Please read and save this Repair Parts Manual. Read this manual and the General Operating Instructions carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. The Safety Instructions are contained in the General Operating Instructions. Failure to comply with the safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference. AMT reserves the right to discontinue any model or change specifications at any time without incurring any obligation.

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Periodic maintenance and inspection is required on all pumps to ensure proper operation. Unit must be clear of debris and sediment. Inspect for leaks and loose bolts. Failure to do so voids warranty.

Stainless Steel Straight Centrifugal Pumps

AMT A Gorman-Rupp Company

Refer to pump manual 1808-634-00 for General Operating and Safety Instructions.

DESCRIPTION

AMT Stainless Steel Solids Handling End Suction Centrifugal pumps are designed for continuous duty high flow and high pressure applications including: chemical processing, liquid transfer, pressure boosting, circulating, dirty water. Constructed of rugged deep drawn stainless steel for durability and corrosion resistance. Investment cast stainless steel closed impeller for enhanced performance, and handles a maximum of 1/8" diameter solids. Handle liquids from 40° to 200° F (4° to 93° C) with standard Viton seals; 40° to 180° F (4° to 82° C) with optional Buna-N seals. Wetted parts include: Stainless Steel impeller and impeller nut; Stainless Steel casing and casing cover; Type 21 mechanical shaft seal comprised of carbon, ceramic and stainless steel components; and Viton seals (Buna-N seals Optional). High head units also include wetted Stainless Steel motor shaft. The discharge port on all models can be rotated 360° in 90° increments to accommodate specific applications.

Motorized units are direct coupled to a 3450 RPM motor (see "Specifications" for additional motor data). Single phase pump motors have automatic reset thermal protection. All models are manual mode and require field wiring, no controls are supplied. Check motor wiring before putting unit into operation (see motors nameplate for specific wiring diagram).

ASSEMBLY

MOTOR (FOR UNITS SHIPPED WITHOUT DRIVER ONLY) (Refer to Figure 1)

⚠ CAUTION

If any parts are missing or damaged, do not attempt to assemble or operate pump until repair parts are obtained and properly installed.

1. Verify that motor conforms to ALL standards specified in "Description", and is equipped with slinger washer not included with pump.
2. Place motor in vertical position with shaft end up. Set adapter (Ref. No. 2) on top of motor.

NOTE: Be sure to align adapter in desired position now. Rotating adapter allows pump discharge port to be positioned at various angles.

3. See "INSTALLATION OF NEW SEAL" under "Maintenance" section and follow steps to complete assembly of pump.

MAINTENANCE

⚠WARNING

Make certain that unit is disconnected from power source before attempting to service or remove any components!

SHAFT SEAL REPLACEMENT (Refer to Figure 1)

REMOVAL OF OLD SHAFT SEAL

1. Disconnect power supply and piping.
2. Place unit in vertical position with pump end up.
3. Disassemble pump by removing fasteners and washers (Ref. Nos. 10 & 11) which holds casing (Ref. No. 9) in place. Lift off casing and casing seal (Ref. No. 5).
4. Unscrew impeller nut (Ref. No. 8), and impeller (Ref. No. 6) separately by turning each counterclockwise. Impeller seal (Ref. No. 7) will also be freed at this time. If seal head (Ref. No. 4 with spring) is retained on impeller, separate at this time.

NOTE: It may be necessary to use a soft hammer to tap outside of impeller in a counterclockwise direction to loosen it.

NOTE: Access to motor shaft is provided at end opposite pump (plug may need to be pried out or cover removed). Use screwdriver in slot or wrench on flats to keep motor shaft from turning.

5. Lift off casing cover (Ref. No. 3) while pulling seal along with it. Seal seat (without spring) can now be freed by pressing through from rear of casing cover.

IMPORTANT: Do not damage motor shaft, impeller stem or seal cavity in casing cover as this may cause leaks.

