

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Dayton® Polypropylene Rotary Drum Pump

Description

Dayton polypropylene rotary drum pumps can dispense and transfer chemicals such as alkalines, detergents, mild acids, waxes, and water based chemicals. Pumping applications of this self-priming pump include farms, construction sites, manufacturing plants and laboratories.

Specifications

Flow.....8 GPM @ 135 RPM
 Inlet Size.....1-5/32"
 Outlet Size.....1" OD
 Bung Adapter Mounting2" Male
 Suction Tube Length.....42"
 Seal Material.....PTFE
 Wetted Materials.....PP, PE, PPS, PVDF,
 304SS, 316SS
 Max Viscosity.....2,000 SSU
 Max. Temp.....140°F / 60°C

PTFE = Polytetrafluoroethene; PVDF= Polyvinylidene Difluoride

General Safety Information

▲ WARNING *It is the user's responsibility to operate the pump in compliance with OSHA rules for dispensing liquids. When using flammable liquids, pump containers should be grounded to avoid static electricity. Pump should be washed out before it is used since processing lubricants may contaminate the fluids.*

1. When using a hand pump (particularly when pumping flammable, combustible or hazardous liquids) follow all electrical and safety codes, as well as the following: the United States Occupational Safety and Health Act (OSHA); the most recent National Electrical Code (NEC); the National Fire Protection, Inc.* (NFPA) Code 30 (Flammable and Combustible Code); NFPA 56A (Standard for use of

Inhalation Anesthetics); NFPA 77 (Static Electricity); NFPA 78 (Lightning Protection Code); NFPA 80 (Standard for Fire Doors and Windows); NFPA 251 (Standard Method of Fire Test of Building Construction); NFPA 704 (Identification of the Fire Hazards of Materials); and other NFPA codes, local codes and ordinances, as required in particular applications.

2. Know the pump applications, limitations, and potential hazards. The "WARNING" statements indicate potential hazardous conditions for the operator or equipment. TAKE ALL NECESSARY STEPS TO PROTECT PERSONNEL AND EQUIPMENT.

NOTE: Liquids compatible with pump component materials should only be used with the pump. Consult PUMP CHEMICAL COMPATIBILITY CHART and PUMP SPECIFICATIONS. Also, consult with the chemical supplier regarding any questions of chemical compatibility, proper and safe use and handling of chemicals. Misapplication of the pump or the use of noncompatible liquids will **void the warranty**.

▲ WARNING *In order to properly use this product, familiarize yourself with this pump and also with the liquid (Chemical, etc.) that is going to be pumped through the unit. Although this pump is suitable for many liquids, it is NOT suitable for all liquids!*

(* NFPA Codes can be obtained from :National Fire Protection Association, Inc., Battery March Park, Quincy, MA 0269,



FIGURE 1 - 3BY41A

telephone 1-800-344-3555. Write or call for listing and prices.

3. The pumping of hazardous, flammable, or combustible liquids should only be performed in buildings, rooms, or places suited for this purpose. (See NFPA 30, NFPA 78, NFPA 80, NFPA 251, NFPA 704, other applicable NFPA codes, OSHA, insurance companies, local codes and ordinances.)

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Dayton[®] Polypropylene Rotary Drum Pump

General Safety Information (Continued)

▲ WARNING *When filling cans, drums, etc. with combustible liquids, both container pumping from and container pumping to, should be bonded and grounded to dissipate possible accumulations of static electricity, and minimize sparks caused by static electricity (Refer to NFPA 77 for specifics and further details).*

▲ WARNING *Removal of outer garments in work areas where there may be flammable or explosive liquids, which are ignitable with low electrical energy, can be fatal and/or cause property damage (Refer to NFPA 56A, and NFPA 77, for further details)*

4. The “WARNING” and instructions that follow pertain to any flammable, combustible or hazardous fluid.

▲ WARNING *The improper use, handling or storage of flammable liquids can be dangerous. Prevent accidents by following these safety rules:*

- Use only an approved container to hold or store flammable liquids. Never store flammable liquids in familiar containers such as milk containers or soda pop bottles.
- Store flammable liquids in a cool location, out of the reach of children. Never store flammable liquids near heat or an open flame.
- Provide a fire extinguisher nearby when working with flammable liquids. Be sure extinguisher is in operating condition – check the pressure gauge or indicator. Be familiar with its proper use.
- Consult local fire department for the correct type of extinguisher for your application. Extinguishers rated ABC by the National Fire Protection

Association are appropriate for most applications.

