

XPress with integrated regulator tank

Separation system

Operation Manual / Installation Instructions
(Original operating instructions)

2019-9015-012
01 October 2017

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1 General

This is a GEA product. GEA is the manufacturer of the Houle product line. This product was formerly known under HOULE trademark.



1.1 Information on the document

The manufacturer reserves the right to make changes due to technical developments in the data and images given in this manual.

Reproductions, translations and copies of any kind, including extracts, require written authorization from the manufacturer.

The abbreviations, units, technical terms, special names or industry-specific terminology used in this manual are explained in greater detail in the Appendix.

This manual is supplied with the product.

- They should be kept close at hand and remain with the equipment even if the equipment is sold.
- This manual is not subject to an amendment service. The most recent version of this manual can be obtained at any time through the technical dealer or directly from the manufacturer.

Target group

This manual contains information for the following target groups:

Information (see section)	Target group			
	Carrier	Installation mechanic	Maintenance personnel	Operator
Transport and storage	x			
Assembly and installation		x		
Commissioning		x	x	x
Operation and handling		x	x	x
Maintenance			x	x
Troubleshooting		x	x	x
Repair work		x		
Shut-down		x		



For information on appropriate personnel qualification, please see the section on:
Safety / Personnel qualification

Necessary documents

- Foundation plans
- Circuit / wiring diagrams
- Electrical Diagrams

- Plans showing water inlets and outlets etc.

Source

The manuals can be sourced as follows:

- Ordering paper versions from the manufacturer
- Downloading file from the Internet (for technical dealers only)
<https://extranet.ft.gea.com/>

Layout elements

Pictograms used



Note

The signaling word indicates information that is important for the product and environment.



This pictogram refers to an information source.
 (section, manual, Internet, ...).

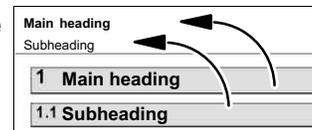
20 .. -90 .. -000 If a manual number is given, the middle 4 digits indicate the language, as follows:

	Language		Language		Language
-9000-	German	-9013-	Dutch	-9032-	Serbian
-9001-	English (United Kingdom)	-9015-	English (North American)	-9034-	Slovak
-9002-	French (France)	-9016-	Polish	-9035-	Chinese
-9003-	Italian	-9018-	Japanese	-9036-	Lithuanian
-9004-	Romanian	-9021-	Danish	-9038-	Portuguese (Brazil)
-9005-	Spanish (Spain)	-9022-	Hungarian	-9039-	French (Canada)
-9007-	Swedish	-9023-	Czech	-9040-	Latvian
-9008-	Norwegian	-9024-	Finnish	-9041-	Estonian
-9009-	Russian	-9025-	Croatian	-9043-	Spanish (Central America)
-9010-	Greek	-9027-	Bulgarian	-9046-	Vietnamese
-9012-	Turkish	-9029-	Slovene		

Not all of the above languages may be available.

Header

The top line on each page provides information on the main subject of that page.



1.2 Manufacturer's address

GEA Farm Technologies Canada Inc. / Division GEA Houle
4591 boul. St-Joseph
Drummondville, Qc, J2A 0C6

- +1 819 477 - 7444
- +1 819 477 - 5565
- geahoule@gea.com
- www.gea.com

1.3 Customer service

Authorized Technical Dealer

If necessary, contact your nearest authorized technical dealer.

There is a comprehensive dealer Internet search function on our website at the following address:

www.gea.com

European contact information:

GEA Farm Technologies GmbH
Siemensstraße 25-27
D-59199 Bönen

 +49 (0) 2383 / 93-70

 +49 (0) 2383 / 93-80

 contact@gea.com

 www.gea.com

US Contact Information:

GEA Farm Technologies, Inc.
1880 Country Farm Dr.
Naperville, IL 60563

 +1 630 369 - 8100

 +1 630 369 - 9875

 contact_us@gea.com

 www.gea.com

**1.4 EC - Declaration of conformity for machines
in accordance with EC Machinery Directive 2006/42 /EC, Annex II 1. A**

Manufacturer: **GEA Farm Technologies Canada Inc. / Division GEA Houle
4591 boul. St-Joseph
Drummondville, Qc, J2A 0C6**

We, as manufacturer, declare in sole responsibility that the machinery

Name: Separation systems
Model: XPress with integrated regulator tank
Type:
Serial number: CAJB-XXXXXXX

complies to all relevant provisions of this and the following directives:

Relevant EC Regulations:	2006/42/EC	EC Machinery Directive
Applied harmonized standards, in particular:	NF EN 953+A1:2009-05	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards
	NF EN 1037+A1:2008-06	Safety of machinery — Prevention of unexpected start-up
	EN ISO 12100-1:2004-01	Safety of machinery- Basic concepts, general principles for design - Part 1: Basic terminology, methodology
	NF EN ISO 13857:2008-06	Safety of machinery — Safety distances to prevent danger zones being reached by upper and lower limbs
	NF EN ISO 14121-1:2007-11	Safety of machinery — Risk assessment — Part 1: Principles
	FD ISO/TR 14121-2:2008-02	Safety of machinery — Risk assessment — Part 2: Practical guidance and examples of methods

Other applied standards and technical specifications:

Remarks: We also declare that the special technical documentation for this machine has been created in accordance with Annex VII, Part A and we obligate to provide these upon reasoned request from the individual national authorities by data transfer.

Authorized person for compiling and handing over technical documentation: **Josef Schröer
GEA Farm Technologies GmbH
Siemensstraße 25-27
D-59199 Bönen
☎ +49 (0) 2383 / 93-70**

Drummondville, 01 December 2010



Yann Desrochers
(Head of Research and Development)

1.5 Warranty applicable to GEA Houle's manure separator systems, including the vertical dewaterer and/or the XPress



Important notice!

THIS GENERAL WARRANTY APPLIES TO ALL EQUIPMENT SOLD UNDER THE HOULE TRADEMARK.

1.5.1 Limited warranty

GEA Farm Technologies Canada Inc. / Division GEA Houle (hereinafter referred to as "the Company") warrants to the original buyer and end user (hereinafter referred to as the "Purchaser") that the parts of the manure separator system sold under the Company trademark (the "Separator System") are free from defects in material or workmanship for a period of: (a) **four thousand (4000) hours of operation, or (b) forty-eight (48) months from the date of delivery of the Separator System to the Purchaser, whichever occurs first.** This written warranty takes precedence over any other written warranty included in previous versions of the Company's manuals.

Components from third-party manufacturers that are not built by the Company, and which are accessory to the Separator System sold under the Company trademark (including, without limitation, the motors and control panels), are subject to such third-party manufacturers' specific warranty coverage.

THIS WARRANTY EXTENDS ONLY TO THE PURCHASER AND DOES NOT APPLY IN THE EVENT THAT THE SEPARATOR SYSTEM IS SOLD OR OTHERWISE TRANSFERRED.

1.5.2 Condition of the limited warranty

The Company, through its GEA authorized dealers only (hereinafter referred to as "Dealer"), reserves the right to either repair or replace all parts deemed defective under the following conditions:

1. That the Separator System is installed, operated and maintained in accordance with the Company directives. In the event that the Purchaser uses a different control panel to operate the Separator System than the one sold by the Company, the Company may limit or void the present warranty;
2. That the Purchaser uses the Separator System in accordance with specific instructions, under normal conditions, for the sole purpose for which the Separator System was designed;
3. That the Purchaser notifies in writing his Dealer or the Company (whichever the case may be) of any defect of the Separator System. In either case the notification must be made within the warranty period, which is the earlier of four thousand (4000) hours of operation or forty-eight (48) months following the date of delivery of the Separator System to the Purchaser;
4. The Purchaser or the Dealer must keep the defective parts or the Separator System for inspection by the Company and return such defective parts or the Separator System prepaid to the Company, if requested;
5. That the Purchaser does not modify the Separator System, nor attempt to repair the Separator System or defective parts without proper authorization from the Company;
6. The Company will repair or replace the Separator System free of charge where installed, or at the business place of the Dealer or the Company, at its sole discretion.

1.5.3 Extent of limited warranty

This limited warranty DOES NOT cover:

- Defects caused by negligence of the Purchaser in the maintenance of the Separator System, improper use resulting from failure to adhere strictly to the Company's manuals or non-compliance with prescribed maintenance instructions provided by the Company (including, without limitation, lack of lubrication of the Separator System), as well as damages arising from non-conforming installation of the Separator System, or ambient temperature or conditions of storage of the Separator System that do not comply with the Company's recommendations (including, without limitation, any damages resulting from sand exposure and infiltration of sand into the Separator System, storage or operation of the Separator System at a temperature equal or below 5°C/41°F, as well as all damages to the steel rollers, rubber rollers or bearings due to excessive pressure adjustment on the rollers);
- Damages to Separator System due to normal wear and tear or to external causes, including issues of power or inadequate electrical conditions (including, without limitation, inadequate tension (neutral/ground), abnormal mechanical or environmental conditions (including, without limitation, damages caused by fire, lightning, flood or other natural disaster), damages caused by the use of sand litter or other abrasive or inadequate material (including, without limitation, damages caused by solids in the manure, such as stone, wood, iron, concrete, and strings), as well as damages caused by the introduction of ice or frozen manure in the Separator System;
- Freight and shipping associated with repair or replacement of the Separator System under this limited warranty;
- Claims arising from repairs or replacements made by the Purchaser without the prior written consent of the Company. The Purchaser shall not remove or alter any safety device, guard, or warning sign.

If the Purchaser fails to comply with any of its obligations referred to in this paragraph, the Purchaser agrees to save the Company and the Dealer harmless in respect of any liability or obligation incurred by the Company or the Dealer resulting from such failure of the Purchaser.

1.5.4 Warranty limitations and exclusion

NO WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED, OTHER THAN THE ABOVE WARRANTY IS PROVIDED IN RESPECT OF THE SEPARATOR SYSTEM SOLD. Some states (or jurisdictions) do not allow the exclusion of implied warranties so it is possible that this limitation may not apply. THE COMPANY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY, ADAPTABILITY OR OF PERFORMANCE, PROVIDED THAT SUCH EXCLUSION OF LIABILITY COMPLIES WITH THE LAWS HAVING APPLICABLE REGULATORY JURISDICTION.

THE LIABILITY OF THE COMPANY AND ITS DEALERS UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS UP TO THE CONTRACT VALUE FOR THE PURCHASED SEPARATOR SYSTEM. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR EXEMPLARY DAMAGES IN ANY KIND OR CHARACTER, INCLUDING INDIRECT COSTS, LOSS OF PRODUCTION, LOSS OF REVENUES OR PROFITS, AND OTHER DISBURSEMENTS WHICH MAY OCCUR. Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages and so it is possible that these limitations or exclusions may not apply.

1.5.5 General statements

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY JURISDICTION.

THE DEALER IS NOT AUTHORIZED TO MAKE ANY ADDITIONAL REPRESENTATIONS OR PROMISES THAT DIFFER IN ANY WAY FROM THE TERM OF THIS LIMITED WARRANTY, OR MODIFY THE PROVISIONS, DURATION AND CONDITIONS OF THIS LIMITED WARRANTY. NO WAIVER OR MODIFICATION OF THIS LIMITED WARRANTY IS VALID UNLESS AGREED TO IN WRITING AND SIGNED BY THE AUTHORIZED REPRESENTATIVES OF THE COMPANY.

IN THE EVENT OF ANY CONFLICT BETWEEN THE ENGLISH LANGUAGE VERSION AND ANY OTHER TRANSLATED VERSION OF THIS LIMITED WARRANTY (WITH THE EXCEPTION OF THE FRENCH LANGUAGE VERSION) THE ENGLISH VERSION SHALL PREVAIL.

2 Safety

2.1 Intended Use

This product is designed for agricultural purposes only. Make sure to follow the local rules and regulations in relation with the use of this product.

It is exclusively designed to:

- Process dairy manure of a barn or liquid coming from a digester.
- Process contents which have no solid particles (like stones, wood, plastic, hooves...)
- Extract liquid from the manure in order to produce composting or bedding.

Applications which are not listed here are not part of the intended use and are therefore considered as improper use!

The manufacturer/supplier is not liable for any resulting damage. The user alone bears the risk.

Correct use also includes reading the instructions and observing the inspection and maintenance conditions.

- The manufacturer expressly points out that only original parts, original accessories and original chemicals are adapted, tested and authorized to be used with this product.
- The installation or use of products from other manufacturers may affect the specified properties of the original parts and lead to injury to people and animals.
- The manufacturer does not accept any liability for injury to people or animals, or damage to the product, caused by the use of products from other manufacturers.

2.2 Owner's obligation of care

The product has been designed and constructed taking account of a potential risk analysis and after careful selection of the compliant harmonized standards and other technical specifications. It therefore ensures a maximum level of safety.

This safety can only be achieved in practice on the farm however when all of the necessary measures have been taken. It is part of the farmer's obligation of care to plan these measures and check that they are carried out.
(producing appropriate operating instructions for example)

The owner must ensure the following:

- A complete, legible copy of the manual must always be available at the place where the product is installed.
- All persons who carry out work on the product must be able to consult the manual at any time.
- The instructions given in the section on "Basic Safety Instructions" must be followed.
- The legal requirements are observed.
- The product may only be used for its intended purpose.
- The product may only be used if it is in perfect working condition. The safety devices especially must be checked regularly to ensure they are working.
- Work should only be carried out by suitably qualified persons.
- The personnel is regularly instructed in all relevant matters of safety at work and protection of the environment and is familiar with the manual, particularly the safety instructions it contains.
- The tools listed in this manual to perform activities in connection with this product.
- Locally purchased components and/or products that comply with the technical requirements mentioned in section Technical data, if applicable.
- Adequate lighting in all areas where activities in connection with this product are performed.
- Safety signs, plates and decals, which are attached to the product, must be replaced immediately if they become illegible or lost!
- Any personal safety equipment required for the operating, maintenance or repair personnel must be provided and used.

2.3 Subsequent modifications

Unauthorized product changes may have a negative impact on the service life or function of the product.

Any modifications not described in the product documentation are deemed to be prohibited.

For safety reasons, do not carry out any unauthorized changes!

Scheduled modifications must be approved in writing by the manufacturer.

Any unauthorized modifications to the product will invalidate the warranty and may invalidate the manufacturer's declaration or installation declaration provided.

2.4 Explanation of the safety symbols used

The safety symbols draw attention to the importance of the adjacent text.

The design of the warnings is based on ISO 3864-2 and ANSI535.6.

Safety symbols and key words



Danger!

The signaling word indicates an immediate danger that will lead to loss of life or serious physical injury.



Warning!

The signaling word indicates an immediate danger that could lead to loss of life or serious physical injury.



Caution!

The signaling word indicates hazardous situations that could cause physical injury.

Attention!

The signaling word indicates hazardous situations that could cause damage to property or malfunction.

2.5 General safety instructions and dangers

**Note**

There are warnings about specific residual dangers in the corresponding chapters.

- Work or activities connected with the product might involve risks. The safety information and operating instructions in this manual must always be followed to ensure that the product is used safely.
- Familiarize yourself with the environment surrounding the working area. Locate the elements that can be dangerous in order to avoid them.
- No one stands near this product unless they are performing instructions included in this manual. When near this product, keep body parts such as hands, feet, hair as well as clothing away from dangerous parts such as rotating parts, articulated parts, sharp edges, etc.
- The use of any tool or lubricant is subject to certain risks. Follow the manufacturer's recommendations and wear appropriate personal safety gear.
- Permissible operating conditions (pressure ranges, temperature ranges, air flow, etc.) are given in the section on "Technical Data" and must be observed.
- Observe measures on protection against noise!
- Do not stand underneath suspended loads.
- Always observe the warnings given in the product safety data sheets and operating instructions when using products from other manufacturers!
- Do not remove any protective devices (risk of injury)!

Electrical components

- Always keep the control cabinet / all electricity supply units / electrical control units closed. Access is only permitted to authorized personnel with a key or special tool.
- Protect live and high-voltage components against moisture. Do not use water or high-pressure cleaners on these electrical products!

Operating media

- Lubricant
There is a risk of caustic burns if lubricants come into direct contact with the skin.

Personal protection equipment (PSA)

- Hand protection
- Eye protection
- Ear protection
- Feet protection

2.6 Personnel qualifications

Everyone who performs work or activities in connection with the product must carefully read and understand the manual and then act accordingly.

The manufacturer intends to determine the difference between trained personnel and qualified personnel.

Trained personnel

The operator was trained by the manufacturer or its legal representative to follow all safety rules, cleaning method, general maintenance as well as the operating methods.

It is the operator's responsibility to inform the farm workers of those rules, maintenance and methods.

Qualified personnel

Qualified personnel refers to those having obtained the academic knowledge of a specific field of work.

This personnel has followed a training and subsequently obtained a certification, diploma or any other official document provided by a recognized academic facility in the country of study.

An equivalence may be required when operating in other countries.

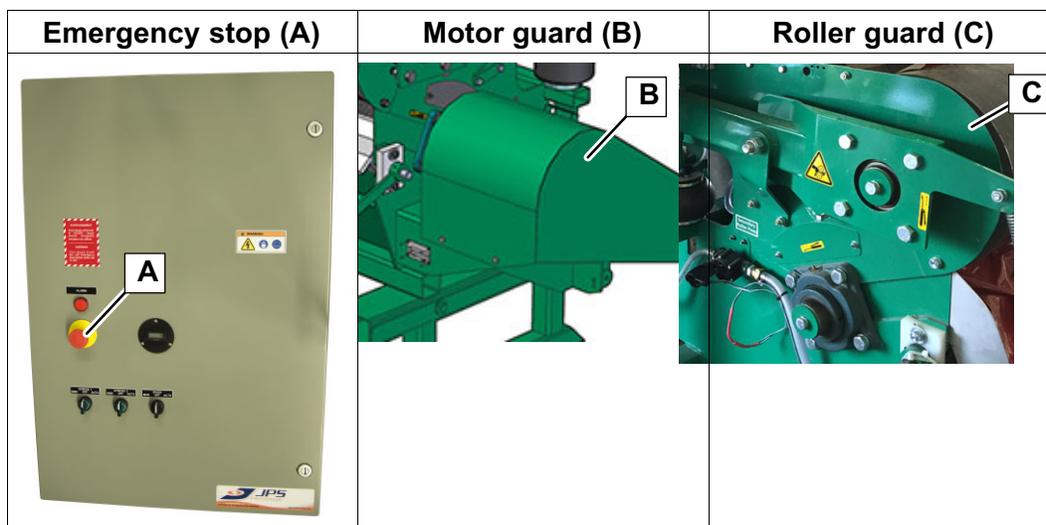
- All work on electrical equipment and electrical connection work should only be performed by qualified electricians.
- All work on pneumatic equipment should only be performed by technicians trained for this purpose.
- All welding work must only be performed by qualified welders.



Note

Work that requires special qualifications is described in the relevant chapters!

2.7 Safety guard and devices



2.8 Residual risks

Not all hazards can be eliminated by construction measures.



Note

There are warnings about specific residual dangers in the corresponding chapters.

Toxic gases in confined spaces:

Agitated manure produces heavy toxic gases.

Follow the safety procedures for confined spaces before operating or servicing this equipment in such environment.

Look at the corresponding Web site below to make sure the local safety procedures for confined spaces are followed.

Location	Administrated by	Web site
Canada	Canadian Centre for Occupational Health and Safety	www.ccohs.ca
USA	Occupational Safety and Health Administration	www.osha.gov
European Union	European Agency for Safety and Health at Work	www.osha.europa.eu

Mechanical hazards:

When working on the XPress and its components, there is a risk of

- Being grabbed by rollers

Working on electrical equipment:

All work on the electrical equipment and electrical connection work may only be carried out by trained specialist electrical personnel in accordance with the wiring diagrams in this installation manual.

Observe local regulations and safety requirements (VDE, EVU, etc.)!

Warning mains voltage!

Before any work is performed on conductive components or lines the power supply must be switched off and secured against being switched back on again.

Whenever any unavoidable work is carried out on live components (e.g.: testing to locate a fault), a second person must be present who can disconnect/interrupt the power supply in the event of an emergency.

When working on hydraulic or pneumatic equipment:

All work on hydraulic or pneumatic equipment may only ever be performed by trained specialists.

Depressurize all hydraulic and pneumatic installation/components before working on them.

Always replace hoses as a preventive measure when carrying out repair work even if no damage can be seen. Also observe the information given by the hose manufacturer.

Protecting the environment:

In all work, observe the requirements on avoiding waste and on the correct recycling or disposal of waste.

In particular, when carrying out installation and servicing or decommissioning the equipment, it should be ensured that substances which are harmful to groundwater - such as grease, oil, coolants, solvent-based cleaning agents and suchlike - do not pollute the ground or get into the sewage system.

These substances must be collected, stored, transported and disposed of in suitable containers.

In the event of fire:

In case of fire switch off the product immediately at main switch.

Special fire-fighting measures are to be followed for

- processing material
- operating media (oil, cleaning and disinfecting agents, etc.)
- electrical cables
- reference to the build up of smoke and harmful effects

Electrical hazards:

When working on motor and control panel, there is an electrical risk

- from direct contact with live parts or parts which have become live because of a fault
- from electrostatic processes
- from high voltage
- from short circuits/overloads as well as the risk of molten particles being thrown out

Dangers from residual energies:

Always remember that even after the equipment has been switched off or has come to a standstill, different types of energy may still be present - for example:

- in live electricity lines (from accumulators, capacitors, etc.)

2.9 Dangerous areas



Warning!

Crushing hazard!

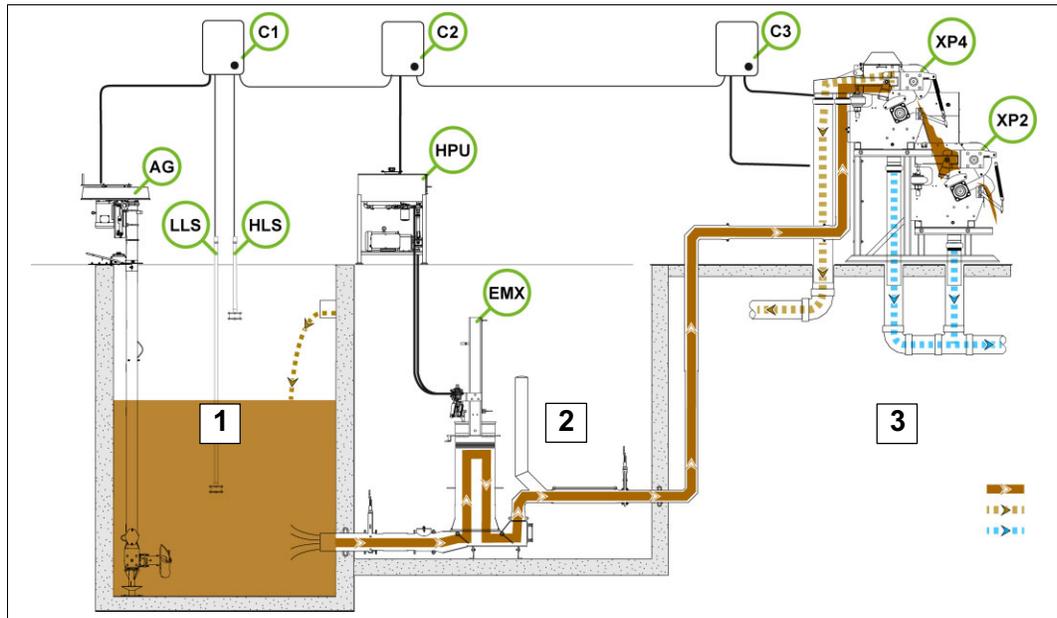
There is a danger of being grabbed by rollers.

- ▶ Accessing inside the chute is strictly forbidden.



3 Description

3.1 Functional Description



1. The liquid manure is collected in a reception pit. When the liquid level reaches the high level switch (HLS), the starter panel (C1) activates the Electromix agitator (AG) and the starter panel (C2).

The Agitator homogenizes the reception pit content prior to start pumping.

To keep the liquid manure homogenized during transfer, the agitator stays active.

When the reception pit level lowers below the diaphragm switch (LLS), the complete system stops.

2. Once the starter panel (C2) is activated, the timer delays the start of the Hydraulic Power Unit (HPU) and the Electromix pump (EMX).

The delay time must be adjusted to the time required for a complete homogenization.

The manure is then transferred to the XPress (XP4-XP2).

Since the XPress system requires to be fed at a constant flow rate between 30 - 90 US gpm, the Electromix pump must be equipped with a flow regulator valve.

This valve regulates the flow rate by calibrating the transfer rate (downward piston stroke adjusted to the XPress feeding rate).

3. When the liquid level in the XPress tank is high enough, the 3 level sonar activates the control panel (C3) starting the XPress system (XP4, XP2).

The liquid manure collected in the tank is processed by the (XP4) rollers while the exceeding liquid is returned back to the reception pit by the overflow return line.

The liquid extracted from the rollers is transferred to another storage.

The solid extracted from the primary XPress is dropped in the secondary XPress (XP2).

The secondary XPress (XP2) processes the rejected solids from the upstream XPress (XP4).

The liquid extracted from the rollers is transferred to another storage.

The solid extracted from the secondary XPress is generally dropped onto a conveyor.

To maintain an acceptable quantity of fiber between rollers downstream avoiding overflow of fiber, a 2 level sonar is installed in each chute to monitor the content level.

When the content in the chute exceeds the first detection level, the XPress downstream speeds up to process the accumulation.