Stainless Steel Straight Centrifugal Pumps

INSTALLATION OF NEW SEAL

⚠ CAUTION

The precision lapped faces of mechanical seal are easily damaged. To prevent leaks, handle replacement seal carefully. Do not touch seal mating faces.

1. Clean seal cavity area of casing cover (Ref. 3). Lubricate rubber portion of seal seat (Ref. No. 4 without spring) with soapy water. Protect seal face with cardboard and press squarely into place, with polished side up. Then lay casing cover onto adapter (Ref. No. 2), and center it around motor shaft.

IMPORTANT: To avoid rubbing during operation, maintain gap between seal and motor shaft until assembly is complete.

2. Clean outside of shaft stem on impeller (Ref. No. 6). Lubricate inside rubber portion of seal head (Ref. No. 4 with spring) with soapy water. Gently slide seal onto impeller with polished side facing away from impeller.
3. Carefully screw impeller back onto motor shaft by turning clockwise. Be sure to snug-up impeller by holding motor shaft as during disassembly. Add impeller seal (Ref. No. 7), then impeller nut (Ref. No. 8) and tighten.
4. Carefully lay casing seal (Ref. No. 5) into desired position.

NOTE: Casing may be rotated to position discharge port at various angles.

5. Use fasteners and washers (Ref. Nos. 10 & 11) to attach casing.

IMPORTANT: To avoid leaks, be sure to tighten fasteners in stages to prevent casing seal from slipping and becoming pinched.

6. When assembly is complete, check for interference by spinning motor shaft by hand and listening. If rubbing heard, loosen fasteners and adjust casing cover until rubbing is gone (casing may also require adjustment on high head models). If rubbing still persists, remove casing. Then check to be sure impeller is completely tightened and not binding on shaft threads.

⚠ CAUTION

Seal will produce minor drag when spinning motor shaft, but rubbing anywhere else must be eliminated! Otherwise, damage to pump and/or motor may occur.

Stainless Steel Straight Centrifugal Pumps

For Repair Parts contact dealer where pump was purchased.

Please provide following information:
-Model Number
-Serial Number (if any)