- Provide positive shut-off valves on all permanent flammable liquid supplies. Flammable liquid lines must be of steel piping, adequately secured, and free from leaks.
- Provide adequate ventilation, and clean up any spills when handling or pumping flammable liquids.
- POSITIVELY NO SMOKING!
- Do not use torches or apply fire or flame to this pump for any reason.
- Secure the discharge line before starting the pump. An unsecured discharge line will slip, possibly causing personal injury and/or property damage.
- Do not over tighten nonmetallic threaded fittings. One full turn past hand tight is usually enough to prevent leakage. PTFE sealant tape should be used on all threaded joints, including the spout.
- Check hoses for weak or worn condition before each use, making certain that all connections are secure.
- Periodically inspect pump and system components. Perform routine maintenance as required.
- Drain all liquids from the system before servicing.

▲ WARNING *Any pump used to transfer flammable liquids must be stored in a well ventilated area after use.*

PERSONAL SAFETY

- Wear safety glasses at all times when working with pump.
- Wear a face shield, proper apparel and suitable respiratory equipment, when pumping hazardous chemicals.

- Keep work area clean, uncluttered, and properly lighted, replace all unused tools and equipment.
- Keep visitors at a safe distance from the work area.
- Make workshop childproof, with padlocks, master switches, and by removing starter keys.

▲ WARNING *Failure to follow all general safety information can result in a fatality, personal injury and/or property damage!*

Assembly and Installation

- Screw bung adapter (Ref. No. 1) into drum with threaded end down.
- Screw spout into casing using PTFE sealant tape provided. Do not over-tighten.
- Screw suction tubes (Ref. No. 4) into suction tube connectors (Ref. No. 5). Use PTFE sealant tape provided.
- Screw suction tube assembly into casing using PTFE sealant tape provided. Do not over-tighten.
- Insert handle shaft through handle. Turn hex nut onto handle shaft until handle rotates freely.
- Screw handle assembly to crank arm. Keep handle shaft from turning. Tighten hex nut against crank arm. Then insert crank arm assembly onto motor shaft and tighten on the rotor shaft.
- Insert pump assembly into drum through the bung adapter and hand tighten the set screw (Ref. No. 2). Do not use a wrench or tool to tighten set screw.

Model 3BY41A

Operation

1. Rotate handle clockwise several times to prime. If unit does not prime after a few turns, pour some fluid into pump discharge to aid priming.
2. For siphoning, position handle straight down.
3. To stop siphoning, rotate handle 1/4 turn.

4. After using pump, position handle straight down. Liquid will drain back to container.
5. If pump is removed from drum, rinse it thoroughly in a liquid that is compatible with both the pump and the fluid being pumped. For questions regarding chemical compatibility contact your chemical supplier.

MAINTENANCE

IMPORTANT Inspect the pump assembly and suction tubes for weak or worn condition periodically. Make certain that all connections, fasteners, and parts are tight and secure. Perform routine maintenance as required.

DAYTON ONE-YEAR LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. All Dayton® product models covered in this manual are warranted by Dayton Electric Mfg. Co. ("Dayton") to the original user against defects in workmanship or materials under normal use for one year after date of purchase. If the Dayton product is part of a set, only the portion that is defective is subject to this warranty. Any product or part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton or Dayton's designee designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given, at Dayton's or Dayton's designee's option, at no charge. For limited warranty claim procedures, see "Warranty Service" below. This warranty is void if there is evidence of misuse, mis-repair, mis-installation, abuse or alteration. This warranty does not cover normal wear and tear of Dayton products or portions of them, or products or portions of them which are consumable in normal use. This limited warranty gives purchasers specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

WARRANTY DISCLAIMERS AND LIMITATIONS OF LIABILITY RELATING TO ALL CUSTOMERS FOR ALL PRODUCTS

LIMITATION OF LIABILITY. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, DAYTON'S LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES IS EXPRESSLY DISCLAIMED. DAYTON'S LIABILITY IN ALL EVENTS IS LIMITED TO AND SHALL NOT EXCEED THE PURCHASE PRICE PAID.