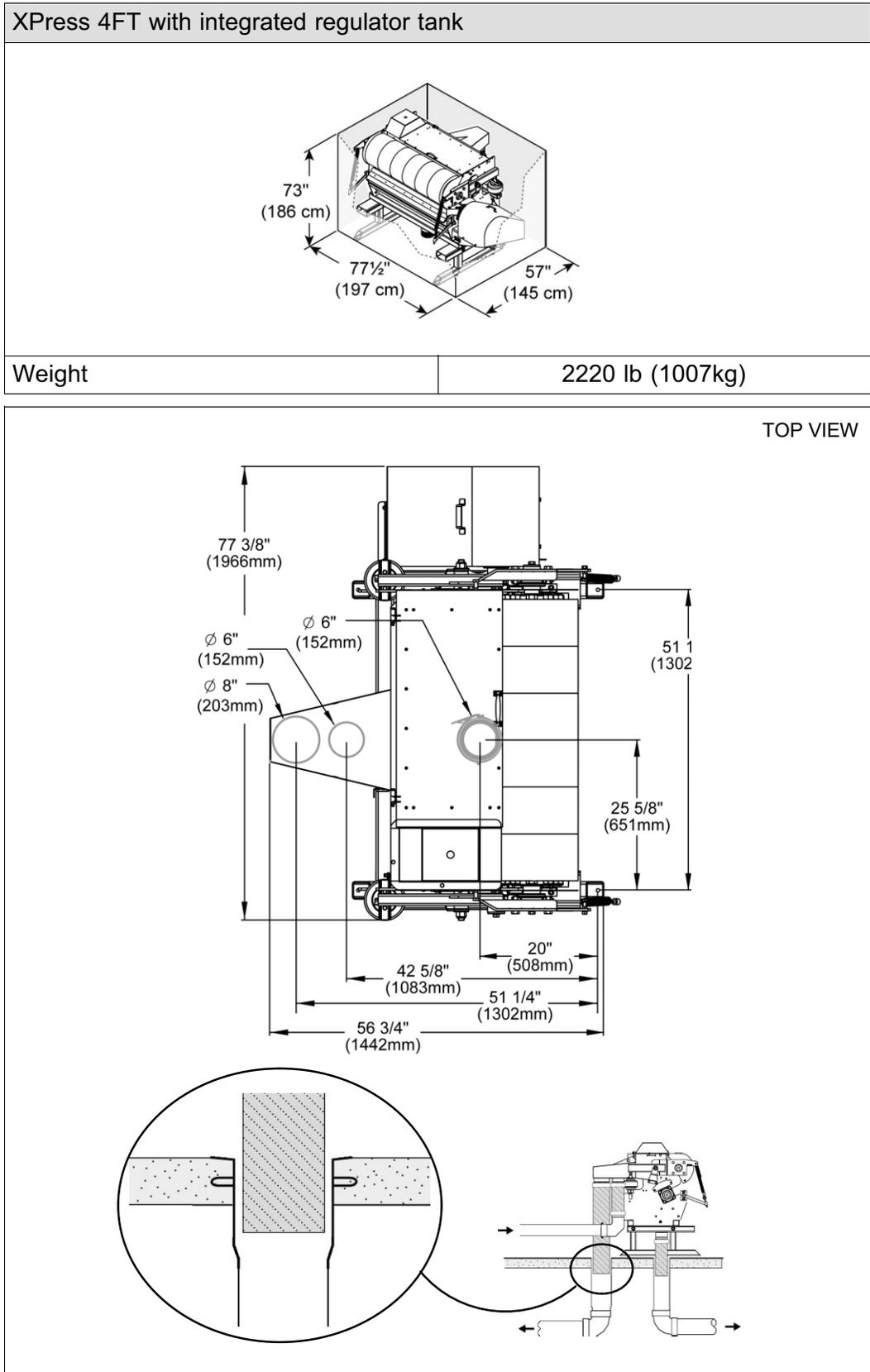
When the XPress cannot process the accumulation and the content in the chute exceeds the second detection level, the entire system stops.

To prevent accumulation in XPress chute, cleaning spray bars are installed in the regulator tank, in each chute and behind each stainless steel roller.

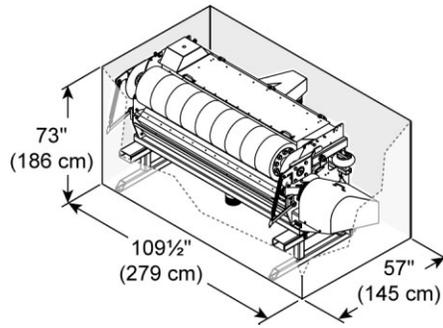
A cleaning cycle is managed by the control panel (C3).

3.2 Technical Data

Geometric data



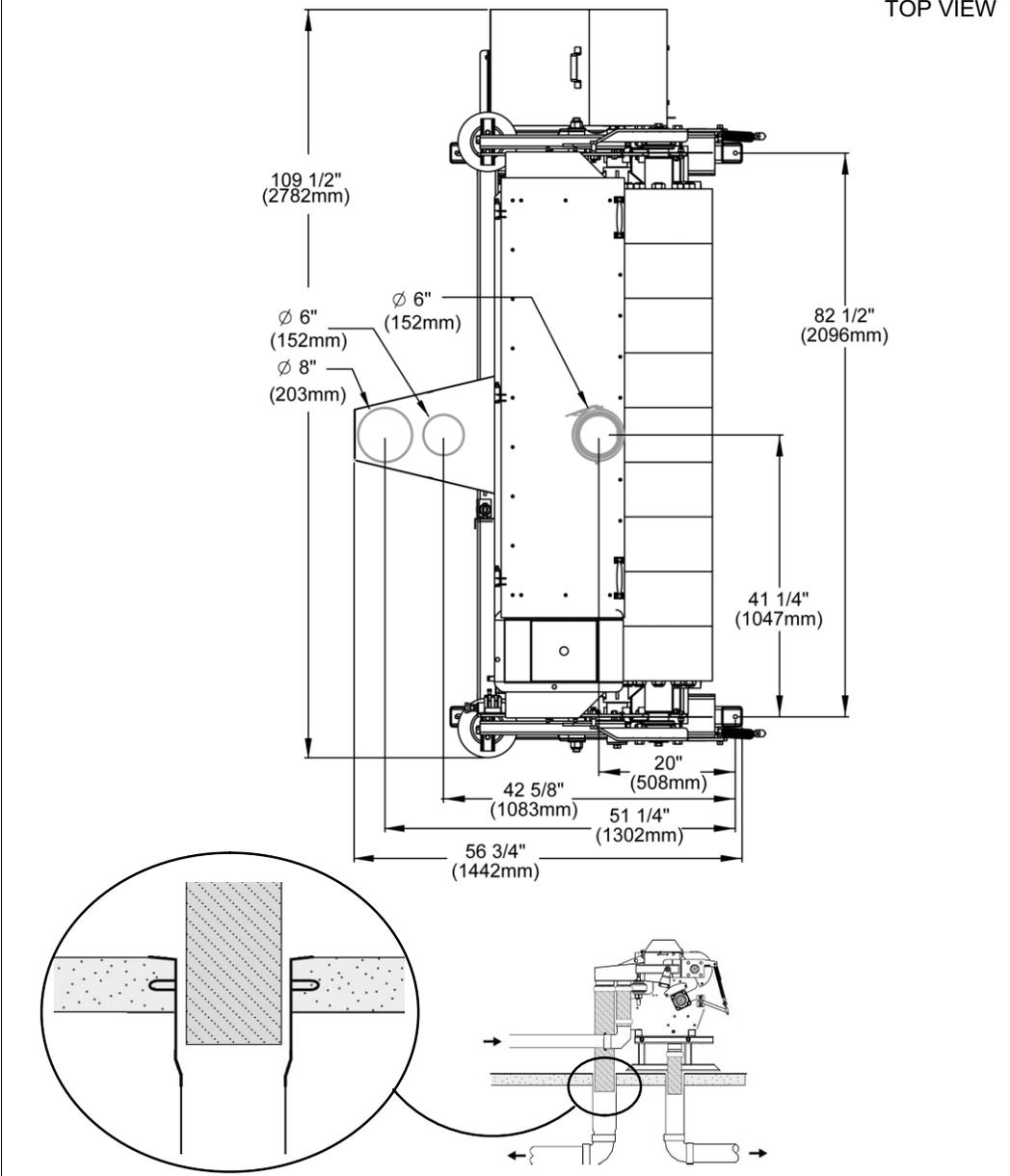
XPress 6FT with integrated regulator tank



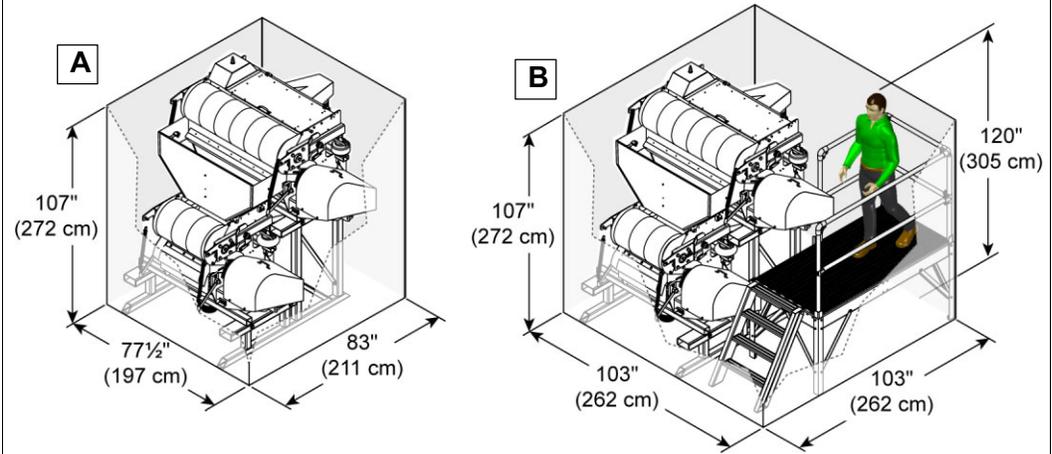
Weight

3200 lb (1451kg)

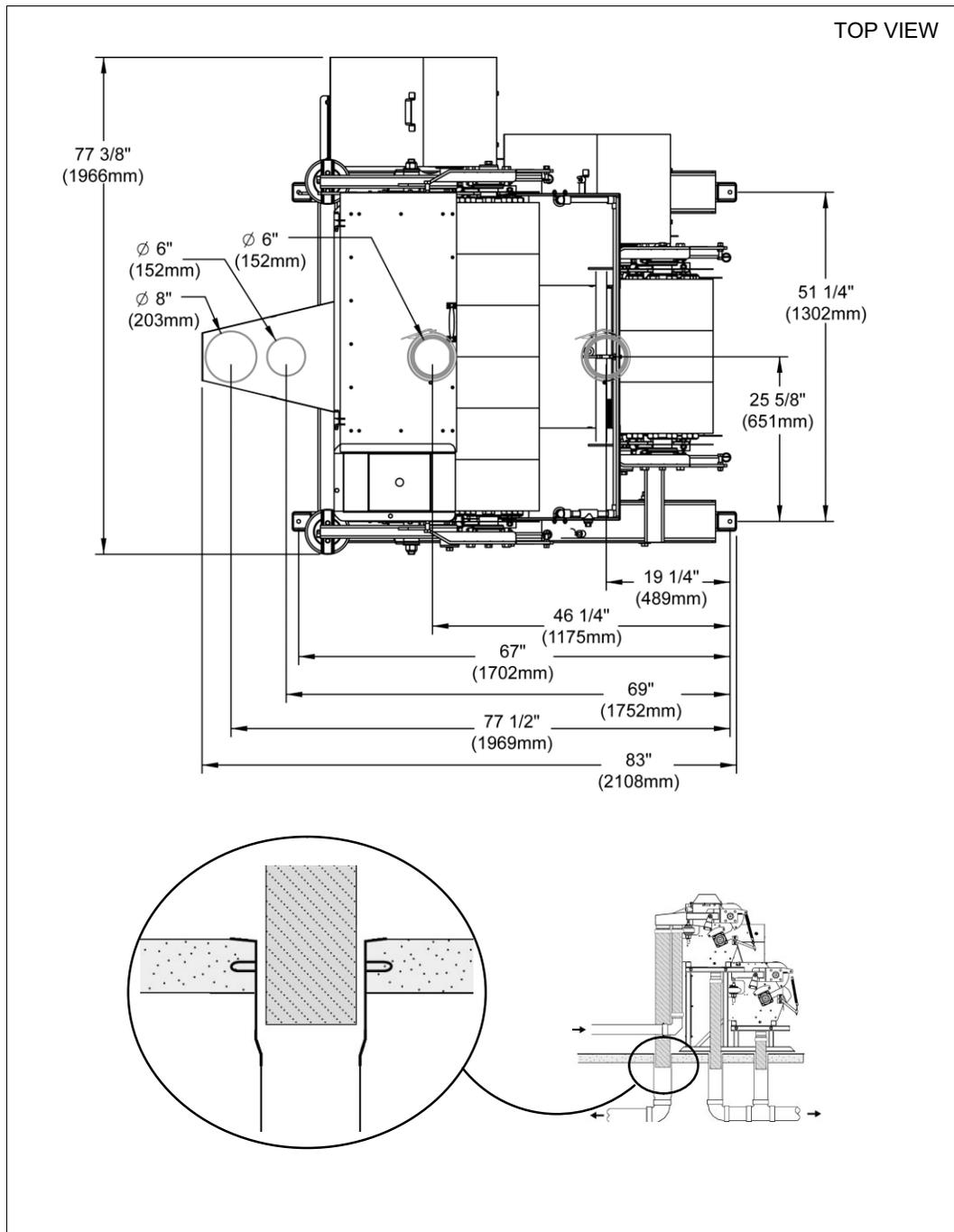
TOP VIEW



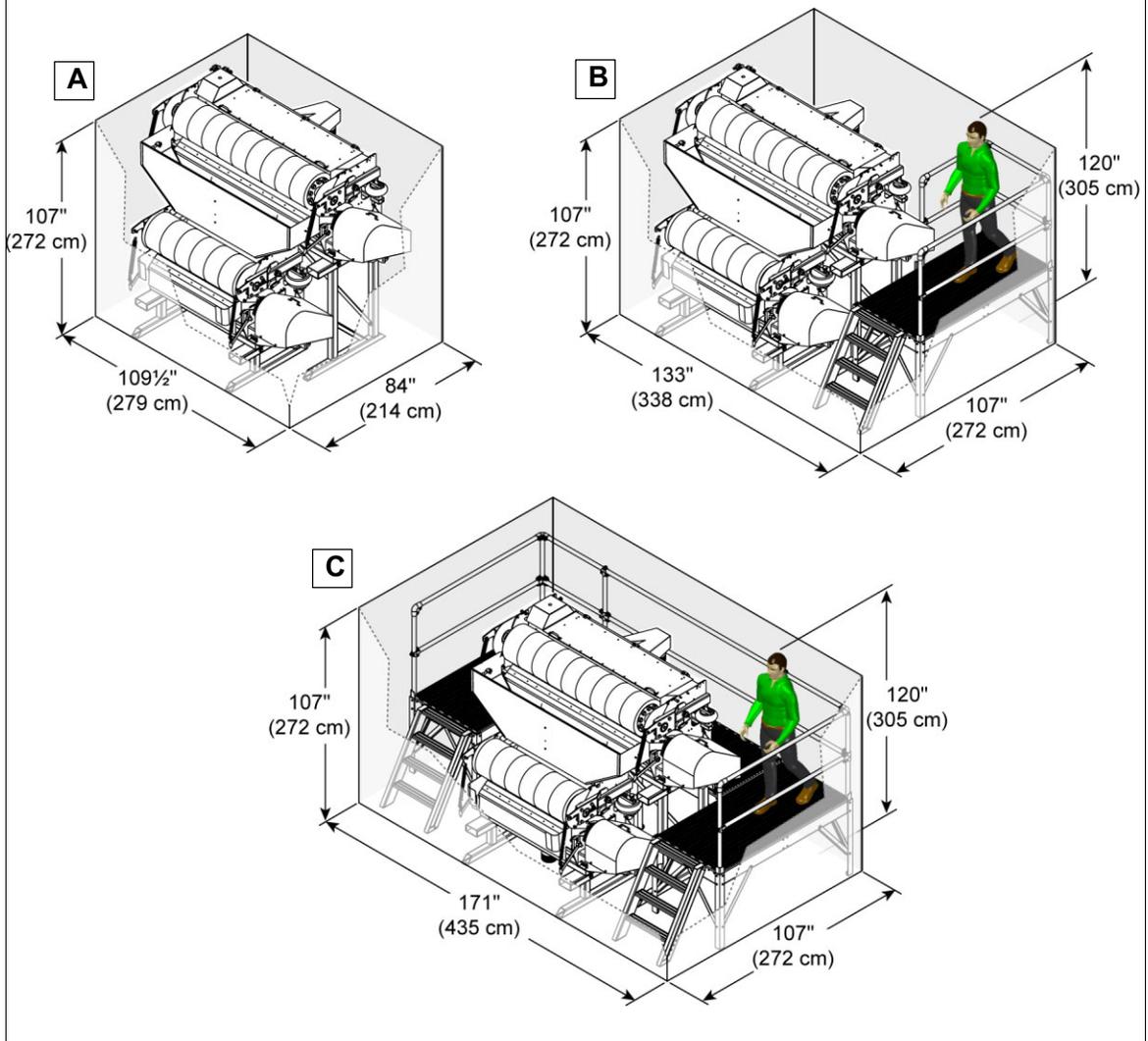
XPress 4FT - 2FT with integrated regulator tank



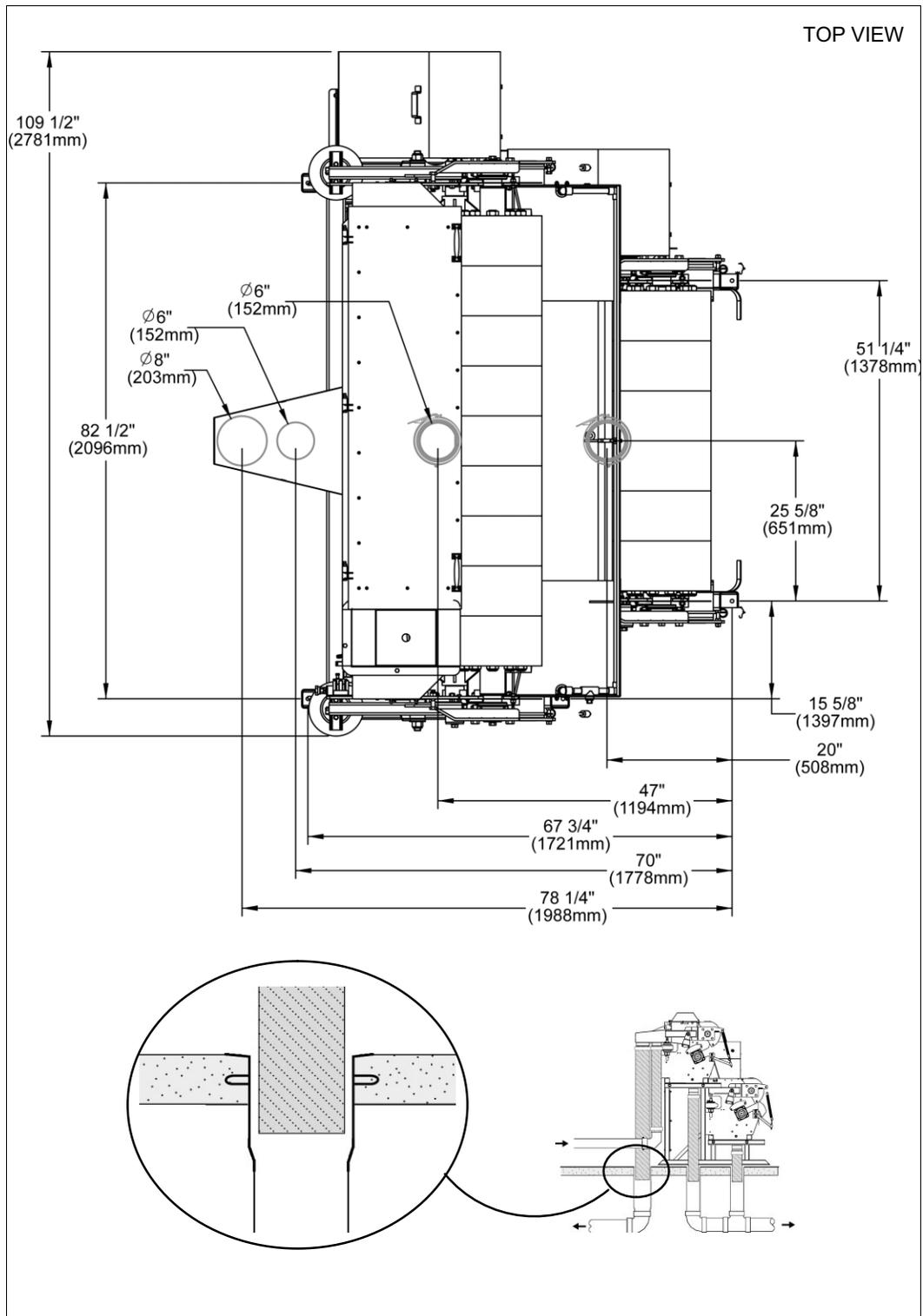
Weight (A)	4300 lb (1950kg)
Weight (B)	4700 lb (2132kg)



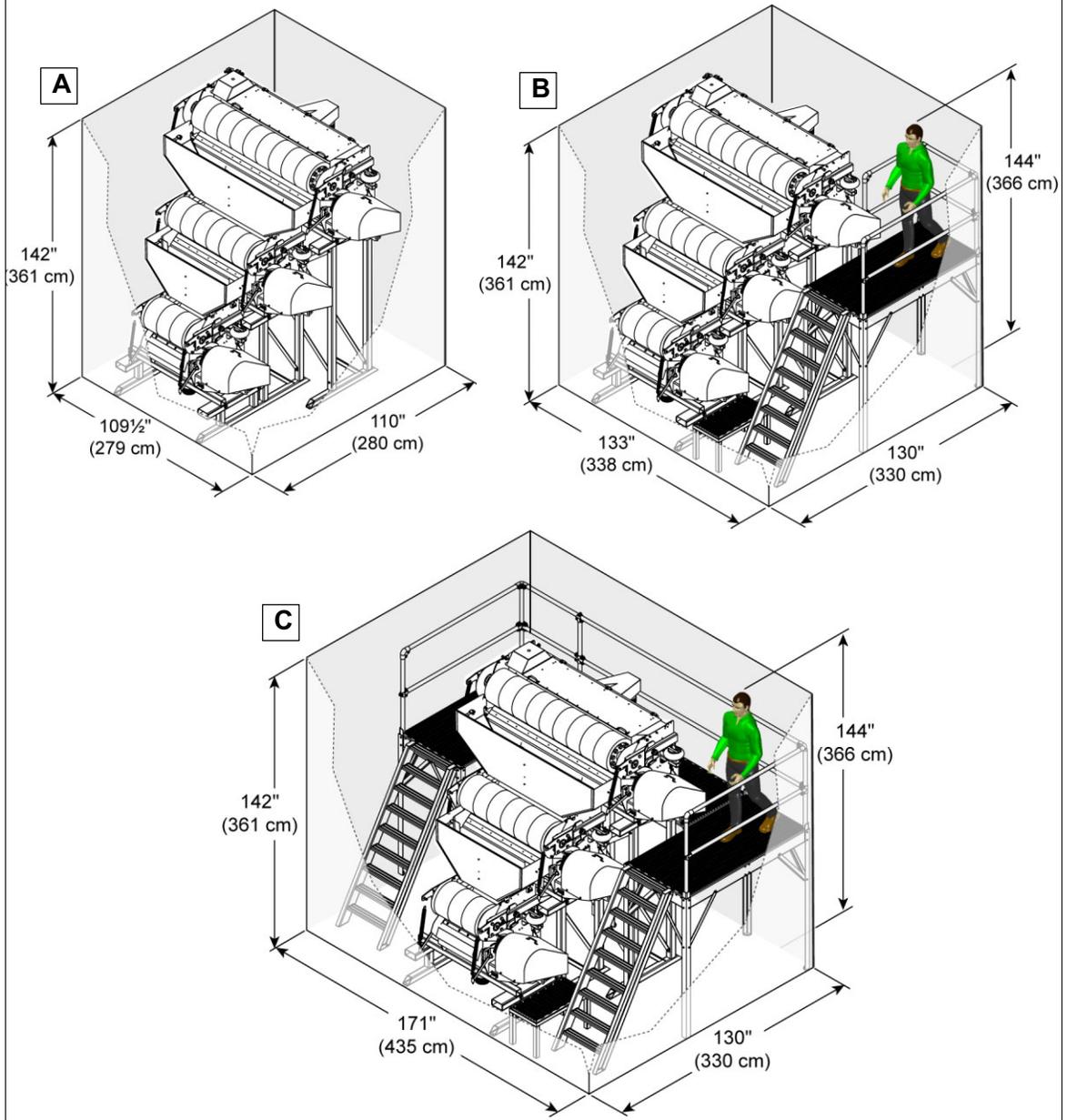
XPress 6FT - 4FT with integrated regulator tank



Weight (A)	5700 lb (2586kg)
Weight (B)	6100 lb (2766kg)
Weight (C)	6900 lb (3129kg)

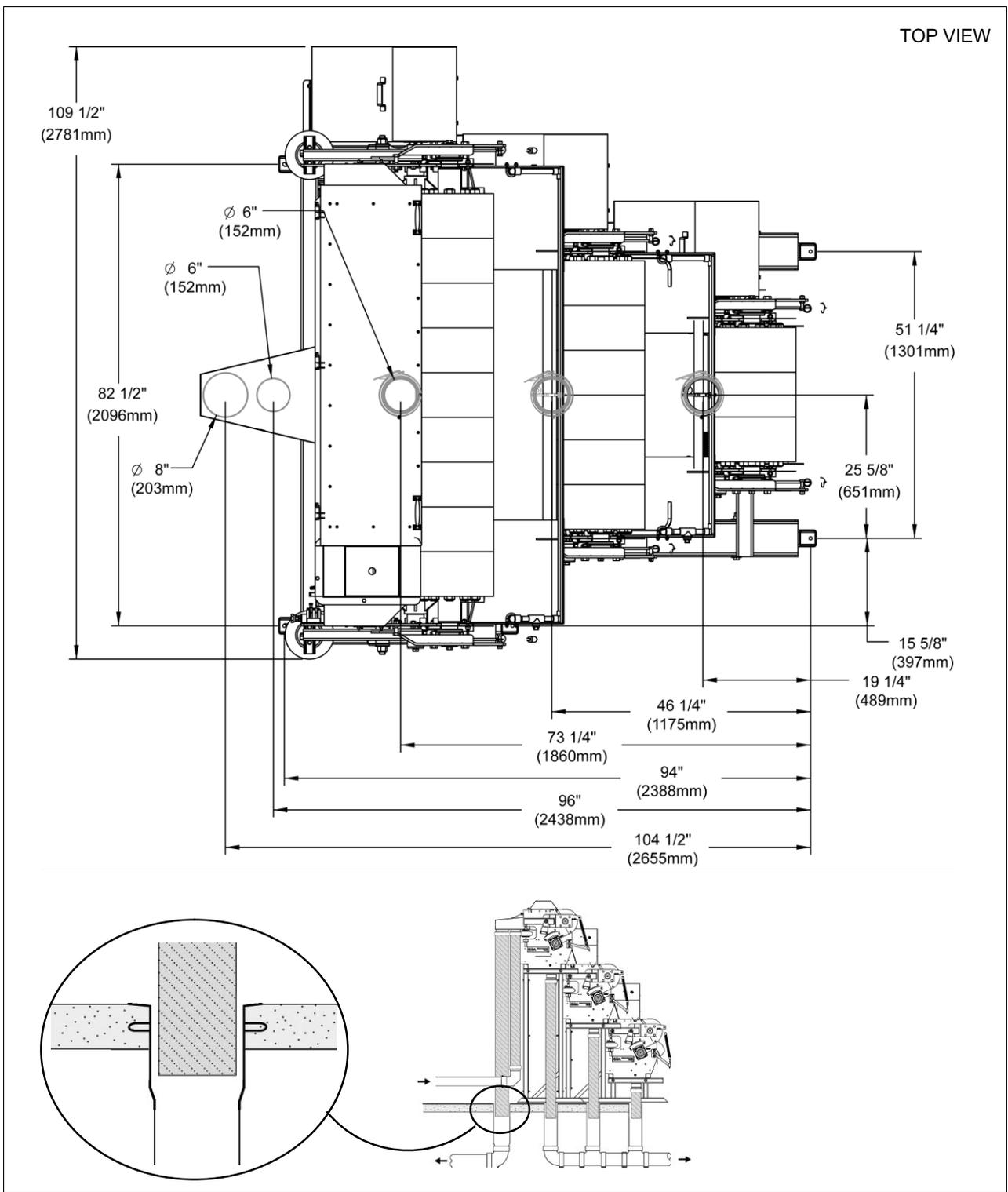


XPress 6FT - 4FT - 2FT with integrated regulator tank



Weight (A)	7641 lb (3465kg)
Weight (B)	8460 lb (3838kg)
Weight (C)	8960 lb (4065kg)

Description
Technical Data



Motor specifications

GEA provides specifications and wiring diagrams related to Baldor motor(s). For any other motor brand, contact the manufacturer of the motor.

