



Shibuya Hoppmann

Model EP-08/08 Prefeeder

ANSI/Metric Installation & Maintenance Manual



Refer all servicing to qualified personnel.

This manual is intended for use by qualified mechanics and electricians who install or service the EP-08, the EP-15, or the EP-25 Prefeeder.

This manual replaces the EP-8, EP-15 and EP-25 (ANSI and Metric) Wiring & Spare Parts Manual and the Prefeeder Installation & Maintenance Manual.

Please copy this information from the EP-08/08 Prefeeder's serial plate.

Model Number:

Serial Number/Date:

Inventory Number (Check One):

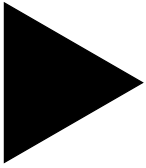
- EP0808XAFA EP0808XASM EP0808XDPA
- EP0808XASA EP0808XDFA EP0808XDSD



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Quick Start



About this Manual

Assumptions

Shibuya Hoppmann Corporation assumes that all procedures contained in this manual will be performed by a qualified mechanic or electrician who must install or service the EP-08/08 Prefeeder. All procedures in this manual should be performed by qualified personnel or under their direction.

Models Covered

This manual covers six models. If you are unsure of your model, locate the inventory number on the serial plate of the prefeeder.

- EP0808XAFA, EP0808XDFA .. Food Grade, ANSI
- EP0808XASA, EP0808XDSA .. Stainless, ANSI
- EP0808XASM Stainless, Metric
- EP0808XDPA Pharmaceutical, ANSI

Caution Symbols and Messages

Caution symbols and messages in this manual call attention to hazardous voltages, moving parts and other hazardous conditions.



The exclamation point caution symbol denotes possible personal injury and/or damage to the equipment.



The lightning bolt caution symbol denotes possible personal injury and/or damage to the equipment from electrical hazards.

Before You Start

Tools You Will Need

The EP-08/08 elevating prefeeders are offered in both ANSI and metric versions. For maximum compatibility, ANSI units are classified as “soft ANSI” construction, meaning that metric threads and hardware are used throughout. Both metric and ANSI units require metric tools for repair or adjustment.

Equipment Improvements & Document Revisions Notice

Shibuya Hoppmann Corporation continually improves its products and reserves the right to change or discontinue specifications and designs shown in this manual without notice and without incurring obligation. Shibuya Hoppmann Corporation has made every effort to verify the information contained in this manual, but reserves the right to correct any error at the time of the manual’s next revision. This manual is subject to change without notice. 02/07



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Prefeeder Description & Specifications

1

The EP-08/08 Prefeeder: An Overview

Function The EP-08/08, Prefeeder is designed to load parts into a feeder or other equipment for singulation and /or orientation. The first "08" refers to the supply hopper capacity of 8 cubic feet, and the second "08" refers to the belt width of 8". See *Figure 1-1* for a diagram of the EP-08/08 Prefeeder and *Figure 1-2* for the EP-08/08 Prefeeder Specifications.

Operation of Equipment Product is loaded, at floor level, into a supply hopper. The product is then gently raised out of the hopper by means of a cleated belt and metered into either the recipient feeder bowl or other equipment.

