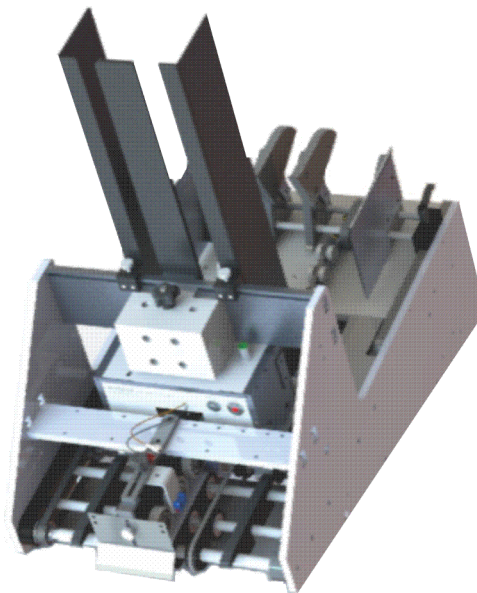




Xtreme XM-1200 Friction Feeder

**Operation Instructions, Technical Guide,
And Parts List Information**



**For Models:
Xtreme XM-1200**

Have this information ready when calling in about your equipment:

Model: _____ Serial #: _____ Firmware #: _____
Warranty Start Date: _____

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Illustrations in this guide are for reference only and may depict optional features that are available at additional costs.

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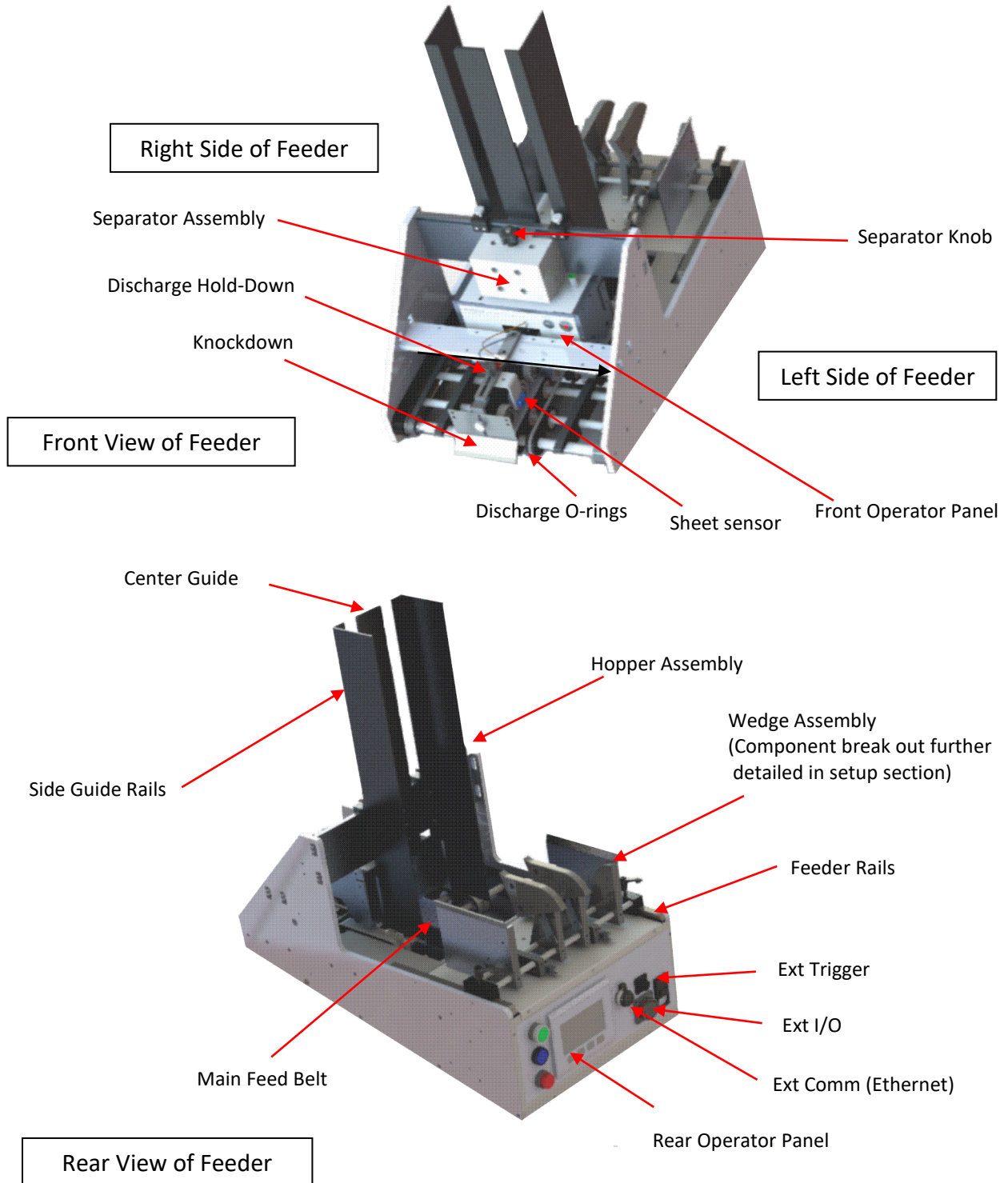
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SECTION 1: MACHINE OVERVIEW

Please review the components and descriptions to become familiarized with your new Xtreme XM-1200 Friction Feeder.



SECTION 2: SETUP

This section will walk you through setup adjustments for the Xtreme XM-1200 Friction Feeder. Refer to the Basic Setup Guide for assembling your feeder when shipped from the manufacturer.

For a video demonstration of basic feeder set up, visit

<http://www.superior-phs.com/setup.html>

Take a moment to get familiarized with the basic feeder components on the previous page. Basic feeder setup consists of three main components: Separator, Hopper & Wedge Assembly, and Discharge Hold-Down. **Power to the feeder should remain off** during the Separator and Hopper & Wedge Assembly setup.



Never Plug-In or Unplug Any Wires, Cables, or Electrical Components on the Feeder Without First Powering Down the Feeder and Removing All Power

Separator Setup

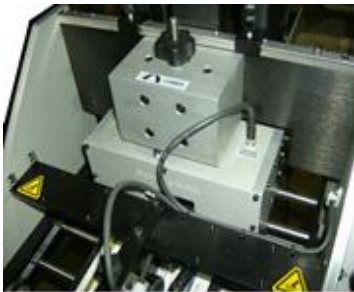


Figure 2.1*



Figure 2.2*



Figure 2.3*

The Separator (Figure 2.1) is the device that separates product from the stack in the Hopper. Turning the knob clockwise will increase the gap between the gate assembly and the main feed belt; counter-clockwise will decrease the gap. This will create drag on the product and separation as product is pulled through the feeder.

Raise the Separator and advance one piece of product underneath the Gate Rollers (Figure 2.2). Slide the piece forward and backward while turning the separator knob counter-clockwise (Figure 2.3) to create a medium drag on the piece.

Make certain that the drag is not too tight or too loose. If the drag is too tight, the rollers may “mark” some products, or prevent products from advancing causing miss-feeds. If the drag is too loose, the rollers will allow extra products to advance at the same time causing double feeds.

The Separator is equipped with a gear motor that automatically rotates the Gate Rollers as the feeder is running.

NOTE: Always power off the feeder *before* removing power to the Separator.

* Images are for training and may not reflect the actual feeder model

Hopper Setup



Figure 2.4*



Figure 2.5*



Figure 2.6*



Figure 2.7*

The hopper consists of a cross mount plate, center plate, two side guides, side guide clamps, and handles/knobs shown in Figure 2.4. The side guides are adjustable side-to-side to allow for different product widths.

Optional: Some of the feeders come with two rods for each side guide. (Not available on the XM-1200)

They can be installed to reduce drag, pinch-points, and possible marking. The rods can be adjusted up and down to assist in skew control (Figure 2.5). Using the rods depend on the type of product being fed.

NOTE:

BE SURE THAT THE RODS DO NOT CONTACT THE BELTS

Load one piece of product in the center of the hopper and adjust the side guides up to the edge of the product. Proper setup allows approximately 1/16" to 1/8" clearance from the side guides to the product.

For product thicknesses of 1/4" and under, the hopper assembly should be mounted in the lower slot of the "E" mount of the feeder's left and right-side plate (Figure 2.6). For thicker products, loosen the fasteners and slide the assembly up (1/4"-1/2" and 1/2"-3/4"). *Note:* You will need to perform the same operation on the hold down assembly.

For products 3.25" wide up to 12" wide, loosen the handle/knob and manually slide the side guide to the desired position. Tighten the handle/knob when completed.

For products 2" wide up to 3.25" wide, "flip-flop" the two side guides (Figure 2.7) so that the smooth side of the side guides are now on the inside. This is done by removing the screws that fasten the side guides to the side guide clamps. Swap the side guides and refasten using the same screws.

* Images are for training and may not reflect the actual feeder model

Wedge Assembly Setup (Part Overview)

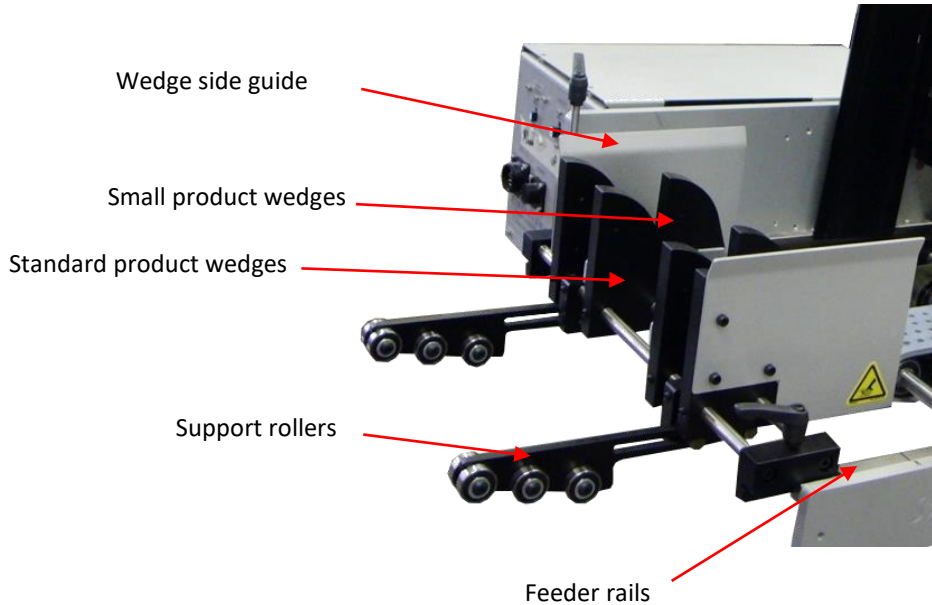


Figure 2.8*

* Images are for training and may not reflect the actual feeder model

The Wedge Assembly provides “lift” to the rear of the product in the hopper. The amount of lift and wedge configuration will depend on the type of product. Typically, products that are rigid need less lift/support than products with less rigidity. Adjustment of the wedge will, in part, determine the amount of overlap of the products as they pass through the Gate Rollers.

