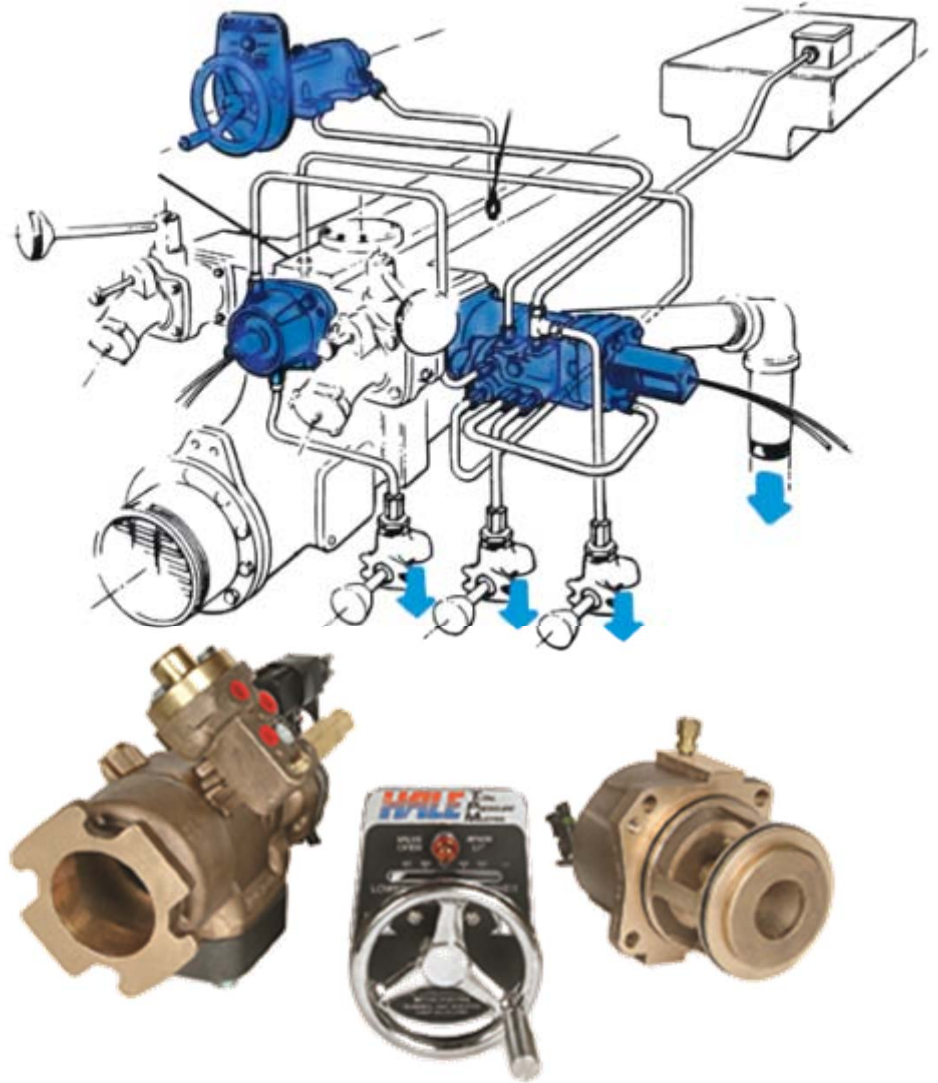




# Pump Options – TPM / Relief Valves

## Total Pressure Master

- This system is the only product which works on total pump pressure (not just net pressure) including when operating from high hydrant pressure. The system also automatically gives you pump recirculation.
- No electric parts







# Pump Options – Repair Kit

**HALE TYPE MBP AND APS LEVEL 1 BASIC REPAIR KIT**  
**PART NUMBER 546-3000-00-0**

## Level 1 Kit

- Include all of the parts needed to repair mechanical seals
- Simplifies part ordering



	PART NUMBER	QTY	DESCRIPTION
A	017-0581-00-0	1	IMPELLER KEY
B	046-0440-00-0	1	VOLUTE GASKET
C	046-1780-00-0	1	DRIVE UNITE COVER GASKET
D	046-5340-01-0	1	PUMP HEAD SEAL RING
E	064-5070-01-0	1	COTTER PIN
F	077-1500-05-0	1	UNPUT SHAFT RETAINING RING
G	110-7040-00-0	1	NUT-IMPELLER
H	296-2650-00-0	1	INPUT SHAFT OIL SEAL
I	296-2850-00-0	1	PUMP SHAFT OIL SEAL
J	296-5023-00-0	1	MECHANICAL SEAL
K	546-2720-00-0	1	CLEAN/LUBE KIT