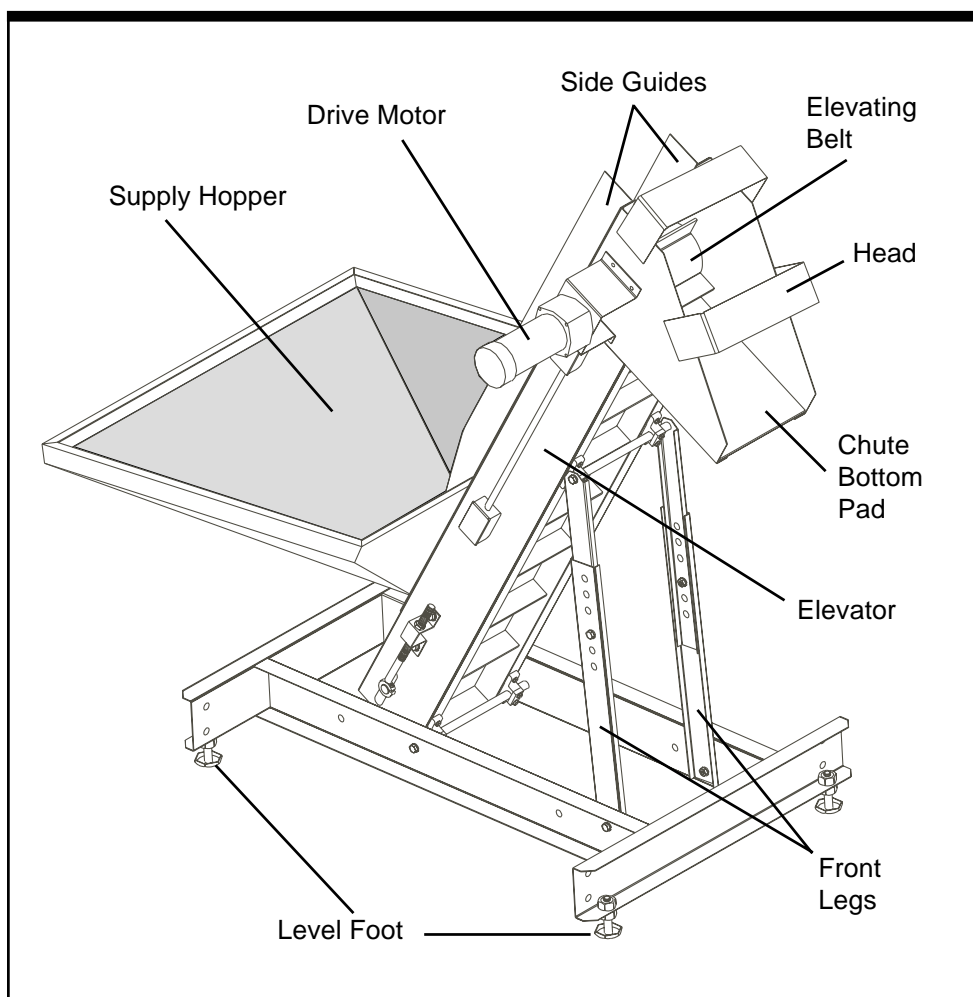
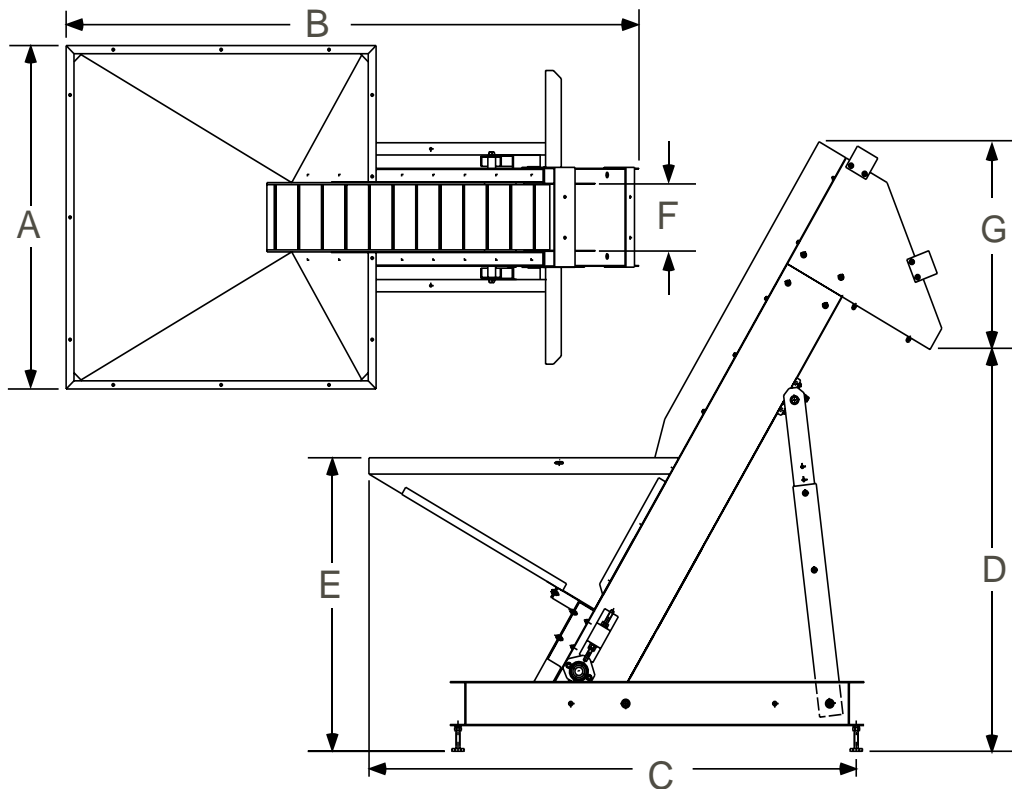


Figure 1-1.
EP-08/08
Elevating
Prefeeder



Product Specifications	ANSI	Metric
A. Overall Width	42"	1067 mm
B. Overall Length	63"	1600 mm
C. Lower Chassis Footprint	63.10"	1603 mm
D. Dump Height (Adjustable)	42 - 53"	1067 - 1346 mm
E. Hopper Load Height (8 ft ³)	34"	864 mm
Hopper Load Height (15 ft ³)	42"	1067 mm
Hopper Load Height (25 ft ³)	50"	1270 mm
E. Belt Width	8"	203 mm



Your direct supplier may have changed some of these specifications during tooling to better match your application's requirements.

Figure 1-2. EP-08/08 Prefeeder Specifications

Safety Precautions

2

Safety Warnings



Turn Off Power! Before servicing, make sure you have turned off compressed air and electrical power in a way which prevents accidental reactivation. Padlock and clearly tag the appropriate electrical and pneumatic disconnects. Lockout/tagout procedures are covered in United States Code of Federal Regulation (CFR) Title 29 Part 1910.147, "The Control of Hazardous Energy."



