

Model 9090NAC

Issue 1

Date January 1st 2005

Special points of interest:

- Peristaltic Ink Pump
- Close Coupled Compact Design
- Variable Speed

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Installation and maintenance instructions

This pump is designed to pump solvent and water based inks. The electric motor is controlled by an AC Inverter which allows the operator to adjust the speed.



Pumps can be returned for service and repair

This manual will help you to set up your pump. If you experience problems please call 814 833 3715 in the USA or 0161 498 9419 in the UK. If you are experiencing flow problems please let us know what is in the line and what sizes of discharge hose etc you are using.

This pump and motor must be used in accordance with the instructions .



Declaration of Conformity

Powerwise Ink Pumps certifies that our air and electric operated 2 series, trifugal and peristaltic pumps comply with the European Community Directive 98/37/EC, Safety of Machinery. This product has used EN809, Pumps and Pumps Units for Liquids - Common Safety Requirements harmonized standard to verify conformance.



October 5th 2004

Signature of authorized person.

Date of issue

Phil Holmes
Printed name of authorized person

Engineering manager
Title



6-091 Inverter

This pump is driven by an inverter. This allows the operator to change the speed by pressing the up and down arrows on the front panel. The unit can be set for maximum and minimum speeds. You can also take a reading out to another control panel. This inverter can also be fitted in to the optional panels.



PN1 Panel (Optional)



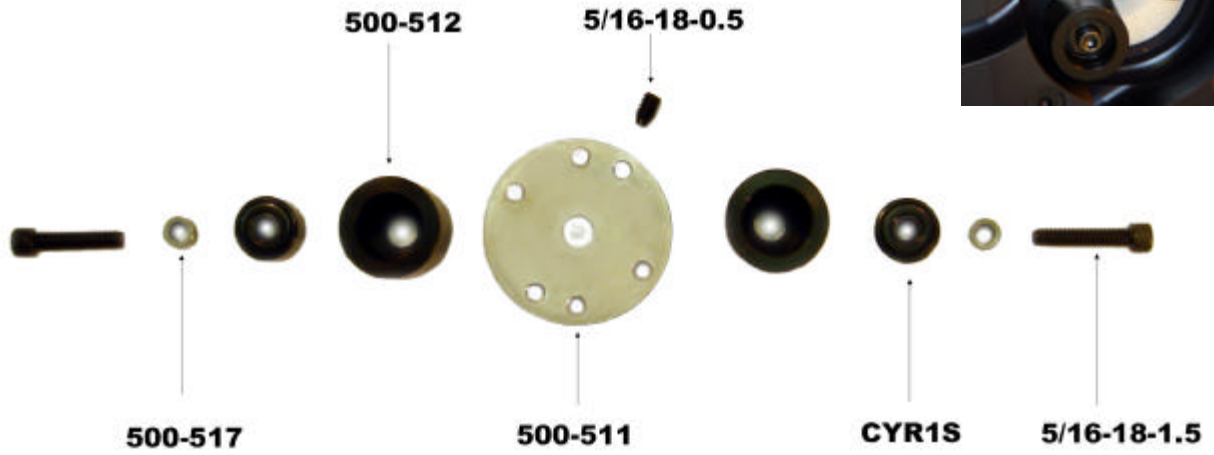
Compact multi pin connector allows the operator to unplug the pump and remove it for quick changeover. (Only available with the optional Panels.)

The panels have on/off buttons, reversing switch, speed adjusting knob and multi pin quick connectors. The panels can be manufactured for one to eight pumps.