Part description and number as shown in parts list

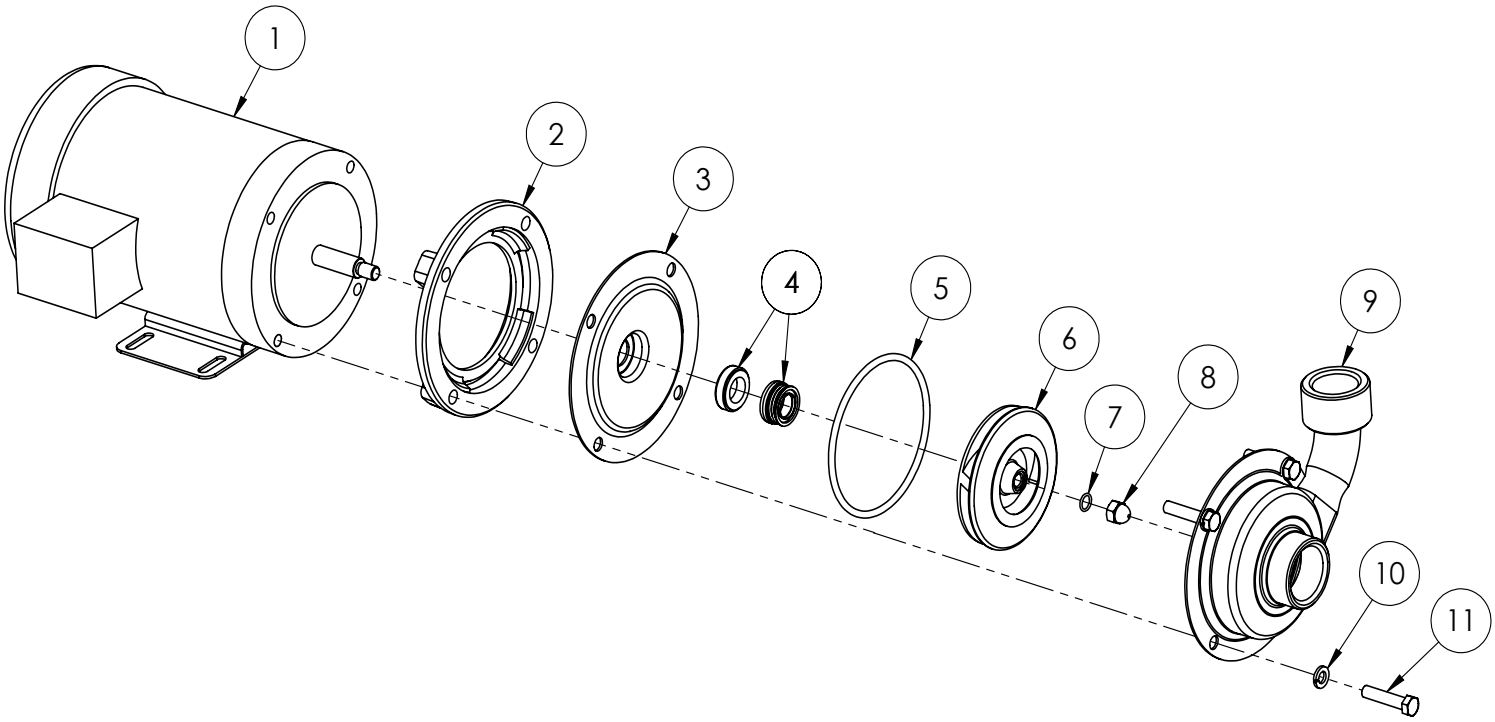


Figure 1 - Repair Parts Illustrations

Repair Parts List

Ref No.	Description	Part Number for Models (1/2 HP) 5475-98	(3/4 HP) 5471-98 5473-98	(1 HP) 5481-98 5483-98	1-1/2 HP) 5485-98 5487-98	(2 HP) 5491-98 5493-98	(3 HP) 5495-98 5497-98	Qty
1	Motor - 1 PH ODP	1626-009-00	-	-	-	-	-	1
	Motor - 1 PH TEFC	-	1626-302-00	1626-303-00	1626-304-00	1626-305-00	1626-306-00	1
	Motor - 3 PH TEFC	-	1626-308-00	1627-309-00	1627-310-00	1627-311-00	1627-312-00	1
2	Adapter	5470-030-00	5470-030-00	5470-030-00	5470-030-00	5470-030-00	5470-030-00	1
3	Casing Cover	5470-020-00	5470-020-00	5470-020-00	5470-020-00	5470-020-00	5470-020-00	1
4	Shaft Seal Assembly - Viton	1640-162-98	1640-162-98	1640-162-98	1640-162-98	1640-162-98	1640-162-98	1
5	Casing O-Ring - Viton	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	1
6	Impeller Kit (includes Ref. Nos. 6, and 8)	5475-010-98	5470-010-98	5480-010-98	5484-010-98	5484-010-98	5494-010-98	1
7	Impeller O-Ring	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	Incl. w/Ref KIT	1
8	Impeller Nut	Incl. w/Ref 6	Incl. w/Ref 6	Incl. w/Ref 6	Incl. w/Ref 6	Incl. w/Ref 6	Incl. w/Ref 6	1
9	Casing Kit (includes Ref. Nos. 9, 10 and 11)	5475-001-98	5470-001-98	5480-001-98	5480-001-98	5490-001-98	5490-001-98	1
10	Washer	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	4
11	Fastener	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	Incl. w/Ref 9	4
KIT	Seal Kit - Viton (standard)	5470-300-91	5470-300-91	5470-300-91	5470-300-91	5470-300-91	5470-300-91	1
	Seal Kit - Buna-N (optional) (includes Ref. Nos. 4, 5 and 7)	5470-300-90	5470-300-90	5470-300-90	5470-300-90	5470-300-90	5470-300-90	1

NOTES:

NOTES:

AMT Pump Company
(herein "AMT")
400 Spring Street
Royersford, PA 19468
Phone: (610) 948-3800
Fax: (610) 948-5300
www.amtpump.com

General Information

SALES POLICY: AMT products are sold through our established Distributors. We do not sell direct to the consumer or organization not entitled to trade recognition. Therefore, possession of our catalogs and/or price list(s) does not infer an offer to sell.

