

POWERWISE INK PUMPS

Model 2086UK

Special points of interest:

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

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Issue 1

Date October 26th 2004

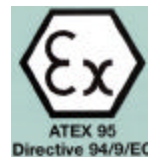
Installation and maintenance instructions

This pump is designed to pump solvent based inks. It features an ATEX approved electric motor and pump end. It is a three phase unit.



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.



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



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Ink Pumps

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Declaration of Conformity

Konformitätserklärung

Powerwise Ink Pumps declares in sole responsibility 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

A handwritten signature in black ink, appearing to read 'Phil Holmes'.

October 5th 2004

Signature of authorized person.

Date of issue

Phil Holmes

Printed name of authorized person

Engineering manager

Title



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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

Engineering manager

Printed name of authorized person

Title

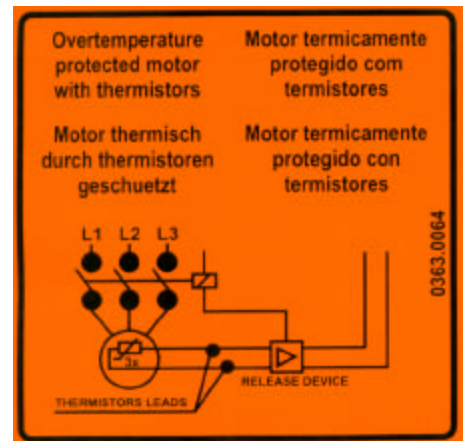
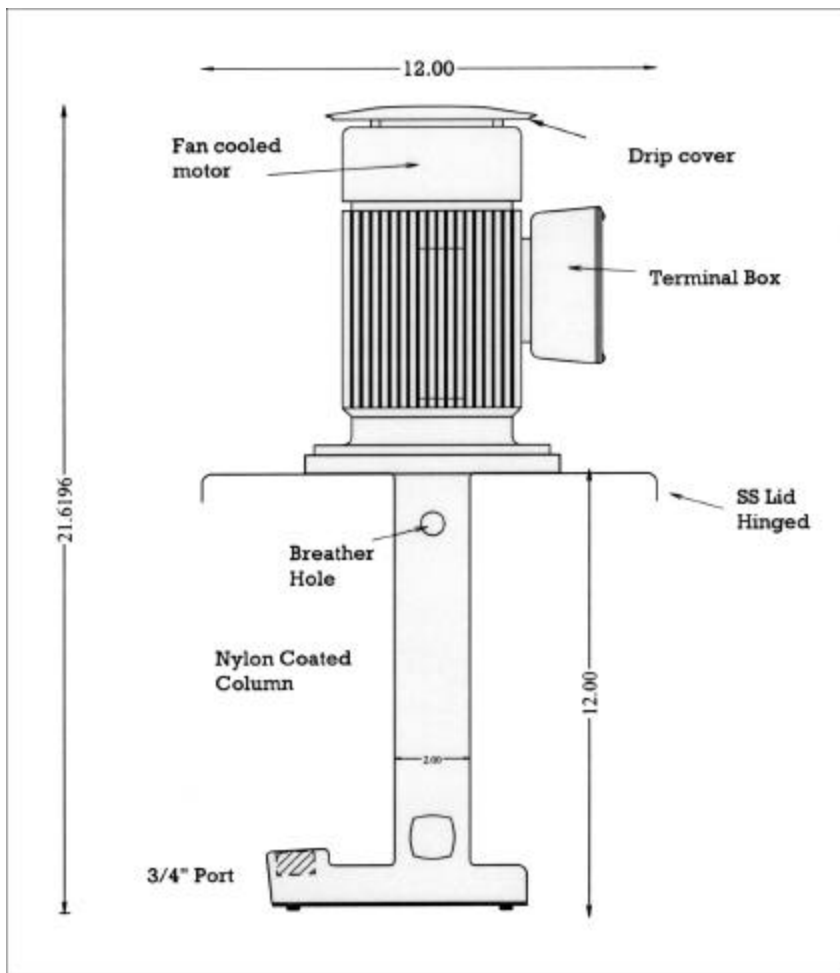
CE

007 Nylon Coated Column

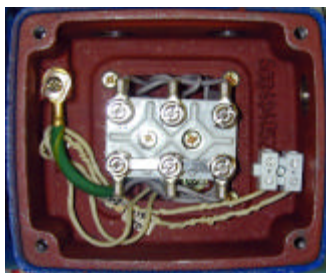


Parts List

022	End Plate	2011	Bypass System	6-2086	Electric Motor
1-16	Endplate Gasket	074	Return Tube	0.37Kw	
091	Impeller	076	Back Nut (2)	D71 Flange mounted	
017SS	Extension shaft	1029	Hose barb	2950 RPM	
007	Nylon coated column	089	Handle	Fan cooled	
033	Stainless Hinged Lid	042	Container	Atex Ex 11 G 2 Ex(e) 11 T4	
075	Stud Coupling (2)	1033	Slinger	218-242 low voltage	
072	Discharge Tube			380-420 high voltage	
				Three phase 50 cycles	
				Rated Current 1,51/0,871 A	
				Rated Torque 0.928 ft/lbs	
				Locked Rotor Torque 310%	
				Insulation class F	
				Time tE T3 = 24s	
				Ambient temp. 40C	
				Enclosure IP55	
				Aprox.wt 9 Kg	
				Noise Level 52 dB	



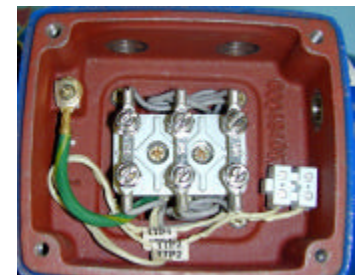
This setup shows the low three Phase connection 230V



This setup shows the high three phase connection 440V

Wiring Connection

These motors require timeout components within your control panel. The T4 specification requires a 9 second cutout.



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 electric supply as the wiring diagram on the motor plate. Ensure the motor is rated for your voltage.

Briefly switch on Motor 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. If not correct re-arrange sequence of connections in the terminal box (3 phase only) Ensure liquid in the container is higher than the center line of the impeller. **NOTE DO NOT RUN THE PUMP DRY**

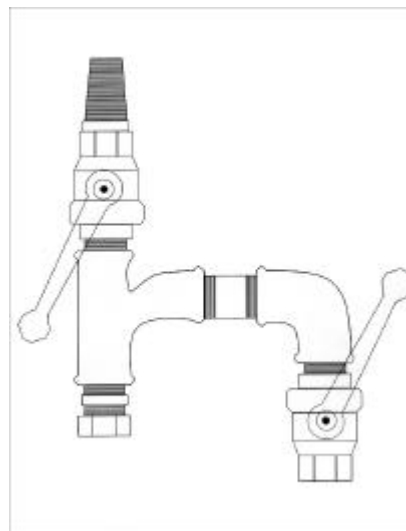
Running

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		*	*		*		
Rotor 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)



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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