

INSTRUCTIONS – PARTS LIST

INSTRUCTIONS!

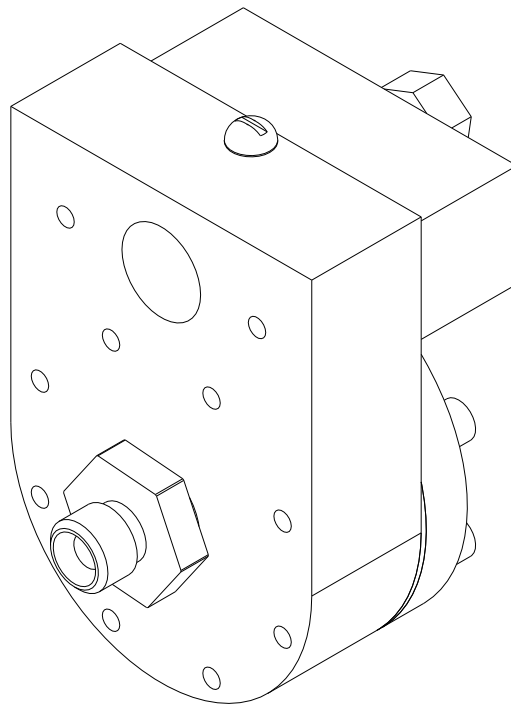
This manual contains important warnings
and information.
READ AND KEEP FOR REFERENCE.



Autoquip, Inc.

MY-437 Solvent Scrubber

(3376-II-00)



AUTOQUIP, INC. N57 W13430 Reichert Ave. Menomonee Falls, WI 53051

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Table of Contents

| | |
|-----------------------|-----|
| Warnings..... | 2,3 |
| Installation..... | 4 |
| Operation..... | 5 |
| Parts Layout | 6 |
| Parts List | 7 |
| Accessories | 8 |
| Troubleshooting | 9 |
| Technical Data | 10 |
| Warranty | 11 |

3.53TO

Symbols

Warning Symbol




This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.



EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your Autoquip distributor.
- Do not alter or modify this equipment. Use only genuine Autoquip parts.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Use fluids and solvents that are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Always wear protective eyewear, gloves, clothing, and respirator as recommended by the fluid and solvent manufacturer.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

 **WARNING****FIRE AND EXPLOSION HAZARD**

Improper grounding, poor ventilation, open flames, or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. Refer to **Grounding** on page 5.
- If there is any static sparking or you feel an electric shock while using the equipment, **stop spraying immediately**. Do not use the equipment until you identify and correct the problem.
- Do not use 1,1,1-trichloroethane, methylene chloride, other Halogenated hydrocarbon solvents, or fluids containing such solvents in aluminum components. Such use could result in a serious chemical reaction, with the possibility of explosion.
- Do not use kerosene or other flammable solvents or combustible gases to flush the unit.
- Provide fresh ventilation to avoid the buildup of flammable fumes from solvents or the fluid being sprayed.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Before operating this equipment, electrically disconnect all equipment in the spray area.
- Before operating this equipment, extinguish all open flames or pilot lights in the spray area.
- Do not smoke in the spray area.
- Do not turn on or off any light switch in the spray area while spraying or while there any fumes in the air.
- Do not operate a gasoline engine in the spray area.

INJECTION HAZARD

Spray from the gun, hose leaks, or ruptured components can inject fluid into your body and cause extreme serious injury, including the need for amputation. Splashing fluid in the eyes or on the skin can cause serious injury.

- Fluid ejected into the skin might look like just a cut, but it is a serious injury. **Get immediate medical attention.**
- Do not point the spray gun at anyone or at any part of the body.
- Do not put hand or fingers over the spray tip.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.