Dress Appropriately! Reduce the risk of injury from moving parts by securing loose sleeves and other clothing. Do not wear loose jewelry or neckties near the prefeeder. Wear safety glasses or other protective eyewear when servicing or operating the prefeeder. Never place hands or tools in the prefeeder when it is operating.



Install Safety Covers! Make sure the prefeeder remains safe to operate. Be sure all safety covers have all been installed before returning the prefeeder to normal operation. Safety covers on the prefeeder include any covers installed by your direct supplier as well as standard permanent guarding.

Operating & Maintenance: Do's & Don'ts

Don't Install the Prefeeder Near Flammable Gas, Vapor or Dust. You must install additional approved explosion-proof or dust ignition-proof enclosures if installation occurs under these conditions. Without such additional enclosures, normal sparking of the brushes inside the motor could ignite flammable gas, vapor or dust.

Do Use the Same or Identical Mounting Screws if Replacing the Motor. If longer mounting screws are used, they may come into contact with parts of the motor that conduct electricity.



Notes

Installation & Startup

3

If the Prefeeder is Already Set Up

If you've bought a Shibuya Hoppmann prefeeder as part of a Hoppmann feeder system, then your direct supplier will have performed all the procedures in this chapter. You will still need to:

- ▶ **Position your Prefeeder.** Follow the equipment layout drawing provided by your direct supplier.
- ▶ **Connect Electrical Wiring.** Follow as-built electrical diagrams provided by your direct supplier.
- ▶ **Make Pneumatic Connections.** If your prefeeder has a hopper agitator, your direct supplier will give you setup specifications.
- ▶ **Install and Test the Rest of the System.** Installation is complete.

If the Hoppmann prefeeder is drop-shipped to your location, follow the procedures in this chapter to finish setting up the prefeeder.

Unpacking and Inspection

Step 1—Inspect and Unpack the Crate. Remove packing materials from sensors, tooling and moving parts. Make a visual check to be sure parts have not come loose during shipping. If you find any concealed damage, call the shipping carrier and your direct supplier immediately. ***Do not attempt to fix the problem yourself unless told to do so by your direct supplier.***



Step 2—Record Serial Number of Prefeeder. If you have not already done so, record the prefeeder's model and serial number on the front of this manual. *This information is helpful when ordering replacement parts or service.*

Physical Setup

Step 1—Position the Prefeeder. Place the prefeeder as shown on the equipment layout drawing provided by your direct supplier.

Continued ▶

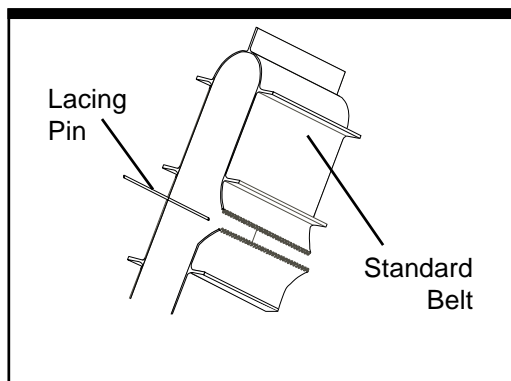


Figure 3-2. Belt

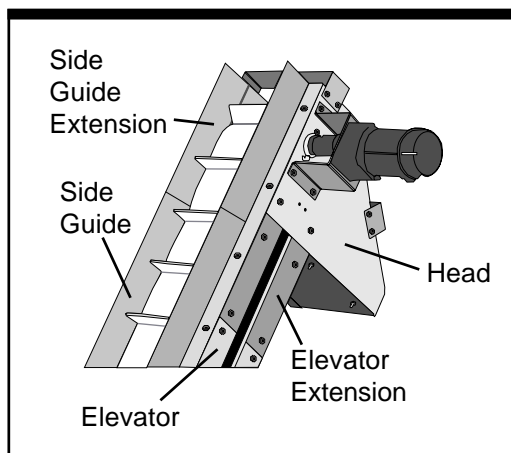


Figure 3-3. Elevator Extension

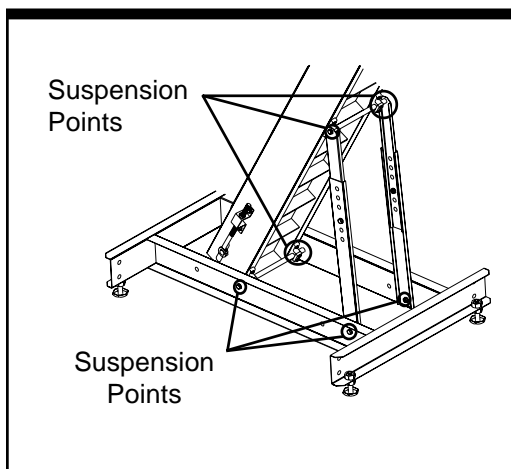


Figure 3-4. Adjusting the Dump Height

Step 1—Remove Belt. To install an elevator extension to an EP series prefeeder, first rotate the belt so that the lace and pin are located on the underside (return side) of the elevator extension. Next, loosen both sides of the lower pulley takeup brackets. With the belt loose, remove the lacing pin. See *Figure 3-2* for part description.

