

INSTALLATION OPERATION & MAINTENANCE INSTRUCTIONS

FOR YOUR

PENN PUMP & EQUIPMENT COMPANY, INC.

GLYCOL MAKE-UP SYSTEM

This completely assembled, tested, packaged pumping system is of the highest quality and design. To obtain optimum performance from this system, it is important that you read these instructions carefully and pay particular attention to any highlighted instructions. We are confident that you will receive many years of trouble-free service from your **Penn Pumping System**.

www.pennpump.com

IMPORTANT:

**DO NOT PUMP ANY OTHER PRODUCTS WITH THIS SYSTEM.
THIS UNIT IS DESIGNED TO PUMP A WATER GLYCOL SOLUTION ONLY.**

INSTALLATION

Install and bolt down the glycol make-up system on a sturdy level surface. Please note the 30- and 55-gallon units weigh approximately 600 pounds and the 100-gallon unit weighs approximately 1000 pounds. Pipe the discharge to the system to be pressurized. Fill the solution tank with the water and glycol solution in the proportions specified and mix thoroughly. Bleed the system discharge to remove any air in piping. Connect the electrical service to the control panel. The pump and controls run on 115 volts, single phase, 60 cycles only. With the system isolation valve turned off, turn the pump switch to automatic and monitor the pump pressure. The pressure gauge should rise and the pump should stop after approximately 30 seconds. The relief valve may open and discharge solution back to the storage container. Open the system valve; the pump will cycle as required to maintain a positive pressure. It will not run on an empty solution container. An additional system pressure reducing valve and check valve should be piped downstream of the pump package to maintain set system pressure and prevent backflow into the storage container.

OPERATION

Once the System has been purged and the on-off pressure switch is set, the system will maintain the set make-up pressure automatically. The Series GS is designed to operate without the need of servicing or adjustment. Little or no lubrication is necessary; the pump is equipped with self-lubricating carbon bearings, and the motor is a lifetime lubricated type for standby make-up applications. For other service, see nameplate. The pump has a seal type packing which does not require adjustment. Make sure that the glycol solution level in the translucent solution container is adequate at all times. Should the solution container run dry, the pump will stop and the alarm will be activated. The audible part may be silenced; however, make sure it is turned back on after filling the tank and bleeding. Always replace the lid to keep the solution clean.

WARRANTY

The components of each Penn Pump Glycol Make-up System, when purchased as regular factory selections, are warranted against failure due to defects in design, material, or construction, from date of factory shipment within the periods and under the conditions noted below:

PUMPS

All Penn Pump pumping assemblies are warranted against mechanical failure for a period of One (1) year. If any component of the pumping assembly fails within this period, Penn Pump & Equipment Company, Inc., will, at its option, repair or replace the pump assembly on a no-charge exchange basis FOB factory, Hatfield, Pennsylvania.

MOTORS

Motors, when equipped with standard Penn Pump overload protection systems and maintained according to factory instructions, are warranted for One (1) year. Penn Pump & Equipment Company, Inc., will make, at its option, a no-charge repair or replacement at the factory or at the authorized motor service station.

COMPLETE SYSTEM

The complete Penn Pump system as a whole, including all accessories and components not mentioned above, is warranted functionally and mechanically for a period of One (1) year, when installed, operated, and maintained in accordance with the Company's recommendations.

Penn Pump & Equipment Company, Inc., is responsible only for repairing or replacing its products in accordance with the terms and conditions set forth above. There are no warranties, either expressed or implied, extending beyond those stated on the face hereof, and Penn Pump & Equipment Company, Inc. expressly disclaims all other warranties, including any implied warranties of mechanical ability or fitness for a particular purpose. Penn Pump & Equipment Company, Inc. also disclaims any liability whatsoever for incidental or consequential damages, including damages to property, damages for loss of use, loss of time, loss of profits, loss of income, or any other incidental or consequential damages. Penn Pump & Equipment Company, Inc. neither assumes nor authorizes any other person to furnish any warranties, or assume for it any liability in connection with the sale of its products.

This warranty does not include mechanical seals, gauges, transportation, or labor costs for exchange or installation or repaired or replaced material. Final determination of warranty shall be made only by the factory upon return and inspection of returned material. No material is to be returned without a return of materials authority (RMA) tag which may be obtained by calling or writing the factory, advising what will be shipped and the reason for the return.

SPECIFY WITH CONFIDENCE, SPECIFY PENN PUMP SYSTEMS