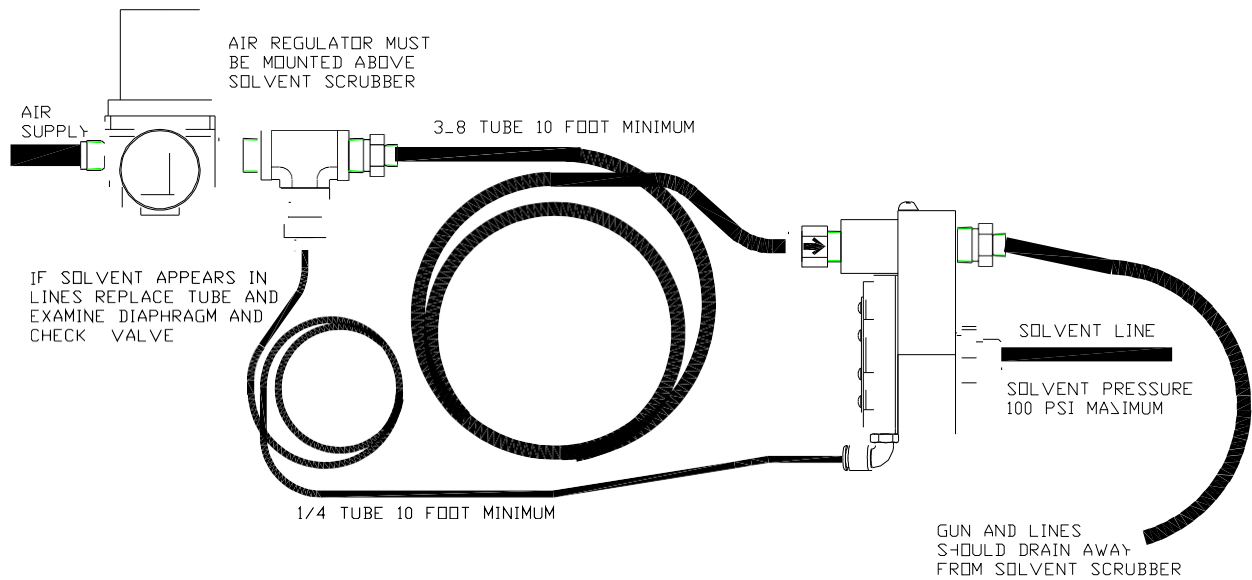
HAZARDOUS VAPORS

Hazardous fluids or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, swallowed, or inhaled. When flushing the air motor, keep your face away from the exhaust port.

United States Government safety standards have been adopted under the Occupational Safety and Health Act. You should consult these standards – particularly the General Standards, Part 1910, and the Construction Standards, Part 1926.

Installation

Be sure to mount the Solvent Scrubber at a location that is higher than lines being treated. Failure to do so would cause excess solvent to drain into the solvent scrubber and damage the diaphragm. Check valves will fail if not mounted correctly.



Operation

Preparing the Fluid

Prepare the fluid according to the manufacturer's instructions. Strain the fluid to remove large particles that could clog the spray gun.

Activating the Valves

1. Set the air pressure regulator to desired flush pressure (Set air pressure no higher than the solvent pressure.)
2. Open the spray gun

Controlling the Mixture

The solvent scrubber mixture is controlled by changing the air orifice (3376-II-10A-F)

| | |
|---|-------------------|
| A | 0.0400 |
| B | 0.0420 |
| C | 0.0465 (Standard) |
| D | 0.0550 |
| E | 0.0595 |
| F | 0.0700 |

A will provide the richest mixture (most solvent) F will provide the leanest mixture (least solvent).



WARNING

Air pressure **must be maintained** to Solvent Scrubber at all times that unit is receiving solvent pressure.

Maintenance

TOOLS REQUIRED

- 5/16" socket with ratchet
- 5/16", 7/8" and 15/16" Open End Wrenches
- 1/16", 3/32", 5/32", and 7/64" Allen Head Wrench
- Adjustable Wrench
- Screwdriver
- Repair Kit 3286-50-00A
- AQ Fluid Regulator Pin Tool 3286-50-01A

PRELIMINARY PROCEDURES

Prior to removing the regulator for service or repair, perform the following:

1. If possible, flush the regulator with a suitable cleaning solvent.
2. Turn the fluid and air "OFF" to the regulator. Disconnect and depressurize the air and fluid lines from the regulator.
3. Remove the regulator for service.

NOTE

Proper preventative maintenance is required for consistent operation of the Autoquip regulator. Proper preventative maintenance will vary with each application.

