

Manual

aerospace climate control electromechanical filtration fluid & gas handling

fluid & gas handling hydraulics pneumatics process control sealing & shielding



Warnings



Do not remove cover of the variable speed controller unit for at least five (5) minutes after AC power is disconnected to allow capacitors to discharge. Dangerous voltages are present inside the equipment. Electrical shock can cause serious or fatal injury.



Motor circuit may have high voltage present whenever AC power is applied, even when motor is not rotating. Electrical shock can cause serious or fatal injury.



MEDICAL DEVICE/PACEMAKER DANGER - Magnetic and electromagnetic fields in the vicinity of current carrying conductors and industrial motors can result in a serious health hazard to persons with cardiac pacemakers, internal cardiac defibrillators, neurostimulators, metal implants, cochlear implants, hearing aids, and other medical devices. To avoid risk, stay away from the area surrounding a motor and its current carrying conductors.



Do not connect AC power to the Motor terminals U, V and W. Connecting AC power to these terminals may result in damage to the control.



Electric retractable cord should be fully extended during use per manufacturers recommendations. Clean cord of excess debris during retraction back to storage position.

Product Features

- Variable Speed Flows 3 to 8 GPM
- 1-1/4" dia. x 16' Suction Hose
- 1" dia. x 16' Return Hose
- Dual Purpose Concentric Wand for 1 Piece Suction & Return Functionality
- Separate Return Wand Included for Tranferring and filtering from Drum to Systems
- Large Semi-Pneumatic Tires
- Steel Black Powder Coated Frame

- Hinged Cabinet Color Coded Element Storage
- Removable Drip Pan for Easy Clean-Up
- Weatherproof Retractable Cord Reel (115VAC Version)
- Weatherproof Electrical Components for Field/ Outdoor Use
- 115VAC
- <160 lbs. Dry Weight
- Mechanical Flow Meter

- Low Fluid Volume Retention allows for Easier Element and Fluid Change
- Cleanable high capacity 238 micron suction element
- Elements available in 2Q, 5Q, and water separation
- Sampling port with valve (6mm) for icountOS Particle Oil Sampler

Specifications

Maximum Recommended Fluid Viscosity:

3000 SUS (647 cSt) @ 3GPM 0.85 specific gravity

Visual Indicator (outlet filter): 60 PSI (Gauge)

Filter Bypass Valve Settings (Integral to Element):

Inlet – 5 psid (0.345 bar) Outlet – 35 psid (2.4 bar)

Operating Temperature:

Seal Type: Nitrile seals on suction and return elements 14°F to +104°F (-10°C to +40°C)

Storage Temperature:

-40°F to 140°F (-40°C to +60°C)

Operating Environment:

Indoor/outdoor

Humidity:

10 to 95% relative humidity non-condensing

Electrical Service Required:

110-115V +/- 10%, 50/60 Hz, voltage range: 99-126V

Electrical Motor:

½ hp @ 1740 rpm

Starter (switch):

IP66 rated, start-stop 20 foot (6 meter) lead with plug

Pump Specification:

External gear pump 3-8 GPM (11-30 LPM) operation below 2.5 GPM will shorten pump life

1st Stage Filtration (suction/inlet filter):

238 micron 5 psi (0.34 bar) bypass (prevents pump cavitation) Air in suction hose will cause sporadic flow reading

2nd Stage Filtration (pressure/outlet filter):

2 micron, 5 micron, and water removal Pressure gauge, 2", 0-60 psi, color coded (25 psi) 25 psi (1.7 bar) bypass (prevents excessive pressures)

Suction/Pressure Hose:

PVC 16 ft. (4.88 meter)

Suction/Pressure Wand:

- (2) PVC 39" (1 meter)
- (1) Concentric steel 39" (1 meter)

Construction:

Cart frame – Steel Filter head – Aluminum Filter bowl – Aluminum Hoses – PVC Wands – Return - PVC Suction - Steel tube

Weight:

approx. 165 lbs. (74.8kg)

Element Storage:

3 plastic tubes for return elements





Operating Instructions

Initial Start-Up

Assembly of Hoses

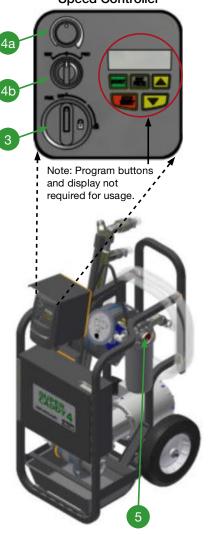
- Install hoses to inlet and outlet filters by threading the hose end with the straight thread fittings and tighten into the filter threads.
- 2. Connect the PVC tube wands, or metal concentric wand, to the swivel fitting on the hose end. Do not over-torque the metal fittings going into the PVC coupling. Over-torque will result in cracking the coupling. 1/4 turn beyond hand-tight is sufficient.

