



# **Bodymaker Die Coolant Filtration System**

Operating, Maintenance, & Drawing  
Manual

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**APPENDIX A: DRAWINGS LIST**

**APPENDIX B: SPARE PARTS LIST**

# 1.0 Safety Instructions

## 1-1 Safety Regulations

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Do not attempt to operate until you have read thoroughly and understand completely all instructions, rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious personal injury. Keep owners manual and review frequently for continuous safe operation.

### 1. KNOW YOUR MACHINE.

- For your own safety, read the owner's manual carefully. Learn its application and limitations as well as specific potential hazards pertinent to this machine.

### 2. KEEP WORK AREA CLEAN.

- Disorder area and working table will cause accident.

### 3. DO NOT USE IN DANGEROUS ENVIRONMENTS.

- Do not use power tools in damp or wet locations, or expose them to rain. Keeps work area well illuminated.

### 4. KEEP NON-PROFESSIONAL PEOPLE AWAY.

- All visitors should be kept at a safe distance from work area.

### 5. DO NOT FORCE THE MACHINE.

- It will do the job better and be safer at the rate for which it was designed.

### 6. USE THE RIGHT TOOLS.

- Do not force the machine or attachments to do a job for which they were not designed.

### 7. WEAR PROPER APPAREL.

- Avoid loose clothing, gloves, neckties, rings, bracelets, or jewelry, which could be caught in moving parts.
- Non-slip footwear is recommended.
- Wear protective hair covering to contain long hair.

## **1-1 Safety Regulations (cont.)**

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### **8. DON'T MAINTENANCE THE MACHINE IN RUNNING STATES**

- The machine should be maintained such as lubrication, proper adjustment.

### **9. BEFORE MAINTENANCE, ACCESSORY CHANGING OR ASSEMBLING AND REASSEMBLE MOTOR, BE SURE TO CUT OFF THE POWER FROM THE POWER RESOURCE.**

### **10. USE RECOMMENDED ACCESSORIES.**

- Consult the owner's manual for recommended accessories.

### **11. NEVER LEAVE MACHINE RUNNING UNATTACHED**

## 2.0 Specifications

### 2-1 Specifications

<b>Rated Efficiency</b>	Varies
<b>Rated Current</b>	Varies
<b>Work speed</b>	Varies
<b>Dimension(L×W×H)</b>	8800mm×4400mm×3105mm
<b>Net Weight</b>	16,000kg
<b>Work Total Pressure</b>	6-7 kg/c
<b><u>Filter Control Panel</u></b>	
<b>Power consumption</b>	Varies
<b>Main CB</b>	Varies
<b>Short Circuit Current Rating</b>	Varies
<b>Full Load AMPS</b>	320 AMPS and Varies
<b>Normal Rate</b>	120KW and Varies
<b><u>Sump Control Panel</u></b>	
<b>Power consumption</b>	Varies
<b>Main CB</b>	Varies
<b>Short Circuit Current Rating</b>	Varies
<b>Full Load AMPS</b>	90 AMPS and Varies
<b>Normal Rate</b>	34KW and Varies

## 2-2 Machine Noise

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Machinery was designed and constructed so that risks resulting from the emission of airborne noise are reduced to the lowest level while taking accounting of technical progress and the availability of means of reducing noise at a particular source

DECLARED NOISE EMISSION VALUES in accordance with ISO 7960.

	normal load condition	full load condition
Declared A-weighted Sound Power Level, $L_{ward}$ , in dB re 1 pW .	89db	93db
Declared A-Weighted Emission Sound Pressure Level, $l_{pAd}$ , in dB re 20 $\mu$ Pa , at the operator's position.	89db	93db

Values determined according to specific test code ISO 3746.

The figures quoted are emission levels and are not necessarily safe work levels. Whilst there is a correlation between emission levels and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of work piece include the duration of noise (i.e. the number of other adjacent machines).



