POWERWISE INK PUMPS

Model 2079UK

Issue 1 **Date October 26th 2004**

Special points of interest:

- Centrifugal Ink Pump
- Nylon coated
- Full Flow Bypass
- ATEX approved
- Stainless steel lid
- Air Motor 0.37 Kw

Inside this issue:

Atex Documents	2
Declaration of Conformity	3
Parts List ,Air Consumption& Lubrication	4
Installation & Troubleshooting	5
Accessories	6

Installation and maintenance instructions

This pump is designed to pump solvent based inks. It features an ATEX approved air motor and pump end.

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. All centrifugal pumps respond to the head or resistance in the line. 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.

ATEX 95
Directive 94/9/EC

CE

This pump and motor must be used in accordance with the instructions and in the hazard-ous areas covered by the ATEX certification. Any use outside of the print area or on other fluids will void the approvals.

ATEX 95
Directive 94/9/EC

Powerwise
Ink Pumps
48 Davies Avenue
Heald Green, Cheadle
Cheshire SK8 3PG
Tel: 0161 498 9419 Fax: 0161 437 4936
e:mail:sales@powerwise.com www.powerwise.com

CE

Declaration of Conformity

Konformitätserklärung

Powerwise Ink Pumps declares in sole resposibility that the ink pumps in category 2G that are listed below and that are subject to this declaration are meeting the requirements set forth in ATEX Directive 94/9/EG

Powerwise Ink Pumps erklärt in alleiniger Verantwortung, daß die in Folgenden aufgelisteten Druck farb Pumpen der Kategorie 2G, auf sdie sich diese Erklärung bezieht, übereinstimmen mit der ATEX Richtlinie 94/9/EG

Pumpen Typen/Pump Models

All 2 series fixed column pump end and Trifugal stainless steel rod designs. Air and electric models fitted with ATEX compliant motors.

Applicable standards/Angewandte Norm:

EN 13463-1, EN 13463-5, EN 45014

Powerwise will archive the documents required according to 94/9/EC Appendix V111 at the following location. Sira certification service , EC Code 0518 Reference 04 ATEXT 369

Powerwise hinterlegt die gemäß 94/9/EG Anhang V111 geforderten Unterlagen bei benannter Stelle: Sira certification service, EC Code 0518 Referenznummer 04 ATEXT 369

October 5th 2004

Signature of authorized person. Date of issue

Phil Holmes — Engineering manager

Printed name of authorized person — Title

Powerwise
Ink Pumps
48 Davies Avenue
Heald Green, Cheadle
Cheshire SK8 3PG
Tel: 0161 498 9419 Fax: 0161 437 4936
e:mail:sales@powerwise.com www.powerwise.com

Declaration of Conformity

Powerwise Ink Pumps certifies that our air and electric operated 2 series, trifugal and peristatic 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	Engineering manager
Printed name of authorized person	Title

CE

007 Nylon Coated Column

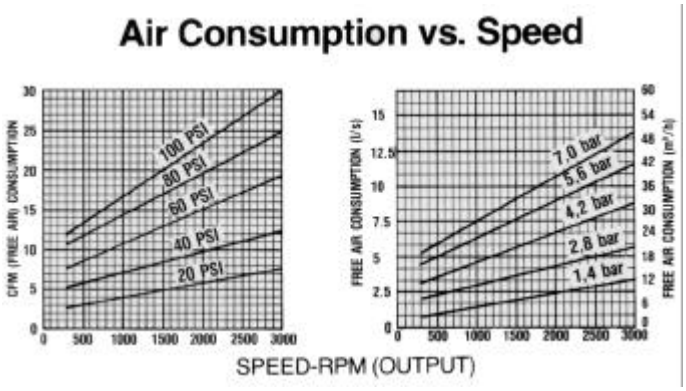
Parts List

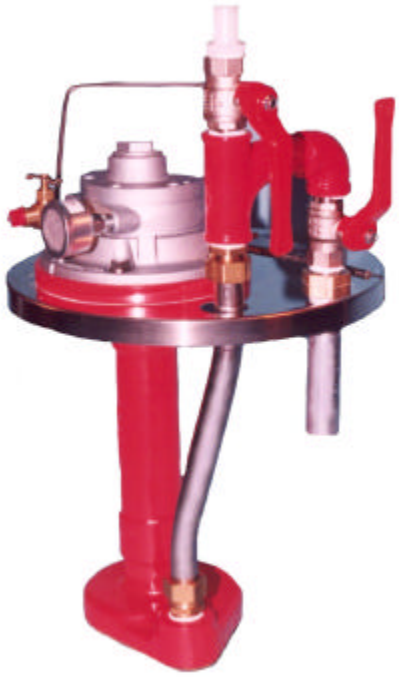
022	End Plate	2011	Bypass System	6-2079	Air Motor Atex
1-16	Endplate Gasket	074	Return Tube	0.37Kw	
091	Impeller	076	Back Nut (2)	D71 Flange mounted	
017SS	Extension shaft	1029	Hose barb	2000 RPM	
007	Nylon coated column	083	Handle		
034	Stainless Hinged Lid	1017-5	Container		
075	Stud Coupling (2)	1033	Slinger		
072	Discharge Tube				