MINIMUM ORDER: We appreciate your order, however, all orders are subject to a minimum $35.00 net invoice charge (excluding freight). This applies to all pump and parts purchase orders.

PRICES: Prices are subject to change without notice. All orders accepted are subject to prices in effect at time of shipment.

PAYMENT TERMS: Terms, upon establishment of credit, are Net 30 days. Past due accounts may be subject to a service charge of 1.5% per month. Domestic or assignable letter of credit is required for all export trade.

PAST DUE ACCOUNTS: AMT reserves the right to withhold open account shipments on any past due account. Invoices are considered past due after thirty (30) days. In the interest of sound business, all orders are subject to approval of the Credit Department.

SHIPPING INSTRUCTIONS: All shipments will be made F.O.B. the factory. Where instructions for shipment do not appear on the order, the shipment will be made according to our best judgment. Full risk of loss (including transportation delays and losses) shall pass to the customer upon delivery of the products to the carrier at the F.O.B. point. When loss or delay occurs, primary responsibility for tracing rests with the customer. When there is LOSS or APPARENT VISIBLE DAMAGE to a shipment, when tendered for delivery, *DO NOT* give the carrier a clear receipt. Note such damage on the carrier's delivery receipt and *HAVE THE DRIVER SIGN THE RECEIPT.*

PRODUCT REVISIONS: AMT reserves the right to discontinue, change or improve its products or any portions thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such a change or improvement.

LEAD TIME: Products designated "Quick Ship Product", also referred to as "QSP" will normally be shipped within 24 hours of receipt of a non-cancellable purchase order. Only limited quantities of "QSP" pumps are available.

STANDARD LEAD TIME: Lead time is two weeks for all non "QSP" product. AMT reserves the right to revise lead times as required due to availability of materials and all other causes beyond our control.

VIP SHIPMENT: Select AMT and IPT branded pumps are available for next day shipment for non-QSP (Quick Ship Products) items and subjected to a specific model surcharge per unit noted in the respective price book. Requires calling for availability, confirmation and a non-cancellable purchase order or credit card payment prior to shipment. The expedited shipping charges are an additional cost added separately from the VIP charges per item. AMT reserves the right to revise lead times as required due to availability of materials and all other causes beyond our control. QSP quantities are limited as determined by AMT.

ALL purchase orders must be submitted via hard copy sent to AMT customer service department by fax, EDI or e-mail.

RETURN GOODS POLICY: Goods shall not be returned without a return goods authorization number (RGA) issued by AMT customer service. The RGA number must be listed on the packing list. Only current model and part numbers with a valid date code may be returned (within one year from date of purchase). **A 20% restocking and packaging charge will apply to all returns. All shipping charges must be pre-paid. No exceptions.**

ORDER CHANGES BY CUSTOMER: Orders in process may not be changed except with written consent and may be subject to special charges.

12 Month Limited Warranty

EXTENT AND DURATION OF LIMITED WARRANTY

Coverage: AMT Pump Company (herein "AMT") or IPT Pumps by Gorman-Rupp (herein "IPT") or Gorman-Rupp Industries Division of the The Gorman-Rupp Company, Patterson, or the Gorman-Rupp Company (herein referred to as "G-R Unit) each individually warrants that its products and parts shall be free from defects in material and workmanship for twelve (12) months from the date of purchase by the original end user when installation is made and maintenance is performed in accordance with G-R Unit's recommendations. Wear and tear resulting from use and items normally consumed in use are not covered.

