### AMT Pumps 4231-97

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#### Specifications Information and Repair Parts Manual

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.

# 3/8-Inch Bronze Coolant Pumps

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

# DESCRIPTION

These coolant/recirculating pumps are heavy-duty units designed for a variety of applications involving evaporative coolers, fountains, laboratories, bilge pumping, etc. Each pump is equipped with motor,  $36^{\circ}$  3-conductor cord, brass tube column and bronze base and impeller. Handles liquids from  $40^{\circ}$  to  $200^{\circ}$  F ( $4^{\circ}$  to  $93^{\circ}$  C). For use with non-flammable liquids compatible with pump component materials. The motor on this pump is not intended to be submersed in liquid. The liquid level should be at least 2" below motor bottom.

All 115V motors are equipped with automatic thermal protection. Check motor wiring before putting unit into service (see motor nameplate for specific wiring diagram). These are manual units, no controls are supplied. All units are for use with nonflammable, non-abrasive liquids, compatible with pump component materials.

# **OPERATION**

- 1. Liquid level should always be at least 2" below the bottom of the motor. Motor is NOT submersible.
- 2. Activate the 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

#### **A**WARNING

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.

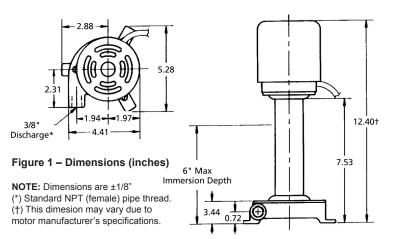
# LUBRICATION

Remove pump from installation and lay on side. Find two oil slots on the side of the motor (See Figure 2) and put in 4 or 5 drops of SAE 20W oil or its equivalent every 6 months. Let pump lay on its side for a few minutes to let the oil saturate the bearing. Do not over-oil. Over-oiling can shorten motor life. Replace rubber grommets.

# IMPELLER MOTOR REPLACEMENT PROCEDURE

- 1. Remove base volute housing (Ref. No. 9) by removing three mounting screws (Ref. No. 5).
- Remove impeller from impeller tubing (Ref. No. 7). If it doesn't come off easily, cut it off.
- 3. Unscrew motor adapter (Ref. No. 2) from motor exposing impeller tube without impeller.
- 4. Cut tubing of impeller assembly diagonally so that it comes off motor shaft. Do not cut motor shaft.
- 5. When replacing a new motor, a new impeller assembly must also be installed.
- 6. Reassemble pump parts (Ref. Nos. 2, 4, and 6) back onto motor, tightening screws (Ref. No. 3) into place.
- 7. Before pressing impeller assembly onto shaft, insert a piece of metal to hold motor shaft from being pressed out.

- Turn motor around onto fixture and press impeller assembly onto shaft using tool with guide pin that fits into impeller tube. Press unit in until there is enough room so it touches neither the volute nor the volute cover while running.
- 9. Turn unit on momentarily to see if unit vibrates. If it does, insert a screwdriver into impeller assembly and bend slightly. Retest to see if vibration is still there. If it has increased bend opposite way, etc.
- 10. Replace volute housing. Unit is ready to use.



#### **Performance Chart**

Outlet		GPM of V	GPM of Water at Total Head in Feet				
Piping	1'	3'	5'	8'	10'	Off	
3/4" ID	8.3	7.1	6.0	3.5	0.8	10.2 ft	
1/2" ID	6.7	5.4	4.2	2.0	0.6	10.2 ft	
3/8" ID	5.0	3.3	2.2	1.2	0.3	10.2 ft	

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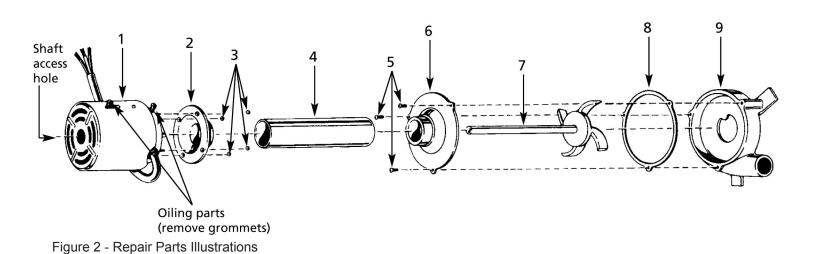
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# 3/8-Inch Bronze Coolant Pumps

# 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



# **Repair Parts List**

Ref		Part	
No.	Description	Number	Qty
1	Motor (4230-97, 115 VAC)	1626-055-00	1
	Motor (4231-97, 230 VAC)	1626-056-00	1
2	Motor adapter	2200-002-01	1
3	#8-32 UNC Hex nut	*	4
4	Tube column	2200-003-00	1
5	#8-32 UNC x 1/2" Mounting screw	*	3
6	Volute cover	2201-000-01	1
7	Impeller assembly	2200-006-90	1
8	Volute gasket	2200-005-00	1
9	Volute	2200-000-01	1

(\*) Standard hardware item, available locally.