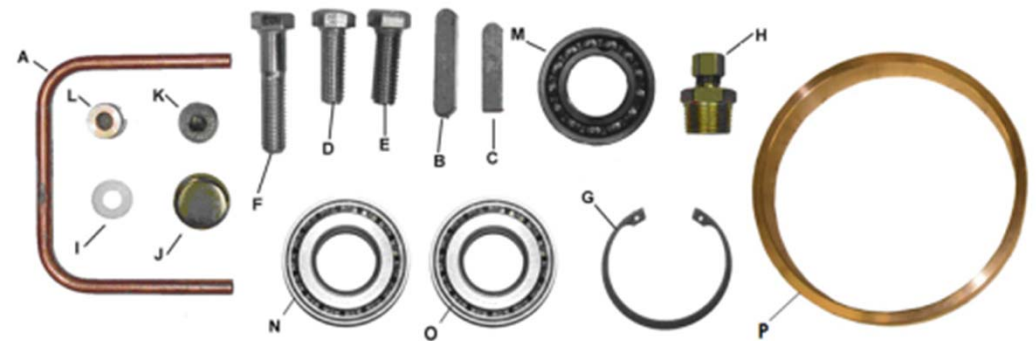


# Pump Options – Repair Kit

## Level 2 Kit

- Include all of the parts needed to repair bearings and clearance ring
- Simplifies part ordering

### HALE TYPE MBP LEVEL 2 INTERMEDIATE KIT PART NUMBER 546-3000-01-0



	PART NUMBER	QTY	DESCRIPTION
A	007-3710-00-0	1	COOLING TUBE
B	017-0300-00-0	2	KEY - PUMP AND INPUT GEARS
C	017-0300-02-0	1	KEY - INPUT SHAFT
D	018-1812-02-0	16	SCREW 7/16-14 X 1-1/4 ZINC PLATED
E	018-1812-12-0	12	SCREW 7/16-14 X 1-1/4 STAINLESS STEEL
F	018-1820-02-0	4	SCREW 7/16-14 X 2 ZINC PLATED
G	077-3150-00-0	1	INPUT SHAFT BEARING RETAINING RING
H	082-0557-02-0	2	OIL COOLER FITTING
I	097-1070-00-0	16	7/16 WASHER
J	217-3360-00-0	1	KNOCK-OUT PLUG
K	217-3470-00-0	1	OIL DRAIN PLUG
L	217-3480-00-0	2	OIL FILL/LEVEL PLUG
M	250-0208-20-0	2	208 BEARING
N	250-8280-00-0	1	PUMP SHAFT BEARING
O	250-8290-00-0	1	SHAFT BEARING
P	321-0361-00-0	2	MG CLEARANCE RING
	546-3000-00-0	1	MBP/APS LEVEL 1 BASIC REPAIR KIT
	546-3000-17-0	1	PUMP SHAFT SHIM KIT



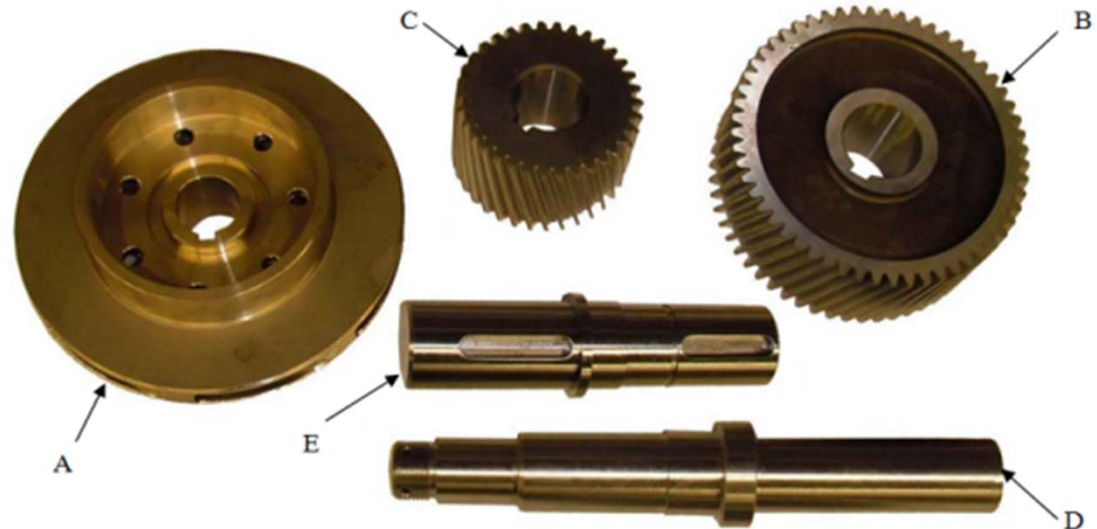


# Pump Options – Repair Kit

## Level 2 Kit

- Include all of the parts needed to repair gears and impeller
- Simplifies part ordering

### HALE TYPE MBP-16 LEVEL 3 OVERHAUL KIT PART NUMBER 546-3000-03-0



ITEM	PART NUMBER	QTY	DESCRIPTION
A	016-0761-00-0	1	IMPELLER
B	031-1510-00-0	1	56 TOOTH INPUT GEAR
C	031-1930-00-0	1	34 TOOTH PUMP GEAR
D	037-2391-00-0	1	PUMP SHAFT
E	037-2520-00-0	1	INPUT SHAFT
	546-3000-01-0	1	MBP LEVEL 2 INTERMEDIATE KIT





# Pump Options – Modules

- Uniformity of controls and layout
- Reduce manufacturing lead-time
- Increase manufacturing capacity
- NFPA compliant
- Driveline validation
- Order one part
- Pre-tested
- We own all the content besides the body and panels





# Questions?



GODIVA®

***Class 1***