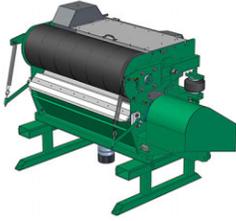
Motor type	Inverter duty motor	
Standard specifications	NEMA	IEC
Frame sizes required**	145T	80
Type of construction	B3	
Weight	No special requirements	
Frame material	No special requirements	
Degree of protection	IP 55	
Method of cooling	TEFC, IC 411 (Totally Enclosed, Fan Cooled)	
Vibration class	No special requirements	
Insulation	155(F) to 130(B)	
Duty type	S1(continuous operation)	
Direction or rotation	Bi-directional	
Rated motor voltage	As per local requirements	
Frequency	50Hz or 60Hz as per local requirements	
Rated motor power	1.5 HP [1.1 KW]	
Rated motor speed	50Hz@1450rpm 60Hz@1760rpm	
Rated motor torque	No special requirements	
Rated motor current		
Power factor		
Efficiency	min. 80%	

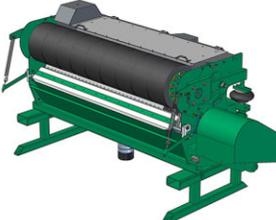
** Motor frame sizes can be fitted on the motor support.

Control panel specifications

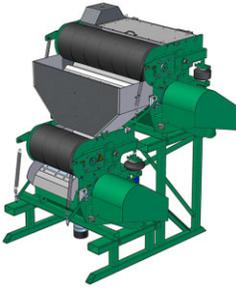
	Length	30"
	Height	42"
	Weight	120 lbs (55kg)
	Operating temperature	5°C (41°F) minimum

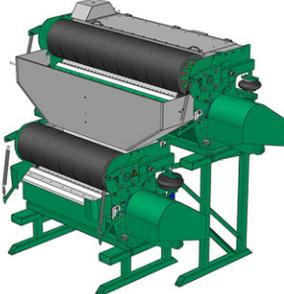
Performance Data

XPress 4FT with integrated regulator tank		
	Processing rate	45 cows / hour
	Input feeding rate (Electromix pump)	30 - 90 US gpm 25 - 75 UK gpm 114 - 340 lpm
	Output	0.75 ft ³ /min 0.0212 m ³ /min
	Solid output dry matter*	24% - 28%
XPress 4FT Primary model	air spring size Air pressure (maximum)	4" (101 mm) 100 psi (689 kPa)
Operating temperature (minimum)		5°C (41°F)

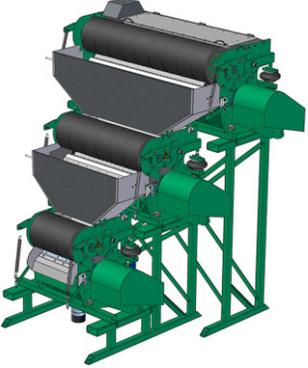
XPress 6FT with integrated regulator tank		
	Input manure consistency	½" to 1 ½" (13mm to 38mm)
	Processing rate	60 cows / hour
	Input feeding rate (Electromix pump)	30 - 90 US gpm 25 - 75 UK gpm 114 - 340 lpm
	Output	1 ft ³ /min 0.0283 m ³ /min
	Solid output dry matter*	24% - 28%
XPress 6FT Primary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
Operating temperature (minimum)		5°C (41°F)

* The dry matter values given in this document are based on performance of the XPress in optimum conditions. Be aware that performance may vary according to operating conditions, manure type and its composition and other external equipment factors.

XPress 4FT + 2FT with integrated regulator tank		
	Input manure consistency	½" to 1 ½" (13mm to 38mm)
	Processing rate	45 cows / hour
	Input feeding rate (Electromix pump)	30 - 90 US gpm 25 - 75 UK gpm 114 - 340 lpm
	Output	0.75 ft ³ /min 0.0212 m ³ /min
	Solid output dry matter*	30% - 34%
XPress 4FT Primary model	air spring size Air pressure (maximum)	4" (101 mm) 100 psi (689 kPa)
XPress 2FT Secondary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
Operating temperature (minimum)		5°C (41°F)

XPress 6FT + 4FT with integrated regulator tank		
	Input manure consistency	½" to 1 ½" (13mm to 38mm)
	Processing rate	60 cows / hour
	Input feeding rate (Electromix pump)	30 - 90 US gpm 25 - 75 UK gpm 114 - 340 lpm
	Output	1 ft ³ /min 0.0283 m ³ /min
	Solid output dry matter*	30% - 34%
XPress 6FT Primary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
XPress 4FT Secondary model	air spring size Air pressure (maximum)	6" (152 mm) 100 psi (689 kPa)
Operating temperature (minimum)		5°C (41°F)

* The dry matter values given in this document are based on performance of the XPress in optimum conditions. Be aware that performance may vary according to operating conditions, manure type and its composition and other external equipment factors.

XPress 6FT + 4FT + 2FT with integrated regulator tank		
	Input manure consistency	½" to 1 ½" (13mm to 38mm)
	Processing rate	90 cows / hour
	Input feeding rate (Electromix pump)	30 - 90 US gpm 25 - 75 UK gpm 114 - 340 lpm
	Output	1.5 ft ³ /min 0.0424 m ³ /min
	Solid output dry matter*	30% - 34%
XPress 6FT Primary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
XPress 4FT Secondary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
XPress 2FT Secondary model	air spring size Air pressure (maximum)	5" (127 mm) 100 psi (689 kPa)
Operating temperature (minimum)		5°C (41°F)

* The dry matter values given in this document are based on performance of the XPress in optimum conditions. Be aware that performance may vary according to operating conditions, manure type and its composition and other external equipment factors.

Acoustic emission

Noise level	70 dBA
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Bolt torque chart

Bolt	Mat.	Bolt diameter									
		1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"
SAE 2 	LCS	8Nm (6ft-lb)	16Nm (12ft-lb)	27Nm (20ft-lb)	44Nm (32ft-lb)	64Nm (47ft-lb)	94Nm (69ft-lb)	130Nm (96ft-lb)	210Nm (155ft-lb)	279Nm (206ft-lb)	420Nm (310ft-lb)
SAE 5 	MCS HT	14Nm (10ft-lb)	26Nm (19ft-lb)	45Nm (33ft-lb)	73Nm (54ft-lb)	106Nm (78ft-lb)	155Nm (114ft-lb)	209Nm (154ft-lb)	349Nm (257ft-lb)	518Nm (382ft-lb)	796Nm (587ft-lb)
SAE 8 	MCAS	19Nm (14ft-lb)	39Nm (29ft-lb)	64Nm (47ft-lb)	106Nm (78ft-lb)	161Nm (119ft-lb)	229Nm (169ft-lb)	312Nm (230ft-lb)	515Nm (380ft-lb)	814Nm (600ft-lb)	949Nm (700ft-lb)
Socket Head Cap Screw	AS HT	22Nm (16ft-lb)	45Nm (33ft-lb)	73Nm (54ft-lb)	114Nm (84ft-lb)	170Nm (125ft-lb)	244Nm (180ft-lb)	339Nm (250ft-lb)	542Nm (400ft-lb)	868Nm (640ft-lb)	1315Nm (970ft-lb)

Lubricant specifications

Lubricant type	Product name	Grade	Purpose
Grease	PRECISION™ GENERAL PURPOSE EP2	NLGI 2	<ul style="list-style-type: none"> To lubricate the equipment. To seal the bearing housing chambers
Biodegradable oil			<ul style="list-style-type: none"> To lubricate hinges of the tank regulator cover .

Name plate

The name plate is attached to the product.

4 Transport and storage

4.1 Special Qualification

Transport may only be performed by qualified personnel in accordance with the safety instructions.

- National driver's licence for drive-on machines, fork lift and other trucks.

4.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- Only the load suspension and buffer equipment indicated here should be used, at the specified support points, for transport.

If load suspension devices other than those indicated here are used, this may lead to serious damage to property and/or life-threatening injury to people.

- Always wear personal protective gear.
- Read the "Safety" section as well.

4.3 Special hazards

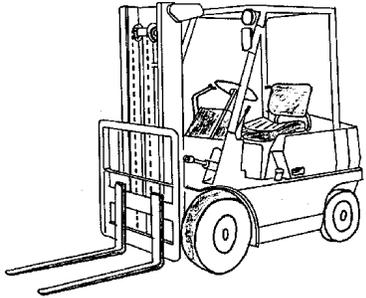
- Projecting sharp edges may cause cuts.
- If parts are stacked too high, the stack can become unstable and collapse.
- Do not stand beneath a suspended load. A suspended load may fall unexpectedly, which may cause death.
- Lifting or carrying heavy loads can result in personal injury.
 Only use the specified tools for transport.

4.4 Storage conditions

When storing the goods supplied, the location must provide protection against:

- Humidity
- Frost

4.5 Transport equipment

	Fork lift truck	3,500 lb. [1750kg]
	Lifting chains	3,500 lb. [1750kg]

4.6 Disposing of packaging material

After unpacking, the packing material must be handled properly and disposed of carefully in accordance with the valid local regulations on waste disposal and utilization.

5 Assembly and installation

If necessary, contact your nearest authorized technical dealer.

5.1 Special Qualification

Installation may only be carried out by qualified personnel in accordance with the safety instructions.

- Participation in corresponding product training is necessary.
- Handling must be performed by a qualified forklift operator and/or qualified overhead crane or hoist operator
- Installation work must be performed by qualified personnel in accordance with the safety instructions.
- Electric work and electric maintenance must be performed by a certified electrician.
- Welding work must be performed by a qualified welder.

See also the section on "Personnel qualification".

5.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- Observe any national standards and requirements during installation.
- Before installation, look for any damage caused by transport. Do not use damaged components.
- Always wear personal protective gear.
- Only use the special tools specified for the installation.
- In particular, make sure that the tightening torques specified are complied with.
- All electrically conductive parts with which the animals might come into contact must be connected to each other and to the system's protective earth conductor by additional equipotential bonding.
- Before working on electrical installations or equipment (components, housings, etc.), they have to be disconnected from the mains.
on/off or emergency stop switches are fitted with a lock to immobilize them in the open position and a warning sign is to be put up.
- Depressurize hydraulic/pneumatic components before working on them!
- Read the "Safety" section as well.

5.3 Special hazards

- The electrical current can cause injury from live cable ends and components.
- Lines which are not laid properly (e.g. bending radius too small) can cause scorching and electrical fires.
Lengthen bending radius if too small.
- There is a fire hazard associated with welding work.
- Electronic components (e.g. control cards) may be destroyed by welding work.

Assembly and installation

Preparations before installation

- Always disconnect these components from the mains before carrying out any welding work.
- Disconnect components within a radius of 2 metres.
- Parts loosely placed on top of each other can slip and fall off.
- Components with sharp edges which are still open and accessible represent a source of injury.
- Faulty pressure lines and connections can lead to serious physical injury.
- Leaking lubricants, solvents, preservatives, can cause injury if they come into direct contact with the skin.

5.4 Requirements

The product must be installed in a well ventilated frost-free room.

The product must be installed on a structure supporting the total weight of the system.



For more information on this subject, please refer to the section: Technical data

5.5 Preparations before installation

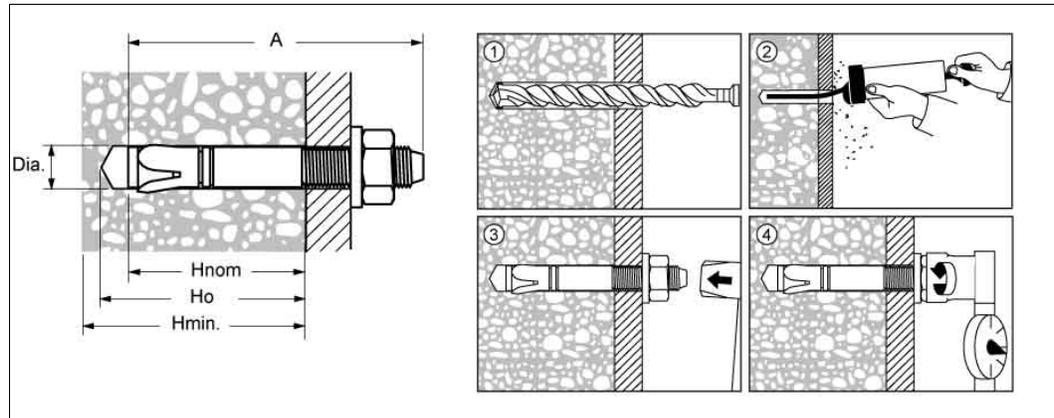
Special tools

	Description/Use	
	Forklift truck To lift the XPress, the stands and the control panel.	3500 lbs 1750 kg
	Safety chains To lift the XPress, the stands and the control panel.	
	Wrench set Tighten bolts	
	Ratchet tool set Tighten bolts	
	Torque wrench Tighten bolts at specific torque	
	Hammer-drill	
	Concrete drill bit	Ø 3/4" (19mm)

To be provided by the customer

- PVC pipes
- Pneumatic hose and adaptors

5.6 Anchor bolt installation procedure



Bolt diameter	3/8" [10mm]	1/2" [13mm]			3/4" [19mm]
Bolt length (A)	3" [76mm]	2 3/4" [70mm]	3 3/4" [95mm]	3 3/4" [95mm]	5 1/2" [140mm]
Material	Steel	Steel	Steel	SS 304	Steel
Minimum hole depth (Ho)	2 5/8" [67mm]	2" [51mm]	2 5/8" [67mm]	2 1/2" [63.5mm]	4 1/2" [114mm]
Hnom	2 3/8" [60mm]	1 3/4" [45mm]	2 1/4" [57mm]	2 1/4" [57mm]	4 1/4" [108mm]
Hmin	4" [101mm]	4" [101mm]	4" [101mm]	4" [101mm]	6" [152mm]
Concrete drill bit diameter (Dia.)	3/8" [10mm]	1/2" [13mm]	1/2" [13mm]	1/2" [13mm]	3/4" [19mm]
Torque	20ft-lb (25Nm)	40ft-lb (54Nm)	40ft-lb (54Nm)	40ft-lb (54Nm)	110ft-lb (150Nm)

Caution!

Risk of injury!
► Wear personal protective gear.

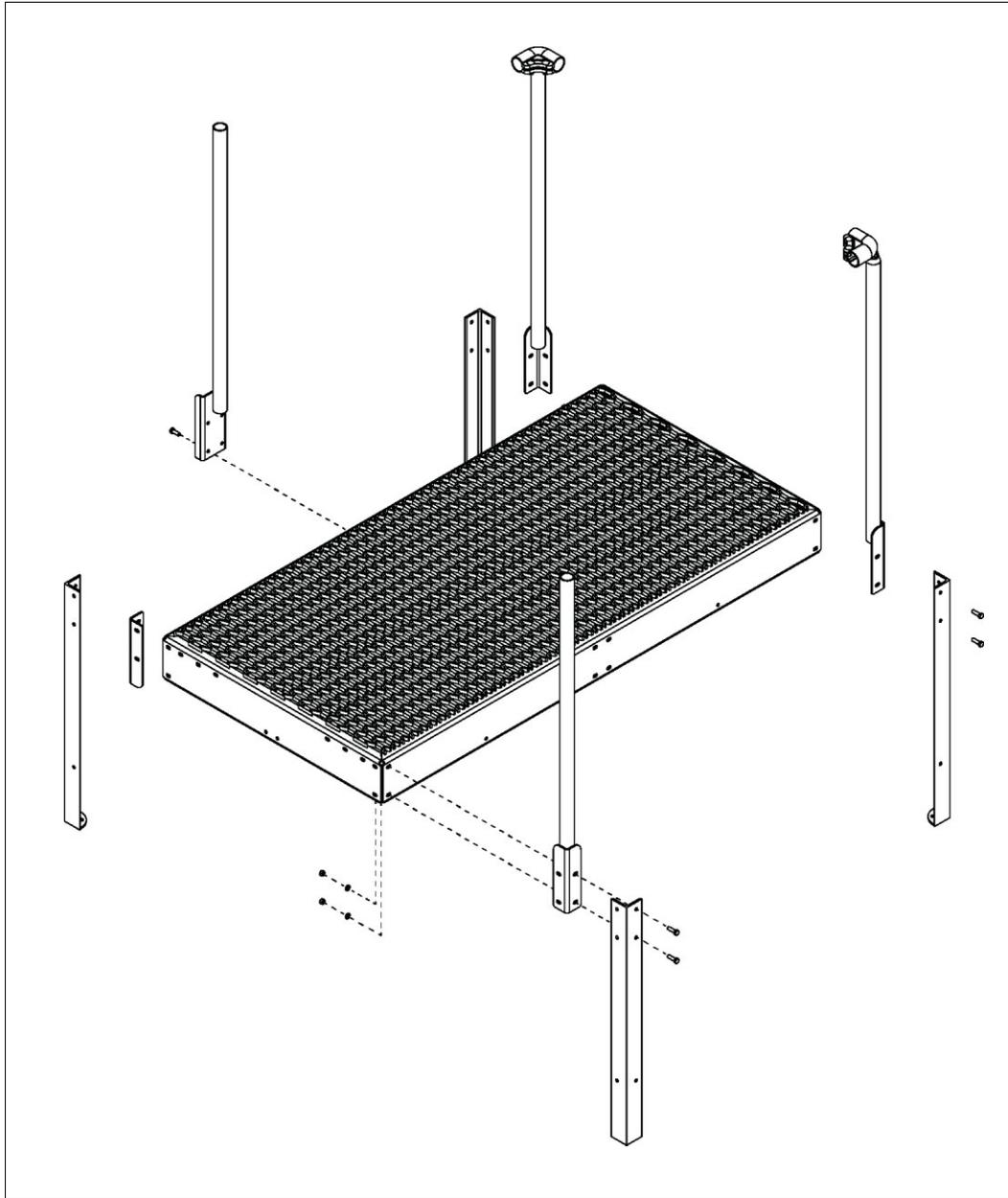
Note

Wait at least 7 days before drilling into concrete so that the slab has hardened sufficiently.

- Position the component on the concrete surface.
- Drill through the holes of the component (1).
- Remove the concrete particles from inside the holes (2).
- Insert the anchor bolts. Keep 1 1/2" of length exceeding from the concrete surface.
- Place a washer (3) and a nut on each anchor bolt. Screw the anchor bolt until it is even with the top of the bolt (3).
- Tap the anchor bolt using a hammer until it firmly secures the component.
- Tighten the assembly to appropriate torque, refer to the following table or apply the specified torque indicated in the step.

5.7 Side deck assembly

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.25"	20
Washer	3/8"	20
Nylon lock nut	3/8" - 16NC	20

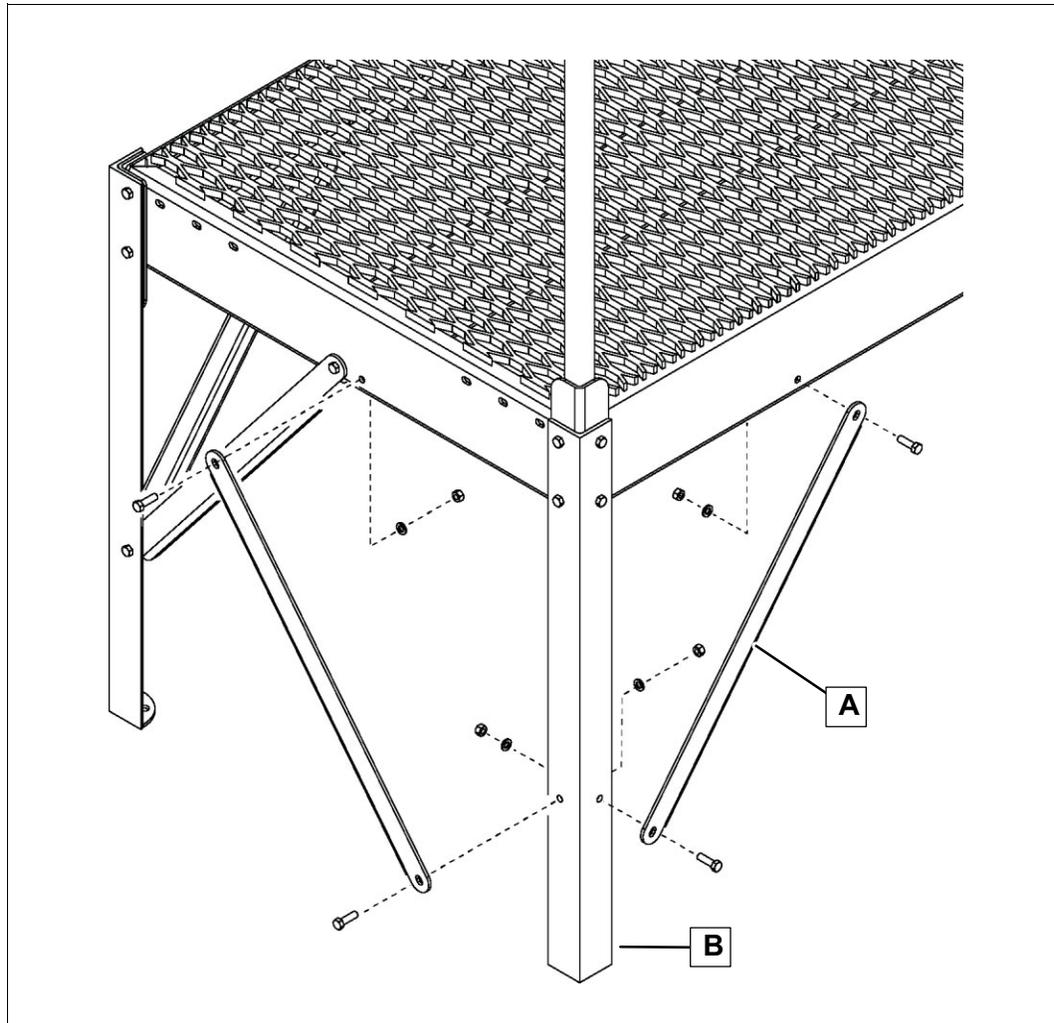


Note The following assembly steps are applicable to both low and high side deck. The low side deck is illustrated below.



- Using a lift truck, lift the deck.
- Assemble the deck as shown above. Do not tighten.

Hardware required	Description	Quantity
Bracket		8
Bolt	3/8" - 16NC x 1.25"	16
Washer	3/8"	16
Nylon lock nut	3/8" - 16NC	16

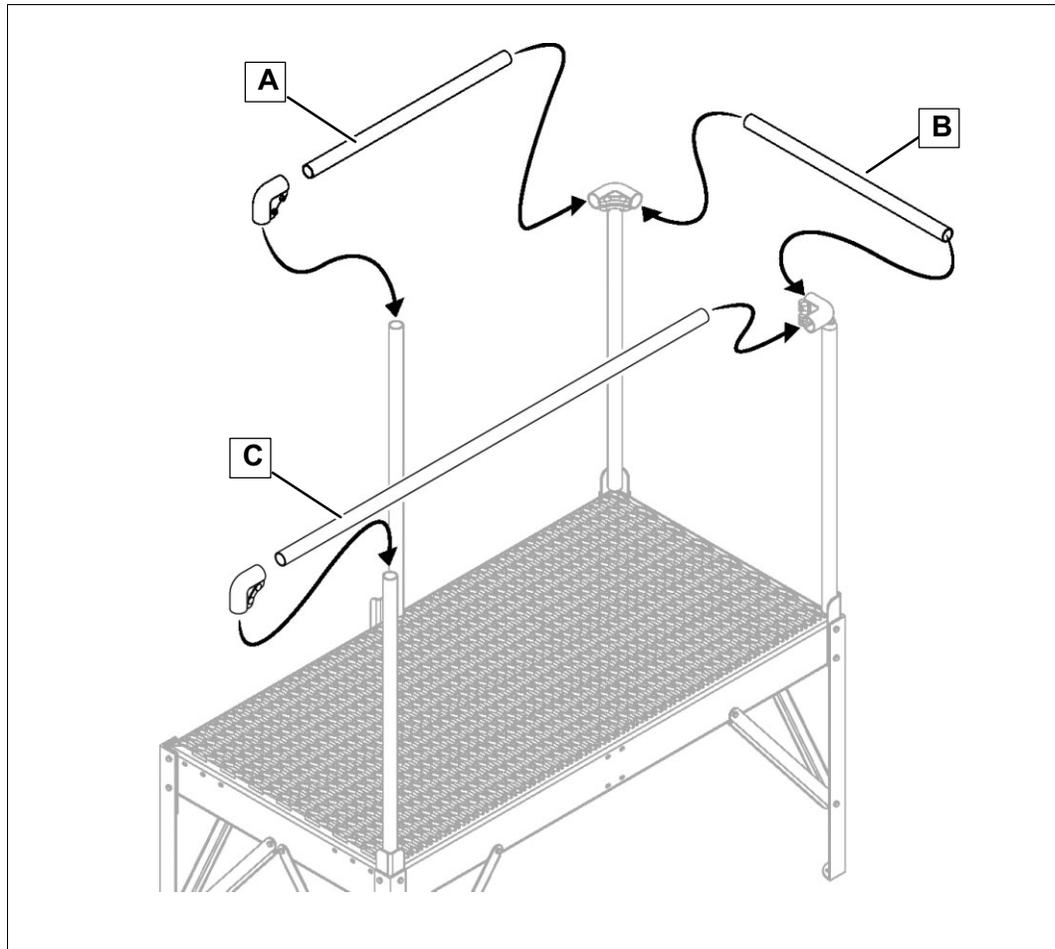


- Assemble two brackets (A) per post (B). Torque.

