

# Marlow Series 2AM32

**INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS**

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### Owner's Information

Please fill in data from your pump nameplate.  
Warranty information is on page 8.

Pump Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Dealer's Phone Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Installation Date: \_\_\_\_\_

## Congratulations

You are now the owner of a Goulds pump. This pump was carefully inspected and subjected to final tests before releasing for shipment. In order to assure maximum performance please follow the simple instructions in this manual.

### RECOMMENDED PRECAUTIONS

1. Avoid system pressures that may exceed the maximum working pressure of the pump.
2. Should the fluid temperature rise more than 50°F. above ambient, expansion joints must be installed on both the suction and discharge ports to relieve any stress on the pump casing.
3. All electrical wiring of the pump installation must be done by a licensed electrician who will observe all national and local electrical codes. All motors require a magnetic starter with current overload protection.
4. No modifications, additions or deletions should be made to the pump, without prior approval of the factory.
5. In systems where shock wave pressures may be generated, protective devices such as check valves/gate valves, etc., must be installed on the discharge line to prevent shock pressures from entering the pump casing.
6. In systems containing discharge check valves, gate valves, etc., the pump will not prime against a closed valve. Check the discharge valves making sure they are open before attempting to prime pump. If there is a possibility of air being entrapped in the pump casing, install an automatic venting device to bleed off the air.
7. This pump is designed primarily for water use. Before pumping other liquids, read carefully the **CAUTION** below.
8. Overheated pumps are dangerous. Burns or explosion could occur due to steam pressure. Operating pumps with suction and discharge closed is one cause of severe overheating. If overheating of pump occurs:  
1. Stop pump immediately, 2. Allow pump to cool, 3. Slowly and cautiously vent pump.
9. Drain casing completely when servicing pump.
10. Do not use in a combustible atmosphere.
11. Make daily checks of the tightness of suction and discharge pipe, drain, filter plug and pump gaskets. Operation should not proceed until all of the above items have been checked and are tight.
12. After servicing the pump, always install any safety devices as originally found prior to disassembly.

**CAUTION** The performance of Goulds pumps are based upon clear, cold, fresh water with suction conditions as shown on the performance curve. If used to pump other liquids, pump performance may differ from rated performance based on the different specific gravity, temperature, viscosity, etc. of the liquid being pumped. A standard pump may not be safe for pumping all types of liquids, such as toxic, volatile or chemical liquids, or liquids under extreme temperatures or pres-

ures. Please consult your Goulds Water Systems catalog as well as local codes and general references to determine the appropriate pumps for your particular application. Since it is impossible for us to anticipate every application of a Goulds pump, if you plan to use the pump for a non-water application, consult Goulds Water Systems beforehand to determine whether such application may be proper or safe under the circumstances. Failure to do so could result in property damage or personal injury.

### OPERATING INSTRUCTIONS

#### GENERAL

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- Our shipping container has been specifically designed to prevent transit damage. However, any indications of damage or shortage should be carefully noted on the delivery ticket and a claim filed promptly with the carrier.

#### PROPER LOCATION

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- By placing your Goulds pump on a firm, level foundation, you reduce the chance of its falling into the liquid and damaging the engine. You also insure proper oil lubrication of the engine and obtain optimum engine performance. Best pump operation is obtained by locating the pump as close as possible to the liquid being handled, keeping in mind a pump can push liquid more effectively than it can pull or draw liquid.

#### CONNECTIONS

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- Connections at the easily accessible suction and discharge ports can be made with either hose or pipe. The use of strongly reinforced suction hose will prevent collapsing of the hose during operation. New hose washers should be used at the couplings to prevent trouble-causing leaks. Pipe joint compound that will not dissolve in the liquid being pumped should be used on all pipe joints. All hose or pipe should be independently supported to eliminate excessive strain on the pump. For best results your hose should discharge higher than the pump to prevent siphoning action when the unit is shut down.
- The Model 2AM32 requires the addition of close, faced nipples on suction and discharge ports of pumps. Apply pipe compound on nipples before installing.

#### STRAINER ADVISABLE

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- Protect your investment, use a strainer. Strainers are attached to the suction line to prevent stones and foreign debris from damaging the impeller or diffuser, resulting in reduced performance. Stones lodged inside the pump can cause premature wear and poor performance. To keep the strainer from working into the sediment, suspend the hose from the end of a rope. If you do not have a strainer, your Goulds Water Systems dealer can supply one in the correct size.