EXCEPTIONS

(A) This Limited Warranty shall not apply to mechanical seals in AMT or IPT pumps and the following products and parts: engines, motors, trade accessories and all other products, components, parts and materials not manufactured by the G-R Units. These items may, however, be covered by the warranties of their respective manufacturers. (B) This warranty does not extend to or apply to any unit which has been repaired or altered at any place other than by a G-R Unit, or by persons not expressly approved by a G-R Unit to make repairs or alterations, nor to any unit the serial number, model number or identification of which has been removed, defaced or altered. (C) This warranty does not extend to any product manufactured by a G-R Unit, which has been subjected to mis-use, neglect, accident, improper installation, or use in violation of instructions furnished by a G-R Unit. (D) Pump Kits: This warranty does not extend to any product sold by a G-R Unit unassembled as a Pump Kit. Pump Kits are warranted against defects in material and workmanship for 60 days from the date of shipment from a G-R Unit. Any Pump Kit parts deemed defective by a G-R Unit will be replaced free of charge within 60 days of shipment. Pump Kits are not returnable for credit.

LIMITATIONS

THE G-R UNITS' SOLE AND EXCLUSIVE WARRANTY WITH RESPECT TO THEIR PRODUCTS AND PARTS IS THIS LIMITED WARRANTY. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS AND/OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE.

EXCLUSIVE REMEDY AND DAMAGES

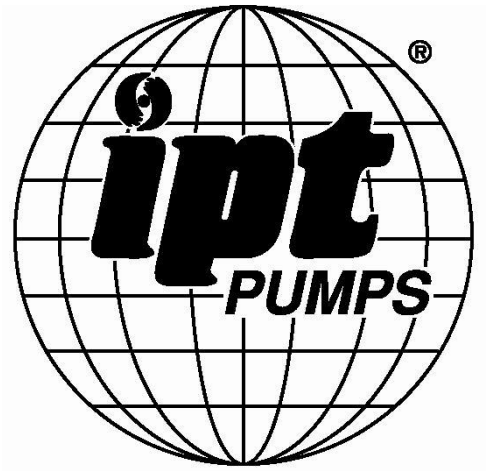
The sole and exclusive remedy for breach of this Warranty by a G-R Unit and the entire extent of its liability for such breach or for damages arising from the use of the products and parts covered under this Limited Warranty, shall be as follows:

1. **Repair or Replacement:** If inspection shows that any G-R Unit product or part covered under this Limited Warranty is defective in materials or workmanship, the G-R Unit shall repair or replace the defective or non-conforming product or part without charge, whichever the G-R Unit chooses. You must have properly maintained and used the product or part claimed to be defective in accordance with the maintenance schedule or manual, which comes with the product. No allowance will be made for labor, installation, removal, transportation or other charges incurred by you in connection with such repair or replacement.
2. To obtain the above remedy:
   - A. Immediately notify the G-R Unit upon discovery of the claimed defect in materials or workmanship and provide the serial number or date code of the product and/or part(s) or provide the G-R Unit with the invoice or bill of sale referencing the product by no later than the expiration date of the warranty period.
   - B. The G-R Unit will advise whether inspection will be necessary and how whether repair or replacement will be made. If inspection by the G-R Unit is necessary, the pump or defective part must be sent freight pre-paid to the G-R Unit. Return shipment will be F.O.B. the G-R Unit's plant.
   - C. **Return Goods Authorization Requirement:** No product will be accepted for return or replacement without the prior written authorization of the G-R Unit. Upon such authorization, and in accordance with instructions from the G-R Unit, the product will be returned to the G-R Unit, shipping charges prepaid by the Buyer.

3. **Damages:** The G-R Unit's liability for damages for breach of this Limited Warranty shall not exceed the amount of the purchase price of the product or part(s) in respect to which Such damages are claimed. **IN NO EVENT SHALL THE G-R UNITS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES FOR BREACH OF THIS LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

A Gorman-Rupp Company



BY

GORMAN-RUPP®

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