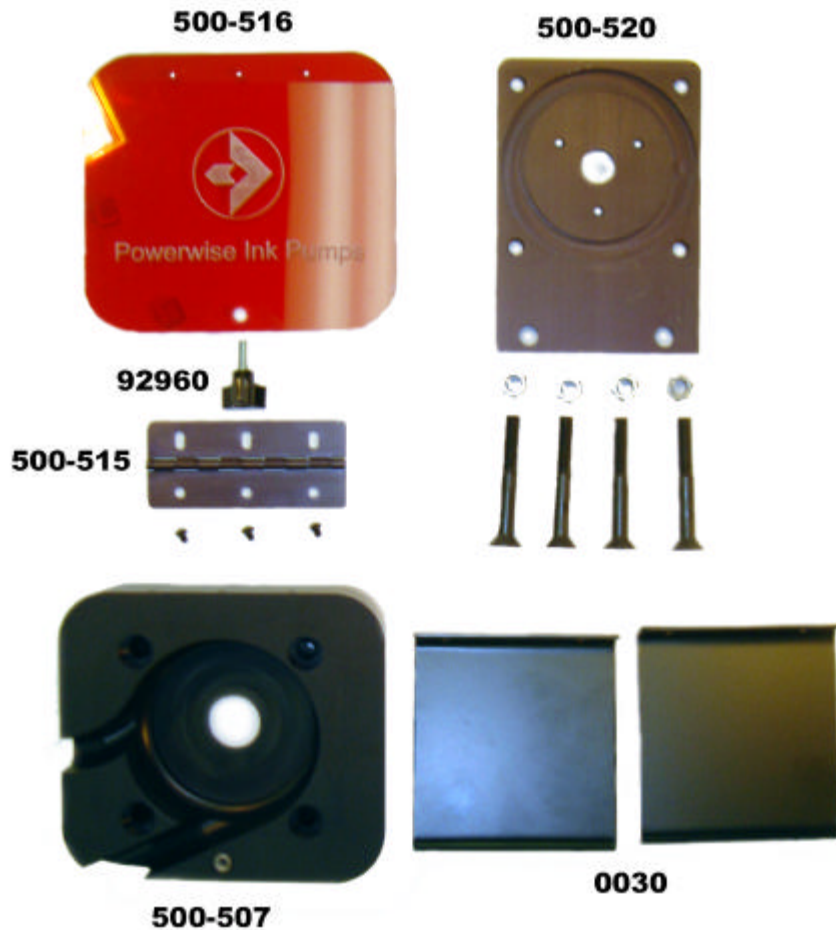


Roller carrier assembly

Parts List



Body Parts

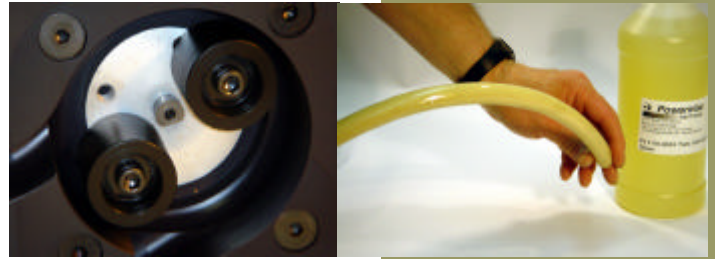


- 500-517 Spacer
- 500-512 Race
- 500-511 Roller Carrier
- CYR1S Bearing
- 5/16-18-1.5 Bolt
- 500-516 Cover
- 92960 Knob
- 500-515 Hinge
- 500-507 Body
- 500-520 Backplate
- 0030 Baseplate

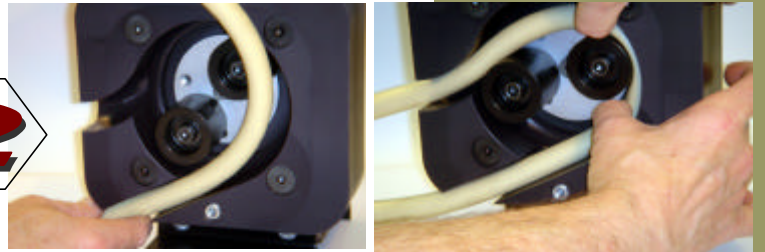


Installing the TubeENSURE THAT MOTOR IS TURNED OFF

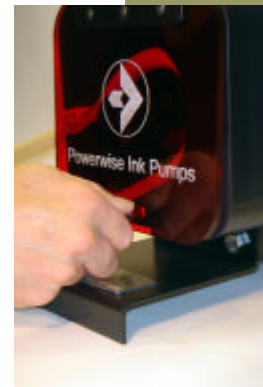
Manually turn rotor until it looks like the picture on the right. (Ensure pump is not plugged in or turned on at this point.) Add some tube lubricant to the tubing and the rollers (Suggestion: use a paint brush and brush the lubricant on the rollers)



With rotor in position shown, press tubing between bottom roller and pump housing.



Close red cover and tighten the black cross knob.



Attach hose gripper to tubing right next to the pump head where tube exits the pump head. Tighten it down.