Step 2—Remove Head. Remove the bolts which secure the side guide to the head section. Then remove the two bolts on each side of the prefeeder head which secure the head section to the elevator and remove the head. See *Figure 3-3* for part description.

Step 3—Install Extension(s). Attach the splice plates to each side of the main elevator section. Then, reinstall the head and secure to the splice plates.

Step 4—Reinstall Belt. Install side guide extension, belt and belt extension. See steps 2 and 3 of *Installing Belts and Belt Extensions*, page 11.

Step 5—Adjust Dump Height. Once the extension is installed, you may need to adjust the dump height by more than the leveling feet will allow. To adjust the dump height of the prefeeder, loosen the six suspension points which connect the elevator and front legs to the frame of the prefeeder on both sides. See *Figure 3-4* for location of suspension points. This will allow the unit to pivot when adjusting the dump height. Then, raise or lower the height of the front legs by changing the holes in which the legs connect to the frame. (Extra holes are provided to move the legs up or down.) When the desired dump height is obtained, tighten the locknuts in the front legs and the six suspension points to secure the unit. See *Figure 3-5* for recommended dump heights and *Figure 1-2*, dimension “C”, for dump height specifications.



**Figure 3-5.
Recommended
Dump Heights**

Dump Height References		
<i>Part Number</i>	<i>Length of Extension</i>	<i>Dump Height Range</i>
EX18EP08SU	18" Extension	57" - 70"
EX36EP08SU	36" Extension	70" - 85"
EX54EP08SU	54" Extension	85" - 101"

**It is strongly recommended that the frame of the prefeeder be reinforced and/or additionally supported for elevator extensions of 54" or greater*

Installing Belts and Belt Extensions

Step 1—Disconnect Power and Install Belts. Turn off the prefeeder and lock out power. Install belt, belt extensions and lacing pins. See Figure 3-2 for part description. Reinstall all underside guards that may have been removed during installation.

Step 2—Adjust tracking. Turn on the prefeeder and set to a slow speed to observe tracking of the belt. Run a new belt at least several complete revolutions before adjusting tracking. If the belt pulls to one side or if the belt moves from side to side, adjust the tensioner bracket on the side to which the belt is pulling.



Do not overtighten the belt. When tightening the takeup pulley, apply the minimum tension necessary to take up slack and properly track the belt. If you apply too much tension you can easily destroy the belt lacing or decrease the life of the pulley bearings. The belt must be running to access the adjustment.



The more elevator extensions that are installed on your prefeeder, the greater the slack in the belt. This is normal and should not be adjusted by overcompensating for the slack. You may unintentionally apply too much tension and destroy the belt lacing.

Step 3—Adjust Tracking Again. Run the prefeeder for at least five minutes. Continue to adjust tracking until the prefeeder runs consistently without tracking problems.

Continued ►



Step 4—Adjust Tensioning. A properly tensioned belt will not slip with a hopper full of product. **To avoid injury, turn off the prefeeder before checking tension.** Tighten or loosen the tension equally to ensure proper tension. Tighten the locknuts of the tension rod. **Do not set tools where they can fall into the hopper or onto moving parts.**

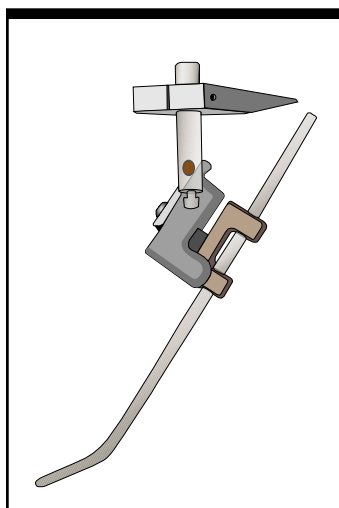


Figure 3-6. Level Sensor Mount Package

Level Sensor

The prefeeder is usually controlled by a level sensor mounted in the centrifugal feeder or other equipment. The sensor keeps the level of product, from the prefeeder to the equipment, relatively constant by controlling the amount of product metered into the receiving equipment. The level sensor mount package has been provided with your prefeeder; however, the package does not include a proximity sensor. The proper proximity sensor is a standard 8 mm diameter threaded sensor (choice of sensor dependent on electrical system specifications). For further information contact Hoppmann Corporation or your direct supplier.

Establishing the Correct Prefeeder Speed

To establish the correct prefeeder speed, turn the prefeeder's speed control to $\frac{1}{4}$ its maximum setting. Once the product begins to exit the centrifugal feeder or other equipment, determine the output of your prefeeder. To obtain a valid rate, count product for at least a minute.

