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 insure proper operation. Unit must be clear of debris and sediment. Inspect for leaks and loose bolts. Failure to do so voids warranty.

Industrial Coolant Pumps

A Gorman-Rupp Company

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

DESCRIPTION

These coolant/recirculating pumps are heavy-duty industrial units designed for a variety of applications involving evaporating coolers, fountains, laboratories, bilge pumping, etc. Each pump is constructed using cast iron column and base parts, stainless steel impeller, shaft and hardware. All units are manual models; no controls are supplied. For use with nonflammable liquids, compatible with pump component materials.

SPECIFICATIONS

Liquid Temperature……..…40˚ to 200˚F (4˚ to 93˚C)
Maximu Liquid Viscosity…….....……500 SSU
Specific Gravity (S.G) Maximum……..……1.0
Discharge Outlet:
4421-95 thru 4431-95……..……1 ¼” NPT
4440-95 thru 4443-95……..1 ½” NPT
Pump Construction…….……..…Cast Iron
Impeller Material…….Stainless Steel
Fasteners…….Stainless Steel

PERFORMANCE CHART

Models 4430-95 and 4431-95

	GPM at Total Head in Feet					
	3’	6’	9’	12’	15’	Shut-Off
Water	48	46	42	38	32	21 ft.
500 SSU	40	38	34	30	25	21 ft.

Models 4421-95 and 4422-95

	GPM at Total Head in Feet					
	3’	6’	9’	12’	15’	Shut-Off
Water	46	43	36	30	20	17 ft.
500 SSU	26	23	19	15	8	17 ft.

Models 4440-95, 4442-95 and 4443-95

	GPM at Total Head in Feet								
	3’	6’	9’	12’	15’	18’	21’	24’	Shut-Off
Water	-	-	-	67	58	48	38	27	32 ft.
500 SSU	50	46	42	37	32	27	20	12	27 ft.

Industrial Coolant Pumps

OPERATION

1. Liquid level should always be below opening located in top of column. Motor is NOT submersible.
2. Activate unit. No controls are supplied with this unit. Dry running will not harm pump or motor.
3. Familiarize yourself and others with all controls for this pump. Learn how to stop pump/motor quickly in an emergency.

MAINTENANCE

Make certain that the unit is disconnected from the power source before attempting to service or remove any component! Failure to do so could result in electrical shock.

IMPELLER/MOTOR REPLACEMENT PROCEDURE

1. Remove pump assembly from tank or reservoir.
2. Remove volute (Ref. No. 14) by removing cap screws (Ref. No. 6), leaving volute cover (Ref. No. 9) attached to column (Ref. No. 3).
3. Place a 5/32” allen wrench through slot in top of column and into one of the socket head screws of coupling (Ref. No. 2). Rotate impeller (Ref. No. 11) so allen wrench is against side of slot preventing shaft from rotating and remove acorn nut (Ref. No. 12) and impeller. Nut and impeller both have right hand thread.
4. Remove allen wrench from slot and remove four cap screws (Ref. No. 5) holding motor to column.
5. Remove motor (Ref. No. 1) with shaft (Ref. No. 10) and coupling assembly from column.
6. Loosen socket head screws in coupling and remove coupling from motor shaft and pump shaft.
7. To reassemble, place motor in a vertical position then slide coupling onto motor shaft until end of shaft is flush with split in center of coupling. Tighten two socket head screws holding coupling to motor shaft.
8. Replace motor and coupling onto column and secure with four cap screws with split washers (Ref. No. 4).
9. Thread impeller onto shaft and tighten.
10. Replace acorn nut and tighten.
11. Turn motor and column, with volute cover attached, upside down in a vertical position.
12. Insert shaft assembly into column until there is a clearance between impeller and volute cover of 0.024/0.011 for 4430-95 thru 4422-95 and 0.159/0.146 for 4442-95 thru 4443-95 then tighten coupling.
13. Using a new gasket (Ref. No. 13), reassemble volute to volute cover.
14. Rotate impeller to make sure it does not strike volute cover or volute. If impeller strikes either volute cover or volute, go back to step 12 and adjust clearance.
15. Return pump to service.