If the Wedge Assembly is not attached to the feeder, slide the entire Wedge Assembly over the Feeder Rails in the Hopper and tighten down with the two handles included. To adjust the wedge support, loosen the handle on either side of the Wedge Assembly and slide the assembly forward or backward. A good starting point is a lift angle of approximately 20-degrees on the first piece (Figure 2.11) Depending on your product, you may need to increase or decrease this angle once more product is loaded and you have test run a few cycles. Next, slide the black wedge blocks side-to-side to accommodate the width of your product.

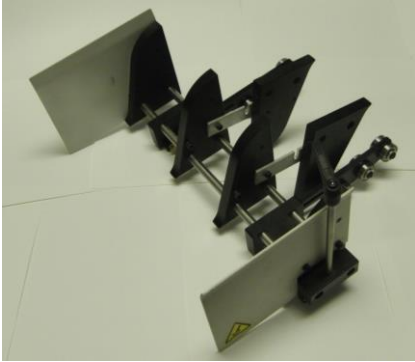


Figure 2.9*

The Xtreme XM Wedge Assembly comes standard with Small Product Wedges and Support Rollers.

Wedge Selection:

Products <4" L : See Figure 2.10

Products >4" L : See Figure 2.9

Products >7" L : Not Rigid (i.e. thin sheets): See Figure 2.8

Rigid (i.e. chipboard): See Figure 2.9

The Roller Support Wedges fasten directly to the two drop blocks on the Wedge shafts using four thumbscrews. They are adjustable in and out to provide more or less lift to flimsy stocks.

Included in this assembly are two Wedge Side Guides to assist in containing the product and preventing "skew". Some wider product sizes will rely solely on the Wedge Side Guides and the Hopper Side Guides can be set to the most outward position in the hopper.

The Small Product Wedges and Support Rollers have a mounting feature design that allows them to be rolled backward when not in use. See Figure 2.9

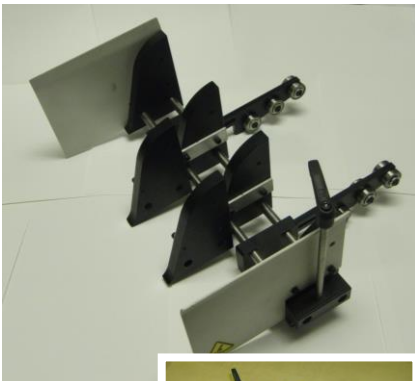


Figure 2.10*



Figure 2.11*



* Images are for training and may not reflect the actual feeder model

Discharge Hold-Down Setup

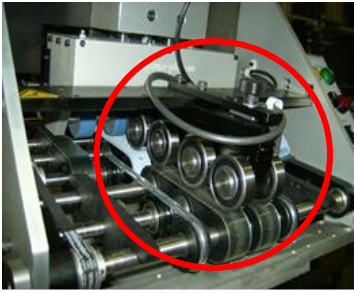


Figure 2.12*



Figure 2.13*

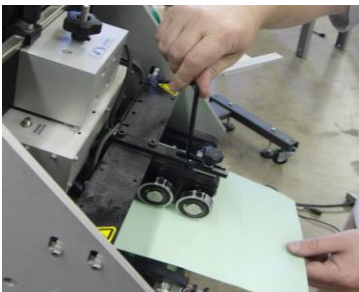


Figure 2.14*

* Images are for training and may not reflect the actual feeder model

The Discharge Hold-Down (Figure 2.12) is designed to assist in accelerating the product to create a gap between them. This assembly consists of self-adjusting spring-loaded wheels and two fine-tuning adjustment screws.

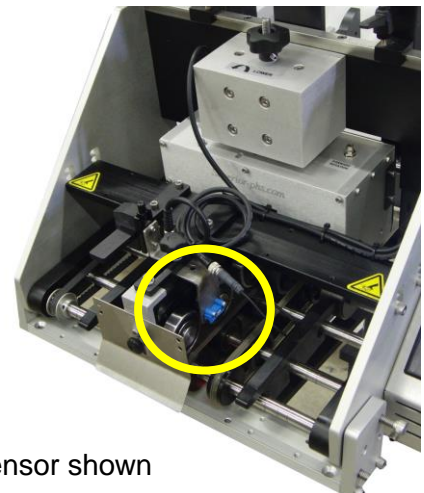
The fine-tuning adjustment screws allow for more or less tension to be applied to the product as it passes through the discharge of the feeder. The rear adjusting screw is located just behind the cross bar and the front one is located through the opening on the sensor mount bracket.

To set the Hold-Down, power on the feeder and slowly press the Jog button to jog one piece of product through the feeder until it rests under the Hold-Down. By hand, move the product back and forth under the Hold-Down while adjusting the adjustment screws with a 3/16" allen wrench until there is a good amount of drag on either end of the Hold-Down (Figures 2.13 and 2.14). For products such as corrugate, minimal drag is needed.

Sheet Sensor Photo Eye

The Sheet Sensor Photo Eye is used to detect the leading edge of a piece of product as it exits the feeder. Position the sensor at the discharge of the feeder where you want your product to stop. Be sure not to position the Sheet Sensor over a shaft or other obstruction. This will cause inaccurate counts.

Note: The Sheet Sensor must detect a gap between each product in order to maintain accurate counts. This is indicated by the light going on and off. A gap of 1" or more as product passes the Sheet Sensor is recommended.



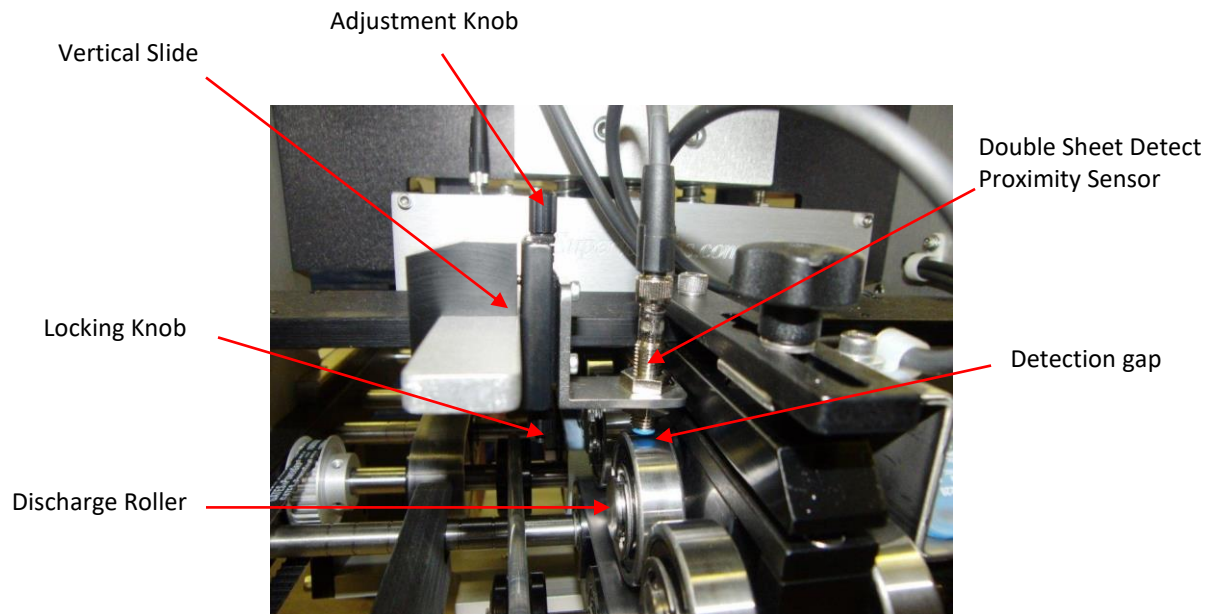
High-Speed Sensor shown

Electro-Mechanical Double Sheet Detector Setup

NOTE: This is not a standard operating feature on the XM-1200. Depending on your application, this option can be turned on or off in the software using the touchscreen PLC controls.

Operation and Setup:

The electro-mechanical double sheet detector is a Proximity Sensor mounted above the middle discharge roller. When this sensor is activated (sensing a double), and the Double Detect is enabled, the feeder will stop and illuminate the Reset lamp with a slow blink. To reset, simply remove the product from under the discharge roller and press the Reset button. Press the Cycle button once to stage a new piece to the sheet detect sensor.



Setup – To adjust the proximity sensor, advance 2 pieces under the hold down roller below the proximity sensor. Loosen the bottom locking knob on the vertical slide. Loosen or tighten the top adjustment knob on the vertical slide to move the proximity sensor up or down.

Adjust the position so that you are just detecting the double and tighten the bottom locking knob. If the position is too far into the detection range, false triggers may occur from the bounce of the roller under normal operation. Next, remove one of the pieces of product and make certain that the proximity sensor is not detecting a single piece.

Once satisfied, cycle a few pieces through the feeder to ensure that singles do not trip the proximity sensor.

Please note that for operation, you will need to “Enable” this feature on the touchscreen PLC. Refer to touchscreen manual for setup.

SECTION 3: OPERATION



Before Powering on the Feeder:

If you are using the Trigger Sensor assembly provided (or any external I/O interface cable) to automatically cycle the feeder, plug-in the Trigger Sensor located in the Rear Operator Panel and mount it directly to the feeder near the discharge or near the equipment that will be triggering the sensor, such as a conveyor.

DO NOT PLUG OR UNPLUG POWER TO THE TRIGGER SENSOR OR EXTERNAL INTERFACE CABLE AT ANYTIME WITHOUT FIRST POWERING DOWN THE FEEDER.

FAILURE TO DO SO CAN RESULT IN DAMAGE TO THE CONTROLS INTERFACE ON THE PLC.

Apply Power

1. It is important to make sure that you are applying the correct voltage to the unit. At the Rear Operator Panel, the display will state the required voltage. You must only supply the power to the unit as stated on the module.
2. Once you have applied power, switch the unit to the “On” position (-) by pressing the on/off switch located on the Rear Operator Panel.
3. Press the “Reset” button and the “Ready” button will light up green indicating the feeder is in Ready Mode and is ready to receive a trigger signal from the Trigger Sensor or by manually cycling the feeder by pushing the green “Cycle” button.

Trigger Sensor



Trigger Signal

The trigger signal is what initiates the feed cycle. This signal is received by either the Trigger Sensor or by manually cycling the feeder. When received, this puts the feeder into motion and dispenses product(s). The number of pieces that will be dispensed is determined by the number you preset on the batch-size.

Note: If more than one trigger signal is received prior to completion of the feed cycle, a “Miss-Feed” will be detected (see the glossary for more information regarding miss-feed).

Loading Product

1. Load one piece of product in the Hopper as described in the Hopper Setup section. To start, this piece of product should be resting on the Wedges with approximately 20 degrees of lift.
2. Pre-shingle, or fan out, a 1" stack of product (Fig 3.1) and load into the hopper resting under the gate rollers (Fig 3.2). Make sure to maintain the pre-shingle effect so it matches that of the lead-in plate on the Separator.
3. Repeat Step 2 with another 1" stack until you have approximately 3" to 4" of product in the Hopper. All of the product in the Hopper should be evenly fanned out along the Wedges with no random pieces sticking out. This initial setup of product is very important to maintain even feeding as you continue to load the Hopper.
4. Press or hold down the Jog button to gauge the feeding performance of a few pieces of product. If necessary, Jog the feeder while adjusting the Separator until product is feeding evenly. Ideally, you are looking for a 1" gap between the products as it passes the Sheet Sensor photo eye.