Assembly and installation

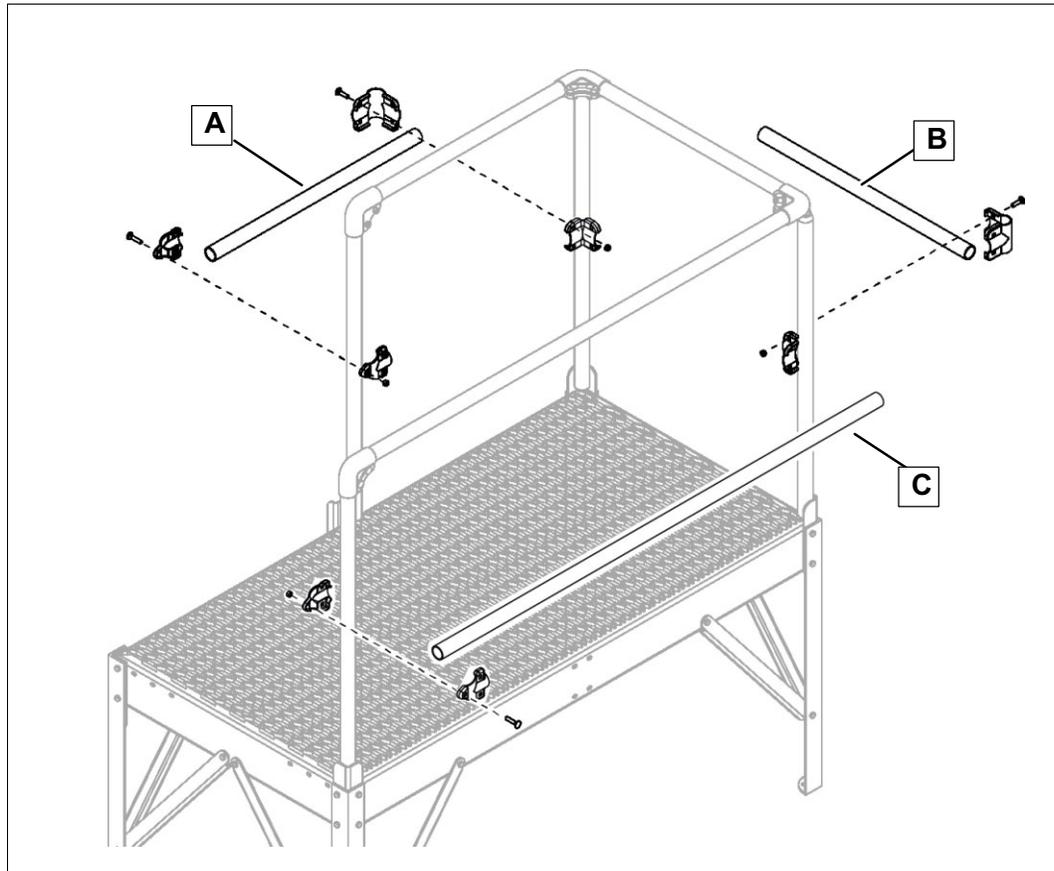
Side deck assembly

Hardware required	Description	Quantity
Pipe	1.660" x 31.75"	2
Pipe	1.660" x 67.75"	1
90° coupling		2



- Assemble the handrail (A, B, C) as illustrated. Do not tighten.

Hardware required	Description	Quantity
Pipe	1.660" x 31.75"	2
Pipe	1.660" x 67.75"	1
T- Coupling		2
Corner coupling		2
Carriage bolt	3/8" - 16NC x 1.5"	14
Nylon lock nut	3/8" - 16NC	14

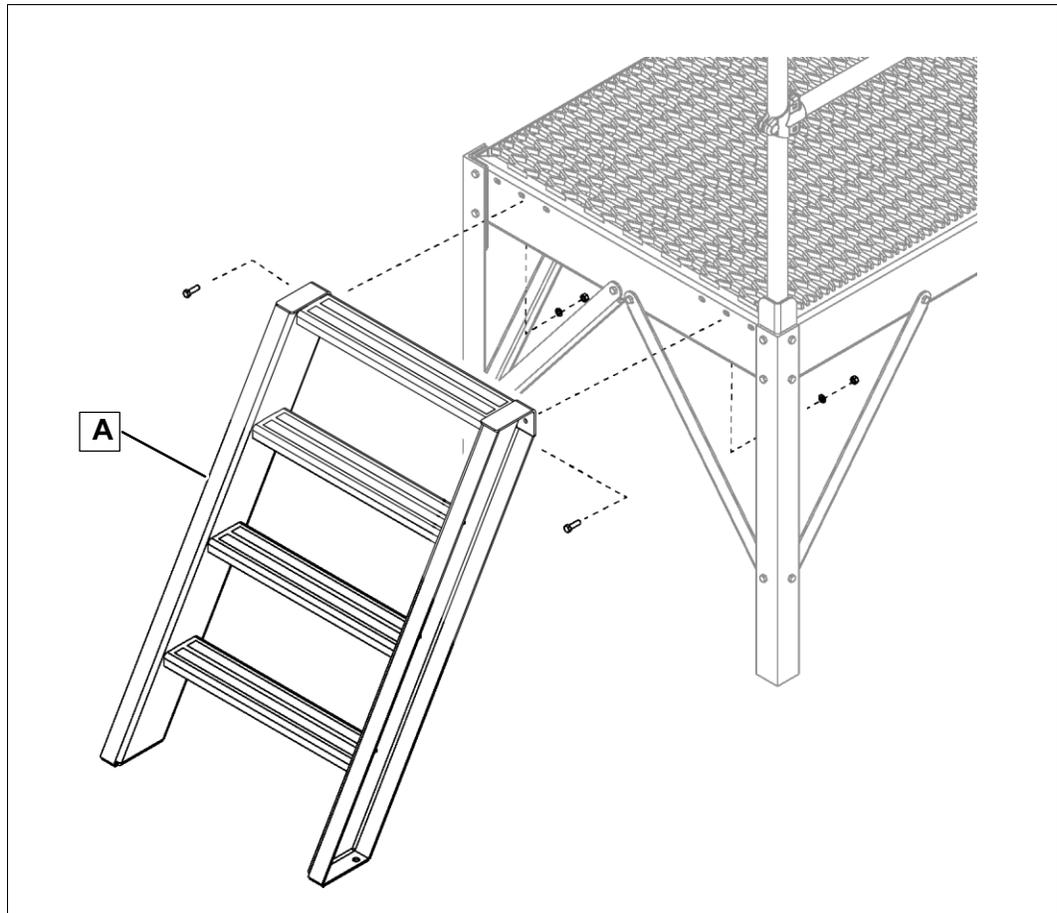


- Assemble the mid rail (A, B, C) as illustrated. Position it midway between the deck and the handrail. Do not tighten.

Assembly and installation

Side deck assembly

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.25"	2
Washer	3/8"	2
Nylon lock nut	3/8" - 16NC	2



- Assemble the ladder (A) as illustrated. Tighten.
- Once assembled, torque each bolt.
- Position the complete deck as per the installation plan.

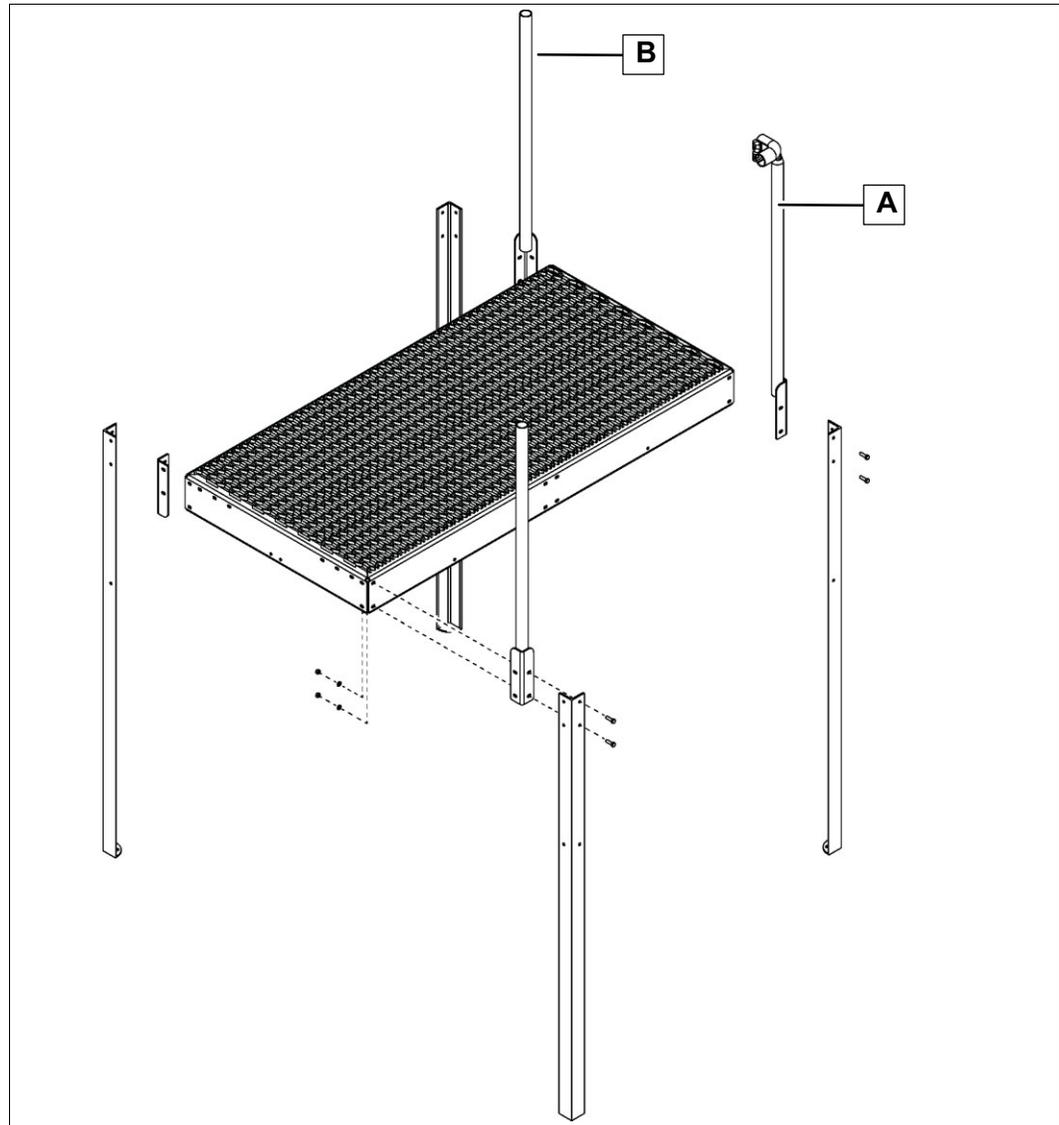


Note

Anchor the deck only when the XPress system is completely installed.

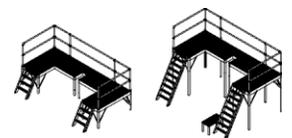
5.8 3-side deck assembly

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.25"	32
Washer	3/8"	32
Nylon lock nut	3/8" - 16NC	32



Note

The following assembly steps are applicable to both low and high side deck.

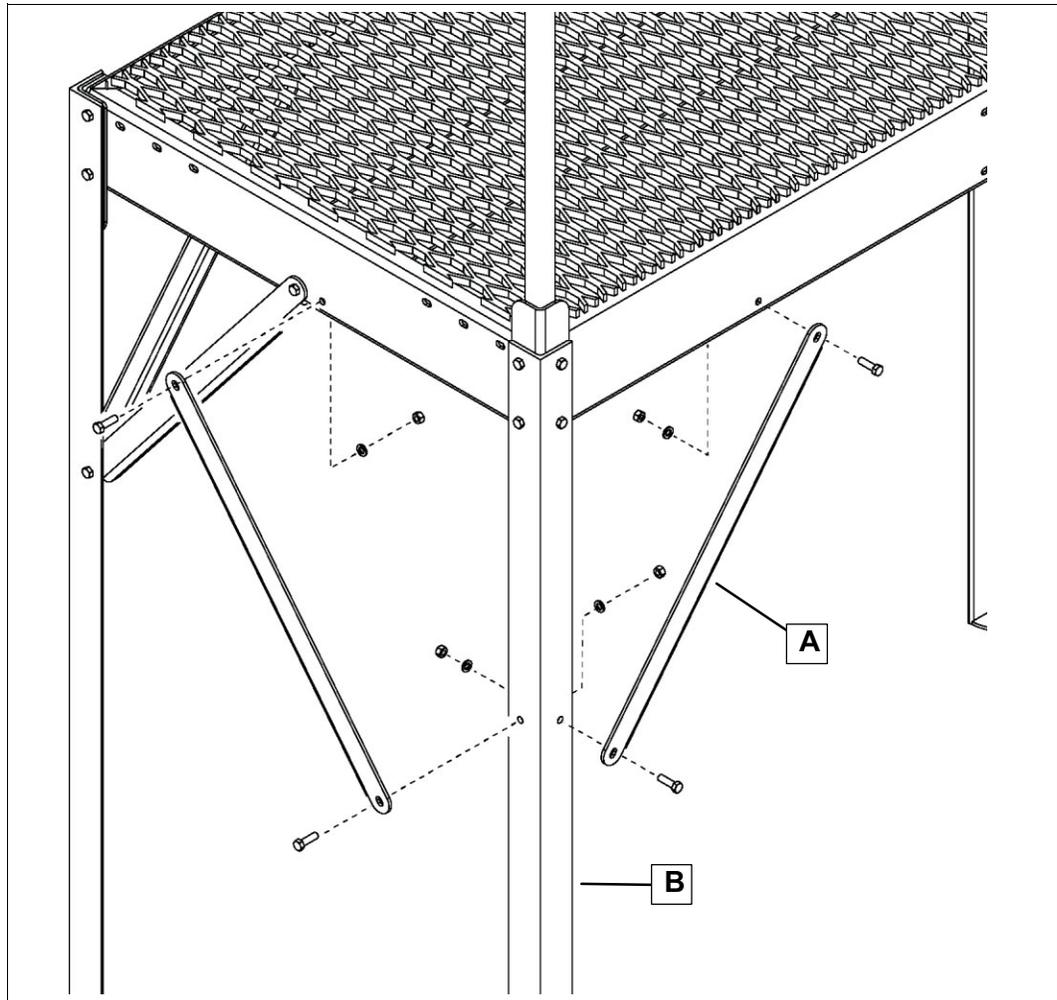


- Using a lift truck, lift the deck.
- Assemble the right side of the deck as shown above. Do not tighten.
- Repeat the steps for the left side. Make sure part A and B are inverted. Do not tighten.

Assembly and installation

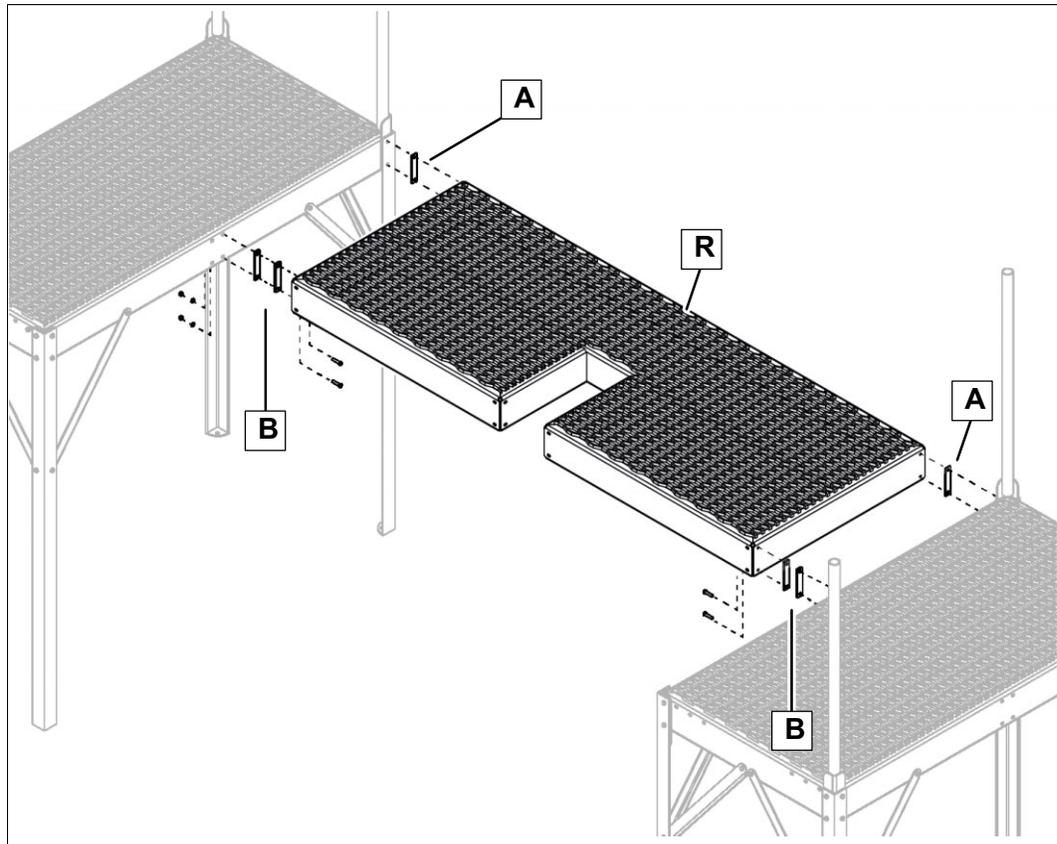
3-side deck assembly

Hardware required	Description	Quantity
Bracket		16
Bolt	3/8" - 16NC x 1.25"	32
Washer	3/8"	32
Nylon lock nut	3/8" - 16NC	32



- Assemble two brackets (A) per post (B). Torque.

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.5"	8
Washer	3/8"	8
Nylon lock nut	3/8" - 16NC	8

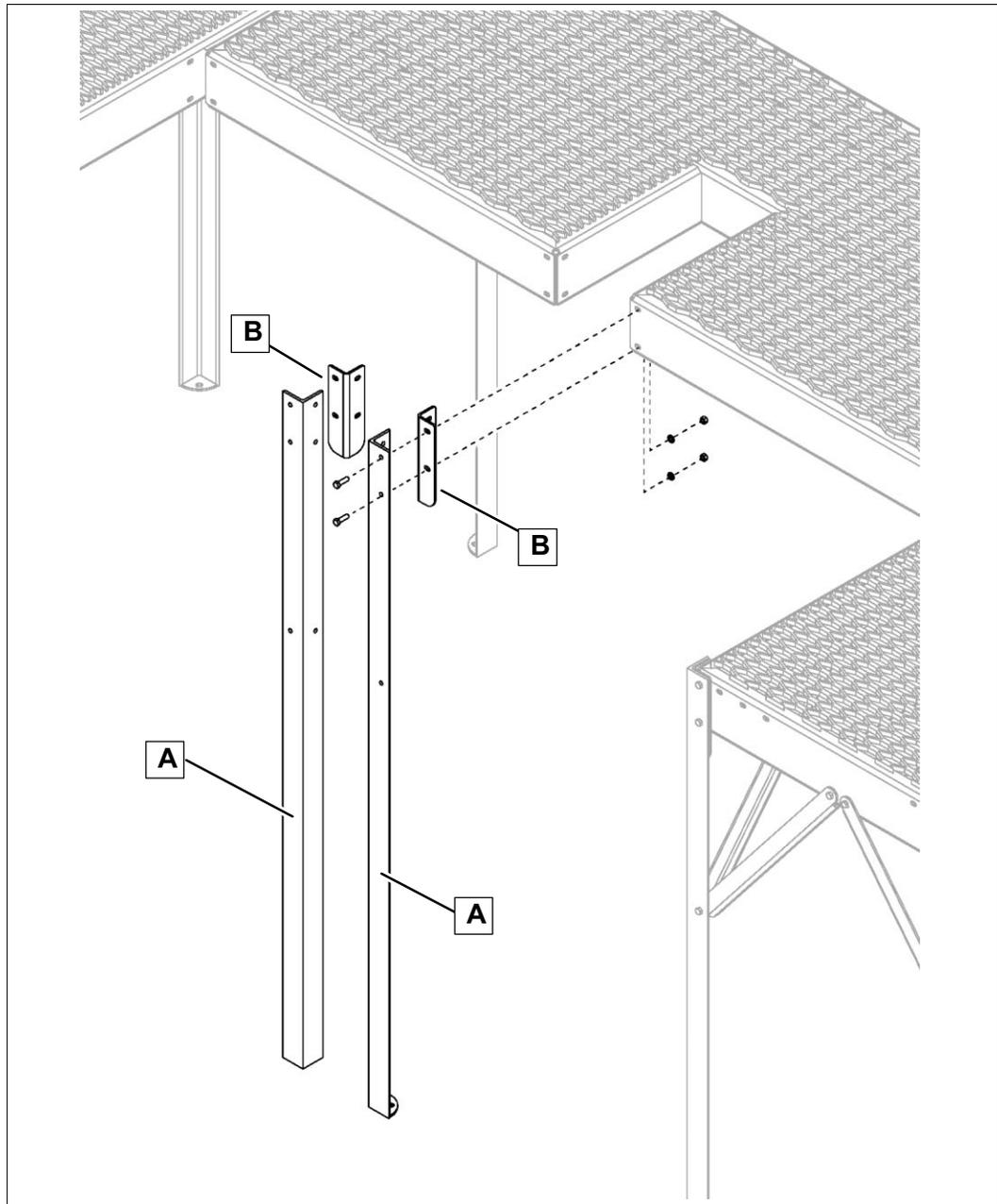


- Using a lift truck, position the rear side (R) of the deck between the two decks.
- Assemble the rear deck as shown.
- Add a shim (A) at the back and two shims (B) on the front. Torque.

Assembly and installation

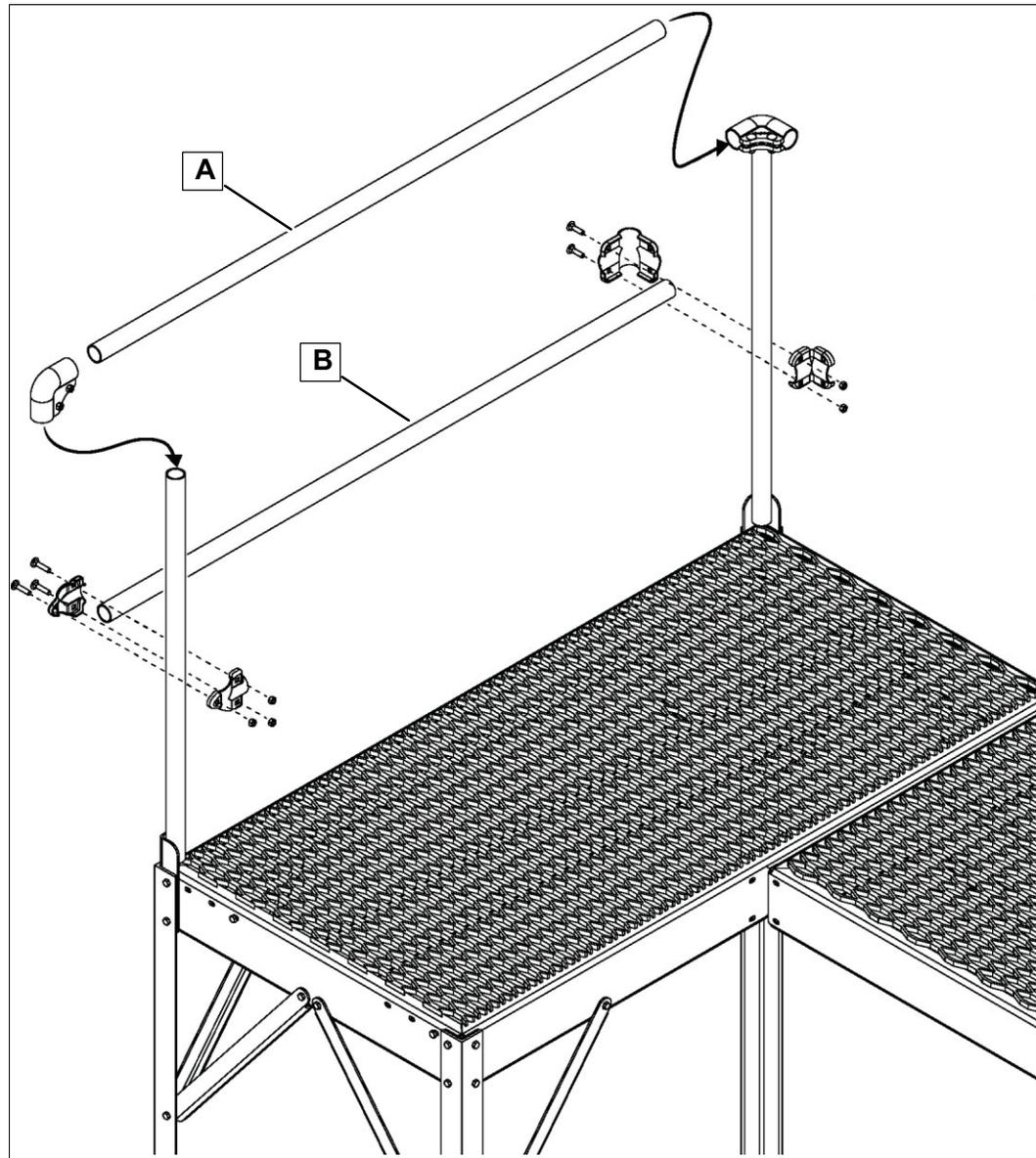
3-side deck assembly

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.25"	4
Washer	3/8"	4
Nylon lock nut	3/8" - 16NC	4



- Assemble the center posts (A) and shims (B) as illustrated. Torque.