Disassembly Procedures

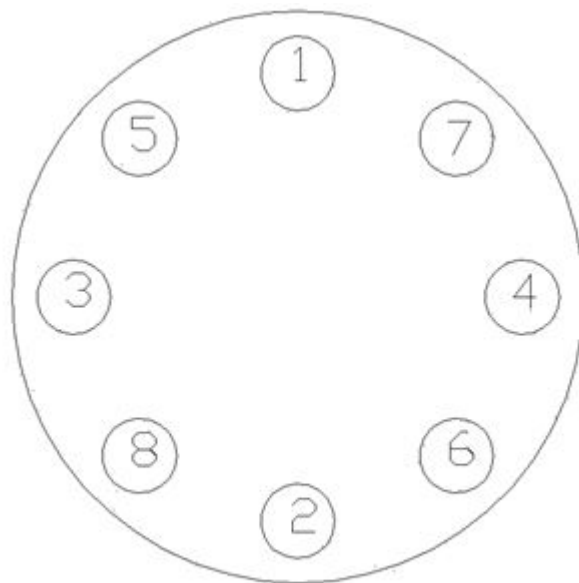
1. Unscrew part 2 (Fluid Fitting) using adjustable wrench
2. Loosen parts 19 (#4-40 x 1/4" BHCS) using 1/16" Allen head wrench
3. Remove part 15 (Air Housing Cap)
4. Unscrew part 12 (Spring Plunger) with Autoquip repair tool
5. Remove parts 12 and 16 (Spring Plunger and Disc Spring)
6. Loosen parts 17 (#10-32 x 3/4" SHCS) with 5/32" Allen head wrench **IMPORTANT: Do NOT** loosen in circular pattern, use proper cross pattern pictured below.
7. Remove part 13 (Air Side Housing)
8. Using 5/16" socket and ratchet, loosen part 4 (Needle Seat) to remove part 10 (Air Side Plate) and part 8 (Diaphragm)
9. Unscrew and remove part 9 (Fluid side plate) and part 4 (Needle Seat)
10. Remove part 3 (Fluid Seat) from part 1 (Fluid Housing)
11. Remove parts 20 (#10-32 x 1/2" SHCS) from part 5 (Fluid Outlet) and remove part 5 (Fluid Outlet) revealing part 6 (Fluid Outlet O-Ring)

NOTE

All steps may not be needed for specific service.

Example: To replace the diaphragm, the technician would only need to complete step 8.

Proper cross pattern for tightening Housing Screws Torque = 30 in. lb.



Assembly Procedures

1. Place Part 6 (Fluid Outlet O-Ring) in the fluid outlet O-ring groove on Part 1, secure O-ring in place with part 5 (Fluid Outlet) and parts 20 (#10-32 x 1/2" SHCS). Tighten screws until part 5 (Fluid Outlet) is flush with part 1 (Fluid Housing).
2. Install part 7 (Teflon[®] Encapsulated O-Ring) in the outside groove on part 3 (Fluid Seat)
AVOID DAMAGE TO THE TEFLON[®] COATING
3. Place part 3 (Fluid Seat) into part 1 (Fluid Housing) and press into place keeping seat parallel to bottom surface
4. Install part 7 (Teflon[®] Encapsulated O-Ring) in groove on back side of part 9 (Fluid Side Plate). AVOID DAMAGE TO THE TEFLON[®] COATING.
5. Apply Teflon[®] based thread sealant to the threads on part 4 (Needle Seat) and screw into part 9 (Fluid Side Plate), wiping away excess thread sealant. Unscrew part 4 (Needle Seat) and place through part 1 (Fluid Housing) and tighten part 9 (Fluid Side Plate) to desired specifications with a 5/16" socket
6. Place part 8 (Diaphragm) with the blue (Teflon[®] coated) side towards the fluid housing.
AVOID DAMAGE TO THE TEFLON[®] COATING
7. Install part 10 (Air Side Plate) and tighten with a 5/16" socket
8. Place part 13 (Air Side Housing) on part 8 (Diaphragm), lay part 16 (Disc Spring) in place in part 13 (Air Side Housing) and screw in part 12 (Spring Plunger) just flush with part 13 (Air Side Housing) so as to allow free rotation of part 8 (Diaphragm) and Part 13 (Air Side Housing).
9. Rotate part 13 (Air Side Housing) to place fitting in desired orientation and to line up the holes of part 1 (Fluid Housing) part 8 (Diaphragm) and part 13 (Air Side Housing)
10. Place all 8 of parts 17 (#10-32 x 3/4" SHCS) in the holes and then proceed to tighten in a cross pattern with 5/32" Allen head wrench. IMPORTANT: Do **NOT** tighten in circular pattern, use only proper cross pattern pictured on previous page. Max torque for part 17 is 15 in. lb.
11. Tighten part 12 (AQ Fluid Regulator Pin Tool 3286-50-01A) with Autoquip repair tool until it bottoms out
12. Replace part 15 (Air Side Cap) and parts 19 (#4-40 x 1/4" BHCS) and tighten using 1/16" Allen head wrench
13. Install part 7 (Teflon[®] Encapsulated O-Ring) Screw in part 2 (Fluid Fitting) groove into part 1 (Fluid Housing) and tighten