## 2-3 Function of the Machine

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The PPE Foshan Coolant Filtration System is a high volume coolant filtration solution. The Coolant Filtration System recycles and delivers high volumes of coolant to the tooling of aluminum or steel can body maker(s) in order to prevent overheating due to intense friction created within the process.

## **2-4 Legend of the Machine**

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See GA Drawing

## 2-5 Machine Dimensions

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### **Filter Section:**

Dimensions of Machine(L×W×H): 8800mm×4400mm×3324mm

### **Sump Section:**

Dimensions of Machine(L×W×H): 3280mm×1863mm×2719mm

## **3.0 Installation**

### **3-1 Safety Rules for Machine Movement**

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- When transporting, please check the weight and the equipment hoisting chart which the equipment specification provides, make sure the appropriate hangs meet the tool to prevent damage to the personnel and the equipment.
- According to installs on the site plan, choose the appropriate installation position, and according to the gross weight of the equipment, determine if the final position should be concrete.
- If upon delivery equipment appears damaged or lacks spare parts, please do not move.

## **3-2 Lifting the Machine/Drawing**

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When lifting equipment above the ground, observe its parallelism, if you do not experience any problems continue lifting this machine, if you do experience any problems re-adjust the steel wire and lift again.

When hoisting, strictly situate according to the hoisting chart positions, look for the center of gravity.

Once the machine is hoisted up, do not allow any personnel to travel beneath the machine in order to avoid any serious damage or personal injury.

### 3-3 Selection of Location

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Please use under the below environmental condition.

Environment	Environment temperature	-10°--45° does not ice up
	Environment humidity	Below 90%RH(does not congeal dew)
	Storage temperature	-20°-- 65°
	Environment	In room(non-corrosiveness gas, flammable gas, oil mist and so on)
	Altitude above sea level	Below elevation 1000m

### **3-4 Installation/Drawing**

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See GA drawing

### **3-5 Installation and Leveling**

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The equipment need not be fixed with bolts. After the whole machine is in place, ensure that the machine is level.



## **3-6 Power Supply Requirements**

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See Electrical Drawings

### 3-7 Connect Power Source Wires

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- (1) The machine has been factory pre-wired before shipment, according to the specified voltage on the purchase order. However, before connecting the power wires to your factory power supply, confirm again that the voltage of the machine is the same as that of your power supply.
- (2) The power source connection points are located on the Control Cabinets. The machine should be properly grounded to prevent the danger of electrical shock.
- (3) After the power wires have been connected, make sure they are connected to the correct points.
- (4) The machine must be properly grounded to prevent possible injury from electrical shock.
- (5) All electrical connections should be performed by qualified electrical personnel.

**Note: machine must be grounded correctly.**



**The mode of grounding:** connect the yellow/green wire to the power supply, before connecting the power wires to your factory power supply, confirm that the grounding has been finished.

### 3-8 Check Connection of Power Wires

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#### **NOTICE**

After all power wires are connected, double check all connections for problems.

### **3-9 Pneumatic Supply Connection**

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The compressed air should be introduced to the automatic valve manifold and the filter blow down pressure regulator.

The compressed air must be clean and without water.

## 4.0 General

### 4-1 General Description of Filtration System

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The PPE Foshan Coolant Filtration System is a high volume coolant filtration solution. The PPE Foshan Coolant Filtration System delivers the ability to greatly reduce factory floor presence while at the same time accommodating the demand of multiple bodymakers. The control system is designed to allow for automatic running and run speeds. Each tank (clean, dirty and sump) is equipped with level detectors designed to detect/maintain coolant levels and, with the aide of Variable Frequency Drives, change pump speeds according to the available space and available coolant levels in each tank.

The filter arrangement consists of two Cuno Express Series filters. When properly operated and maintained, the dual filter design allows for filter changeover and media change out while continuously running, without the need to shutdown the flow of coolant to the bodymakers. The Cuno Express Series filter housings implement Micro-Klean resin bound filter cartridges. Each filter is capable of housing 85 filter cartridges.

This system is designed to accommodate up to 20 bodymakers.

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