Hardware required	Description	Quantity
Pipe	1.660" x 67.75"	4
90° coupling		2
T- Coupling		2
Corner coupling		2
Carriage bolt	3/8" - 16NC x 1.5"	7
Nylon lock nut	3/8" - 16NC	7

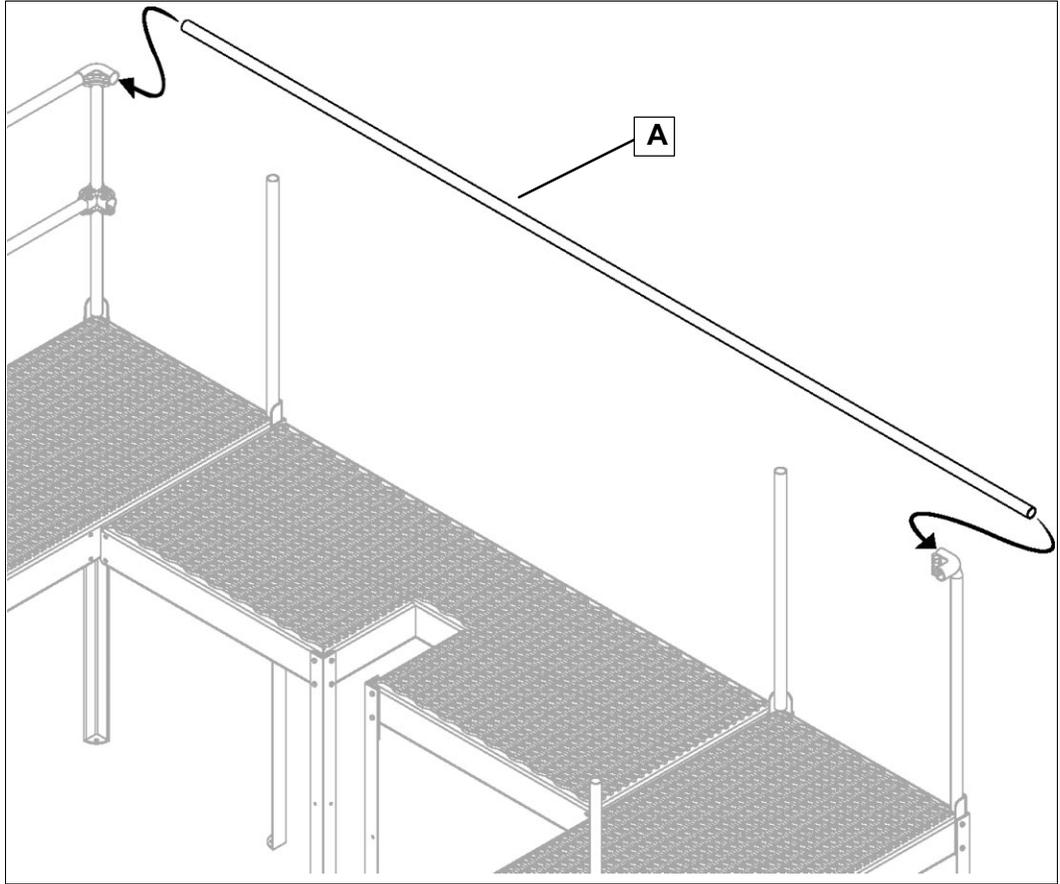


- Assemble the left handrail (A) as illustrated. Do not tighten.
- Assemble the mid rail (B) as illustrated. Position it midway between the deck and the handrail (A). Do not tighten.
- Repeat for the right side of the deck.

Assembly and installation

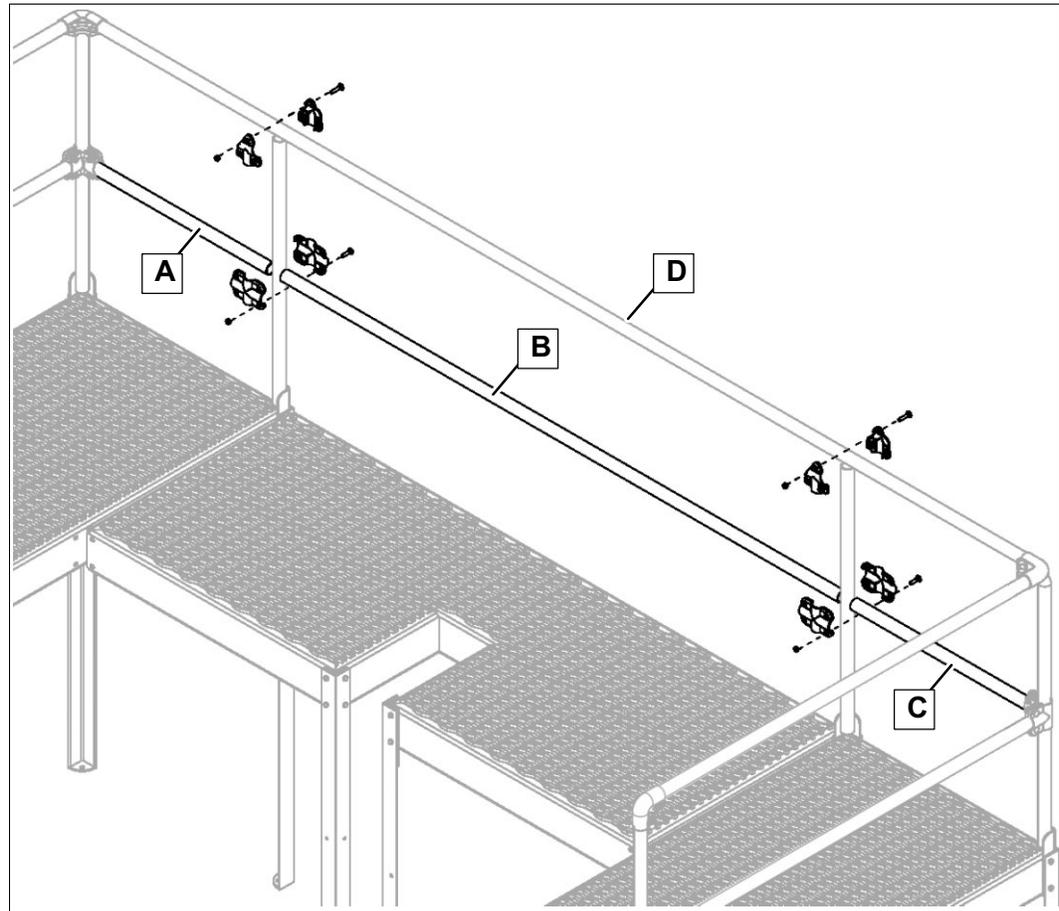
3-side deck assembly

Hardware required	Description	Quantity
Pipe	1.660" x 164.75"	1



- Assemble the rear handrail (A) as illustrated. Do not tighten.

Hardware required	Description	Quantity
Pipe	1.660" x 31.75"	2
Pipe	1.660" x 97"	1
T- Coupling		2
Cross coupling		2
Carriage bolt	3/8" - 16NC x 1.5"	14
Nylon lock nut	3/8" - 16NC	14

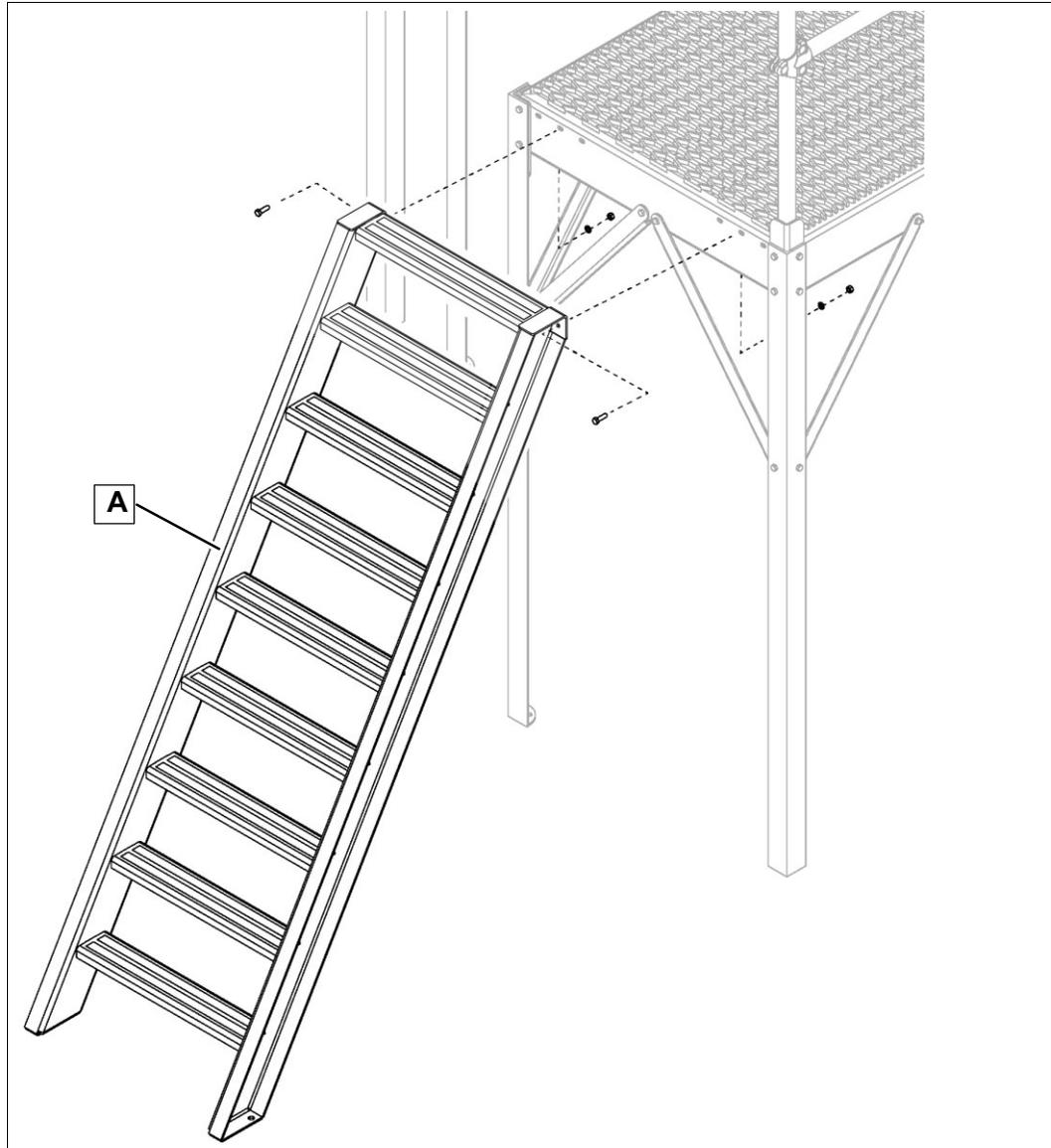


- Assemble the mid rail (A,B,C) as illustrated. Position it midway between the deck and the handrail (D). Do not tighten.
- Repeat for the right side of the deck.

Assembly and installation

3-side deck assembly

Hardware required	Description	Quantity
Bolt	3/8" - 16NC x 1.25"	2
Washer	3/8"	2
Nylon lock nut	3/8" - 16NC	2



- Assemble the ladder (A) as illustrated. Tighten.
- Repeat for the left side of the deck.
- Once assembled, torque each bolt.
- Position the complete deck as per the installation plan.

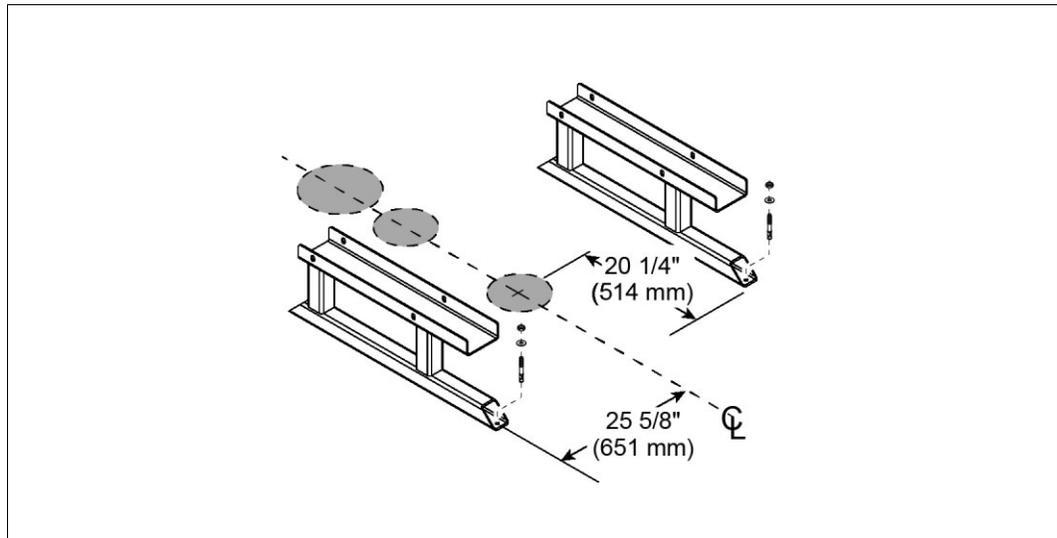


Note

Anchor the deck only when the XPress system is completely installed.

5.9 XPress 4FT assembly

Hardware required	Description	Quantity
Anchor bolts (Stainless steel)	1/2" x 3.75" (13mm x 95mm)	4



i The grey circles show the piping position under the XPress system.
For more information on this subject, please refer to:

Section: Technical data

- Position the stands according to the layout.
- Drill through the holes of the XPress stands.
- Remove concrete particles from the drilled holes.
- Anchor the system with stainless steel anchor bolts.

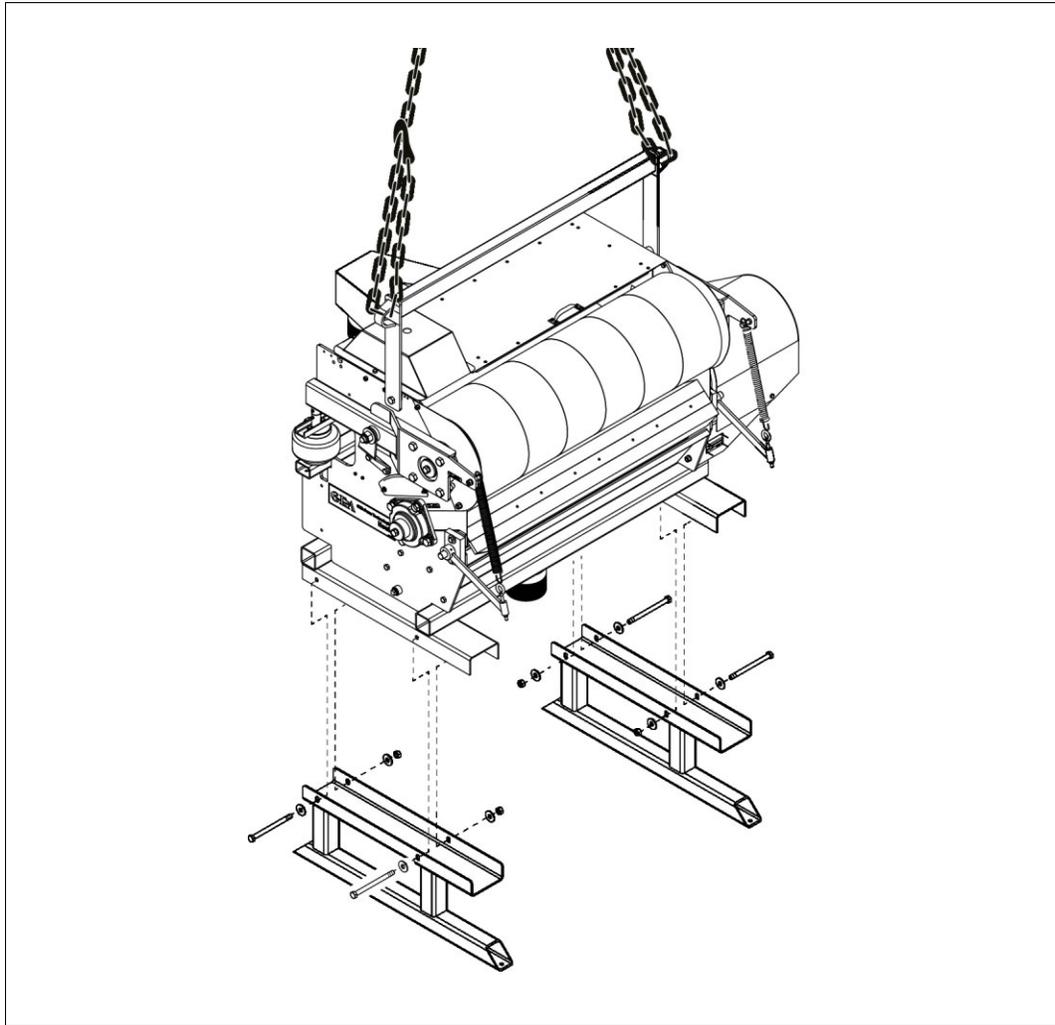


Follow the anchor bolt installation procedure included in this section.

Assembly and installation

XPress 4FT assembly

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

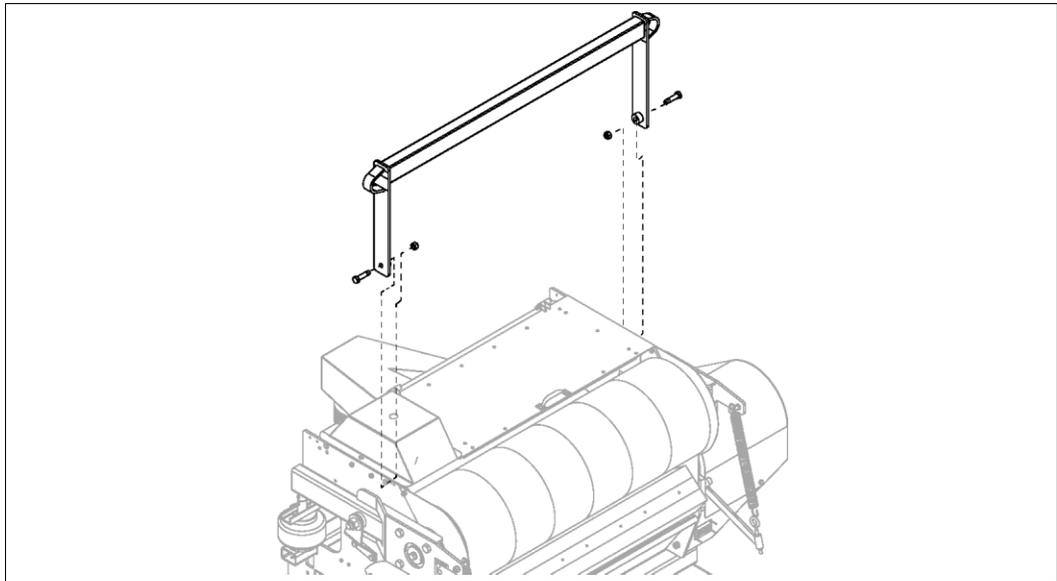


Warning!

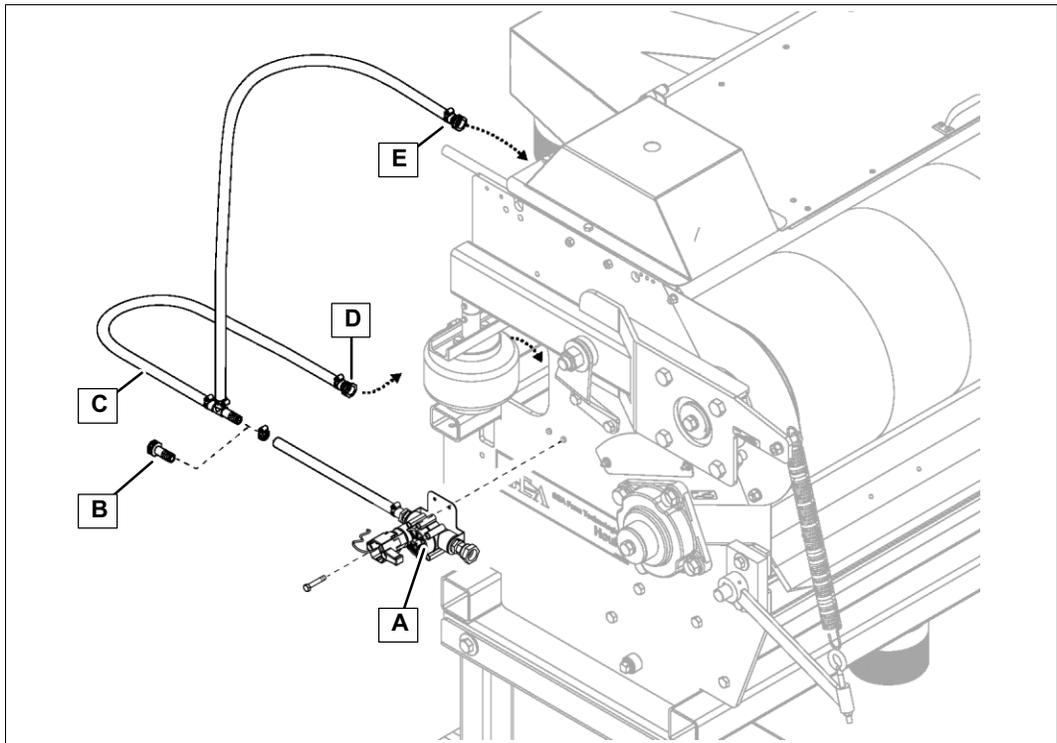
Risk of injury or death!

- ▶ Use a lifting device with a minimum lifting capacity of 2500 lb [1250 kg].

- Attach safety chains to the lifting support.
- Lift the XPress 4FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



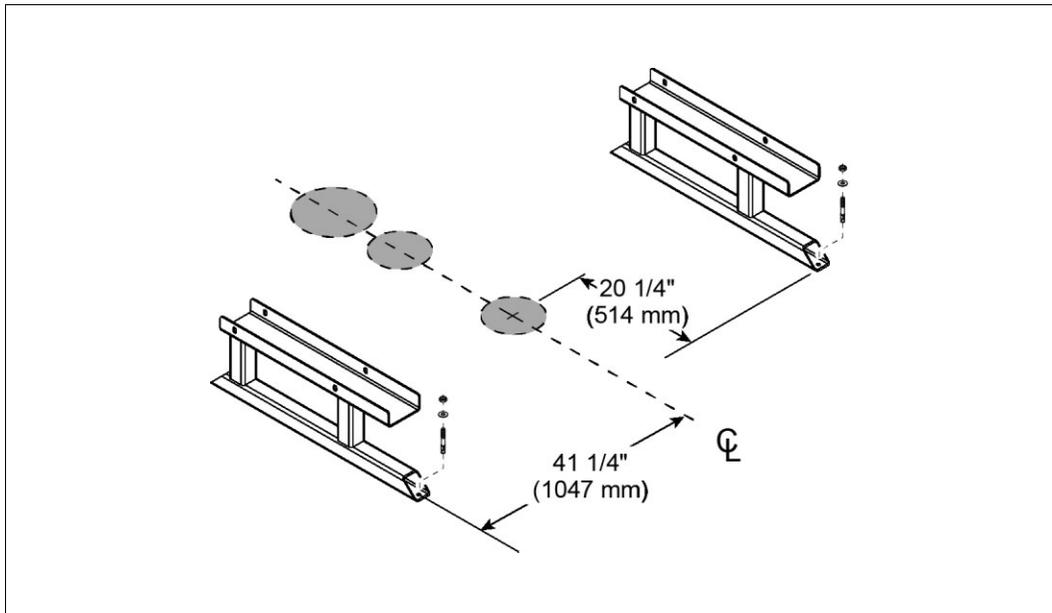
- Remove the lifting support from the XPress. Store.



- Bolt the valve assembly (A) to the frame using the hardware provided.
- Remove the hose fitting (B) from the assembly.
- Assemble the hose assembly (C) to valve assembly.
- Connect the hose (D) to the roller spray bar.
- Connect the hose (E) to the tank spray bar.
- Connect all valves to tap water line. To prevent nozzle plugging, make sure to flush the tap line before connection.

5.10 XPress 6FT system assembly

Hardware required	Description	Quantity
Anchor bolts (Stainless steel)	1/2" x 3.75" (13mm x 95mm)	4



i The grey circles show the piping position under the XPress system.
For more information on this subject, please refer to:

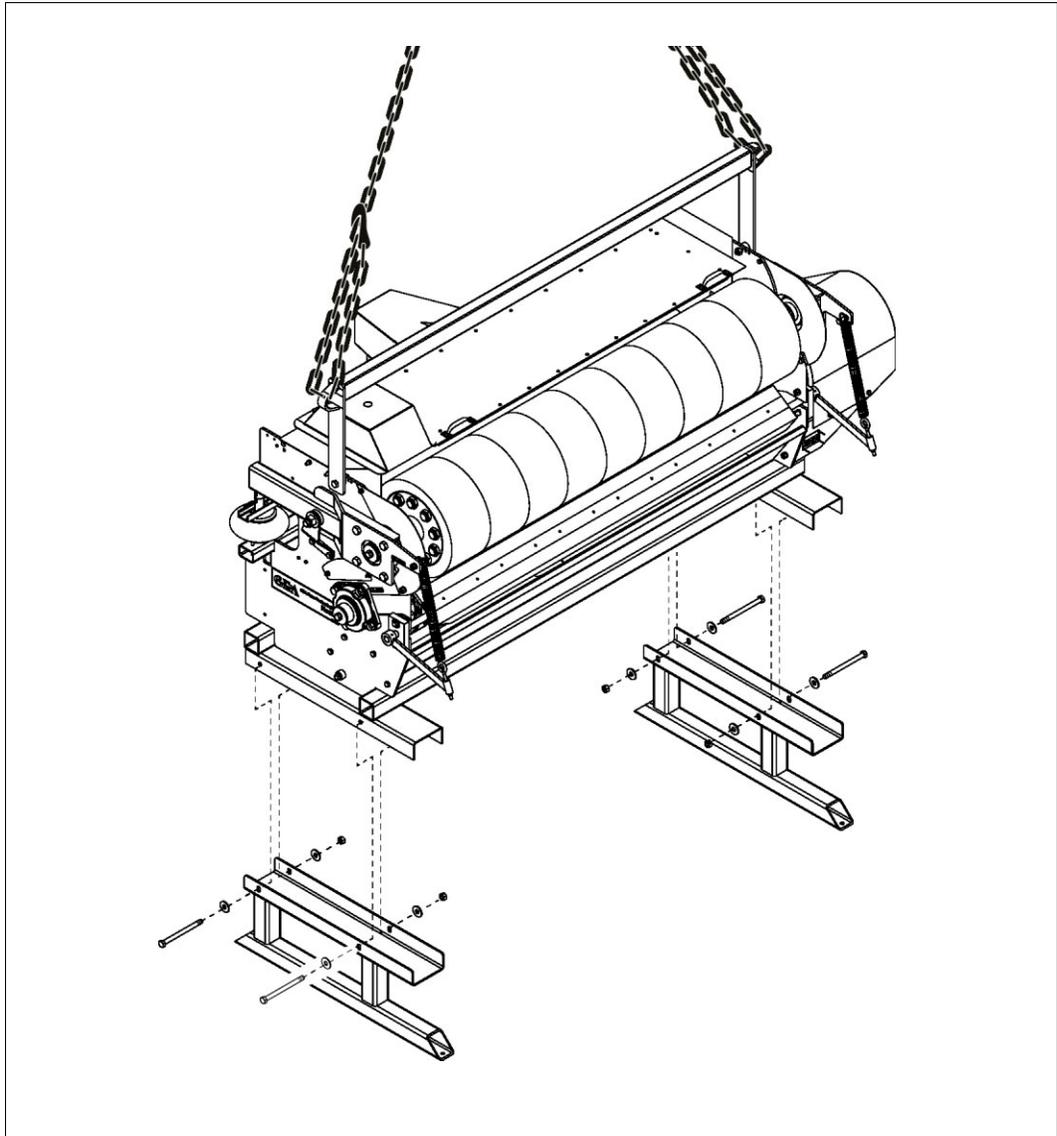
Section: Technical data

- Position the stands according to the layout.
- Drill through the holes of the XPress stands.
- Remove concrete particles from the drilled holes.
- Anchor the system with stainless steel anchor bolts.