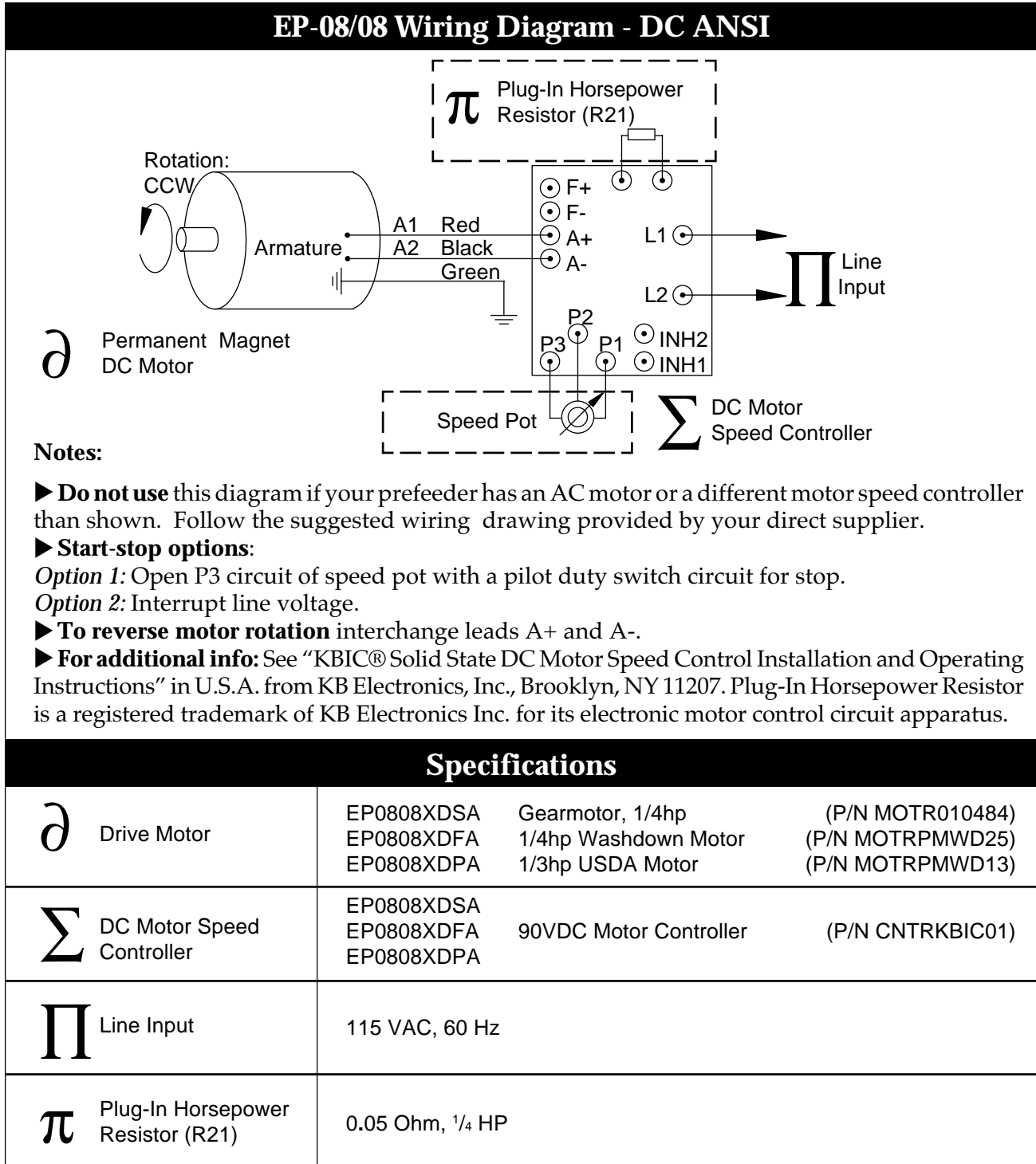


Figure 3-7. DC ANSI Suggested Wiring Diagram

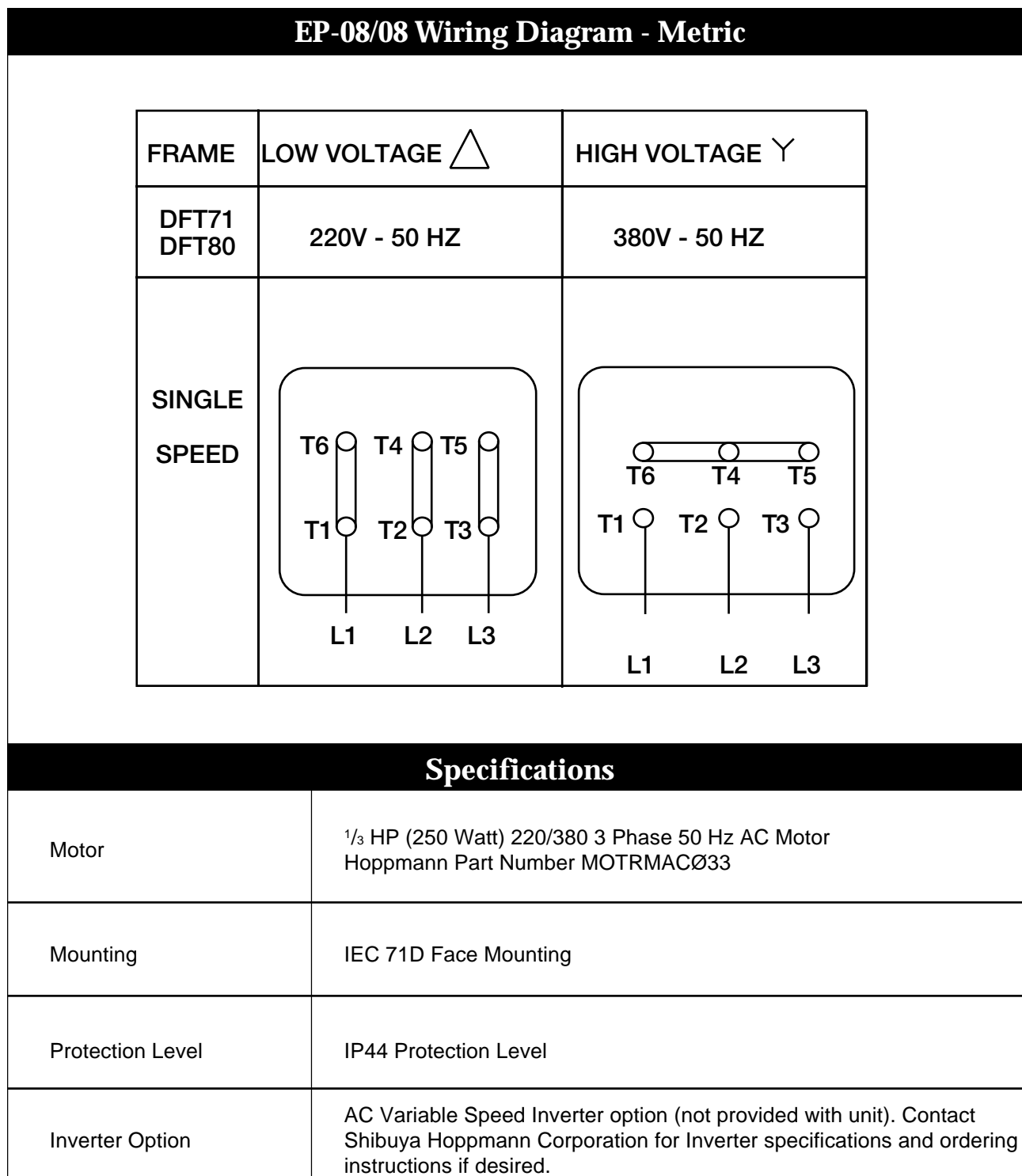


Figure 3-8. Metric Suggested Wiring Diagram



Notes

Repair and Maintenance

4

Drive Pulley

The main components of the drive pulley assembly are a drive motor and gear reducer, a drive coupling and a pair of flanged bearings. Each bearing consists of a bearing insert and a pair of bearing flanges. See *Figure 4-1* for part description. The bearing inserts are lubrication-free. If a bearing requires replacement, the bearing flanges can be reused if they appear unworn and undamaged.

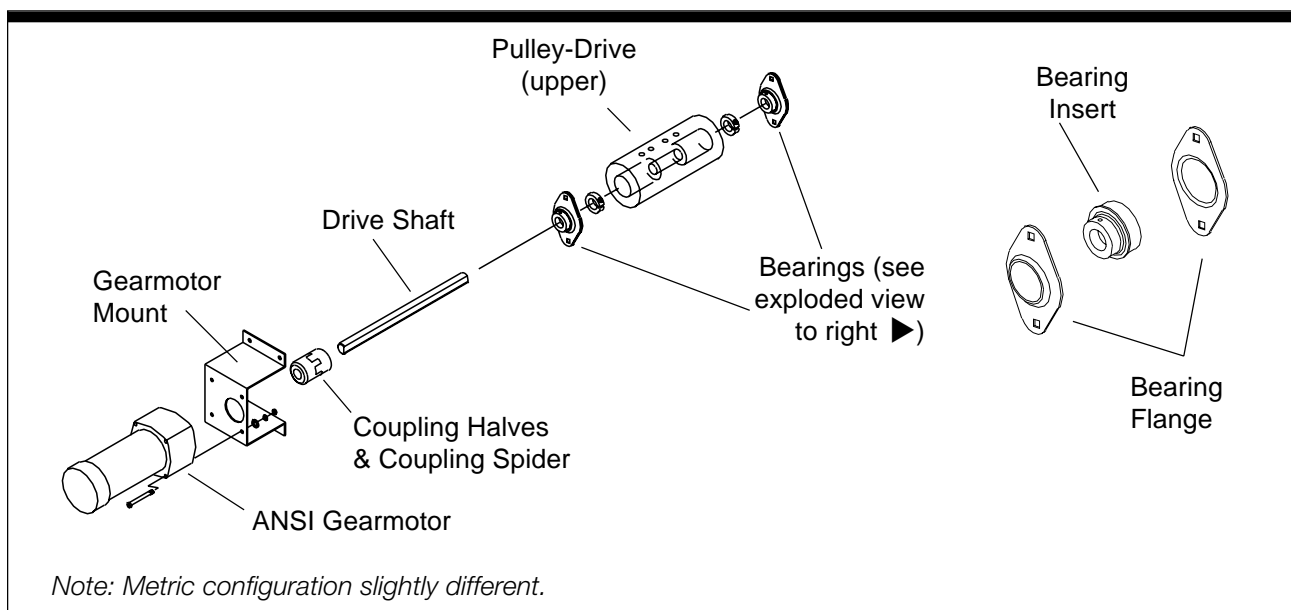


Figure 4-1. ANSI Drive Pulley Assembly

ANSI/Metric Motor and Reducer Maintenance

Metric Units Reducers and AC drive motors found on metric units are lubricated for life and require no maintenance.