NOTE

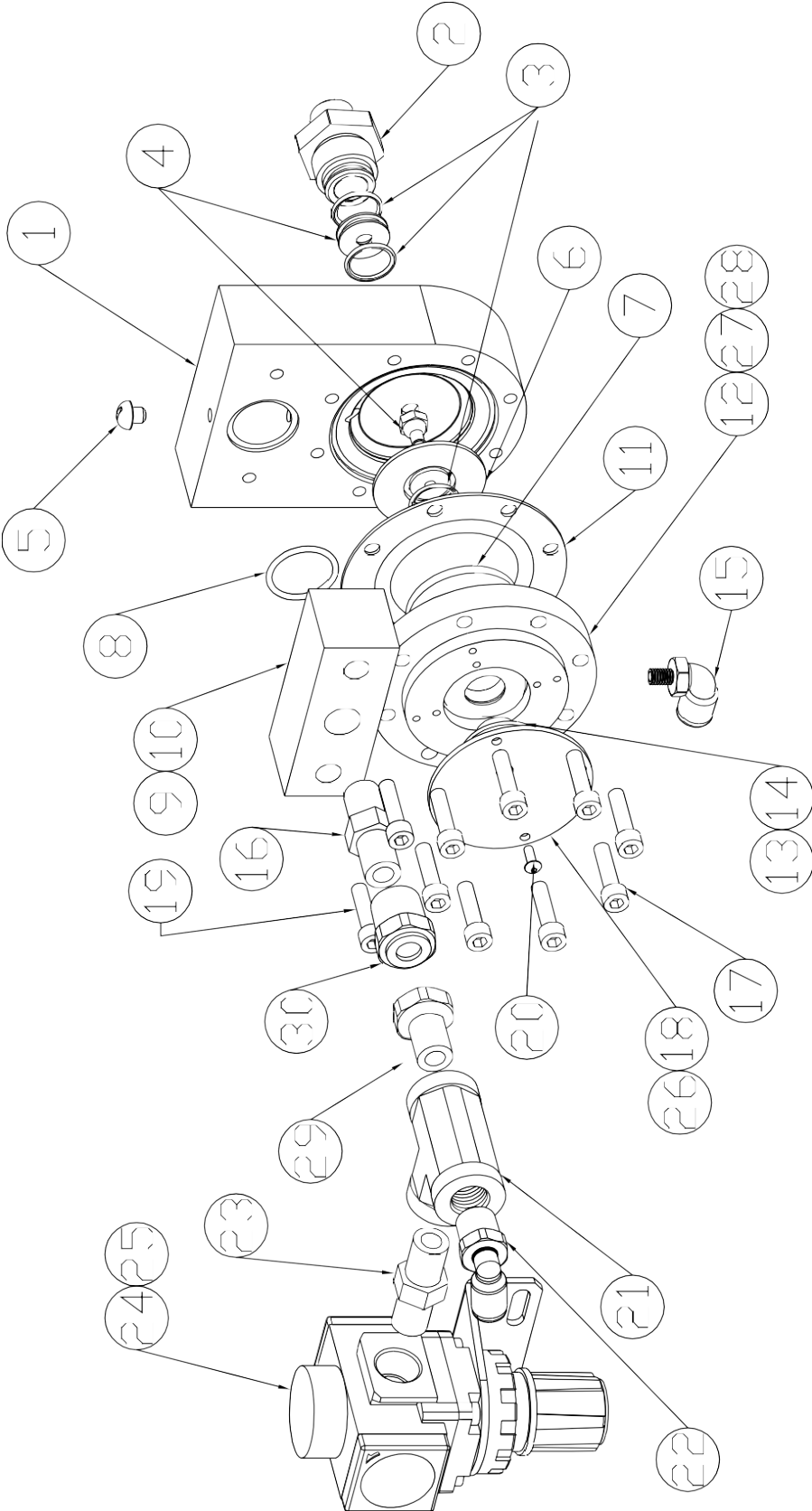
See pages 12-13 for exploded view and parts list