Lubrication :

1 Set pressure knob on FRL to 35 psi. This will need to be set up after the pump is running in order to obtain the required flow rate from the pump.
2 Gradually open the needle flow valve until the required flow is achieved.
3 Ensure oil reservoir does not run dry.
4 DO NOT empty the filter or fill lubricator when air is still in the line.
5 Use a detergent SAE#10 Automotive Engine Oil.
6 The FRL unit must be installed just ahead of the air motor. It should be adjusted to feed one drop of oil for every 50-75cfm of air going through the motor. Lubrication is necessary for all internal moving parts and rust prevention. Excessive moisture in the air line can cause rust formation in the motor and might also cause ice to form in the muffler due to expansion of air through the motor.

Part number
1000 FRL





Additional copies of this manual are available on our website

www.powerwise.com

Installation

The Pump should be located in a container with a minimum clearance of 6mm from the bottom of the pump to base of container

Delivery pipe work should be connected to the pump to ensure no undue stress is put on the pump. The discharge pipe work should be as short as possible and fitted with the minimum number of bends.

The entry to the doctor blade chamber or tray should be at least 1.5cm.

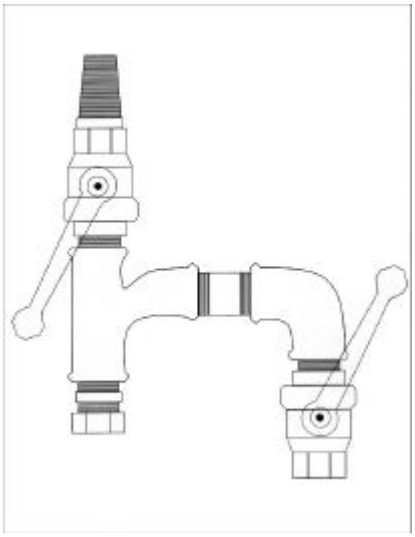
Starting

Connect air supply. Do not use an air line of less than one cm. Reduce down into the port. Do not use curly air line because it does not allow enough air flow. Make sure your air supply is lubricated. (see below)
Briefly turn on the air supply and check rotation. It should be Anti-Clockwise when looking at the impeller end of the pump. Watch the impeller when the motor is switched off. Ensure liquid in the container is higher than the center line of the impeller. NOTE DO NOT RUN THE PUMP DRY

Running

Where the pump is to be run continuously do not shut the outlet and bypass valves. This will lead to churning of the ink resulting in aeration and heat buildup.
When starting the pump close the bypass valve and open the outlet valve. Usually the flow is higher than required so the bypass valve should be opened until the required flow is achieved at the press. This will keep the ink in the container mixed. These valve settings will change for different stations at different heights.

Problem Guide	A	B	C	D	E	F	G
Pump Not Primed	*						
Speed Too Low	*	*	*				
Speed Too High					*	*	*
Discharge Head Too High	*	*	*				
Not Submerged Enough	*			*	*	*	*
Impeller Blocked	*				*		
Wrong Rotation	*	*	*				
Excessive Wear		*	*				
Damaged Impeller		*	*		*		
Motor Binding						*	
Defects In Motor						*	
Voltage/Frequency Less than rating						*	
Misalignment of Pump and Driver					*	*	
Rotor out of Balance					*		
Shaft Bent					*	*	
Bypass Valve Fully Open	*	*	*				



Full Flow Bypass System allows the operator total control over flow and mixing

Troubleshooting

The Pump should be shut down at once and the trouble corrected if the pump is running at its rated speed and found to have any of the following problems.
A = No Liquid Delivered

B = Not Enough Liquid Delivered

C = Not Enough Pressure

D = Loss of Liquid After Starting

E = Vibration

F = Motor Runs Hot

G = Cavitation (Noise)

Powerwise
Ink Pumps
e:mail:sales@powerwise.com www.powerwise.com

2700 West 21st Street
Erie PA 16506 USA

48 Davies Avenue
Heald Green, Cheadle
Cheshire SK8 3PG
England

USA Phone: 814 833 3715
USA Fax: 814 838 3850
Email: sales@powerwise.com

UK Phone 0161 498 9419
UK Fax 0161 437 4936

We're on the web
Www.powerwise.com

One World One Pump

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

Accessories

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. Standard unit comes complete with a strong Rare Earth Magnet. A variety of baskets from 14—200 mesh.

Nylon coated for easy cleaning