ANSI Units If reducer is running hot, check for excessive load, leaking oil or excessive accumulations of dirt or grease. If the reducer's sound level changes or if it vibrates excessively, the reducer may have low oil level, abnormal loading or worn elements.



Notes

Spare Parts

5

Notice to Shibuya Hoppmann Customers:

Replacement part lists for the standard models are located on the following pages. To ensure receiving the correct replacement part(s) specific to your system, consult your system operations manual.

If you did not receive a Shibuya Hoppmann customized system, or you do not have a copy of the systems operations manual, contact Hoppmann Corporation. ***Prior to contacting Shibuya Hoppmann, copy down the information from your system's serial plate(s).*** This helps eliminate incorrect spare parts, and will assist us in making sure we have the correct parts for your tooled system. See Figure 5-1 for the two types of serial plate's that will be located on your system. ***This information is necessary when ordering replacement parts or service.***

Shibuya Hoppmann Corporation's contact information is listed on the following page.

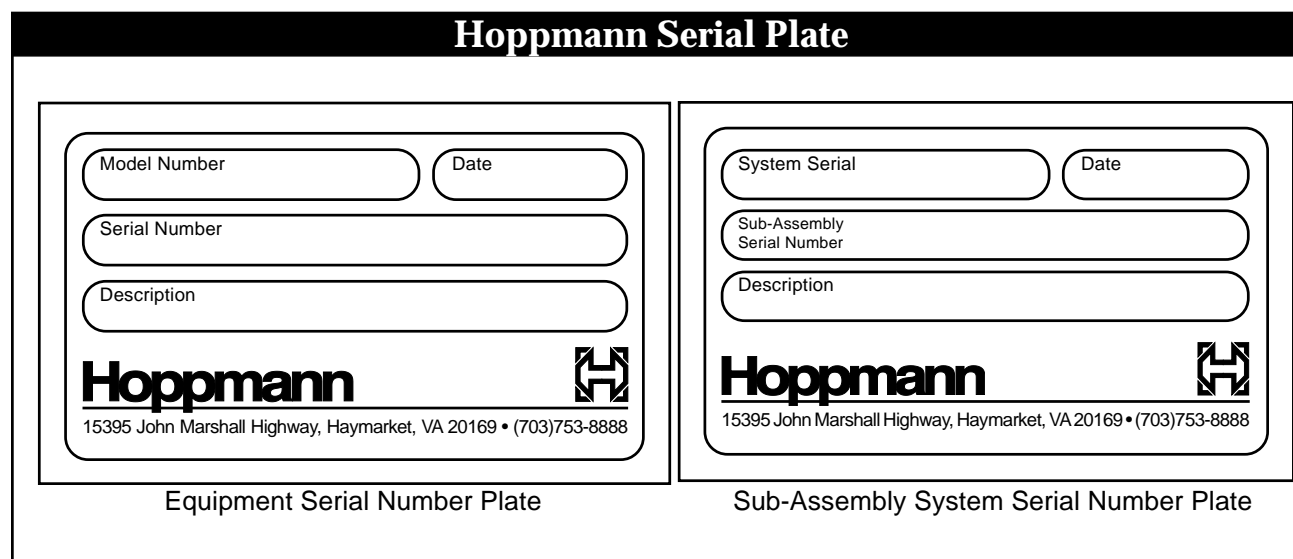


Figure 5-1. Serial Plate Layouts - Equipment and System



Notice to Dealer & OEM Customers:

Some components listed might have been changed by your dealer or OEM to work better with your application. To avoid ordering the wrong replacement part, verify the part number listed in the insert to the back of this manual when you place your order with your dealer or OEM.

In North America:

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13129 Airpark Drive, Suite 120
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Replacement Parts Listing

EP0808XDSA – DC Motor, Stainless Steel, ANSI

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
CNTRKBIC01	Motor Controller, 90VDC ANSI	*	1
MOTR010484	Gearmotor, 1/4hp	*	1
RESIKB.005	Resistor, 0.050 OHM	*	1
BRNGINSM01	Bearing Insert, 25mm Spherical		4
FEETM12X30	Feet, M12 X 75mm Zinc		6
FLNGSS1/25	25mm SS Flange		8
COUPHALF02	Coupling, Half 3/4" B L095		1
COUPHALF07	Coupling, Half, 25mm BR L095		1
COUPSPID03	Coupling, Spider, NBR		1
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

Replacement parts in italics are optional equipment which may or may not have come with your prefeeder. Please be sure to check carefully before ordering.