WARRANTY DISCLAIMER. A DILIGENT EFFORT HAS BEEN MADE TO PROVIDE PRODUCT INFORMATION AND ILLUSTRATE THE PRODUCTS IN THIS LITERATURE ACCURATELY; HOWEVER, SUCH INFORMATION AND ILLUSTRATIONS ARE FOR THE SOLE PURPOSE OF IDENTIFICATION, AND DO NOT EXPRESS OR IMPLY A WARRANTY THAT THE PRODUCTS ARE MERCHANTABILITY, OR FIT FOR A PARTICULAR PURPOSE, OR THAT THE PRODUCTS WILL NECESSARILY CONFORM TO THE ILLUSTRATIONS OR DESCRIPTIONS. EXCEPT AS PROVIDED BELOW, NO WARRANTY OR AFFIRMATION OF FACT, EXPRESSED OR IMPLIED, OTHER THAN AS STATED IN THE "LIMITED WARRANTY" ABOVE IS MADE OR AUTHORIZED BY DAYTON.

PRODUCT SUITABILITY. MANY JURISDICTIONS HAVE CODES AND REGULATIONS GOVERNING SALES, CONSTRUCTION, INSTALLATION, AND/OR USE OF PRODUCTS FOR CERTAIN PURPOSES, WHICH MAY VARY FROM THOSE IN NEIGHBORING AREAS. WHILE ATTEMPTS ARE MADE TO ASSURE THAT DAYTON PRODUCTS COMPLY WITH SUCH CODES, DAYTON CANNOT GUARANTEE COMPLIANCE, AND CANNOT BE RESPONSIBLE FOR HOW THE PRODUCT IS INSTALLED OR USED. BEFORE PURCHASE AND USE OF A PRODUCT, REVIEW THE SAFETY/SPECIFICATIONS, AND ALL APPLICABLE NATIONAL AND LOCAL CODES AND REGULATIONS, AND BE SURE THAT THE PRODUCT, INSTALLATION, AND USE WILL COMPLY WITH THEM.

CONSUMERS ONLY. CERTAIN ASPECTS OF DISCLAIMERS ARE NOT APPLICABLE TO CONSUMER PRODUCTS SOLD TO CONSUMERS; (A) SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU; (B) ALSO, SOME JURISDICTIONS DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU; AND (C) BY LAW, DURING THE PERIOD OF THIS LIMITED WARRANTY, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO CONSUMER PRODUCTS PURCHASED BY CONSUMERS, MAY NOT BE EXCLUDED OR OTHERWISE DISCLAIMED.

THIS LIMITED WARRANTY ONLY APPLIES TO UNITED STATES PURCHASERS FOR DELIVERY IN THE UNITED STATES.

WARRANTY SERVICE

To obtain warranty service if you purchased the covered product directly from W.W. Grainger, Inc. ("Grainger"), (i) write or call or visit the local Grainger branch from which the product was purchased or another Grainger branch near you (see www.grainger.com for a listing of Grainger branches); or (ii) contact Grainger by going to www.grainger.com and clicking on the "Contact Us" link at the top of the page, then clicking on the "Email us" link; or (iii) call Customer Care (toll free) at 1-888-361-8649. To obtain warranty service if you purchased the covered product from another distributor or retailer, (i) go to www.grainger.com for Warranty Service; (ii) write or call or visit a Grainger branch near you; or (iii) call Customer Care (toll free) at 1-888-361-8649. In any case, you will need to provide, to the extent available, the purchase date, the original invoice number, the stock number, a description of the defect, and anything else specified in this Dayton One-Year Limited Warranty. You may be required to send the product in for inspection at your cost. You can follow up on the progress of inspections and corrections in the same ways. Title and risk of loss pass to buyer on delivery to common carrier, so if product was damaged in transit to you, file claim with carrier, not retailer, Grainger or Dayton. For warranty information for purchasers and/or delivery outside the United States, please use the following applicable contact information:

Dayton Electric Mfg. Co.,
100 Grainger Parkway, Lake Forest, IL 60045 U.S.A.
 or call **+1-888-361-8649**

For Repair Parts, call 1-800-Grainger

24 hours a day – 365 days a year

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

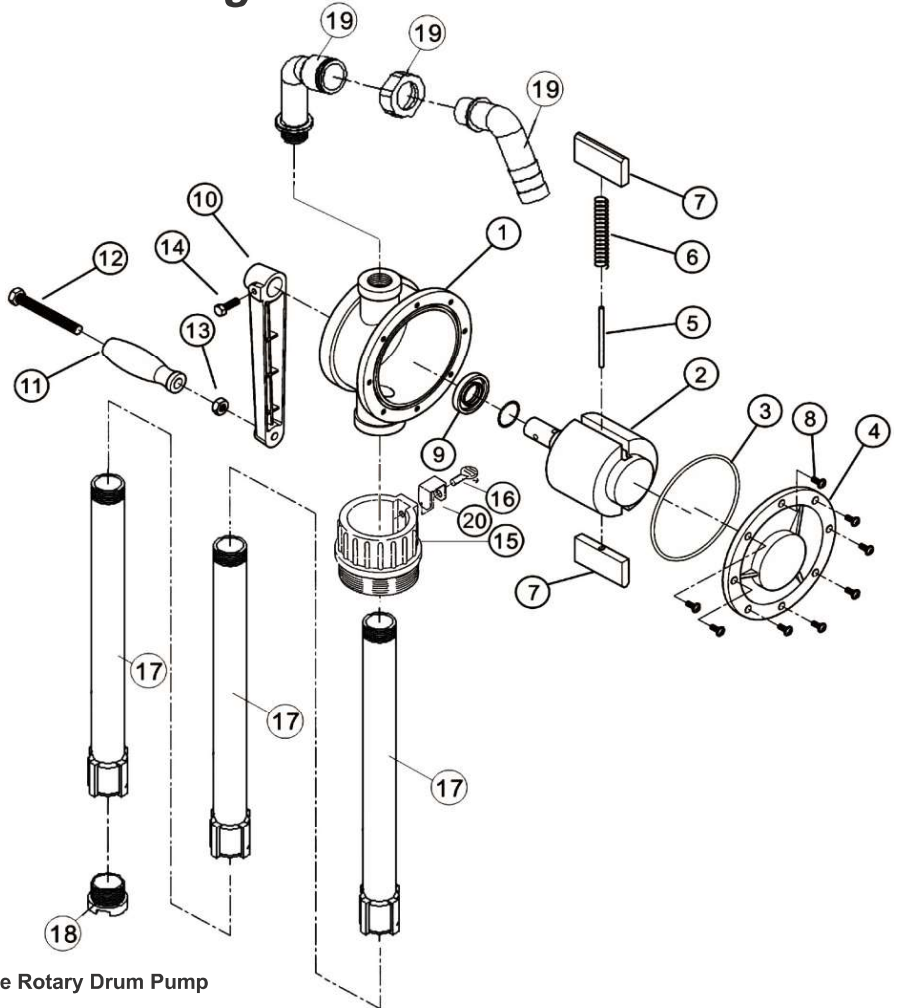


Figure 2 – Repair Parts Illustration for Polypropylene Rotary Drum Pump

Repair Parts List for Polypropylene Rotary Drum Pump

Reference Number	Description	Part Number	Quantity
15	Bung Adapter	▲	1
16	Set Screw	▲	1
20	Set Plate	▲	1
17	Suction Tube	■	3
18	Strainer	■	1
2	Rotor	●	1
7	Vane	●	2
6	Spring	●	1
5	Spring Pin	●	1
9	Lip Seal	◆	1
3	O-rings	◆	1
▲	Bung Adapter Kit	BK3BY4114	1
■	Suction Tube Kit	BK3BY4122	1
●	Rotor Assembly Kit	BK3BY4104	1
◆	Seal and Gasket Kit	BK3BY4108	1

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