Industrial Coolant 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

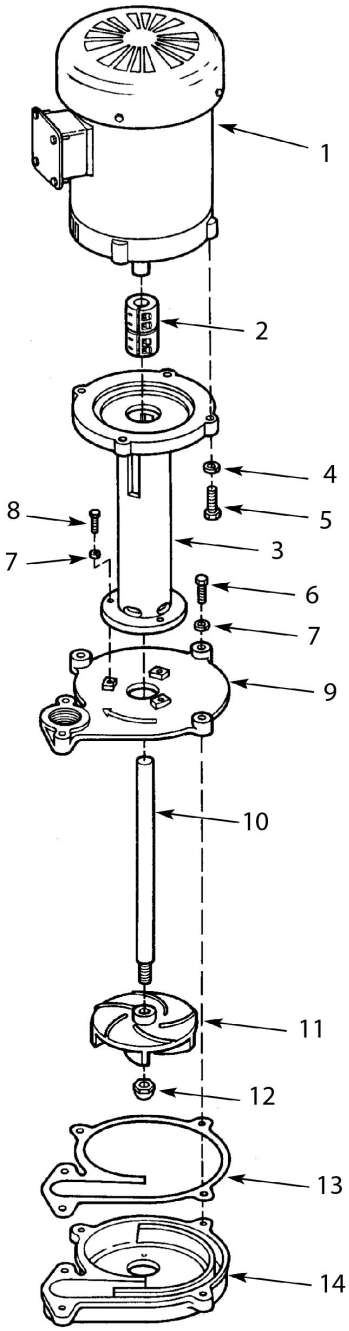


Figure 1 - Repair Parts Illustrations

Repair Parts List

Ref No.	Description	Part Number for Models								Qty
		4430-95	4431-95	4421-95	4422-95	4442-95	4440-95	4441-95	4443-95	
1	Motor	1626-M05-00	1626-021-00	1626-M05-00	1626-021-00	1626-006-00	1626-006-00	1626-022-00	1626-022-00	1
2	Coupling	4430-143-00	4430-143-00	4430-143-00	4430-143-00	4430-143-00	4430-143-00	4430-143-00	4430-143-00	1
3	Column	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	Incl. w/ Ref. 9	1
4	3/8" Split Lock Washer S.S.	1793-009-00	1793-009-00	1793-009-00	1793-009-00	1793-009-00	1793-009-00	1793-009-00	1793-009-00	4
5	3/8"-16 UNC x 11/4" Cap Screw S.S.	1757-001-00	1757-001-00	1757-001-00	1757-001-00	1757-001-00	1757-001-00	1757-001-00	1757-001-00	4 or 7
6	1/4"-20 UNC x 1" Cap Screw S.S.	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	5 or 7
7	1/4" Split Lock Washer S.S.	1788-001-00	1788-001-00	1788-001-00	1788-001-00	1788-001-00	1788-001-00	1788-001-00	1788-001-00	8 or 10
8	1/4"-20 UNC x 1" Cap Screw S.S.	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	1718-003-00	3
9	Volute/Column Kit (includes Ref. Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10 and 14)	4430-020-95	4430-020-95	4430-021-95	4430-021-95	4440-021-95	4440-020-95	4440-020-95	4440-021-95	1
10	S.S. Shaft	4430-140-00	4430-140-00	4430-141-00	4430-141-00	4430-142-00	4430-140-00	4430-140-00	4430-142-00	1
11	Impeller (includes Ref. Nos. 11 and 12)	4430-012-98	4430-012-98	4430-012-98	4430-012-98	4440-012-98	4440-012-98	4440-012-98	4440-012-98	1
12	7/16"-20 UNF Acorn Nut S.S.	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	Incl. w/ Ref. 11	1
13	Gasket	4430-300-00	4430-300-00	4430-300-00	4430-300-00	4440-300-00	4440-300-00	4440-300-00	4440-300-00	1
14	Volute	4430-001-09	4430-001-09	4430-001-09	4430-001-09	4440-001-09	4440-001-09	4440-001-09	4440-001-09	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

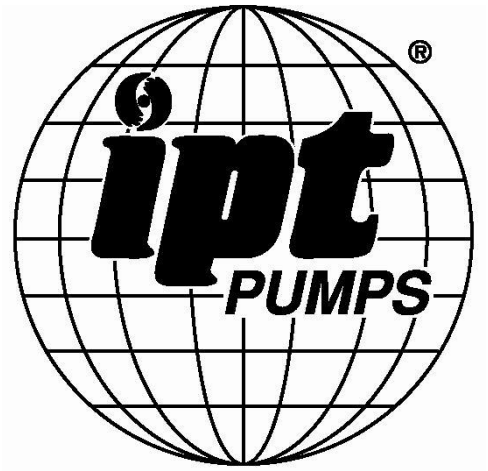
The sole and exclusive remedy for breach of this Warranty by a G-R Unit and the entire extent of its liability for such breach or for damages arising from the use of the products and parts covered under this Limited Warranty, shall be as follows:

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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