Figure 3.1*

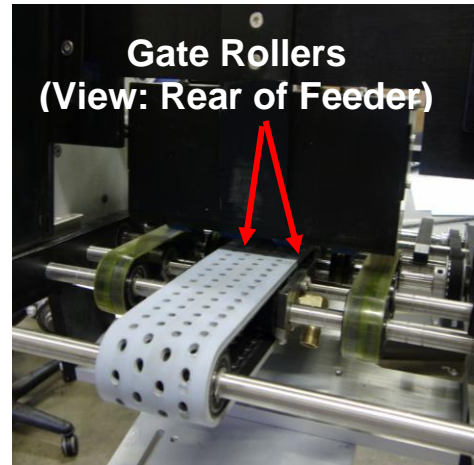


Figure 3.2*

* Images are for training and may not reflect the actual feeder model

5. All products are different in characteristics. While you may be able to load higher stack heights of one product, the next product you run may require lower stack heights for optimal performance. For example, thin or flimsy sheets may only perform at a 3" to 4" stack height while more ridged products such as chipboard and corrugate can be stacked in excess of 24". You will need to experiment by loading or unloading product to determine the effective stack heights for each product. Use the chart below as a general guideline on product stack heights.

Product Types	Thin, Flimsy Sheets	Glossy Sheets	Card Stock	Corrugate
Stack Height	3 to 6"	4 to 8"	8 to 15"	10" to 20"+

Xtreme XM Series Friction Feeders can run over 2,000 different products; however, it is impossible to provide a complete setup guide for all products types. You may experience significantly different stack height results than what is listed above. For maximum results, use trial-and-error to find the optimal stack height for your specific product type.

6. Once you have achieved consistent feeding performance, set the batch size to the desired number of pieces to be dispensed each cycle on the PLC screen. "01" represents that one piece will dispense per cycle, also known as One-Shot feeding.
7. As you start feeding, you can add or remove product to adjust your stack height. Be sure to keep a consistent stack height as the feeder runs because the weight of the stack will affect the performance. For more information on different variables of feeding product, see Additional Setup Information section.

Rear Control Panel Features

Refer to the Touchscreen Manual for Screen Functions



External Interface

Input for 19-pin external I/O interface cable if communicating with a host system.

Trigger

Input for 4-pin trigger sensor assembly.

Power

CorCom power inlet module. 110 VAC.

External Comm.

Ethernet IP communications interface.

Jog Button

The feeder will advance when the Jog button is pressed. The feeder will continuously run when the jog button is activated. This option is typically used when setting up product in the feeder or clearing any product under the Separator. While holding down the Jog button, you can adjust the Separator and feed product until the product feeds consistently.

Stop Button

The feeder is in Stop Mode when the Stop light is on. The feeder will only respond to the “Jog” input. Pressing the Stop button when lit will put the feeder into Ready Mode. Pressing and releasing the Jog button will incrementally advance product through the unit. This will allow you to verify the flow of product through the unit and allow you to make adjustments if necessary.

Stop Mode

If a miss-feed or jam occurs, the feeder automatically goes into a Stop Mode. Stop Mode is represented by a solid red lamp on the stop button. The feeder will not be able to receive a signal and you can safely clear any jammed product or make any necessary adjustments. When you are ready to return to Ready Mode, press the Stop button.

Cycle Button

While the feeder is in Ready Mode, pressing the “Cycle” button will trigger a feed.

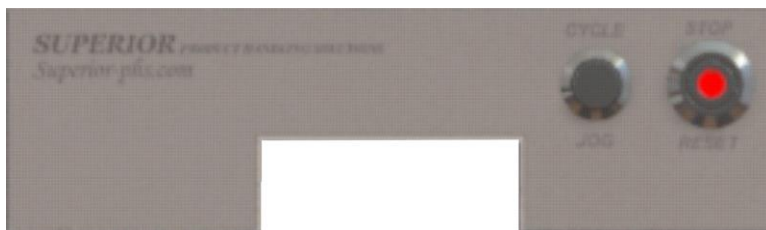
Ready Mode

Pressing the Stop button will clear the illumination of the stop light and put the unit into “Ready” mode. Ready mode is represented by a solid illumination of the ready lamp (Green). The unit is now ready to receive a trigger signal from one of three sources (green cycle button, trigger sensor, or externally through the I/O interface).

Shutdown

Completely power off the feeder when not in use. To do this, move the on/off switch located on the Rear Control Panel to the “off” position (O) and remove the product from the hopper.

Front Control Panel Features



STOP/RESET

Button performs exactly as the rear panel button

CYCLE/JOG

Pressed once for the “Cycle” function. Press and hold for the “Jog” function.

Vacuum Belt and Manifold



The vacuum manifold has either a 1/2" barbed fitting (shown) or a 5/16" push in connector.

Works with any vacuum source provided by customer: Venturi - House Air, Pump, or Regen Blower.

We recommend an adjustment valve be placed between the vacuum source and the vacuum manifold. The amount of vacuum required depends on product type and application speed.

Range 1.0 to 20 in-Hg.

Additional Set-Up Information

Different Variables of Feeding Product

In any friction feeder there is an inherent trade-off between stack height (load weight) and feeding performance. Smaller products like most 5" x 7" and smaller can stack 16" to 20". Larger products vary greatly in their stack height. Variables include:

- Coefficient of friction of the product such as glossy sheets versus card stock;
- Rigidity of the product such as paper versus chipboard;
- Weight of the product such as a 3" stack of paper versus a 3" stack of corrugate pizza backers.

Products of the exact same size can vary greatly in the maximum stack height allowed at full speed. It is not uncommon to have stack heights in the 4" or less range for higher coefficient of friction 8.5 x 11 (or larger) thin sheets.

If full speed is the primary goal, then stack heights may need to be reduced. If maximum stack heights are the goal, then speeds may need to be reduced. If the goal is to run at full speed with maximum stacking capacity, a bulk loader is the only available solution for some products. Please see the XM-100 Bulk Loader in the Section 6: Accessories and Aftermarket Options.

Repositioning the Separating Rollers

The purpose of repositioning the separating rollers off the belt is to create a "flex" separation (figure 3.3) vs. nip point separation (figure 3.4). This can be done with the separator mounted or removed from the feeder. The preferred method is the nip point separation.

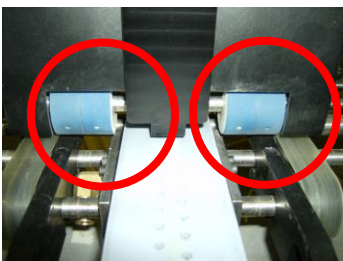


Figure 3.3*

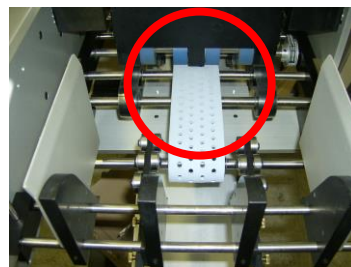


Figure 3.4*

* Images are for training and may not reflect the actual feeder model

The blue gate rollers are designed to move anywhere on the 8" wide gate roller shaft. Most customers leave the 2 rollers over the feed belt as it is easier for most operators to set-up a wide range of product with these rollers in this position.

It is never recommended to try and lower the gate rollers below the surface of the feed belt for thinner products. Lowering the gate roller too far below the surface of the feed belt can cause marking or scoring of the product due to too much pressure of the product on the edge of the belt and gate rollers.

Rotating Gate

****BE SURE TO POWER OFF THE FEEDER BEFORE REMOVING POWER TO THE SEPARATOR**

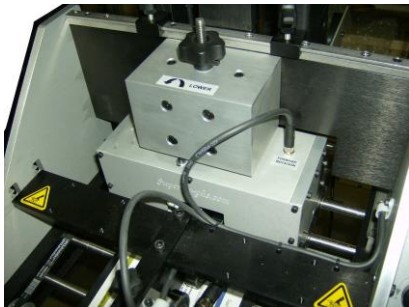
Xtreme feeder's ship with the gate rotation set to "Reverse".

The primary function of the rotating gate rollers is to create uniform wear and not create flat spots on the rollers that would require the operator to stop the feeder and correct. The rotation rate is approximately .25 RPM (1/4 turn every minute). The gate rollers only rotate when the feed belt is moving.

The best way to verify the separator rollers are turning is to remove all product from the feeder, turn Continuous Mode 'on', set Time Out to off, set speed to about 50%, place a finger under the sheet sensor then press cycle. Place a finger on one of the rollers. You will feel the gate rollers pulse and rotate.

If you would prefer not to set a finger on the roller, you can mark a line on a roller, or locate a set screw hole and observe these as the rollers turn.

Note: You will need to observe or feel for a period longer than 15 seconds.