Follow the anchor bolt installation procedure included in this section.

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

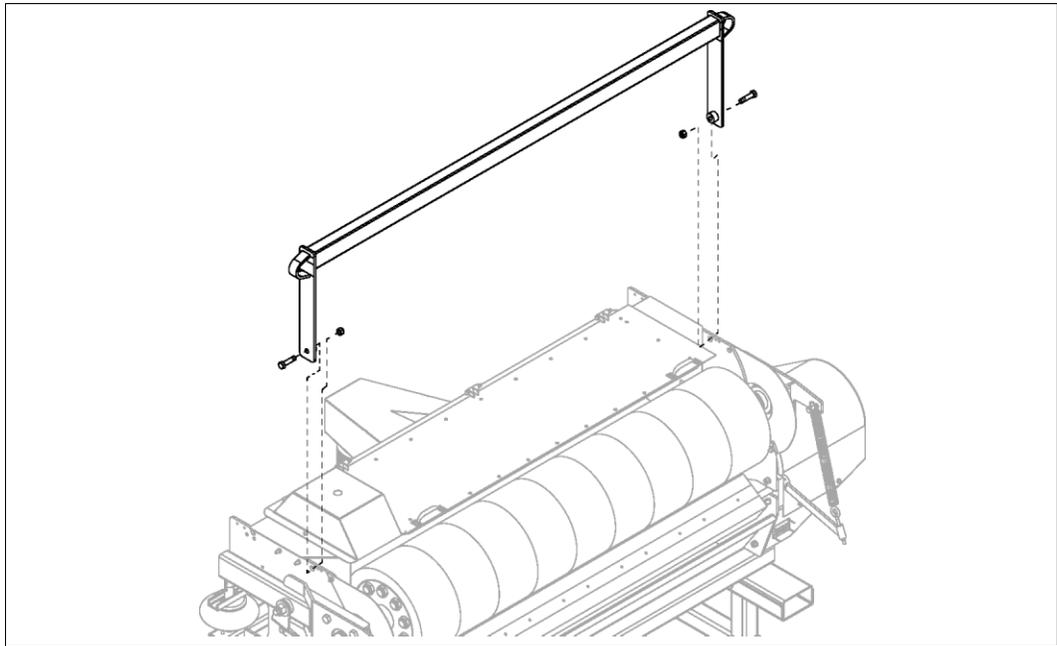


⚠ Warning!

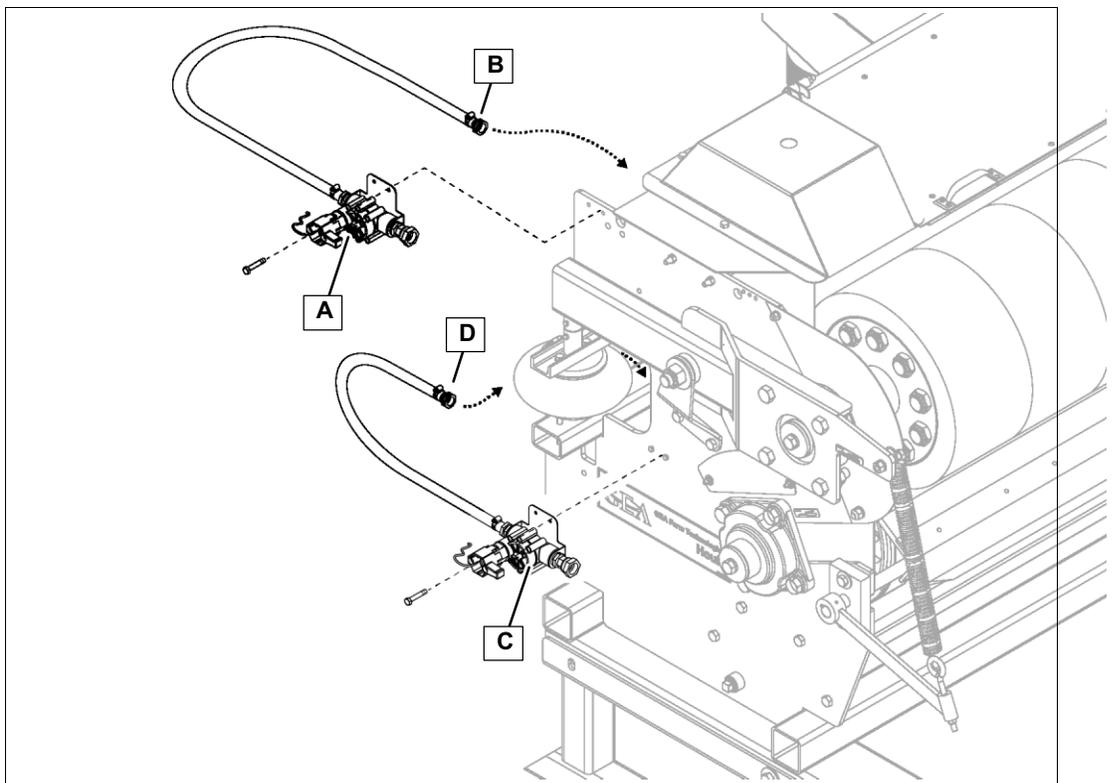
Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 3500 lb [1750 kg].

- Lift the XPress 6FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



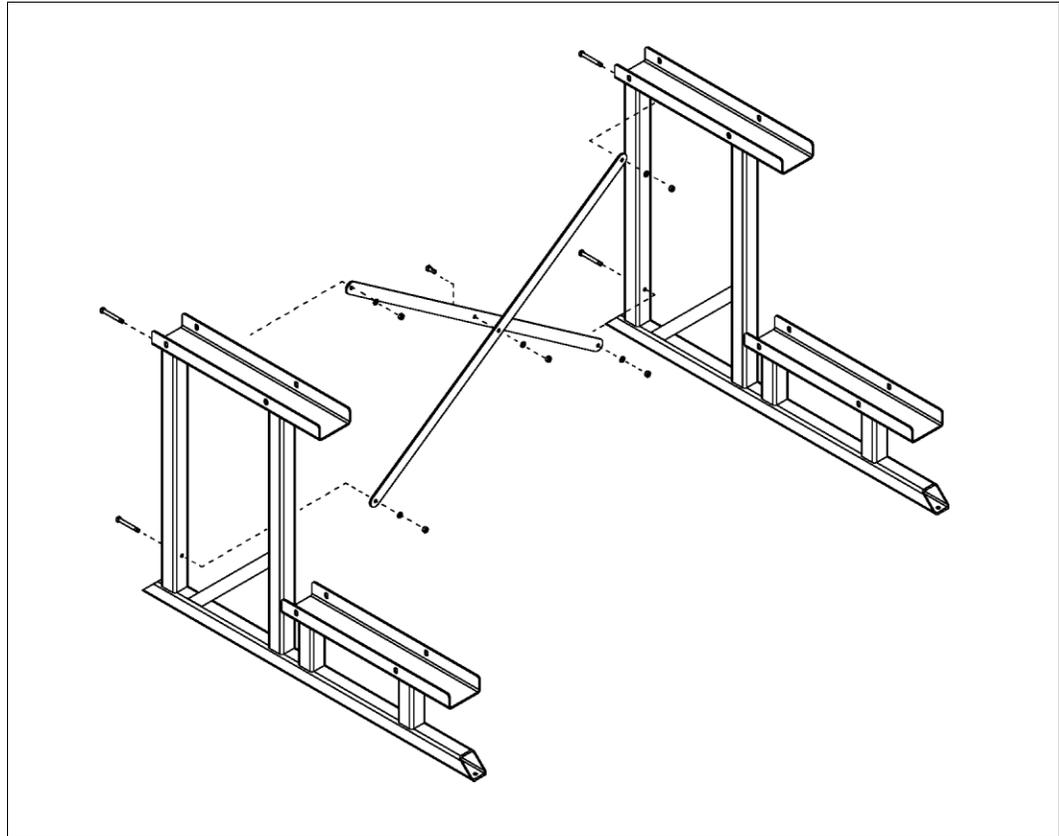
- Remove the lifting support from the XPress. Store.



- Bolt the valve assembly (A) to the frame using the hardware provided.
- Connect the hose (B) to the tank spray bar.
- Bolt the valve assembly (C) to the frame using the hardware provided.
- Connect the hose (D) to the roller spray bar.
- Connect all valves to tap water line. To prevent nozzle plugging, make sure to flush the tap line before connection.

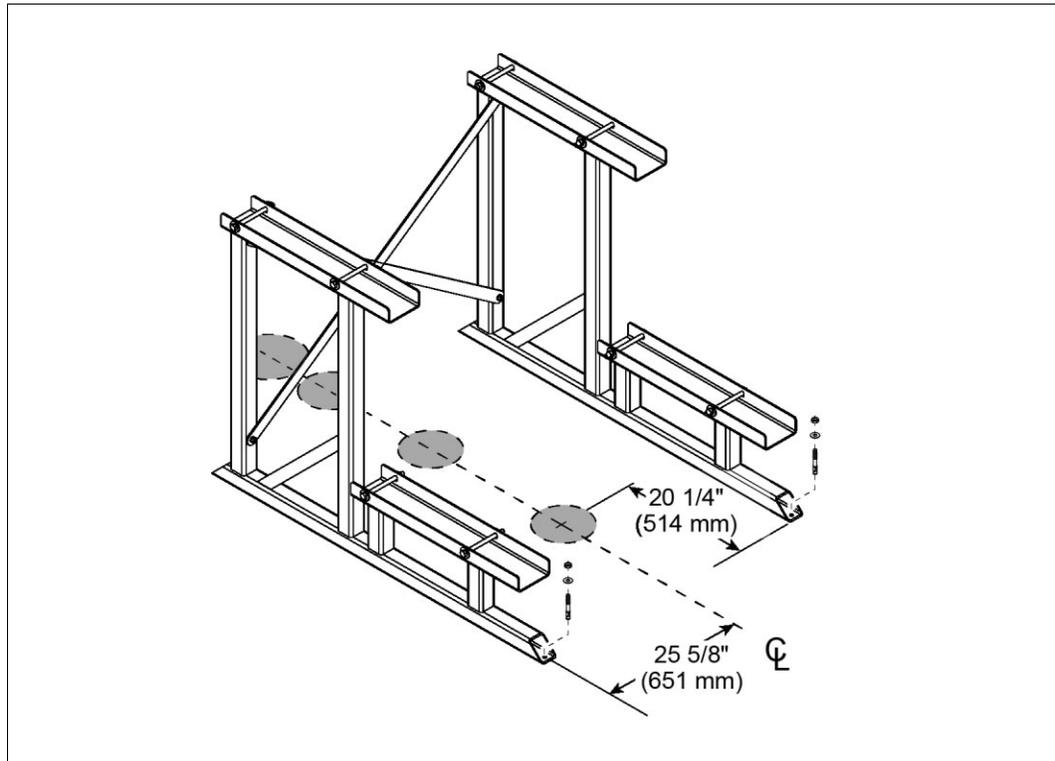
5.11 XPress 4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	1/2" - 13NC x 4"	4
Bolt	1/2" - 13NC x 1.25"	1
Lock washer	1/2"	5
Nut	1/2" - 13NC	5



- Assemble the stands using the hardware provided.
- Torque all bolts.

Hardware required	Description	Quantity
Anchor bolts (Stainless steel)	1/2" x 3.75" (13mm x 95mm)	4



i The grey circles show the piping position under the XPress system.
For more information on this subject, please refer to:

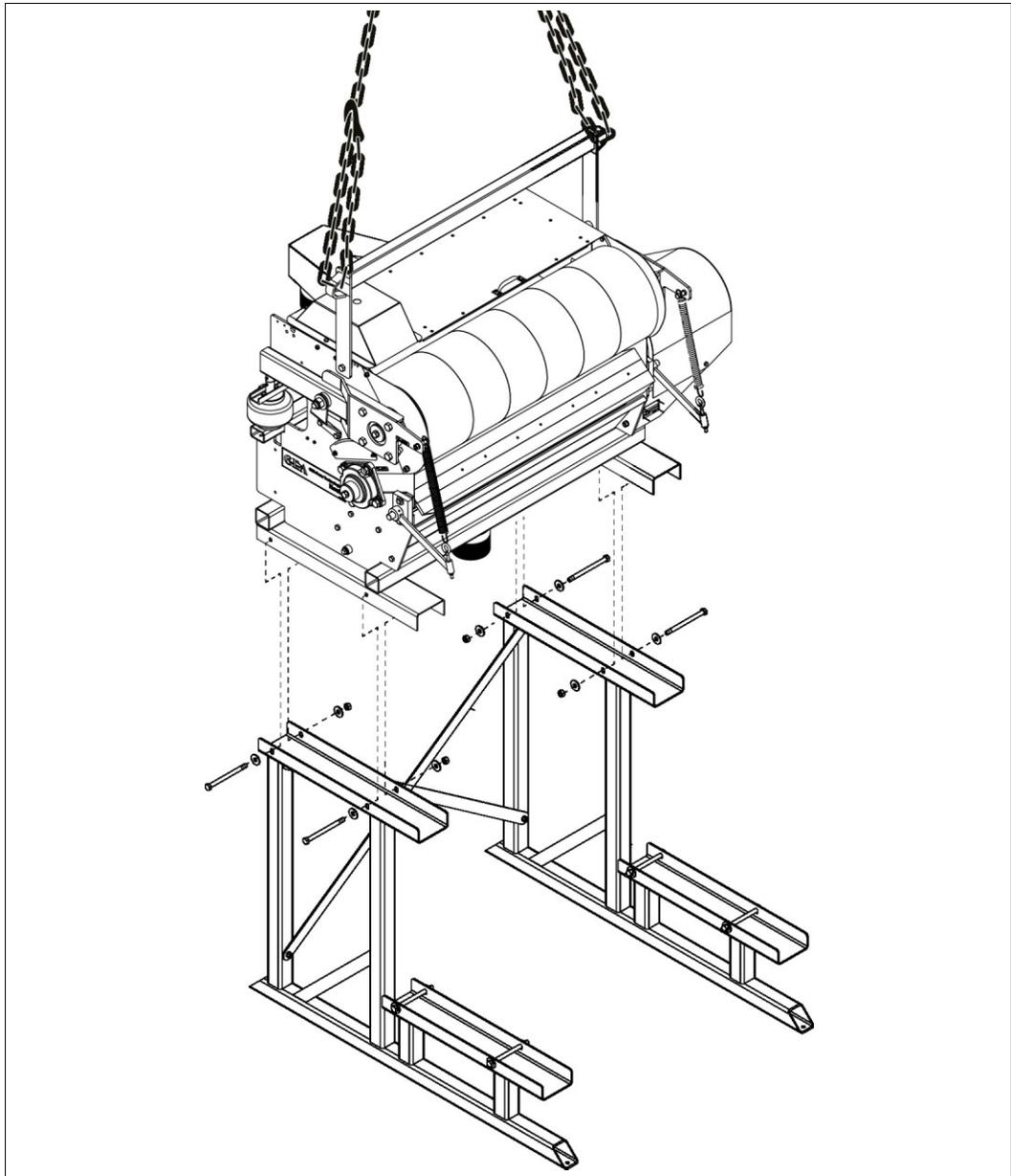
Section: Technical data

- Position the stands according to the layout.
- Drill through the holes of the XPress stands.
- Remove concrete particles from the drilled holes.
- Anchor the system with stainless steel anchor bolts.



Follow the anchor bolt installation procedure included in this section.

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

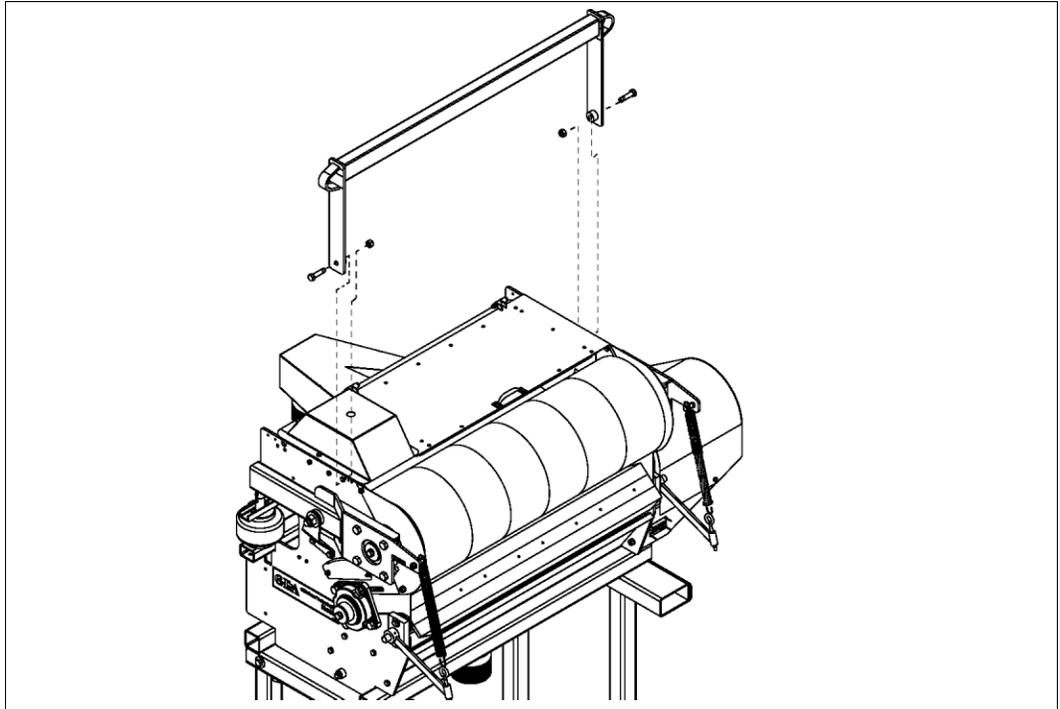


Warning!

Risk of injury or death!

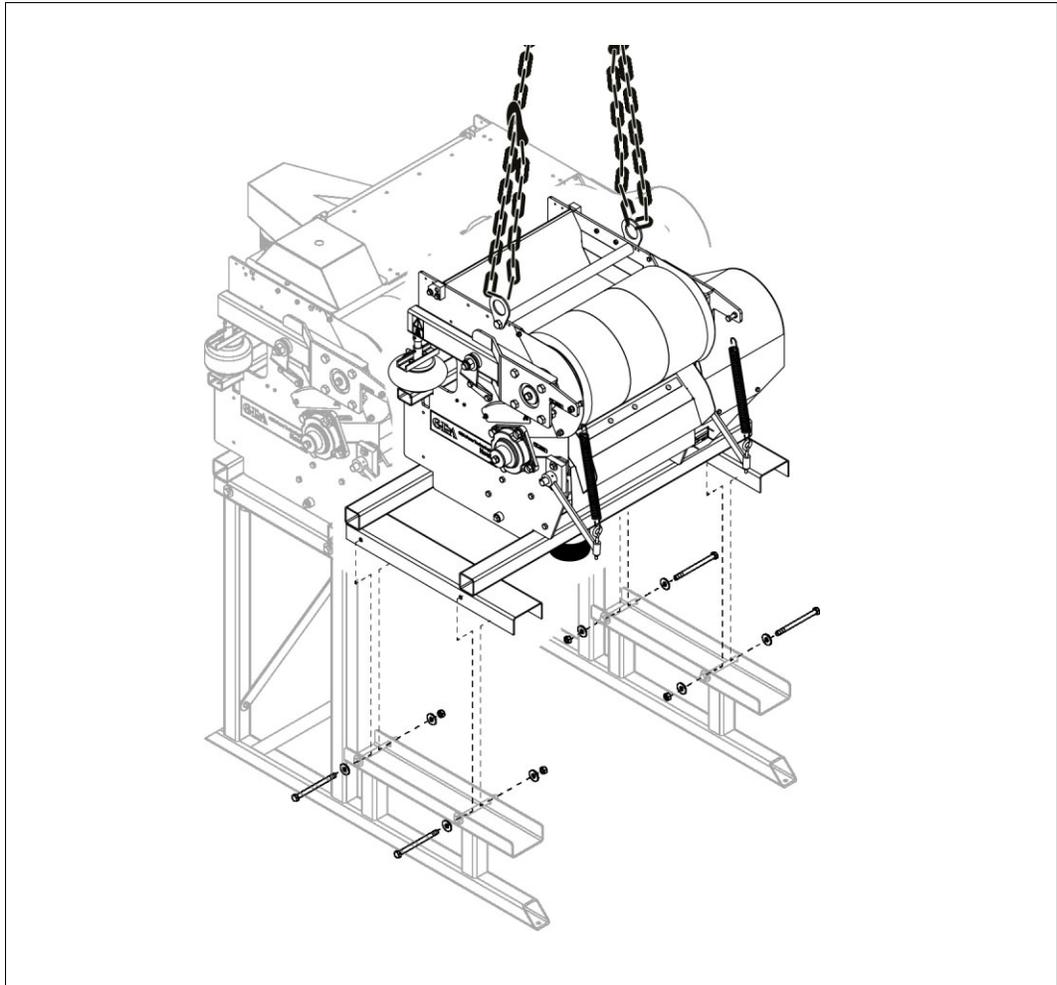
► Use a lifting device with a minimum lifting capacity of 2500 lb [1250 kg].

- Lift the XPress 4FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



- Remove the lifting support from the XPress. Store.

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

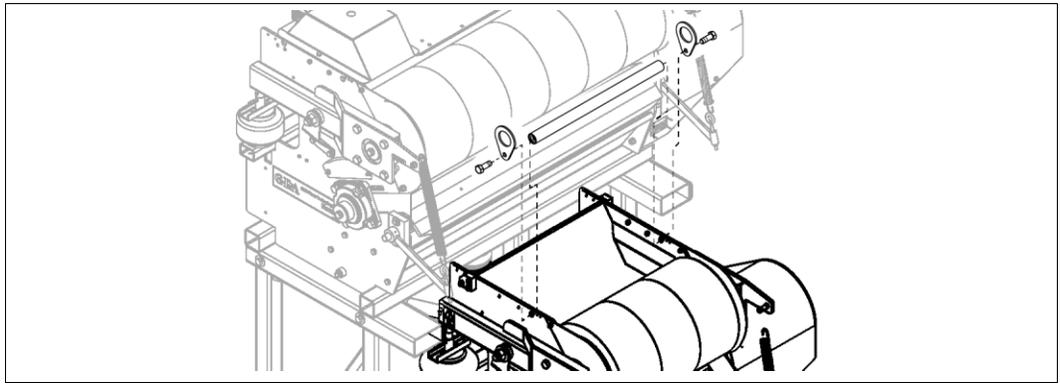


Warning!

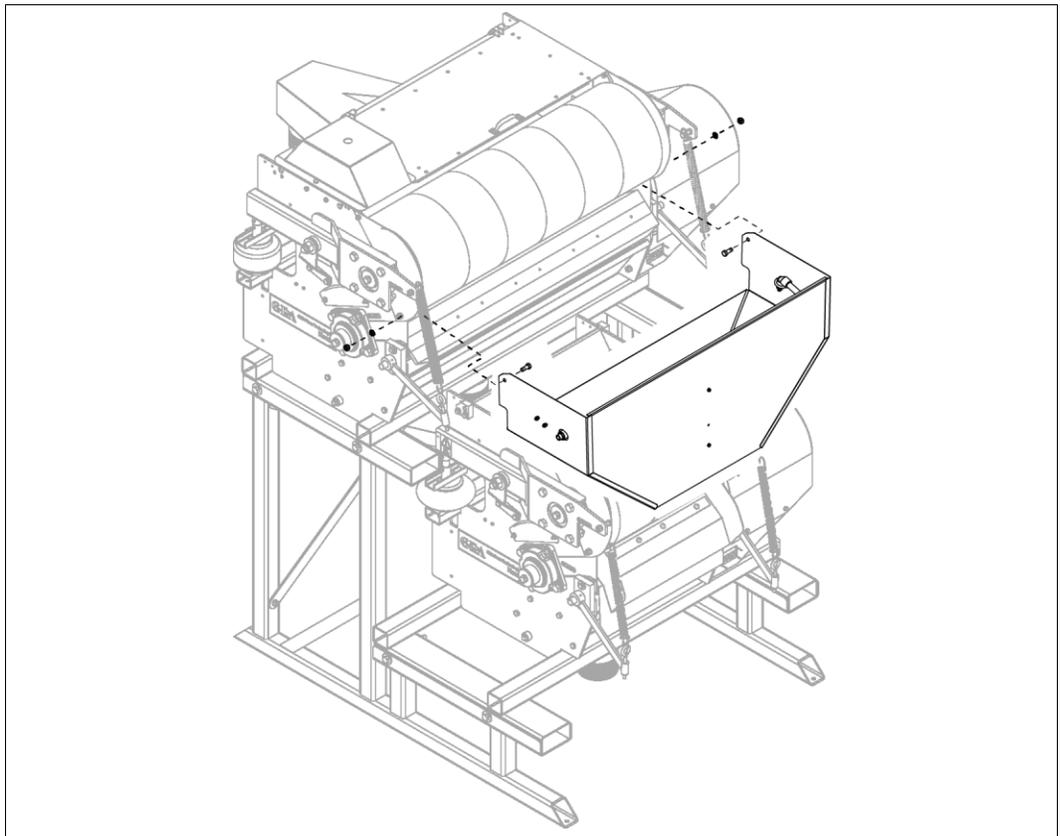
Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 2000 lb [1000 kg].