Troubleshooting Guide

| General Problem | Cause | Solution |
|-------------------|---|---|
| No Flow | <ol style="list-style-type: none"> 1. Plugged inlet 2. Item 3 & 4 (needle and seat) stuck 3. No pilot air | <ol style="list-style-type: none"> 1. Flush clean 2. Remove and clean or replace 3. Check air pilot |
| Will Not Shut Off | <ol style="list-style-type: none"> 1. Item 3 & 4 (needle and seat) dirty 2. Pilot air not shut off | <ol style="list-style-type: none"> 1. Remove and clean or replace 2. Check air supply |
| Paint Leakage | <ol style="list-style-type: none"> 1. Item 16 (screws) loose 2. Ruptured Diaphragm 3. Loose fluid fittings 4. Pinched item 8 (center diaphragm) | <ol style="list-style-type: none"> 1. Tighten 2. Rebuild regulator 3. Tighten 4. Replace |
| Air Leakage | <ol style="list-style-type: none"> 1. Loose air fitting 2. Item 16 (screws) loose 3. Ruptured item 8 (center diaphragm) | <ol style="list-style-type: none"> 1. Tighten 2. Tight per “Assembly Procedure” 3. Rebuild regulator |
| Inconsistent Flow | <ol style="list-style-type: none"> 1. Diaphragm stretched from excessive air pressure 2. Inconsistent air pilot supply 3. Low inlet fluid pressure | <ol style="list-style-type: none"> 1. Rebuild regulator 2. Check air source 3. Inlet pressure must be at least 10 psi above outlet pressure, 100 psi maximum 4. For thin materials install restrictor. See Accessories. |

Figure 2: Troubleshooting Guide

Parts Layout



Parts List

| PART NO | QTY | DESCRIPTION |
|------------------|------------|--------------------------------------|
| 1. 3376-II-01A | 1 | FLUID SIDE MANIFOLD |
| 2. 3376-II-02A | 1 | SOLVENT INLET |
| 3. 3376-II-03A* | 3 | FEP ENCAPSULATED O-RING |
| 4. 3376-II-04A** | 1 | FLUID SEAT |
| 5. 3376-II-05A* | 1 | PLUG |
| 6. 3376-II-06A | 1 | FLUID SIDE PLATE |
| 7. 3376-II-07A | 1 | AIR SIDE PLATE |
| 8. 3376-II-08A* | 1 | TEFLON O-RING |
| 9. 3376-II-09A | 1 | AIR SIDE BLOCK |
| 10. 3376-II-10A | 1 | AIR ORIFICE |
| 11. 3376-II-11A* | 1 | DIAPHRAGM |
| 12. 3376-II-12A | 1 | AIR PILOT HOUSING |
| 13. 3376-II-13A | 1 | SPRING PLATE |
| 14. 3376-II-14A* | 1 | DISC SPRING |
| 15. 3376-II-15A | 1 | AIR FITTING #10-32 X 1/4 |
| 16. 3376-II-16A | 1 | INLET CHECK VALVE |
| 17. 3376-II-17A | 8 | #10-32 X 3/4" SHCS |
| 18. 3376-II-18A | 1 | COVER PLATE |
| 19. 3376-II-19A | 2 | #10-32 X 1" SHCS |
| 20. 3376-II-20A* | 4 | #6-32 X 5/16" BHCS |
| 21. 3376-II-21A | 1 | TEE |
| 22. 3376-II-22A | 1 | AIR FITTING 90° 1/4" NPT X 1/4" TUBE |
| 23. 3376-II-23A | 1 | REGULATOR CHECK VALVE |
| 24. 3376-II-24A | 1 | AIR REGULATOR + GAUGE |
| 25. 3376-II-25A | 1 | BRACKET |
| 26. 3376-II-26A | 1 | CAP O-RING -028 |
| 27. 3376-II-27A | 1 | RETAINER |
| 28. 3376-II-28A | 4 | #4-40 X 5/16" FHCS |
| 29. 3376-II-29A | 1 | AIR FITTING 1/4" NPT X 3/8" TUBE |
| 30. 3376-II-30A | 1 | AIR FITTING 1/4" NPT(F) X 3/8" TUBE |