## **STARTING**

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- Follow the engine manufacturer's instructions carefully. Fill the pump tank with liquid before starting.
- Your pump has been designed to prime itself in a few minutes with the engine running fast. High suction lifts require additional time and reduce the performance of the pump. Should you have difficulty, refer to the "Troubleshooting Guide" section.
- These pumps prime and reprime themselves providing the tank is filled with liquid. Should you lose this liquid from the tank accidentally or by draining purposely, it will be necessary to refill it with liquid before starting.

## **LUBRICATION**

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- The latest engineering advancements have been incorporated into our self-lubricating shaft seal. The liquid being pumped cools and lubricates the seal. Running the pump dry will damage the seal. Always keep water in the tank, and no further lubrication of the pump end is necessary. Refer to engine manual for proper engine lubrication.

## **HIGH DISCHARGE**

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- If you have a vertical discharge line rising 30 feet or more, your pump is subject to severe back pressures when it is shut down. This back pressure can cause damage to the pump. To prevent the possibility of this damage, install a check valve on the discharge line as near to the pump as possible, and the shock will be stopped at the valve.

## **MAINTENANCE**

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1. The pump is fitted with a mechanical shaft seal which requires no other lubrication than the liquid in which it operates.
2. On occasion, the mechanical shaft seal may become worn and must be replaced. Follow the replacement instructions enclosed with each seal assembly.
3. When pump is not in use for several days, or winter storage, drain all the liquid from the tank. Remove the ignition wire from the spark plug before rotating the pump shaft a few turns. Rotating the shaft will help prevent rust formation around the impeller.
4. Follow the engine manufacturer's manual for periodic maintenance and adjustment. Also follow their procedure for winterizing the engine as set forth in the manual.
5. Storage of engine requires rotation of engine shaft to the compression stroke, thus preventing rust on the engine valve.
6. Maintenance and functional problems relating to the engine should be referred directly to the manufacturer's service station.

## TROUBLESHOOTING GUIDE

The following are some common causes of problems that may arise.

<b>SYMPTOMS</b>	<b>PROBABLE CAUSE</b>	<b>RECOMMENDED ACTION</b>
<b>Will Not Prime</b>	No liquid Air leak Blocked line Worn seal	Fill tank with liquid. Tighten all suction line joints, couplings or connections. Clean hose and strainer. Install new seal.
<b>Stops Pumping Until Engine is Stopped and Restarted</b>	Collapsing suction hose lining	Replace hose.
<b>Suddenly Stops Pumping</b>	Clogged strainer or hose	Clean hose and strainer.
<b>Slowly Stops Pumping</b>	Clogged impeller, diffuser or lines	Clean out debris and use strainer.
<b>Leakage Around Pump Shaft While Operating</b>	Worn seal	Replace seal.
<b>Will Not Hold Prime</b>	Foreign material under check valve Worn check valve	Clean or replace check valve and seal. Replace check valve.
<b>Performance Poor</b>	Worn impeller or seal Engine not up to speed Suction lift too high Suction hose too small	Replace with new impeller or seal. Refer to engine manual. Relocate pump closer to supply. Use larger size hose.