SECTION 4: WIRING AND ELECTRICAL DETAIL

XM-1200 External I/O Connectors

1/1/20; Updated 7/6/23

4 Pin EXT Trigger Connector

* PNP sensor required

- ① + 24 VDC
- ② EXT Trigger signal
- ③ 0 VDC

19 Pin I/O Connector

1 - Inputs

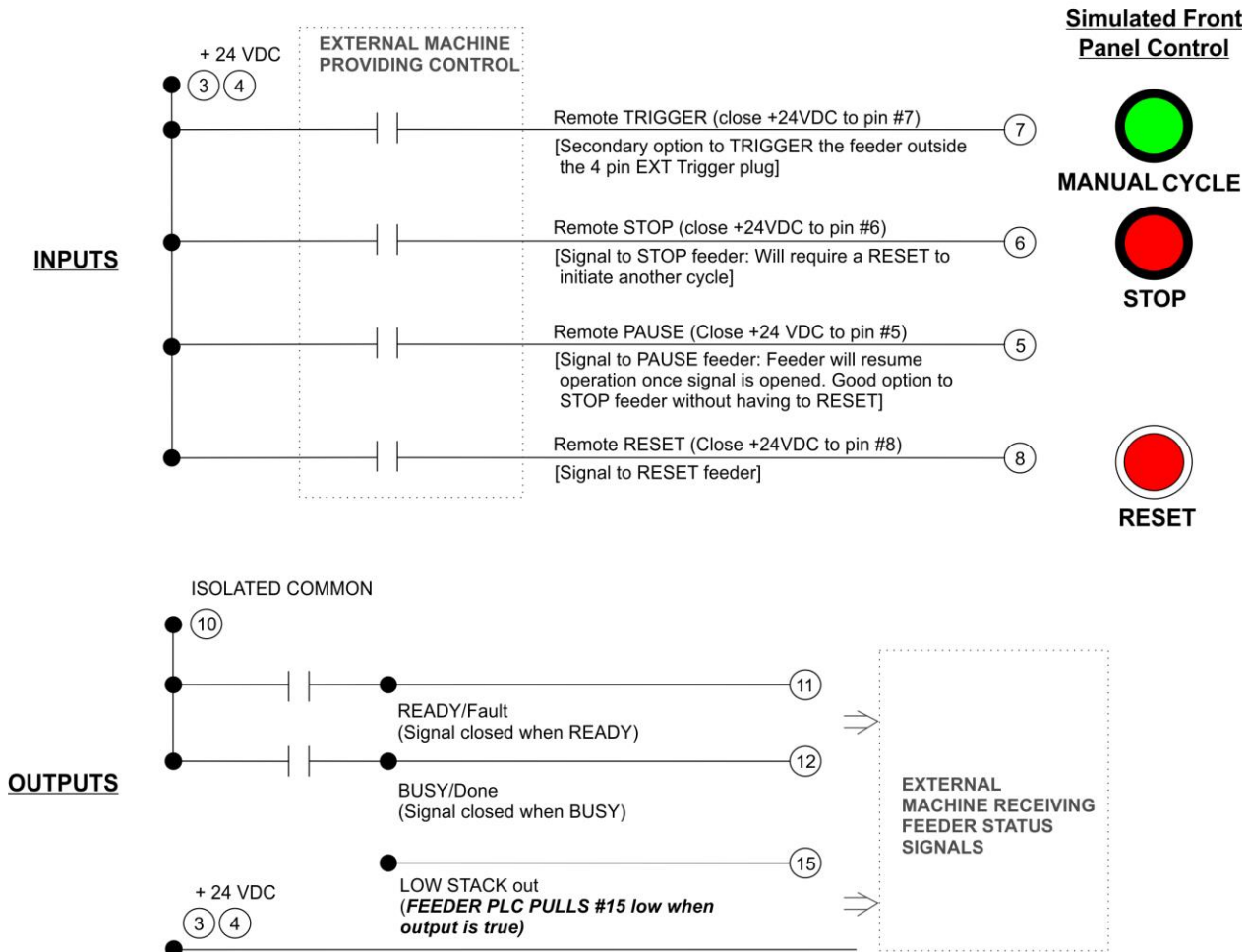
2 - Outputs

3 - Auxiliary equipment

* **WARNING - NO external voltages can be applied to I/O pins, except pin #10.**

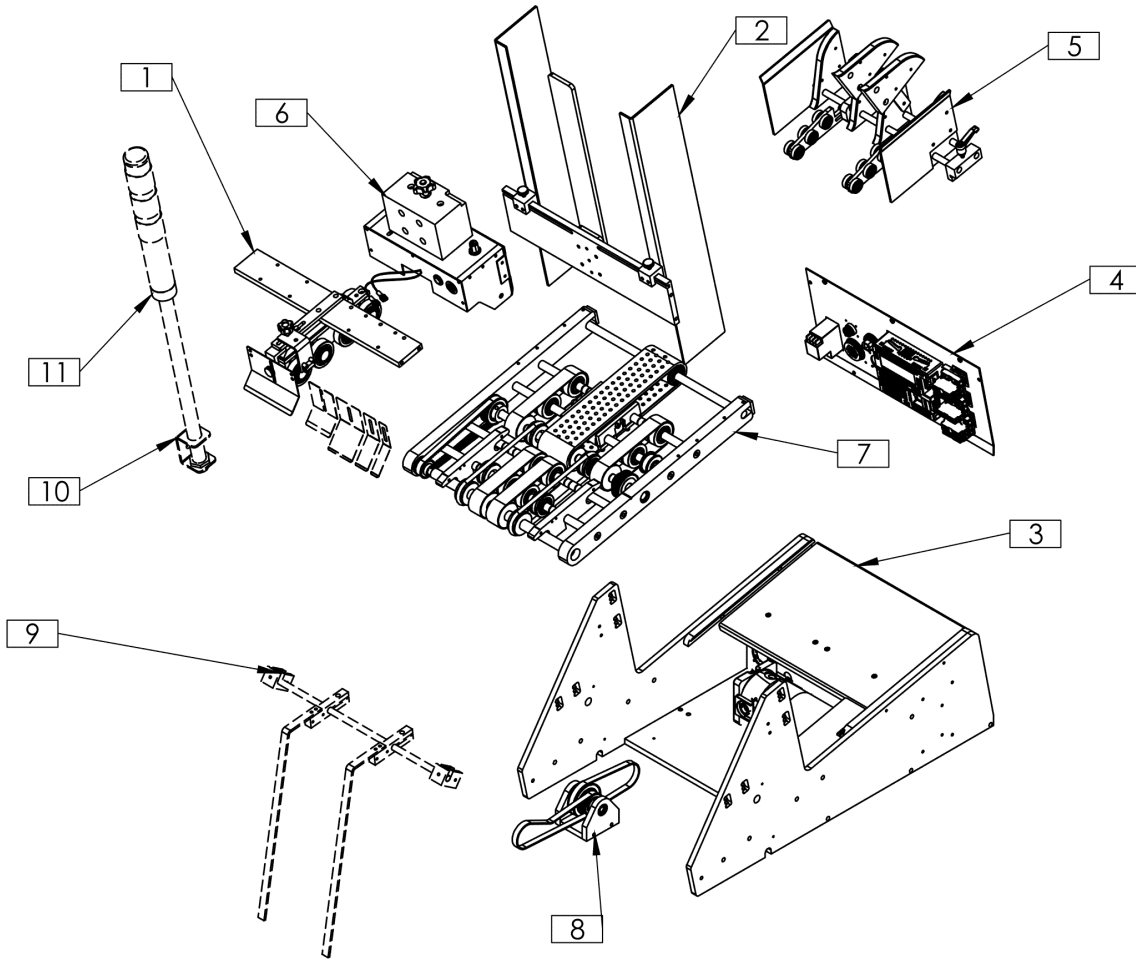
Please see diagram below for example hook-ups.

- ① 0 VDC
- ② 0 VDC
- ③ + 24 VDC
- ④ + 24 VDC
- ⑤ Remote PAUSE¹
- ⑥ Remote STOP¹
- ⑦ Remote TRIGGER¹
- ⑧ Remote RESET¹
- ⑨ WEDGE TAMPER³ (D & BC Models -PNP)
- ⑩ ISOLATED COMMON¹
- ⑪ READY/Fault²
- ⑫ BUSY/Done²
- ⑬ DROPPER³ (D & BC Models -PNP/NPN)
- ⑭ VACUUM³ (D & BC Models -PNP/NPN)
- ⑮ LOW STACK² (D & BC Models -NPN)
- ⑯ Internal Use
- ⑰ Internal Use
- ⑱ Internal Use



SECTION 5: COMPONENTS / PARTS LIST

XM1200



ITEM	PART	DESCRIPTION	QTY
1	400071	HOLD DOWN ASSEMBLY	1
2	400502	HOPPER ASSEMBLY	1
3	400514	CHASSIS ASSEMBLY	1
4	400515	CONTROL PANEL ASSEMBLY	1
5	400516	WEDGE ASSEMBLY	1
6	400523	SEPARATOR POWERED ASSEMBLY	1
7	400524	14" CARRIAGE ASSEMBLY	1
8	400525	DRIVE REDUCER	1
9	400529	(OPT) KNOCKDOWN ASSY A	1
10	302860	(OPT) TOWER LAMP BRACKET	1
11	350402	(OPT) TOWER LAMP	1

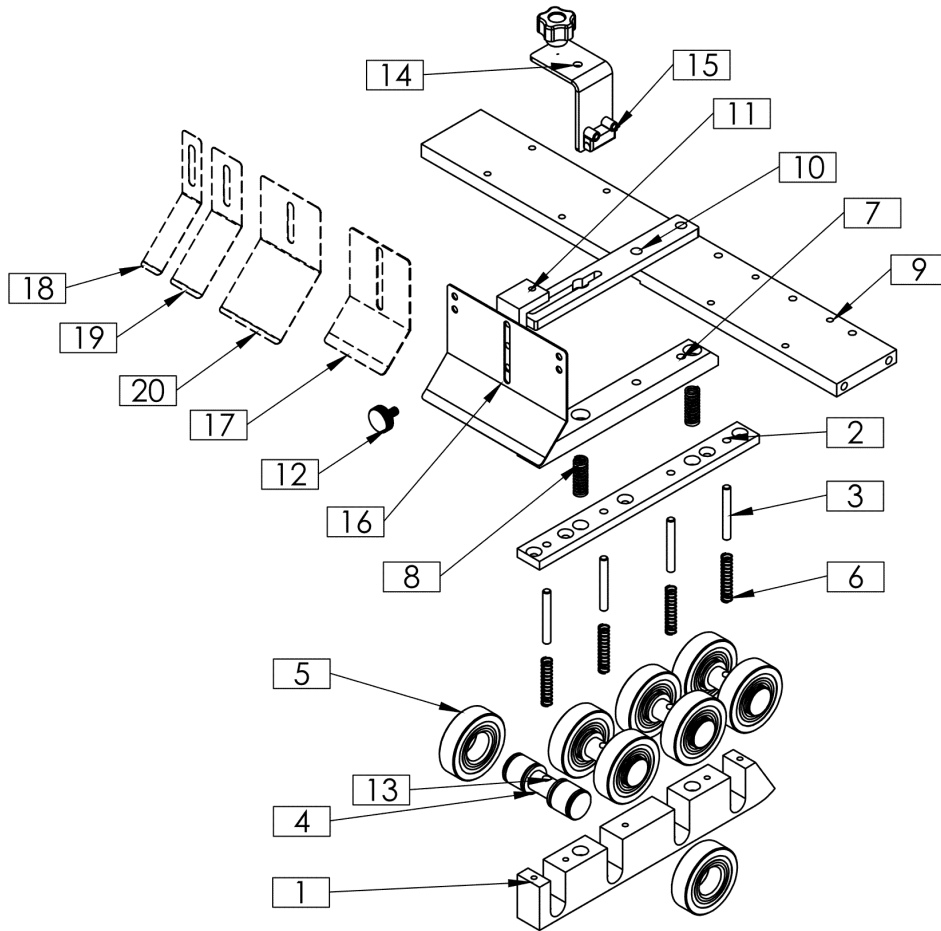
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Assembly Number:
500113

HOLD DOWN ASSEMBLY



ITEM	PART	DESCRIPTION	QTY
1	100208C	BOTTOM SECTION	1
2	100216C	HOLDDOWN	1
3	100688	DOWEL PIN	4
4	100209	HOLD DOWN AXEL	4
5	100214	BEARING	8
6	100212	SPRING	4
7	100208D	HOLD DOWN TOP	1
8	350081	SPRING	2
9	100213	CROSS BAR HOLD DOWN	1
10	100259	MOUNTED SHEET SENSOR BRACKET	1

