

## with dry run capabilities

Using our carbon bearing system, models covered in this service data sheet have “dry run” capabilities dependent on the temperature resistance of the pump housing material and the type of liquid being pumped. Pumps with Polyphenylene Sulfide (PPS) adapter disks, have run dry for up to 8 hours without apparent detrimental effects. Consult the factory about your specific “dry run” requirements.

### TROUBLE SHOOTING GUIDE

The trouble shooting guide is a suggestion or aid in helping solve problems that might arise.

NOTE: NEVER WORK ON PUMP WITHOUT MAKING CERTAIN POWER IS OFF

#### UNIT WILL NOT PUMP:

1. No liquid in pump (requires flooded suction).
2. Closed valves or blocked lines.
3. Air lock in suction or discharge lines.

#### LOW FLOW:

1. Air leak in suction line.
2. Closed valves or blocked lines.
3. Dirty filter systems.
4. Reverse rotation (on 3-phase or dual voltage, reversible motors).
5. Low voltage.

#### MOTOR DOES NOT TURN:

1. No power to motor. Check that all power switches are on. Be sure fuse or circuit breaker is properly set. Timers or controls properly set. Check motor wiring at terminals or plug.

#### MOTOR RUNS HOT:

These motors will run “hot” to the touch. However, this is normal. Thermal overload protector will function to turn them off if there is an overload or high temperature problem.

Excessive heat can be caused by:

1. Low voltage or incorrect voltage.
2. Installed in direct sun.
3. Poor ventilation.

#### MOTOR THERMAL PROTECTOR OPENS ELECTRIC CIRCUIT:

1. Motor is improperly connected.
2. Low voltage due to under-sized wire or low incoming voltage.
3. Incorrect voltage.
4. Overload due to binding in pump or bad motor bearings.

#### NOISY OPERATION OF MOTOR:

1. Worn bearings.
2. Damaged cooling fan.

#### NOISY OPERATION OF PUMP:

1. Air leak in suction line. Bubbles in liquid returning to pump inlet.
2. Restricted suction line due to blockage or under-size pipe.
3. Cavitation. (See 1. & 2. above).
4. Foreign matter in pump impeller.
5. Dry running pump bearing (with no liquid in pump). Intermittent noise levels can be expected under this condition.

