



Product Information Bulletin

Intermittent, Reverse Operation of Gorman-Rupp Pumps

PIB.001.19

EXECUTIVE SUMMARY

Before implementing any after-market technology that employs reverse pump operation as a means to prevent clogging or clear a blockage, the following guidelines need to be considered. Failure to comply with the following procedures will void the factory warranty and could result in catastrophic damage to the pump.

REQUIREMENTS

- The pump impeller needs to be correctly fitted and fully tightened. Failure to observe this could result in the impeller becoming detached during the reverse procedure.
- Clean impeller bolt and shaft threads. Apply thread locker (Loctite 243 Blue or equal) to both the impeller bolt and shaft threads per manufacturer's instructions. Install impeller washer and impeller bolt. Refer to O&M manual for impeller bolt torque setting.
- The pump shaft must be at rest before running in reverse.
- The pump shaft must be allowed to return to rest before restarting in the normal direction.
- Pump motor couplings should be suitable for reverse operation.
- The pump should only be allowed to run in reverse for a short time period (less than 15 seconds).
- No full-voltage, reversing contactors may be used (must use Variable Frequency Drives-VFD's).
- Pump motors running in reverse should be limited to a maximum of 25% (15 Hz) of full speed by means of a variable speed drive.
- Only pumps using rotating assemblies with S/N 1,680,000 and up will be approved.

TYPICAL CLEANING CYCLE

1. Run the pump motor up to full speed in the normal direction for 30 seconds.
2. Stop the motor and allow to come to rest.
3. Run the motor in reverse for up to 15 seconds – limited to a maximum of 25% (15 Hz) of full speed.
4. Stop the motor and allow to come to rest.
5. Repeat steps one through four a maximum of three times.*
**Please contact the motor manufacturer to determine the maximum starts per hour (a pump reversal also constitutes a motor start).*

APPROVED MODELS

The following trash-handling pump units are deemed suitable for reverse operation by Gorman-Rupp provided they meet all requirements set forth in this document:

Super T Series® (S/N 1,680,000 and up)

Ultra V Series® (S/N 1,680,000 and up)

Super U Series® (S/N 1,680,000 and up)

SF Series®

6500 Series®

Pumps configured for engine drives (SAE versions) are NOT approved.

NOTE

DO NOT REVERSE ANY PUMPS WITHOUT AN IMPELLER BOLT.

CONTACT INFORMATION

Consult factory with questions regarding the requirements for intermittent, reverse operation of Gorman-Rupp pumps by contacting any member of our Customer Service team at:

Phone: 419.755.1011

Fax: 419.755.1251

GRsales@gormanrupp.com