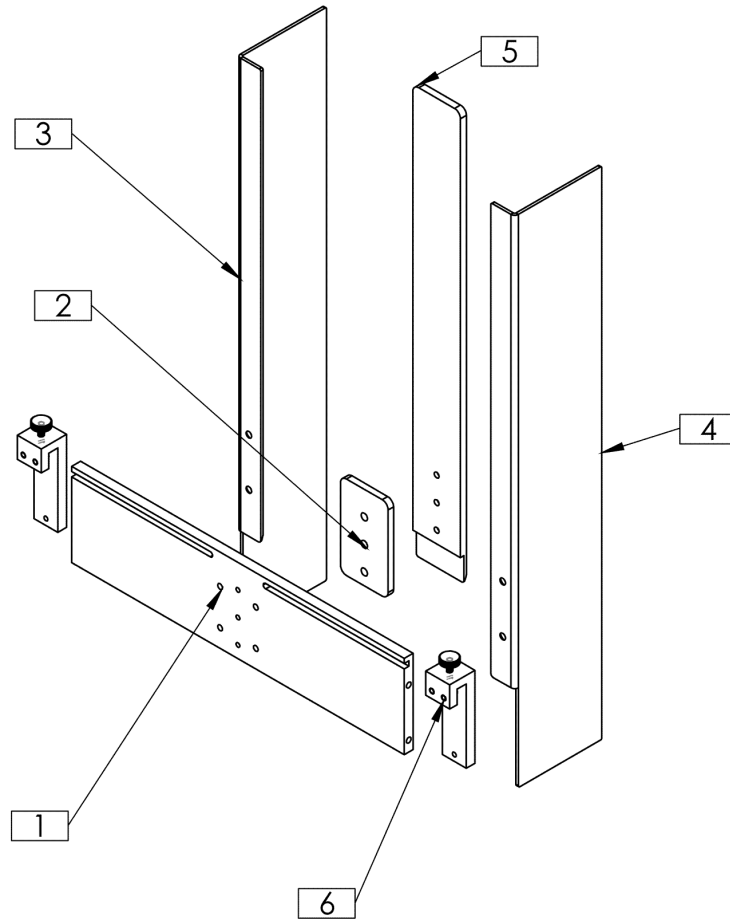
ITEM	PART	DESCRIPTION	QTY
11	301875	SENSOR MOUNT	1
12	350082	THUMB SCREW	1
13	100391	KNOB	1
14	100260A	SENSOR BRACKET	1
15	100387B	HIGH SPEED SENSOR	1
16	100566D	DEFLECTOR	1
17	300807	(OPT) 2" H KNOCKDOWN	1
18	301876	(OPT) 5/8" L KNOCKDOWN	1
19	302092	(OPT) 1" L KNOCKDOWN	1
20	302093	(OPT) 2" L KNOCKDOWN	1

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Assembly Number:
400071

HOPPER ASSEMBLY



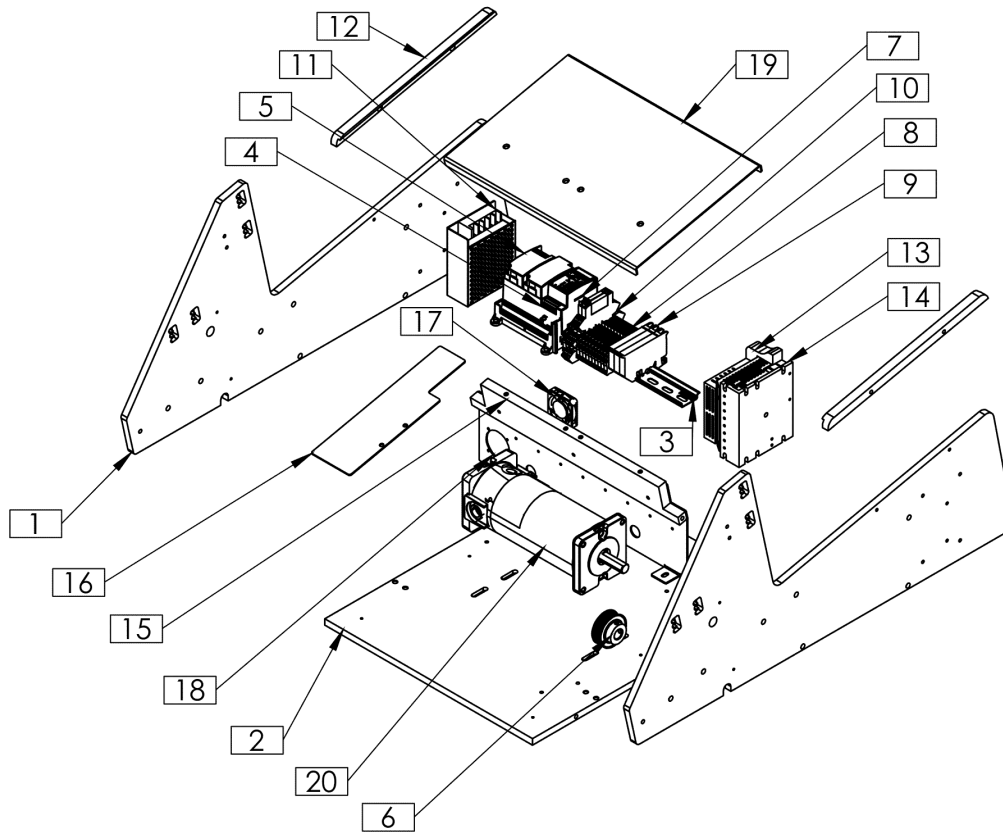
ITEM	PART NO	DESCRIPTION	QTY.
1	302852	HOPPER CROSSBAR	1
2	302855	HOPPER CENTER BAR SPACER	1
3	302849	SIDE GUIDE	1
4	302848	SIDE GUIDE	1
5	302859	HOPPER CENTER BAR	1
6	400513	HOPPER ADJUSTMENT ASSEMBLY	2

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Assembly Number:
400502

CHASSIS ASSEMBLY



ITEM	PART	DESCRIPTION	QTY
1	302921	CHASSIS SIDEPLATE	2
2	302920	CHASSIS BASEPLATE	1
3	302415	DIN RAIL	1
4	350384	AB PLC	1
5	350385	AB I/O MODULE	1
6	350164	TIMING PULLEY	1
7	301073	GROUND BLOCK	1
8	350085	TERMINAL BLOCK	12
9	350387	FUSEHOLDER	3
10	350388	SSR BASE	2

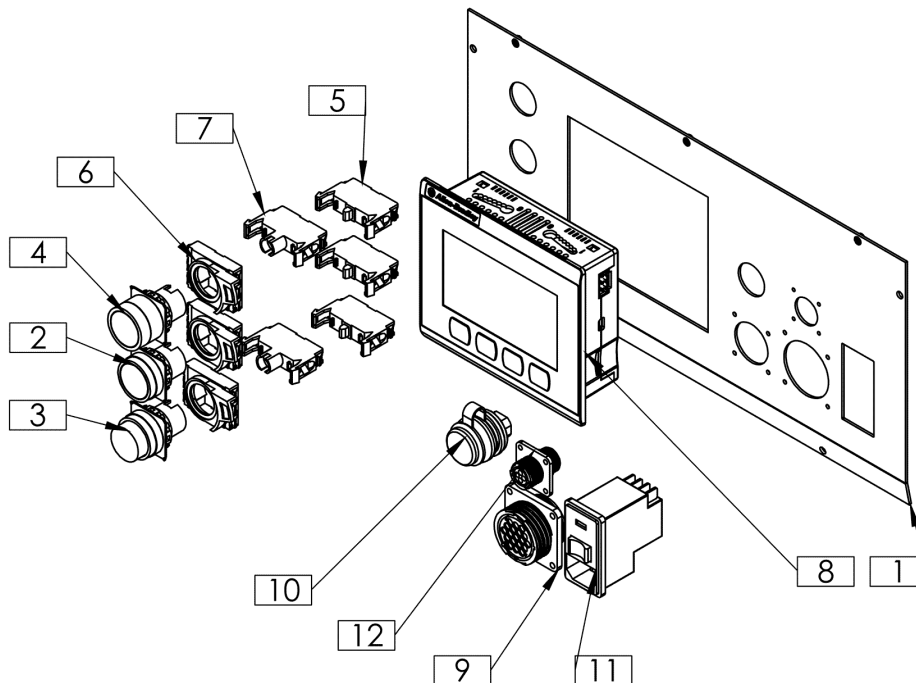
ITEM	PART	DESCRIPTION	QTY
11	301066	POWER SUPPLY	1
12	302923	WEDGE RAIL	2
13	350542	MOTOR DRIVER ANALOG CARD	1
14	350541	MOTOR DRIVE	1
15	302924	CROSS SUPPORT	1
16	302883	DRIVE REDUCER COVER	1
17	350259	FAN	1
18	302922	SHROUD ELECTRONICS	1
19	302926	TOP COVER	1
20	350018	DC MOTOR	1

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Assembly Number:
400514

OPERATOR PANEL



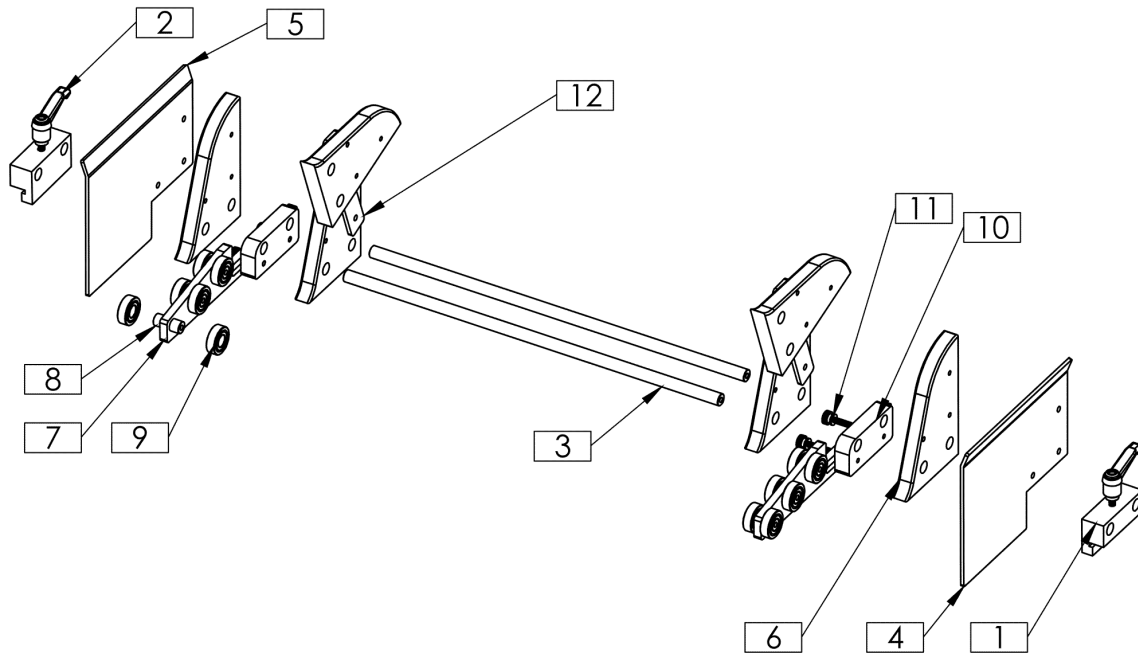
ITEM	PART	DESCRIPTION	QTY
1	302928	OPERATOR PANEL	1
2	100413	BLUE PUSH BUTTON	1
3	100414	RED PUSH BUTTON	1
4	350114	GREEN PUSH BUTTON	1
5	350116	NO CONTACT BLOCK	3
6	350113	MOUNTING COLLAR	3
7	350115	LIGHTING UNIT	2
8	350394	AB HMI	1
9	350393	19 PIN RECEPTACLE	1
10	300702	ETHERNET CONNECTOR (OPTION)	1
11	100243	AC INLET	1
12	112039	AMP CONNECTOR	1