*PARTS FOUND IN MY-437 REBUILD KIT PART #3376-II-50A

**FLUID SEAT AND SEAT SCREW PURCHASED TOGETHER

Accessories

| <u>DESCRIPTION</u> | <u>PART NUMBER</u> |
|---|--------------------|
| Mounting Bracket | 3376-II-51A |
| 3/8" O.D. Tubing | 3376-II-62A |
| 1/4" O.D. Tubing | 3376-II-61A |
| Air Orifice (Change Air Orifice to control the mixture) | 3376-II-10A-F |
| A 0.0400 | |
| B 0.0420 | |
| C 0.0465 (Standard) | |
| D 0.0550 | |
| E 0.0595 | |
| F 0.0700 | |

Troubleshooting

| PROBLEM | SOLUTION |
|---|---|
| Air, but NO solvent in mix | Check solvent pressure. Solvent pressure must be higher than the air pressure. Change to a smaller air orifice. (3376-II-10A-F) C is standard. |
| Solvent, but no air in the mix | Replace fluid seat (3376-II-04A) Change to a larger air orifice (3376-II-10A-F) C is standard |
| Air backs up in the solvent line | Make sure the solvent pressure is greater than the Solvent Scrubber pressure at all times. Installing a valve on the solvent inlet will allow the pump to be shut off during off shifts. |
| | |

Technical Data

Standard air consumption:

- * 15 CFM (.99 m³/min) at 100 PSI (6.9 bar) (MAX)
- * 90 PSI or greater solvent supply pressure
- * 300 PSI maximum solvent supply pressure

Air inlet size: ¼" NPT (F)

Fluid outlet size: 1/2" NPT (F)

Fluid inlet size: 1/4" NPS (M)

Wetted parts:

- * 304 & 316 stainless steel
- * 6061 T6 aluminum
- * Teflon®

Loctite® is a registered trademark of the Loctite Corporation.

Teflon® is a registered trademark of the Dupont Company.

Autoquip Standard Warranty

Autoquip Inc. warrants all equipment manufactured by Autoquip Inc. and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Autoquip Inc. distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Autoquip Inc., Autoquip Inc. will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Autoquip Inc. to be defective. This warranty is only applicable when the equipment is installed, operated, and maintained in accordance with Autoquip Inc.'s written recommendations.

This warranty does not cover, and Autoquip Inc. shall not be liable for general wear and tear, or any malfunction, damage, or wear and tear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Autoquip Inc. component parts. Nor shall Autoquip Inc. be liable for malfunction, damage or wear caused by the incompatibility of Autoquip Inc. equipment with structures, accessories, equipment or materials not supplied by Autoquip Inc., or the improper design, manufacture, installation, operation or maintenance of structure, accessories, equipment or materials not supplied by Autoquip Inc.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Autoquip Inc. distributor for verification of the claimed defect. If the claimed defect is verified, Autoquip Inc. will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Autoquip Inc.'s sole obligation and buyer's sole remedy for any breach of warranty shall be set forth above. The buyer agrees that no other remedy (including, but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

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Autoquip Phone Numbers

TO PLACE AN ORDER, contact your Autoquip distributor, or call this number to identify the distributor closest to you:
(262) 781-6133 Fax (262) 781-6188

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