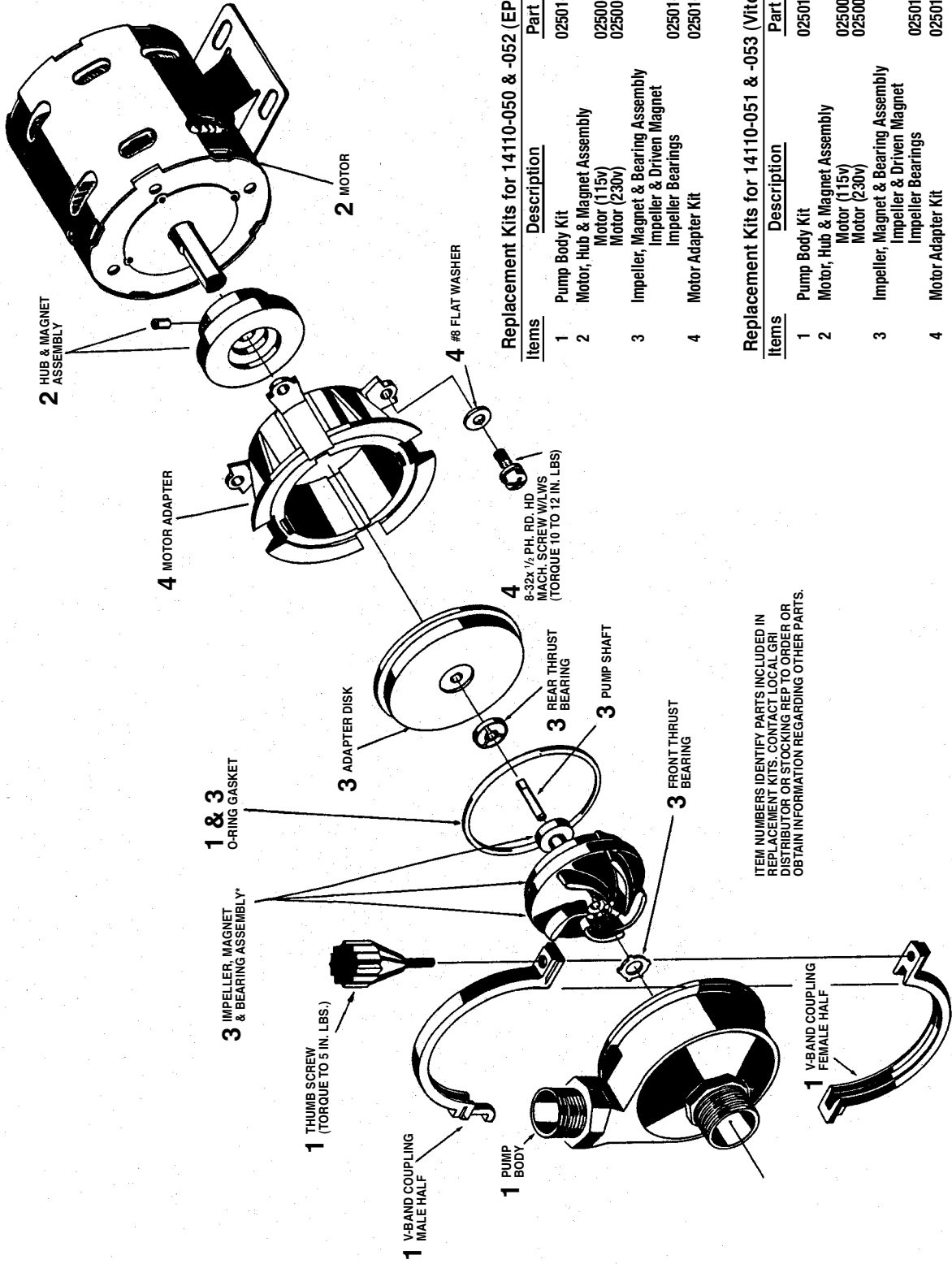
#### LEAKS:

1. Loose hose clamps.
2. Leaking plastic thread adapters. (Use a thread sealant—do not overtighten.)
3. A compatible thread sealer should be used when installing fittings or adapters to the threaded pump body connections. A maximum assembly torque of 10 ft.-lbs. is recommended for the pump inlet and 5 ft.-lbs. for the pump outlet. (These torque values do not pertain when using Teflon-type tape. Due to the high degree of lubricity, the parts may be damaged before a reliable torque reading is attained-do not overtighten.)
4. Leaking O-ring gasket. (Tighten V-band clamp screw to approx. 5 to 6 in.-lbs.)
5. Damaged or broken pump parts.

#### WARRANTY

Gorman-Rupp Industries warrants that its pumps are free from defects in materials, workmanship and title. Warranty expires one year from date of shipment. NO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR USE OR PURPOSE IS IMPLIED AND IS HEREBY EXPRESSLY EXCLUDED.

# 14110 SERIES MAGNETIC DRIVE PUMPS



### Replacement Kits for 14110-050 & -052 (EPT)

Items	Description	Part No.
1	Pump Body Kit	02501-553
2	Motor, Hub & Magnet Assembly	02500-573
	Motor (115v)	02500-574
	Motor (230v)	
3	Impeller, Magnet & Bearing Assembly	
	Impeller & Driven Magnet	02501-551
	Impeller Bearings	02501-072
4	Motor Adapter Kit	

### Replacement Kits for 14110-051 & -053 (Viton)<sup>®</sup>

Items	Description	Part No.
1	Pump Body Kit	02501-554
2	Motor, Hub & Magnet Assembly	
	Motor (115v)	02500-573
	Motor (230v)	02500-574
3	Impeller, Magnet & Bearing Assembly	
	Impeller & Driven Magnet	02501-552
	Impeller Bearings	02501-072
4	Motor Adapter Kit	

ITEM NUMBERS IDENTIFY PARTS INCLUDED IN REPLACEMENT KITS. CONTACT LOCAL GRI DISTRIBUTOR OF STOCKING REP TO ORDER OR OBTAIN INFORMATION REGARDING OTHER PARTS.