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Assembly Number:
400515

PRODUCT WEDGE



ITEM	PART	DESCRIPTION	QTY
1	100221	BLOCK WEDGE SLIDE	2
2	100523	ADJUSTABLE HANDLE	2
3	302904	GUIDE BAR WEDGE LIFT	2
4	100232	GUIDE WEDGE SIDE LEFT	1
5	100235	GUIDE WEDGE SIDE RIGHT	1
6	100222	WEDGE BLOCK	6
7	100579	LOW PROFILE WEDGE BLOCK	2
8	100581	LOW PROFILE WEDGE SHAFT	6
9	100135	BEARING	12
10	301480	MOUNT BLOCK	2
11	100582	THREADED BRASS SCREW	4
12	100444A	WEDGE BLOCK EXTENSION BRACKET	2

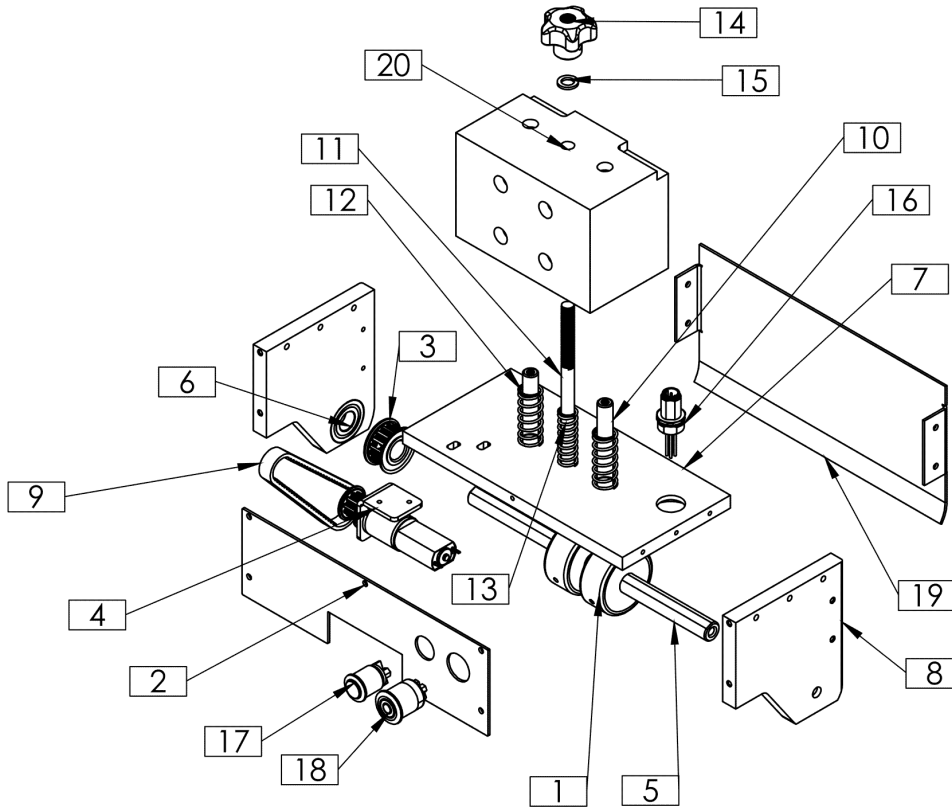
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PAPER HANDLING SOLUTIONS

Assembly Number:
400516

POWERED SEPARATOR ASSEMBLY



ITEM	PART NO	DESCRIPTION	QTY.
1	100172	SEPARATOR ROLLER .500 BORE	2
2	100165	FRONT POWERED SEPERATOR	1
3	100194	16 TOOTH TIMING PULLEY [8-32 (2) TAPPED HOLES/ REMOVE HUB]	1
4	400018	MOTOR SEPARATOR ASSEMBLY	1
5	100174	SHAFT POWERED SEPARATOR	1
6	400015	SIDE, RIGHT, POWERED SEPARATOR ASSEMBLY	1
7	100166	TOP PLATE POWERED SEPARATOR	1
8	400014	SIDE, LEFT, POWERED SEPERATOR ASSEMBLY	1
9	100187	SEPARATOR TIMING BELT	1
10	97175A364	DOWEL PIN	2

ITEM	PART NO	DESCRIPTION	QTY.
11	301596	XM SEPARATOR ADJUSTMENT ROD	1
12	100372	PRECISION COMPRESSION SPRING	2
13	100184	PRECISION COMPRESSION SPRING	1
14	100173	5/16-18 THREADED KNOB	1
15	100378	NYLON WASHER SEPARATOR	1
16	350404	BULKHEAD PIN CONNECTOR	1
17	301381	SWITCH PUSHBUTTON SS PROMINENT	1
18	301379	ILLUMINATED PUSH BUTTON	1
19	100169	LEAD-IN PREGATE POWERED SEPARATOR	1
20	100170	MOUNT POWERED SEPARATOR	1

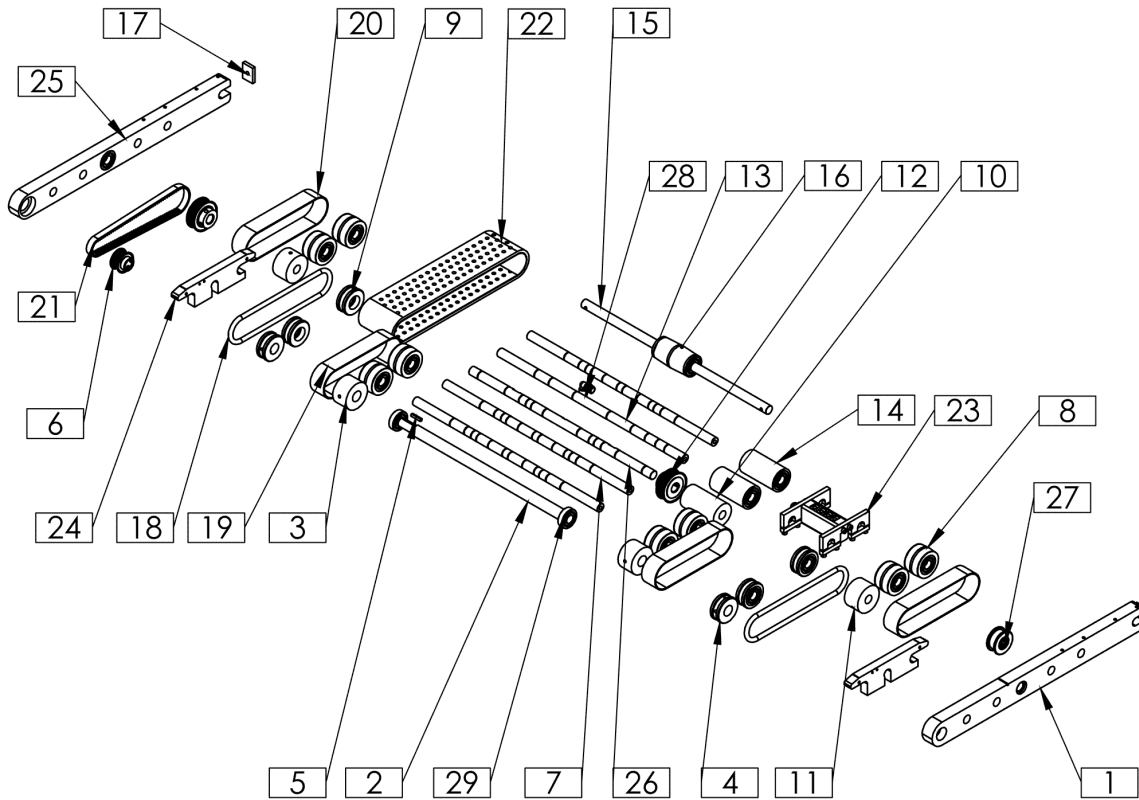
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Assembly Number:
400523

XM-1200 CARRIAGE



ITEM	PART	DESCRIPTION	QTY
1	400066	CARRIAGE LH ASSEMBLY	1
2	100138	DRIVE SHAFT	1
3	100152A	DRIVE PULLEY	2
4	100191 A	PULLEY	2
5	300650	KEY	1
6	100543	TIMING PULLEY	1
7	100139	IDLER SHAFT	3
8	100148	PULLEY IDLER CROWN SHORT ASSEMBLY	8
9	100144	PULLEY O-RING ASSEMBLY	4
10	100151	ROLLER DRIVER LONG	1
11	100152	DRIVE PULLEY	2
12	100195	TIMING PULLEY	2
13	302865	IDLER SHAFT	1
14	100147	FLAT IDLER LONG ASSEMBLY	2
15	100142	IDLER SHAFT	1

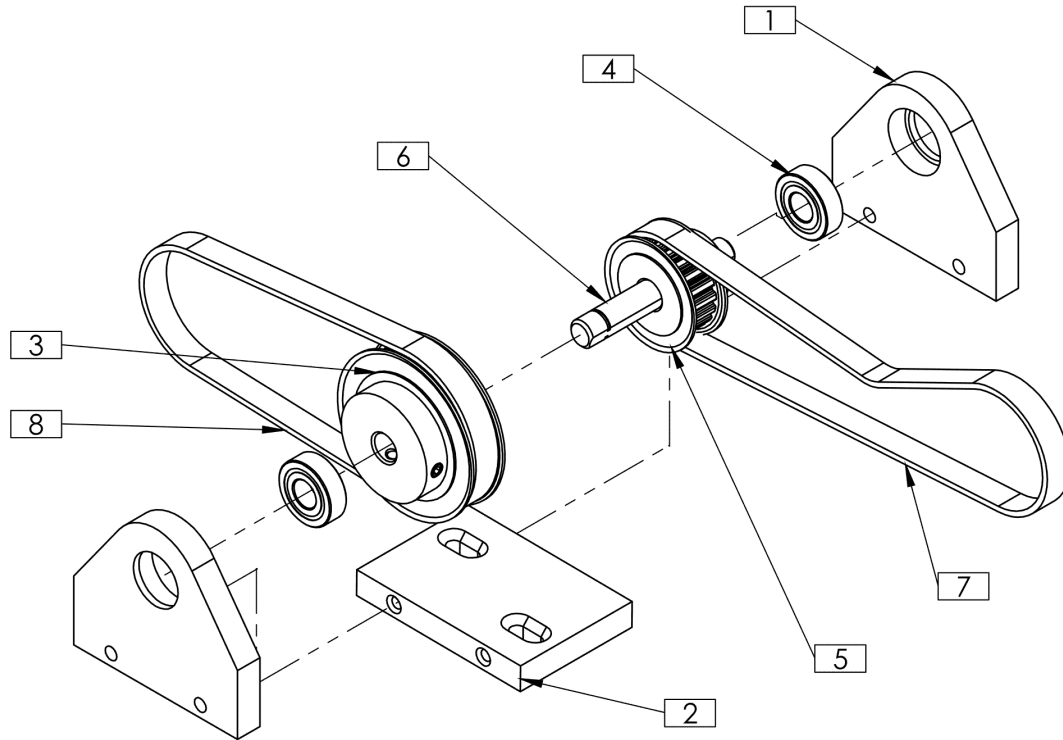
ITEM	PART	DESCRIPTION	QTY
16	100150	CROWN ROLLER IDLE LONG ASSEMBLY	1
17	100161	TENSION PLATE	2
18	100156	O-RING DISCHARGE	2
19	100159	BELT	2
20	100158	FEED SECTION BELT	2
21	100196	TIMING BELT	1
22	100157	FEED VACUUM BELT CARRIAGE	1
23	100611	VACUUM ASSIST ASSEMBLY	1
24	100439A	SENSOR MOUNT	2
25	400053	CARRIAGE RH ASSEMBLY	1
26	302864	IDLER SHAFT	1
27	350390	IDLER PULLEY	1
28	350251	AIR CONNECT	1
29	100141	BEARING	2