EP0808XDFA – DC Motor, Food Grade, ANSI

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
EP08FM0100	Coupling Nickel Plated		1
CNTRKBIC01	Motor Controller, 90VDC ANSI	*	1
MOTRPMWD25	Motor, 1/4hp, 90VDC, Washdown	*	1
RESIKB.005	Resistor, 0.050 OHM	*	1
REDU71850F	Gear Reducer, 50:1, Food Grade	*	1
BRNGINSM01	Bearing Insert, 25mm Spherical		4
FEETM12X30	Feet, M12 X 75mm Zinc		2
FOOTM16180	Level Foot, M16X180mm L St. Steel		4
FLNGSS1/25	25mm SS Flange		8
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

EP0808XDPA – DC Motor, Pharmaceutical, ANSI

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
EP08FM0100	Coupling Nickel Plated		1
CNTRKBIC01	Motor Controller, 90VDC ANSI	*	1
MOTRPMWD13	Motor, 1/3hp, 90V USDA	*	1
RESIKB.005	Resistor, 0.050 OHM	*	1
REDUC49F45	Gear Reducer, 45:1 Ratio	*	1
BRNGINSM02	Bearing Insert, 25mm SS		4
FEETM12X30	Feet, M12 X 75mm Zinc		6
FLNGSS1/25	25mm SS Flange		8
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

Replacement parts in italics are optional equipment which may or may not have come with your prefeeder. Please be sure to check carefully before ordering.

**EP0808XAFA – AC Motor, Food Grade, ANSI**

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
EP08FM0100	Coupling Nickel Plated		1
MOTRAC50WD	1/2hp, Paint-Free WD AC Motor	*	1
REDU71850F	Gear Reducer, 50:1, Food Grade	*	1
BRNGINSM01	Bearing Insert, 25mm Spherical		4
FEETM12X30	Feet, M12 X 75mm Zinc		2
FOOTM16180	Level Foot, M16X180mm L St. Steel		4
FLNGSS1/25	25mm SS Flange		8
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

EP0808XASA – AC Motor, Stainless Steel, ANSI

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
MOTRAC0025	AC Motor, 1/4 hp, 230/460	*	1
REDUC49F45	Gear Reducer, 45:1 Ratio	*	1
BRNGINSM01	Bearing Insert, 25mm Spherical		4
FEETM12X30	Feet, M12 X 75mm Zinc		6
FLNGSS1/25	25mm SS Flange		8
COUPHALF01	Coupling, Half 1" B L095		1
COUPHALF07	Coupling, Half, 25mm BR L095		1
COUPSPID03	Coupling, Spider, NBR		1
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

Replacement parts in italics are optional equipment which may or may not have come with your prefeeder. Please be sure to check carefully before ordering.



EP0808XASM – AC Motor, Stainless Steel, Metric

<u>Part Number</u>	<u>Description</u>	<u>Critical*</u>	<u>Qty.</u>
EP08000100	EP08 Continuous Belt Standard 144"		1
MEP80500K	Take-Up Bracket Weldment		2
MOTRAC0025	AC Motor, 1/4 hp, 230/460	*	1
REDUC49F45	Gear Reducer, 45:1 Ratio	*	1
BRNGINSM01	Bearing Insert, 25mm Spherical		4
FEETM12X30	Feet, M12 X 75mm Zinc		6
FLNGSS1/25	25mm SS Flange		8
COUPHALF02	Coupling, Half 3/4" B L095		1
COUPHALF07	Coupling, Half, 25mm BR L095		1
COUPSPID03	Coupling, Spider, NBR		1
<i>EX18EP08SU</i>	<i>18" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX36EP08SU</i>	<i>36" Prefeeder Extension Kit</i>		<i>1</i>
<i>EX54EP08SU</i>	<i>54" Prefeeder Extension Kit</i>		<i>1</i>

Replacement parts in italics are optional equipment which may or may not have come with your prefeeder. Please be sure to check carefully before ordering.



Notes



Notes



Warranty

Hoppmann Corporation warrants that each item of its own manufacture delivered hereunder shall, at the time of delivery and for a period of twelve (12) months thereafter, be free from defects in materials or workmanship; and if any such item shall prove to be defective in material or workmanship under normal intended usage and maintenance during the warranty period, upon examination by Hoppmann Corporation, then Hoppmann Corporation shall repair or replace, at its sole option, such defective item at its own expense; provided, however, that the owner shall be required to ship such defective item, freight prepaid, to Hoppmann Corporation's plant from where it was shipped. The warranty on components not manufactured by Hoppmann Corporation, but a part of the **prefeeder**, is limited to the warranty provided by the original manufacturer of said components to the extent, and only to the extent, that such original manufacturer actually honors such warranty. **All warranties hereunder are expressly limited to the repair or replacement of defective items as set forth herein, and in no event shall Hoppmann Corporation be liable for special, incidental or consequential damages by reason of any breach of warranty or defect in material or workmanship. Hoppmann Corporation shall not be responsible for repair or replacement of items which have been subjected to neglect, accident or improper use, or which have been altered by other than authorized Hoppmann Corporation personnel.**

This warranty is in lieu of other warranties, express or implied. All implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose are hereby excluded.