Standard Use

- 1. Insert the inlet wand assembly into the supply fluid receptacle (drum/reservoir). The PT filter is the suction filter.
- 2. Insert the outlet wand assembly into the clean fluid receptacle (drum/reservoir). The 50AS filter is the outlet filter.
- 3. Verify that the ON/OFF switch is OFF and plug the cord into the proper grounded power source (3 wire).
- 4. Turn switch to ON position and check outlet wand for oil flow. Allow 30-60 seconds for filters to fill with oil. If repeated attempts to obtain oil flow fail, check pump inlet fittings for tightness. For very viscous fluids it may be necessary to pour 1 or 2 quarts of fluid into the inlet filter hose to prime pump initially.
 - 4a. Controls variable pump flow
 - 4b. Turn to FWD only for motor direction (reverse has been programmed to be non-functional)
- 5. Monitor the condition of the filter element by observing the cleanliness indicator on the outlet filter. When the gauge is in the YELLOW position, the inlet filter element must be replaced.
- 6. The inlet filter element has a 5 PSI bypass spring to prevent the pump from cavitating if the element is not changed. The outlet filter element has a 25 PSI bypass spring to prevent excessive pressure which may be harmful to personnel or to the filter cart. Warning: The filter bypass spring acts as a relief valve for the pump. Do not restrict the outlet hose with a shut-off valve which will defeat the function of the bypass valve, causing excessive pressure, which may be harmful to personnel or to the filter cart.
- 7. The cleanliness gauge works on pressure and will indicate the condition of the element. NOTE: The filter cart must be in operation for the gauge to read properly



Power/Variable Speed Controller



Service Instructions - Main Return Filter (50AS)

Filter element should be replaced as indicated by filter indicator gauge, change as required or with any fluid type change.

Replacement element procedure

- A. Shut down system and release pressure in the filter line.
- B. Loosen drain plug and allow fluid to empty from bowl to drip pan.
- C. Loosen bowl and remove rotating counter clockwise. (bowl hex 1-1/16"/27mm)
- D. Remove dirty element from filter head and discard.
- E. Lubricate element seals on clean element and install on filter head element locator.

Drain Plug with o-ring

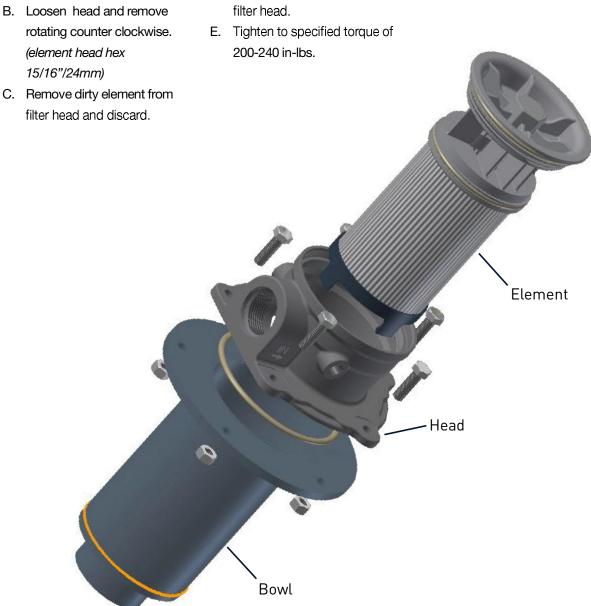


Service Instructions - Suction Filter (PT)

Suction filter element should be checked when servicing the 50AS filter, change as required or with any fluid type change.