- Lift the XPress 2FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



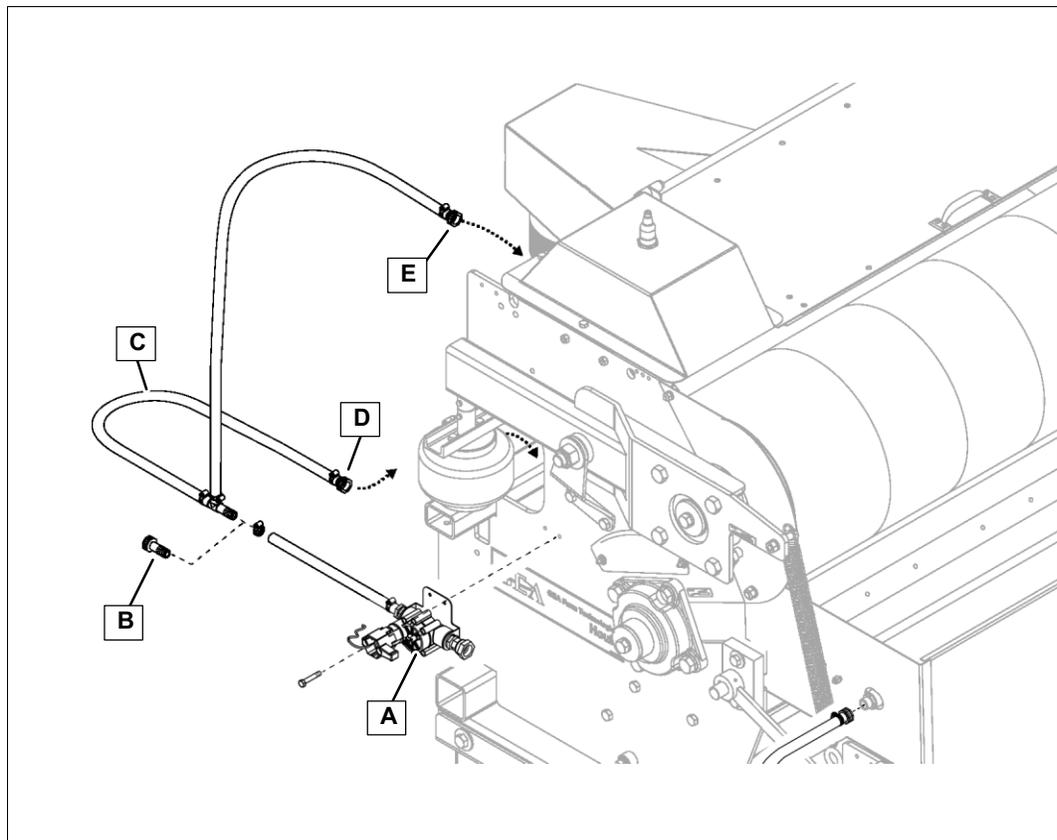
- Remove the lifting support from the XPress. Store.



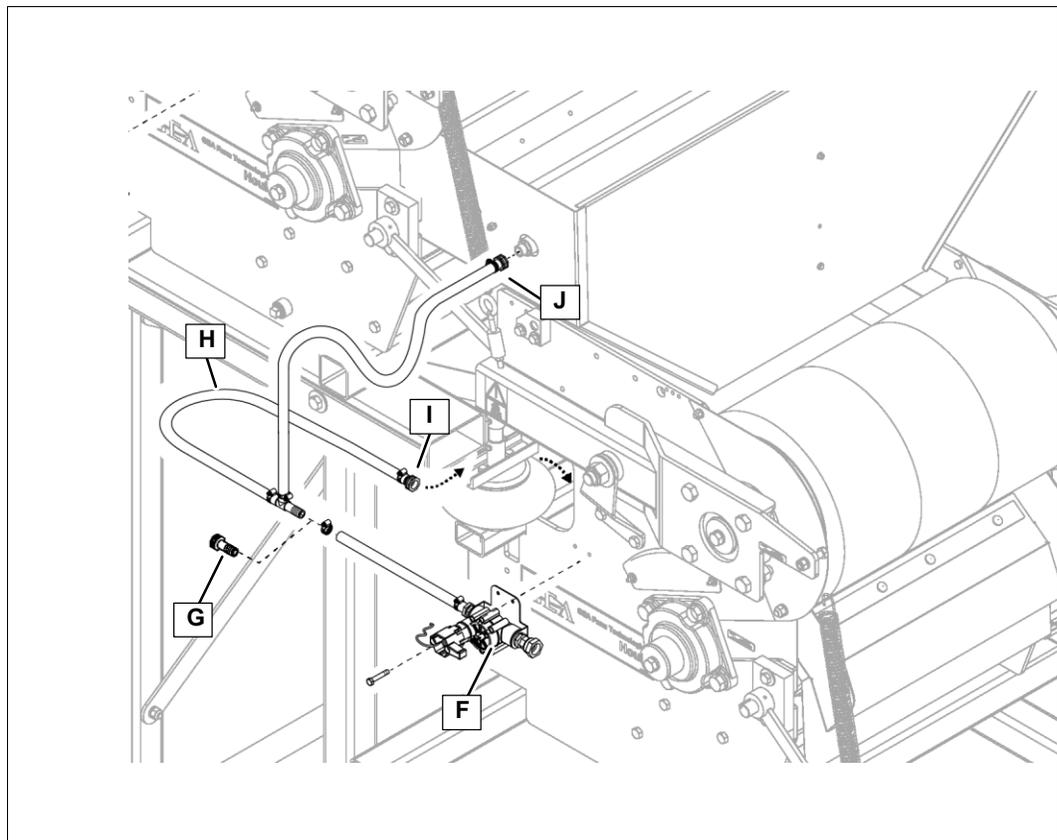
Note!

The tarp under the roller scraper is used to keep liquid away from the extracted fiber. Keep the tarp inside the XPress.

- Remove the two bolts from the XPress 4FT.
- Lift the chute and clip it to the frame of XPress 4FT. Use the two brackets behind the chute.
- Position the chute to align holes and assemble it using the hardware previously removed. Torque.



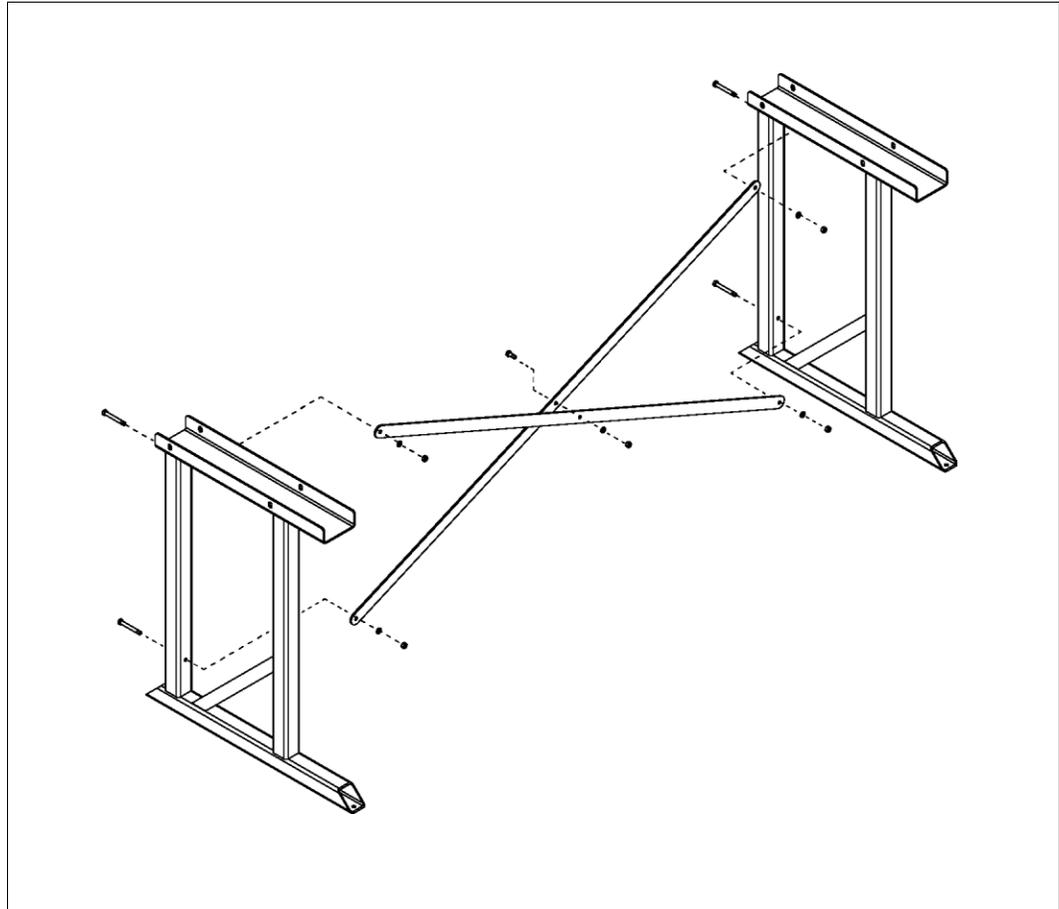
- Bolt the valve assembly (A) to the frame using the hardware provided.
- Remove the hose fitting (B) from the assembly.
- Assemble the hose assembly (C) to valve assembly.
- Connect the hose (D) to the roller spray bar.
- Connect the hose (E) to the tank spray bar.



- Bolt the valve assembly (F) to the frame using the hardware provided.
- Remove the hose fitting (G) from the assembly.
- Assemble the hose assembly (H) to valve assembly.
- Connect the hose (I) to the roller spray bar.
- Connect the hose (J) to the chute spray bar.
- Connect all valves to tap water line. To prevent nozzle plugging, make sure to flush the tap line before connection.

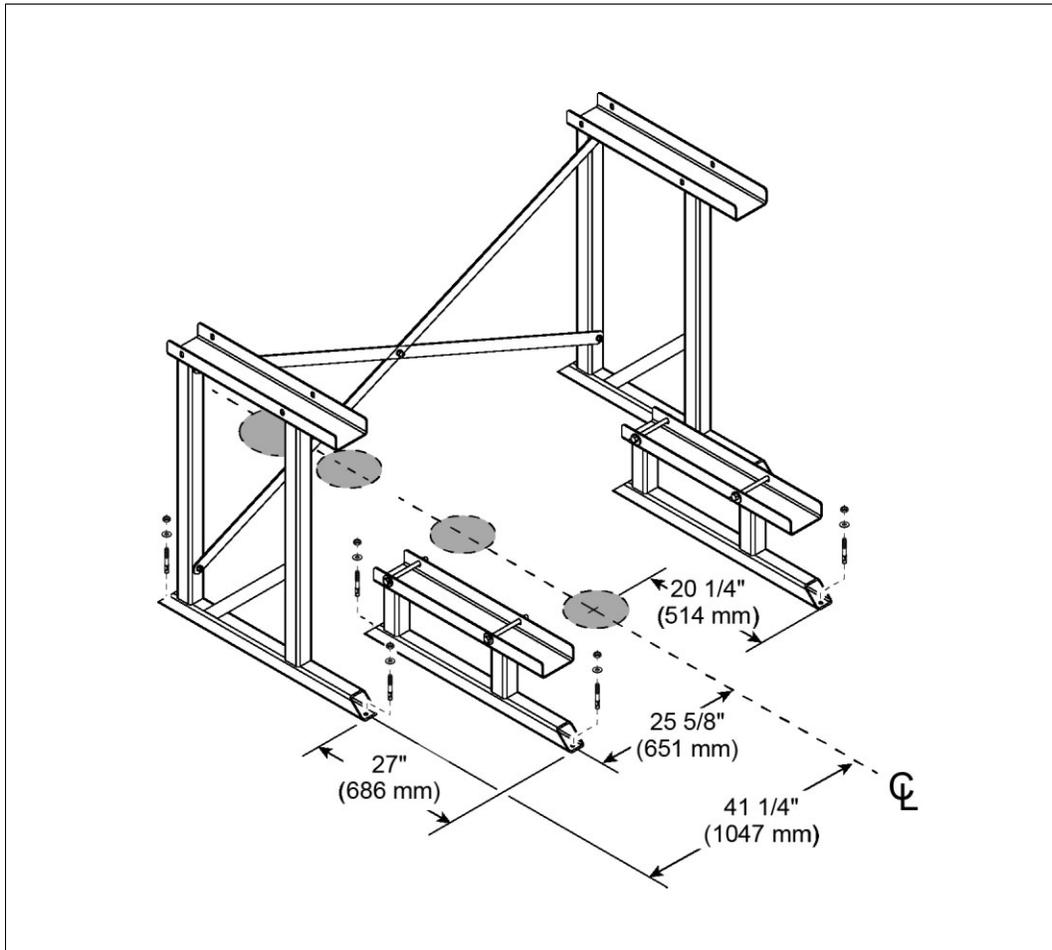
5.12 XPress 6FT-4FT system assembly

Hardware required	Description	Quantity
Bolt	1/2" - 13NC x 4"	4
Bolt	1/2" - 13NC x 1.25"	1
Lock washer	1/2"	5
Nut	1/2" - 13NC	5



- Assemble the stands using the hardware provided.
- Torque all bolts.

Hardware required	Description	Quantity
Anchor bolts (Stainless steel)	1/2" x 3.75" (13mm x 95mm)	8

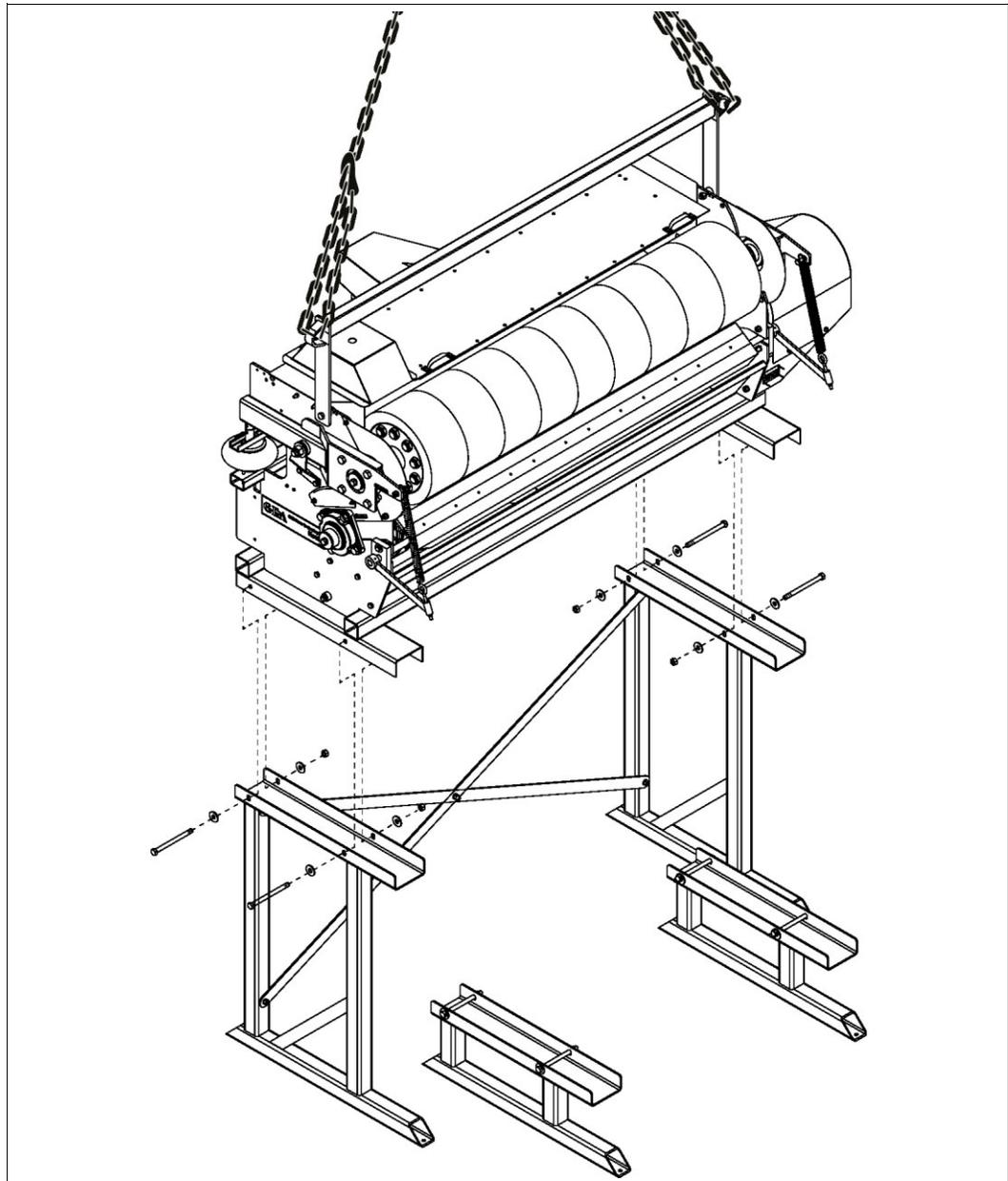


i The grey circles show the piping position under the XPress system. For more information on this subject, please refer to:
Section: Technical data

- Position the stands according to the layout.
- Drill through the holes of the XPress stands.
- Remove concrete particles from the drilled holes.
- Anchor the system with stainless steel anchor bolts.

 Follow the anchor bolt installation procedure included in this section.

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4



Warning!

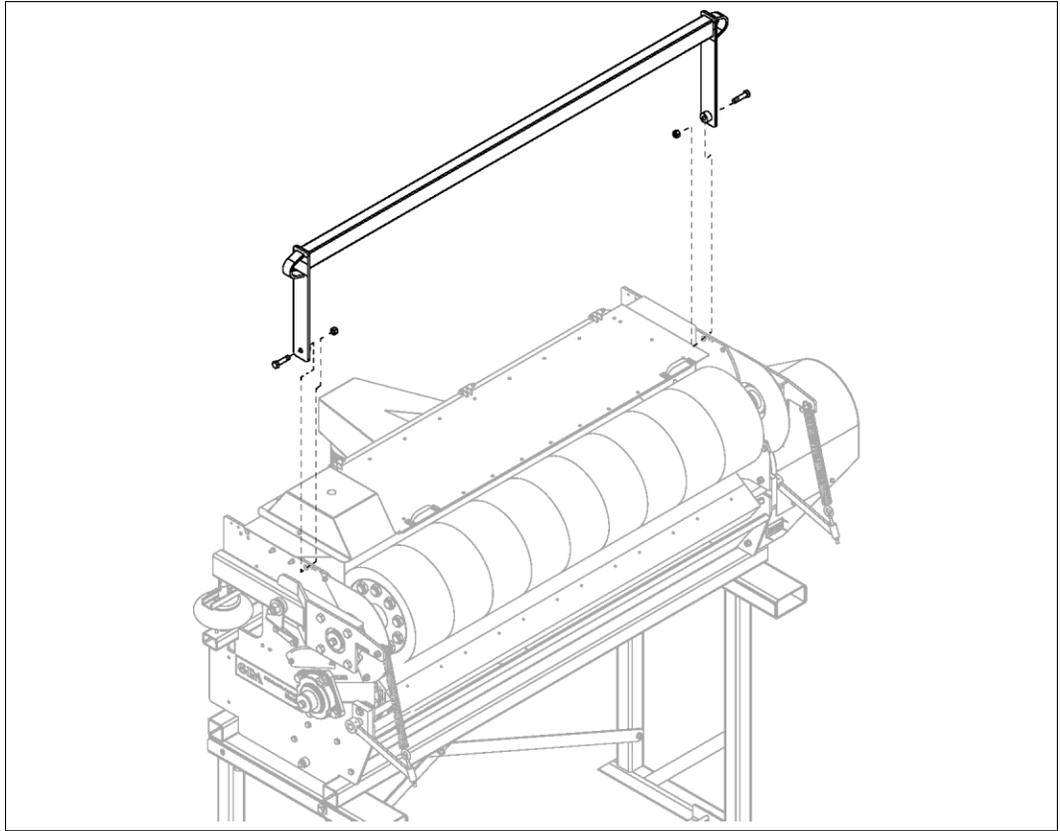
Risk of injury or death!

- ▶ Use a lifting device with a minimum lifting capacity of 3500 lb [1750 kg].

- Lift the XPress 6FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.

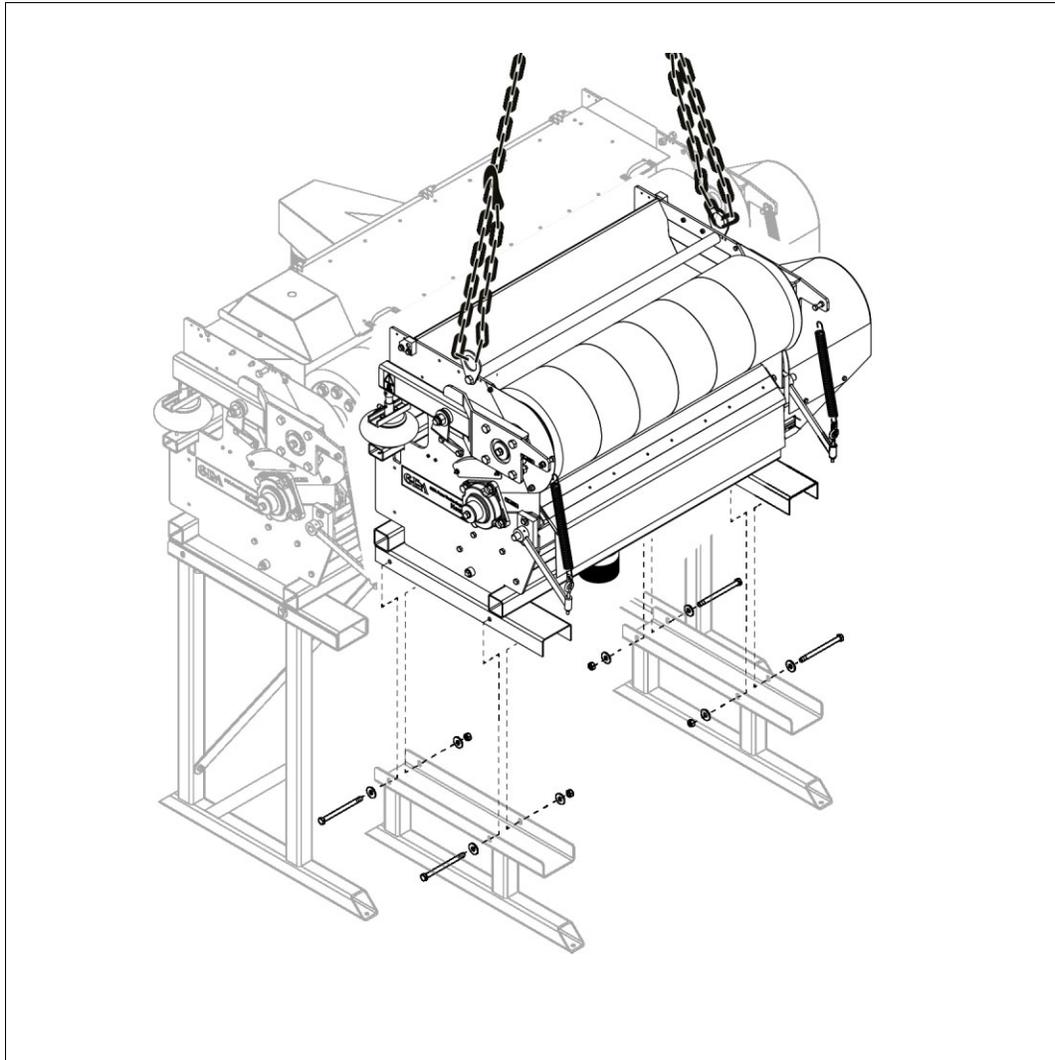
Assembly and installation

XPress 6FT-4FT system assembly



- Remove the lifting support from the XPress. Store.

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

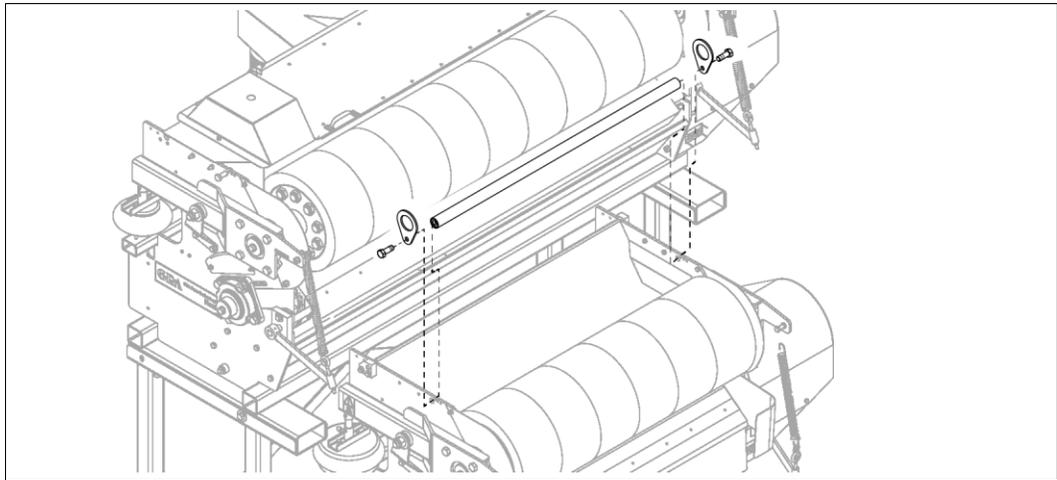


Warning!