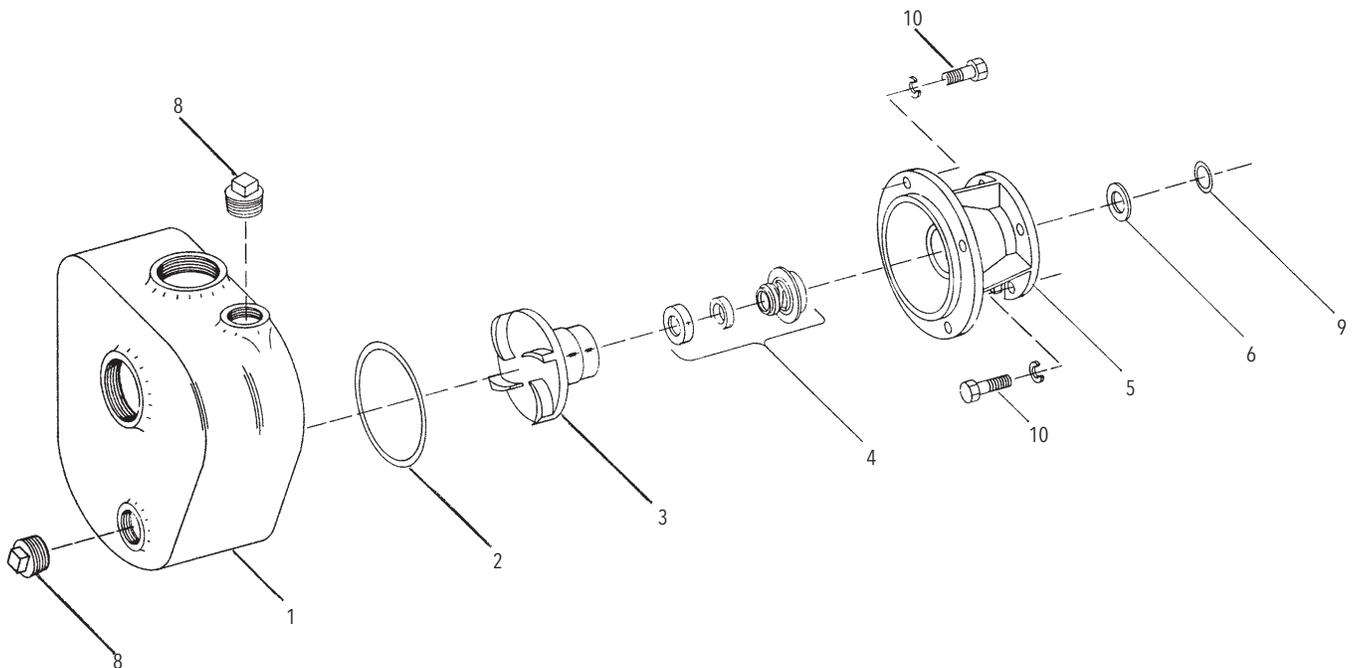
## REPAIR PARTS LIST

Key	Description
1	Casing
2	Gasket, o-ring
3	Impeller, open
4	Seal assembly
5	Bracket
6	Slinger
8	Pipe plug (drain and fill)
9	Gasket, o-ring
10	Cap screw/washer

### IMPORTANT:

How to use the drawing to order parts:

The following grouping of parts illustrations cover many different Goulds Water Systems models, including your own pump. The table on the preceding page indicates the name of each part. Should you need a replacement, refer to above drawings - locate the part that matches your pump part. Contact your local Goulds Water Systems dealer and supply him with the key number and description of the parts required, along with your pump model number and serial number, which are located on the pump nameplate.





### GOULDS WATER TECHNOLOGY LIMITED WARRANTY

This warranty applies to all water systems pumps manufactured by Goulds Water Technology.

Any part or parts found to be defective within the warranty period shall be replaced at no charge to the dealer during the warranty period. The warranty period shall exist for a period of twelve (12) months from date of installation or eighteen (18) months from date of manufacture, whichever period is shorter.

A dealer who believes that a warranty claim exists must contact the authorized Goulds Water Technology distributor from whom the pump was purchased and furnish complete details regarding the claim. The distributor is authorized to adjust any warranty claims utilizing the Goulds Water Technology Customer Service Department.

**The warranty excludes:**

- (a) Labor, transportation and related costs incurred by the dealer;
- (b) Reinstallation costs of repaired equipment;
- (c) Reinstallation costs of replacement equipment;
- (d) Consequential damages of any kind; and,
- (e) Reimbursement for loss caused by interruption of service.

**For purposes of this warranty, the following terms have these definitions:**

- (1) "Distributor" means any individual, partnership, corporation, association, or other legal relationship that stands between Goulds Water Technology and the dealer in purchases, consignments or contracts for sale of the subject pumps.
- (2) "Dealer" means any individual, partnership, corporation, association, or other legal relationship which engages in the business of selling or leasing pumps to customers.
- (3) "Customer" means any entity who buys or leases the subject pumps from a dealer. The "customer" may mean an individual, partnership, corporation, limited liability company, association or other legal entity which may engage in any type of business.

**THIS WARRANTY EXTENDS TO THE DEALER ONLY.**



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