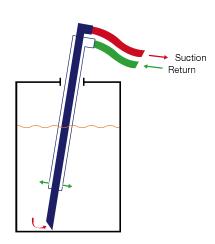
Replacement element procedure

- A. Shut down system and release pressure in the filter line.
- B. Loosen head and remove rotating counter clockwise. (element head hex
- 15/16"/24mm)
- D. Lubricate element seals on clean element and install in



Details

Two Wands are included with the cart: the concentric wand and the standard wand. There is a place holder for each to hold and to drain into drip pan on cart. *Keep suction inlet submerged and clear of blockage.*

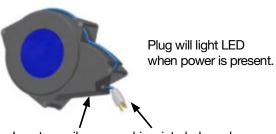


In-tank filtering

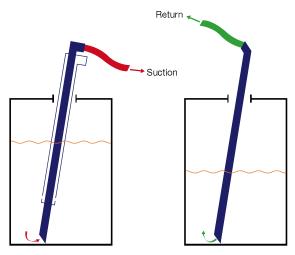
- A. The concentric wand provides a unique option of using one port access to the tank to suction and return the fluid in an opening as small as 2"
- B. During this type of filtering: the inlet/suction hose would be hooked up to the concentric wand inlet (top 90 degree fitting on wand), and the outlet hose would be attached to the concentric wand return/outlet (lower fitting on wand).

Resetting the Circuit Breaker

The cord reel is equipped with an internal mini circuit breaker safety device. This mini breaker will trip if the recommended amperage is exceeded. If an overload should trip the mini breaker, check the amperage usage. The total amperage should not exceed 13 amps. Remove the overload.



Insert pencil or screwdriver into hole and press on internal circuit breaker to reset.



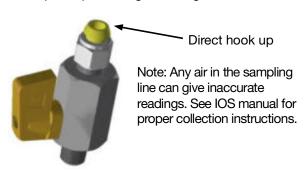
Transfer of fluid tank to tank

- A. During transfer of fluid: you will utilize the concentric wand for the suction only, and the standard wand for the return line.
- B. Unhook the return/outlet hose from the concentric wand (lower fitting) and re-attach it to the single wand.
- C. Then utilize the cart as normal filtration while transferring fluid from one container/tank to another.

Sampling Port

Valve in off position during normal operation. 6mm tubing direct hook up to IOS unit for on-line sampling or bottle collection.

* The icount Oil Sampler (IOS) is available as a seperate part through Servicegard.



Parts List

| Item | Description | 50AS |
|-----------------------------|--|----------|
| Filter Cart Complete | 120V - US/Mexico | JDG11700 |
| Replaceable Components | | |
| White Plastic Element Tubes | set of 3 pcs w/labels | JDG11701 |
| Suction Hose | 1.25" ID - 16' length (TBD Black or Visual) | JDG11702 |
| Return Hose | 1.0" ID - 16' length (TBD Black or Visual) | JDG11703 |
| Concentric Wand | suction/return metal wand | JDG11704 |
| Return Wand | plastic return wand | JDG11705 |
| Oil Drip Pan | fiberglass 12"x14"x4" drip pan | JDG11706 |
| Replaceable Elements | | |
| Element | inlet suction element w/Nitrile seal (1 supplied with original cart) | JDG11707 |
| Element | 2Q replacement filter element w/Nitrile seal | JDG11708 |
| Element | 5Q replacement filter element w/Nitrile seal (1 supplied with original cart) | JDG11709 |
| Element | Water Removal filter element w/Nitrile seal | JDG11710 |

Replacement parts are ordered directly via the SERVICEGARD e-commerce website. https://servicegard.spx.com

General Troubleshooting

| Problem | Cause | Solution |
|-----------------------------------|------------------------------------|--|
| Does not start | ON/OFF Switch | Turn switch ON, replace VSIMX if defective |
| | No electrical power | Plug in cart |
| | Defective motor | Replace |
| No oil flow or erratic pump noise | Filter housing not filled with oil | Allow pump to run 30 to 60 seconds |
| | Suction leak | Check tightness of inlet fittings |
| | | Check o-ring in inlet filter cover for nicks |
| | | Kink or restriction in inlet hose |
| | | Add 1 or 2 quarts of oil to inlet hose |
| | Defective pump | Replace pump |
| | Pump doesn't prime | Add oil to inlet suction hose |
| Gauge reads YELLOW or RED | Element dirty | Replace or clean elements (both filters) |
| | Oil extremely cold or viscous | Change element to coarser micron rating |
| Indicator does not seem to move | No outlet element | Install element |
| Housing leaks | No element, no drain plug | Install element/plug |

Technical questions/issues with operation can be addressed through Parker Technical Service at 419-644-4311 or hfdtechsupport@parker.com

Thank you so much for reading. Please click the "Buy Now!" button below to download the complete manual.



After you pay.

You can download the most perfect and complete manual in the world immediately.

Our support email: ebooklibonline@outlook.com