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Assembly Number:
400524

DRIVE REDUCER



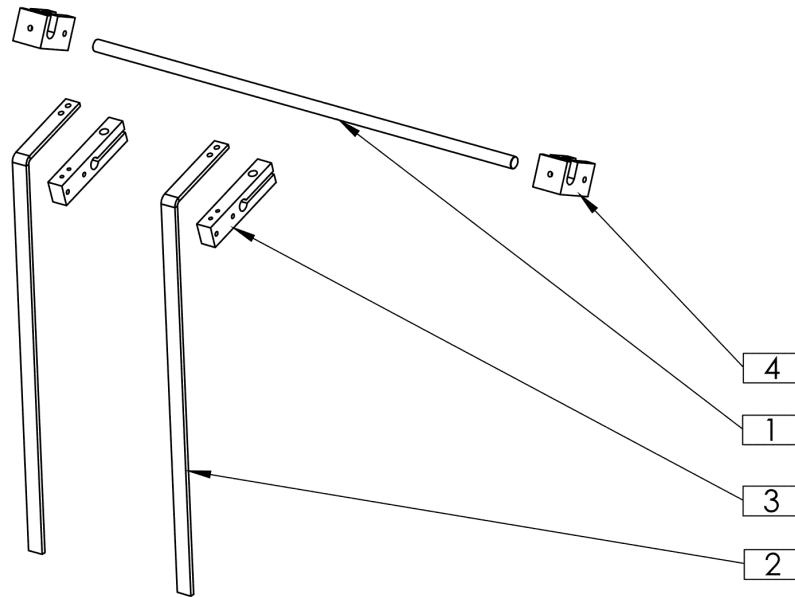
ITEM	PART NO	DESCRIPTION	QTY.
1	302879	PLATE SIDE REDUCER	2
2	302880	BASE PLATE REDUCER	1
3	350425	TIMING PULLEY	1
4	100135	BEARING	2
5	350002	TIMING PULLEY	1
6	302844	SHAFT REDUCER	1
7	100196	TIMING BELT	1
8	350450	TIMING BELT	1

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Assembly Number:
400525

KNOCKDOWN ASSEMBLY A (OPT)



ITEM	PART NO	DESCRIPTION	QTY.
1	302839	DISCHARGE GUIDE BAR	1
2	302837	BAR DISCHARGE GUIDE	2
3	301085	SIDE FRAME MOUNTING BLOCK	2
4	301484	XM SIDE FRAME BRACKET	2

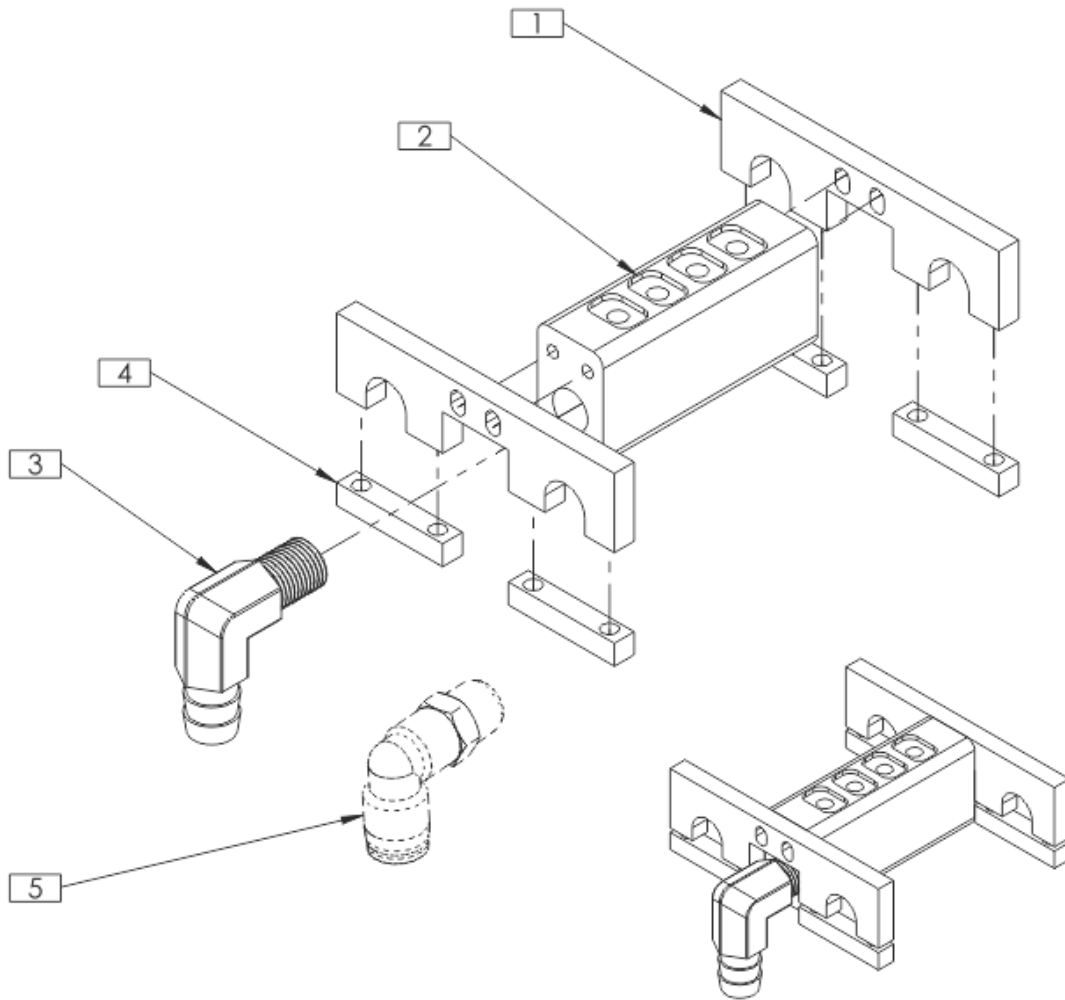
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Assembly Number:
400529

S

VACUUM ASSIST ASSEMBLY



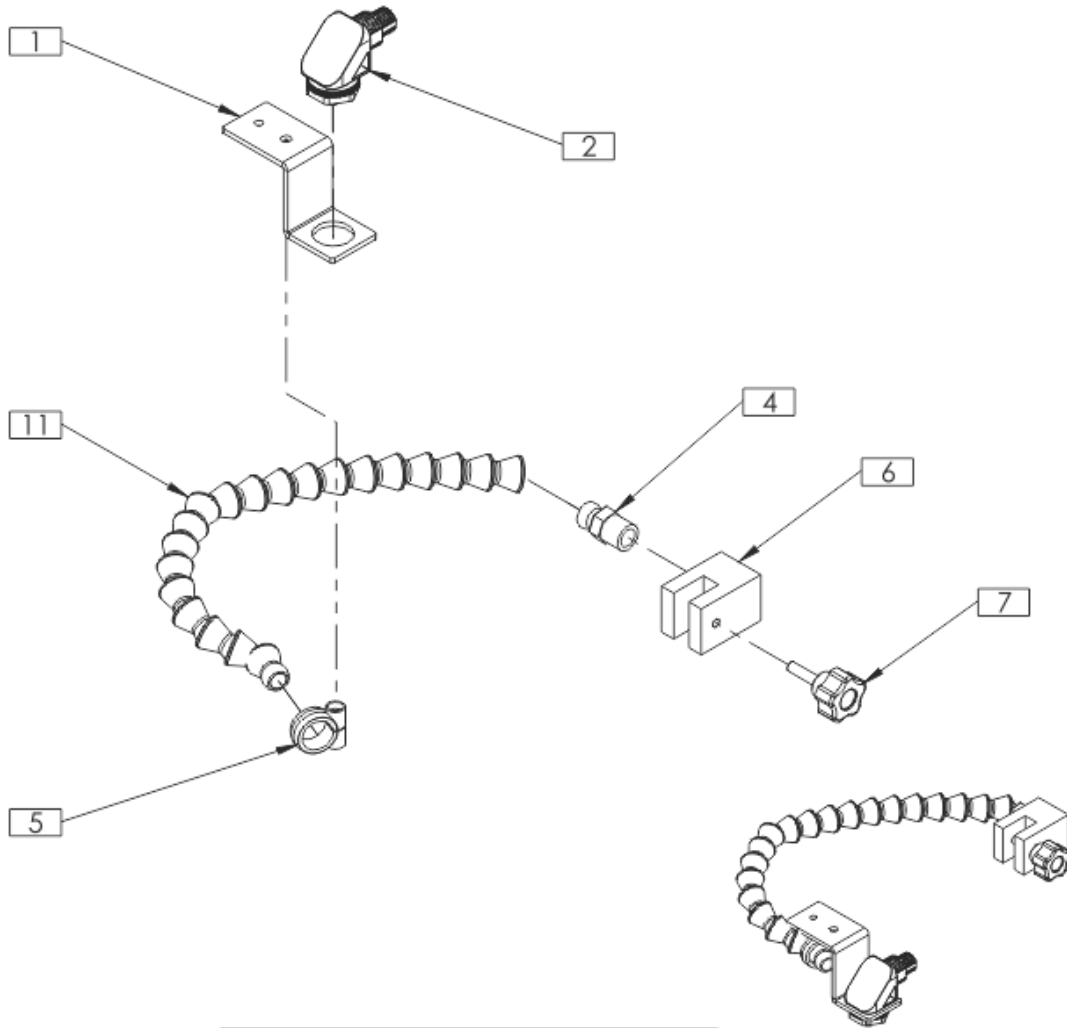
ITEM NO.	PartNo	DESCRIPTION	QTY.
1	100608	BRACKET	2
2	100607	VACUUM BLOCK	1
3	100613	VACUUM ASSIST FITTING	1
4	100609	KEEPER RAIL VACUUM MANIFOLD	4
5	350098	PUSH-IN L-FITTING (OPTION)	1

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Assembly Number:
100611

TRIGGER SENSOR ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	100260	SENSOR BRACKET	1
2	100388	SENSOR	1
4	100394	NPT CONNECTOR	1
5	100395	CLAMP	1
6	100261	SENSOR BRACKET	1
7	100392	KNOB	1
8	100389	CABLE (NOT SHOWN)	1
9	100398	CONNECTOR (NOT SHOWN)	1
10	100399	CLAMP (NOT SHOWN)	1
11	100393	LOC LINE	2

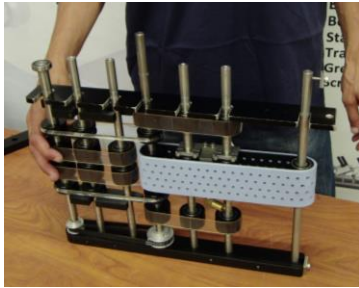
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 PAPER HANDLING SOLUTIONS

Assembly Number:
100390

SECTION 6: ACCESSORIES AND AFTERMARKET OPTIONS

Carriage Jig



The Carriage Jig is a tool designed to help you change Xtreme XM feeder belt in a matter of minutes. Simply remove the carriage holder,

swap out the belts, and use the Carriage Jig to hold all the shafts in place and slide the carriage holder back in place...effortlessly!