Attach less expensive hose to the peristaltic tube you are using. Make sure you connect the tubing tightly. Any air that enters through a poor connection can cause loss of pumping action and prime of the pump. You can use quick disconnects. Your tubing could be 5/8" or 3/8" and you should step up to 3/4" if using the 5/8" and 1/2" if using the 3/8".

Tubing used in peristaltic pumps must have enough flexibility to be compressed by the pumps rollers. However, it must be sufficiently resilient to recover its shape rapidly after the rollers have passed over it. This recovery action generates the pumps intake suction.

If difficulty is encountered pumping viscous liquids, it may be caused by tubing too soft to recover its shape rapidly. A soft tube lacks resiliency to generate sufficient intake suction. We recommend tubing with a shore (scale A) durometer of 35-70.

Tube life in these pumps varies with the type of tubing, temperature, pressure and other factors. To ensure maximum life tubing should be lubricated along the tube-roller contact area inside the pump head with special lubricant. (Tube Lube can be ordered with your tube and other accessories from Powerwise.)

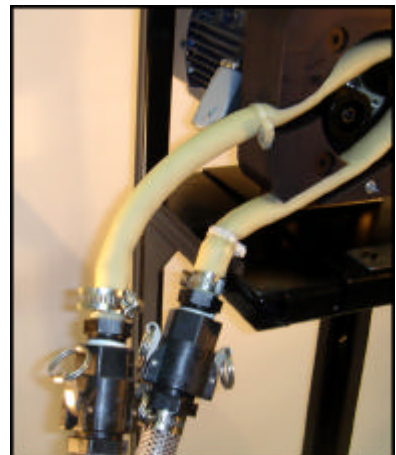
Tube life can be greatly extended if after approximately 8 hours of operation, the tube is adjusted in the pump housing. To do this you can loosen the tube clamp, and pull the tube through a short distance so you are adjusting the position of the tube and preventing excess "flexing" on one area of the pump. The last thing you need is a hose to break in the pump head, it is messy and frustrating, and will stop the press!

Once you have used these pumps for a few months your operators will start to recognize that the tube either needs replacing or moving. Signs are poor flow rate or flattening of the tube.

When the pump is not in use you should remove the tubing so it does not set in the area compressed by the rollers. Although these pumps deliver a continuous flow of liquid, a certain amount of pulsation may be observed. Extending the output tubing side can help lessen this or use a surge suppressor/filter as sold by Powerwise (Part # 1099/SS)

DO NOT RUN YOUR PUMP TOO FAST. Most of the pumps we sell are sold with some kind of geared mechanism, which eliminates the possibility of running the pump too quickly. Speeding up the pump does not give you more flow. If you do not get enough flow you probably need to consider a bigger pump head that will allow you to use a wider ID tube.

The tubing used in peristaltic pumps is suitable for heavy compression and is more expensive than regular tubing. We recommend the use of quick connectors and less expensive tubing between the ink container and the pump and also between the pump and the press. You can just use enough tubing to install into the pump head and keep cut lengths available for quick changeover.





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We're on the web
www.powerwise.com

We supply Ink Pumps, Filters and Accessories to the Flexographic and Gravure printing market. We have manufacturing bases in the USA and the UK. We have distributors and agents throughout the world which can be found on our website at www.powerwise.com

performance

Tested on Water - Viscosity does not effect performance within standard Zahn Cup Range
Discharge pressure 5 PSI (11.5FT/Head). Flow not effected by pressure within normal operating range. Positive displacement pump will over pressurize the line if allowed. However pressure will not exceed the air inlet pressure.

Speed Flow GPM/LPM Tested using 5/8" x 7/8" Tubing.

100	0.625 (2.34)	Smaller tubing 3/8" x 5/8" can be used on this model by adjusting the roller positions. Please call our office for details.
200	1.25 (4.67)	
300	1.375 (5.14)	
400	2.5 (9.35)	

We stock various tubing materials and sizes for solvent and water based fluids

Accessories

Stand model 66200 shown here supports the pump, panel and ink container.



Contact us for all your press side needs. We also provide stainless steel containers of all shapes and sizes.

A complete range of filters is available to protect your doctor blades and anilox rolls. Standard unit comes complete with a strong Rare Earth Magnet. A variety of baskets from 14—200 mesh.

Nylon coated for easy cleaning