Vacuum Extension



Add vacuum assist feeding for scanning, reading, printing, and labeling applications. Product is accurately and consistently fed with a secure hold

Vacuum Pump



feeding performance. (Image shown is for reference purposes only. Not the actual pump.)

All Xtreme XM feeders come with a vacuum assist belt and manifold. Adding a vacuum supply while feeding product aids in product separation and consistent

Adjustable Mounting Stand



Designed with locking swivel casters and low-toe profile for mobility on the production floor. Available in 30-40" adjustable and 40-50" adjustable heights. P/N 100966

XM Batching Trays



Designed to accumulate batch counted products in neat stacks for manual removal. Easily adjusts to product sizes - the perfect semi-automated counting solution. Available in three sizes: products up to 12", 20", and 30" wide.

Victory BD Dropper



Eliminate the need for off-line product counting and batching. Add a Victory Dropper inline to automate batching and stacking of product over an existing flighted/lugged conveyor. A Victory Dropper automatically drops counted stacks onto the moving conveyor. Available in Bombay, Shutter, Retractable, and Rotary Star Wheel™ styles.

OPTIONAL: Burn-Thru Double Sheet Detector

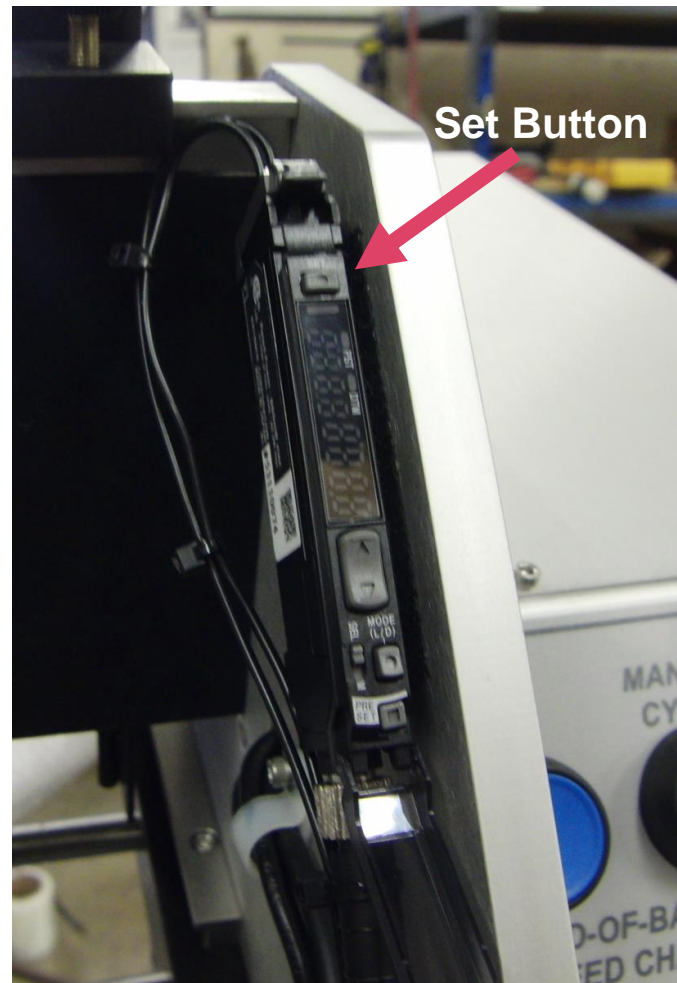
The Optional Burn-Thru Double Sheet Detect feature provides added security to applications where all sheets fed need to be accounted for. Along with the standard Miss Detect feature, the optional Burn-Thru Double Sheet Detect feature ensures that only one product is being fed at a time.

Setting the Double Sheet Detect feature

1. Move the Double Detect Enable/Disable Toggle switch located on the feeder rear panel to the Enable position.
2. Manually insert 2 paper sheets into the discharge of the feeder between the upper and lower double detect sensor.
3. Open the cover on the Amplifier, push the Set button twice. On second time, display will flash.
4. When done flashing, Double Detect is set. Close and secure the cover to the amplifier and remove the paper sheets from the discharge of the feeder.
5. To test for verification, set up product in the feeder (see set-up procedure) and cycle a few singles through. Open up the separator a bit to allow a double to advance to the sensor, if set correctly, the feeder will stop and blink the RESET lamp at the Double Detect medium speed.
6. To clear the double detect, remove the paper sheets from the feeder and press the reset button, the feeder will return to ready mode.

Note: You cannot cycle the feeder when there is a double. It will stop each time. You can Jog the double out or pull it out by hand.

7. If necessary, readjust the separator before loading or feeding any more sheets.
8. *Please note: Sensor needs to always be set to Dark-on mode. Refer to sensor instruction sheet that came with the feeder if you're not sure.*



SECTION 7: MAINTENANCE

Please remember that all maintenance to the XTREME Versatile Feeding Solution should only be performed by qualified technicians. Always disconnect power before attempting any maintenance or service procedure.

Belts

Over time, you will notice “build-up” on the feed and discharge belts and the separator rollers. This is normal and is usually from the dust, finish, or coating normally on the products fed. Regular cleaning of the belts and rollers will extend their life.

Belts, pulleys, and rollers should **only be cleaned with Isopropyl Alcohol**.

A good practice is to clean the belts and rollers weekly. If running UV or Aqueous coated materials, daily cleanings are recommended.

Sensors

Wipe sensors with a clean lint free cloth to clear any dust build up. Recheck the adjustment of the sensors if they were moved during cleaning and reset.

Machine

It is always best to keep machines clean. Keep them dusted and free of spills.

Always inspect your machine for loose or damaged items and replace them immediately.

Service

All service to the XTREME feeders should be done by a qualified technician.

Manufacturer assistance can be received by:

1. Previewing the FREE “Support” section at www.Superior-PHS.com
2. Calling/emailing service department at Superior Product Handling Solutions.

Technical assistance:

763-546-9140

service@superior-phs.com

SECTION 8: OPERATIONAL TROUBLESHOOTING

Difficulty	Possible Cause	Proposed Solution
No AC power to the unit	<ol style="list-style-type: none"> 1. On/Off switch in Off position (O) 2. Power cord loose or not plugged into unit 3. Blown Fuse(s) 	<ol style="list-style-type: none"> 1. Move switch to On position (-) 2. Check connection to AC source 3. Replace fuse(s)
Belts are turning but product is not feeding	<ol style="list-style-type: none"> 1. Separator not properly adjusted 2. Hopper side guides are too tight 3. Interlocking or adhered product 4. Static 5. Product stack-height too low or too high 6. Slick feed belt 	<ol style="list-style-type: none"> 1. Review Separator setup instructions 2. Loosen Side Guide Adjustments 3. Check product 4. Consult with a qualified technician 5. Add/Subtract product as needed 6. Clean belt
Double feeding	<ol style="list-style-type: none"> 1. Separator not properly adjusted 2. Wedge support not properly adjusted 3. Worn separator rollers 4. Separator rollers spin freely 	<ol style="list-style-type: none"> 1. Review Separator setup instructions 2. Review Wedge setup instructions 3. Replace rollers 4. Check Assembly belt and pulleys
Jamming or skewing	<ol style="list-style-type: none"> 1. Improper setup 2. Interlocking or adhered product 	<ol style="list-style-type: none"> 1. Review Setup Section #2 2. Check product
Gate Rollers Not Turning	<ol style="list-style-type: none"> 1. Separator drive components broken 2. No power to Gate motor 	<ol style="list-style-type: none"> 1. Check Assembly belt and pulleys 2. Verify Separator cable is connected
Feeder Gives Over Count	<ol style="list-style-type: none"> 1. Slow Speed is set higher than run speed 2. Sheet sensor is positioned over a shaft 3. Separator and discharge not gapping product 	<ol style="list-style-type: none"> 1. Review SETUP 1 page in Touchscreen Manual 2. Position Sheet sensor so it reads the gap between products. Verify sensor shows the yellow light ON then OFF 3. Set Separator and Discharge roller pressures correct
Feeder Gives Under Count	<ol style="list-style-type: none"> 1. Sheet sensor is double triggering across gap 	<ol style="list-style-type: none"> 1. Angle Sheet sensor as it reads the gap between products. If product has reflectance, a different sensor type may be required

SECTION 9: WARRANTY

SUPERIOR-PHS LIMITED WARRANTY

Superior Product Handling Solutions, Inc. (Superior-PHS) warrants this product to be free from defects in materials and workmanship, when used under recommended operating conditions, for a period of one year from the date of original shipment.

If you discover a defect during the warranty period, please notify the company from whom you purchased this product, who will then arrange for the replacement parts to be sent to you. Defective parts must be returned to Superior-PHS for credit on warranty replacement parts. Shipping and labor costs are not included in this warranty. If the defect is not field repairable, and if you return it to Superior-PHS during the warranty period, Superior-PHS will, at its sole option, repair or replace this product, at no charge to you other than shipping charges to and from the facility in Minneapolis, Minnesota.

If you return this product to Superior-PHS for warranty repair or replacement, please attach to the returned product your name, your company's name, address, telephone number and fax number, a description of the problem, and a copy of the bill of sale or invoice that shows the appropriate serial number for the product. All returns must be accompanied by an authorized Superior-PHS Returned Goods Authorization (RGA) number. An authorized RGA number can be obtained from the company you purchased this product.

The warranty applies only to products manufactured by Superior-PHS. This warranty does not apply if the product has been damaged by accident, abuse, misuse, neglect, improper maintenance, misapplication, or as a result of being attached to equipment not supplied by Superior-PHS; if the product has been modified without the written permission of Superior-PHS; or if the product's serial number has been removed or defaced. This warranty further does not apply to the failure of any rubber-based, air actuated or consumable components including, but not limited to, rollers, bearings, belts, fuses, relays, air actuators or light bulbs.

ALL IMPLIED WARRANTIES INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND THE IMPLIED WARRANTY OF MERCHANTABILITY ARE HEREBY DISCLAIMED.

Superior-PHS is not responsible for special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory, including lost profits, downtime, goodwill, or damage to or replacement of equipment or property.

This warranty and the remedies set forth above are exclusive and are in lieu of all others, oral or written, express or implied. There are no warranties that extend beyond the description on the face hereof. No Superior-PHS employee, distributor, or agent is authorized to make any modification, extension, or addition to this warranty.