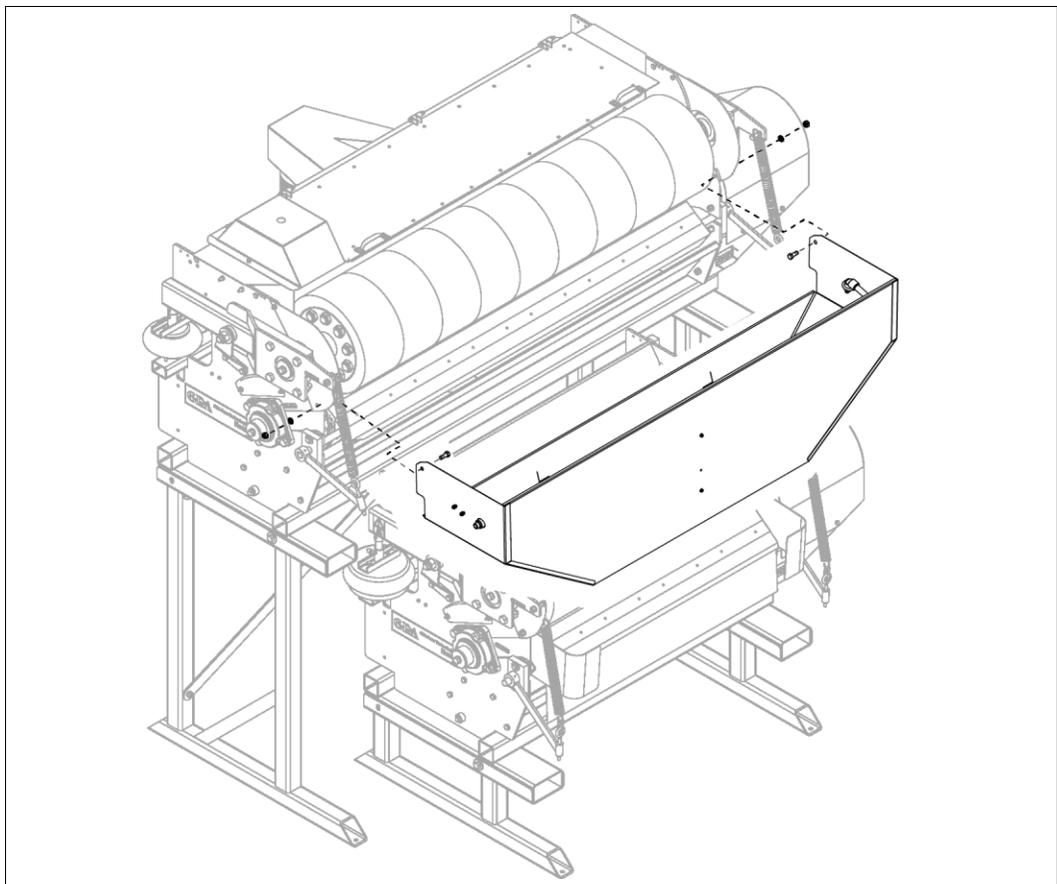
Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 2000 lb [1000 kg].

- Lift the XPress 4FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



- Remove the lifting support from the XPress. Store.

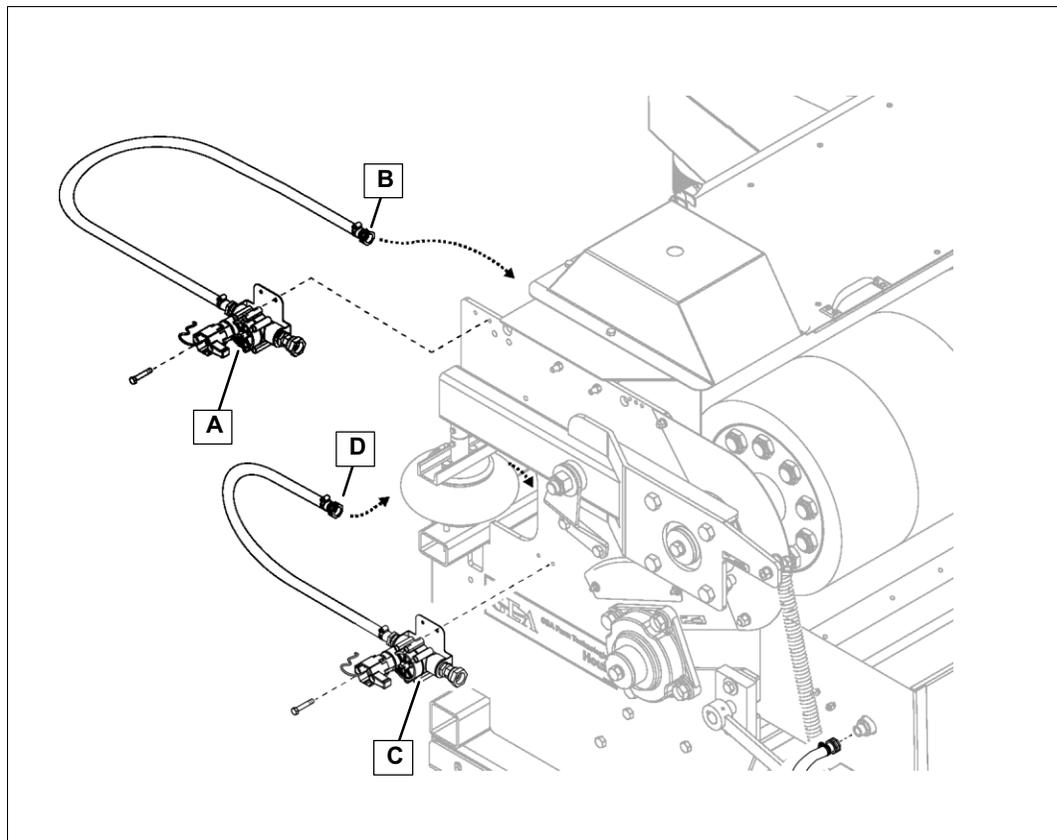


- Remove the two bolts from the XPress 6FT.
- Lift the chute and clip it to the frame of XPress 6FT. Use the two brackets behind the chute.
- Position the chute to align holes and assemble it using the hardware previously removed. Torque.

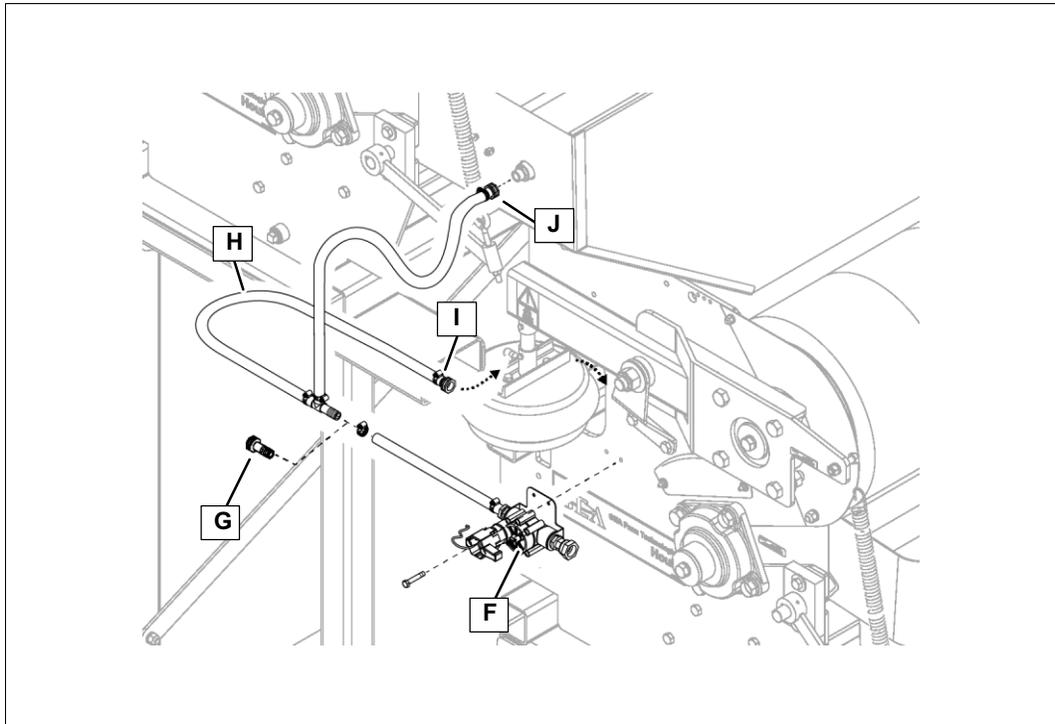


Note!

The tarp under the nylon scraper is used to keep liquid away from the extracted fiber. Keep the tarp inside the XPress.



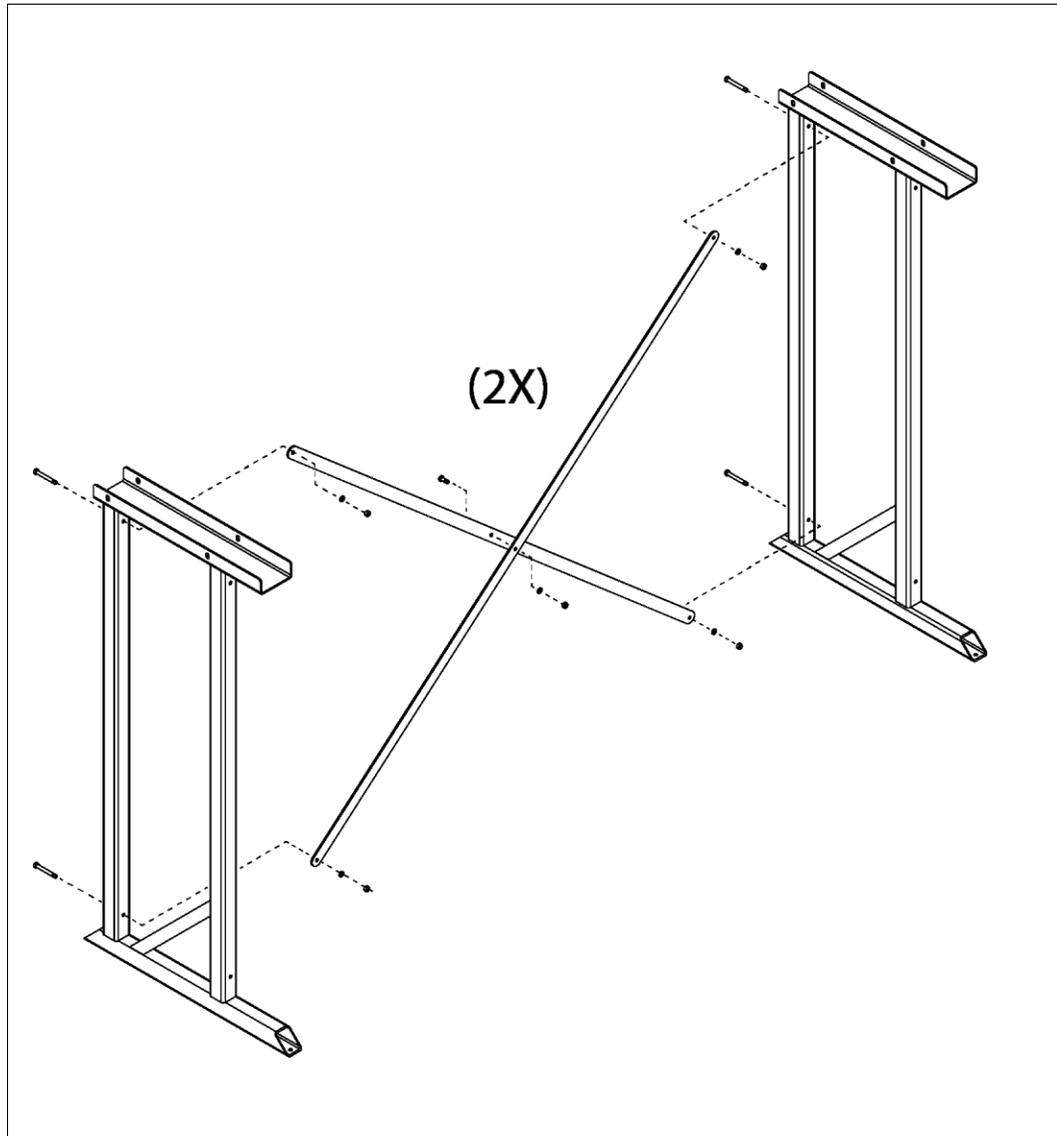
- Bolt the valve assembly (A) to the frame using the hardware provided.
- Connect the hose (B) to the tank spray bar.
- Bolt the valve assembly (C) to the frame using the hardware provided.
- Connect the hose (D) to the roller spray bar.



- Bolt the valve assembly (F) to the frame using the hardware provided.
- Remove the hose fitting (G) from the assembly.
- Assemble the hose assembly (H) to valve assembly.
- Connect the hose (I) to the roller spray bar.
- Connect the hose (J) to the chute spray bar.
- Connect all valves to tap water line. To prevent nozzle plugging, make sure to flush the tap line before connection.

5.13 XPress 6FT-4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	1/2" - 13NC x 4"	8
Bolt	1/2" - 13NC x 1.25"	2
Lock washer	1/2"	10
Nut	1/2" - 13NC	10

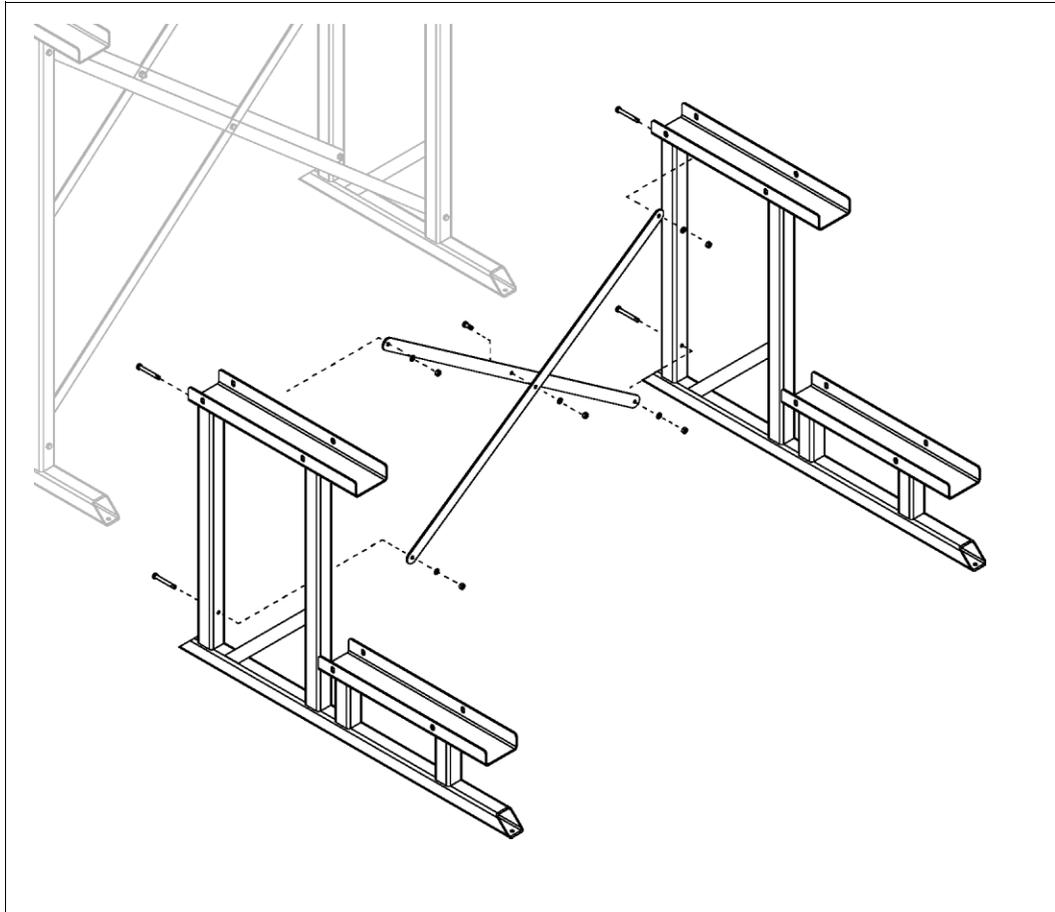


- Assemble the stands using the hardware provided.
- Torque all bolts.

Assembly and installation

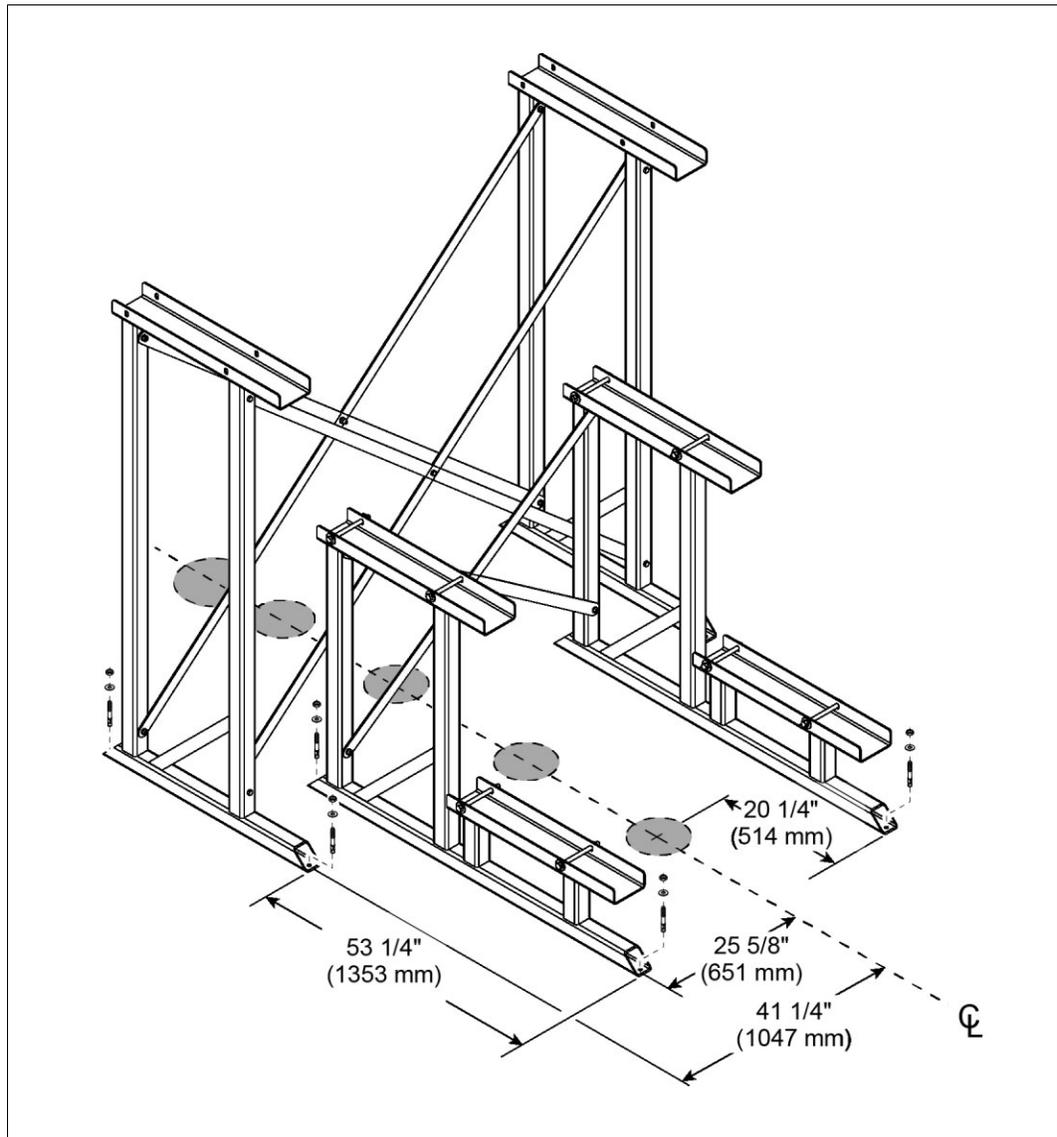
XPress 6FT-4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	1/2" - 13NC x 4"	4
Bolt	1/2" - 13NC x 1.25"	1
Lock washer	1/2"	5
Nut	1/2" - 13NC	5



- Assemble the stands using the hardware provided.
- Torque all bolts.

Hardware required	Description	Quantity
Anchor bolts (Stainless steel)	1/2" x 3.75" (13mm x 95mm)	8



i The grey circles show the piping position under the XPress system.
For more information on this subject, please refer to:
Section: Technical data

- Position the stands according to the layout.
- Drill through the holes of the XPress stands.
- Remove concrete particles from the drilled holes.
- Anchor the system with stainless steel anchor bolts.

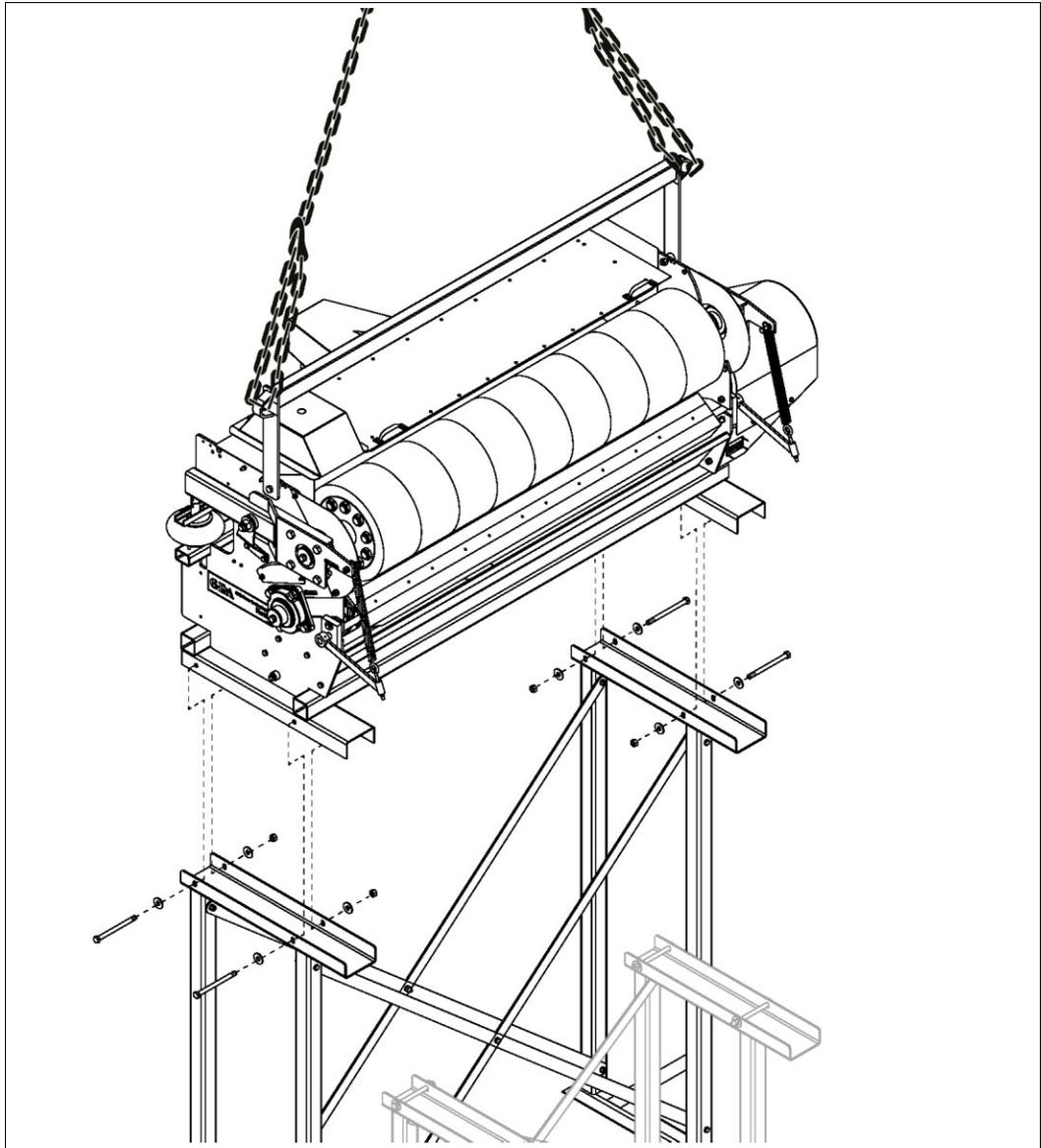


Follow the anchor bolt installation procedure included in this section.

Assembly and installation

XPress 6FT-4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

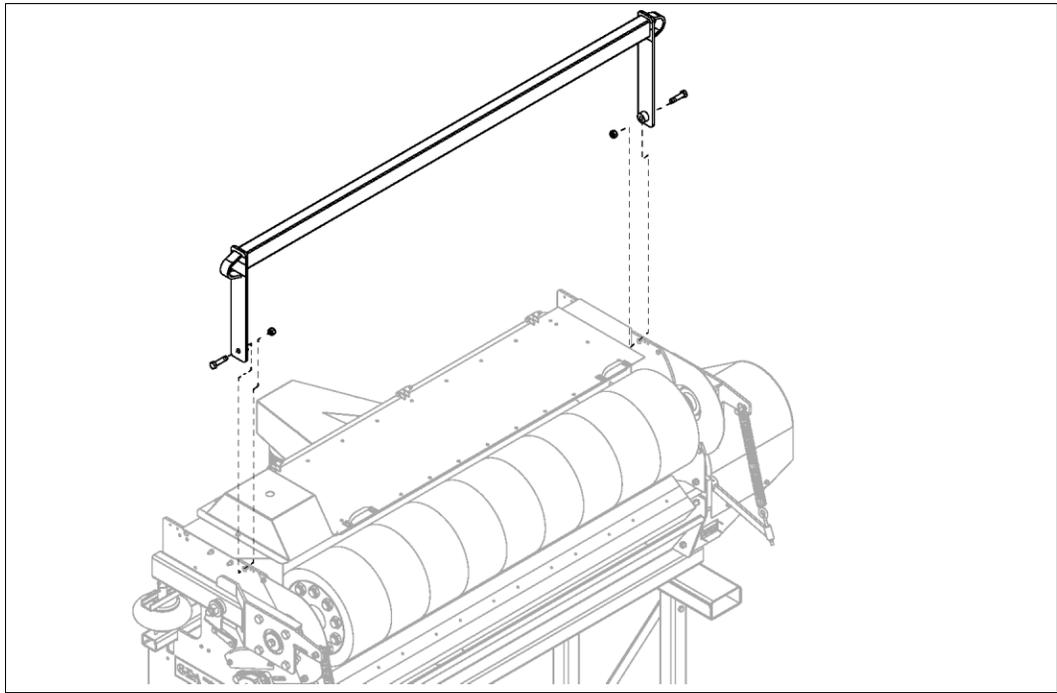


Warning!

Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 3500 lb [1750 kg].

- Lift the XPress 6FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.



⚠ Caution!

Fall hazard!

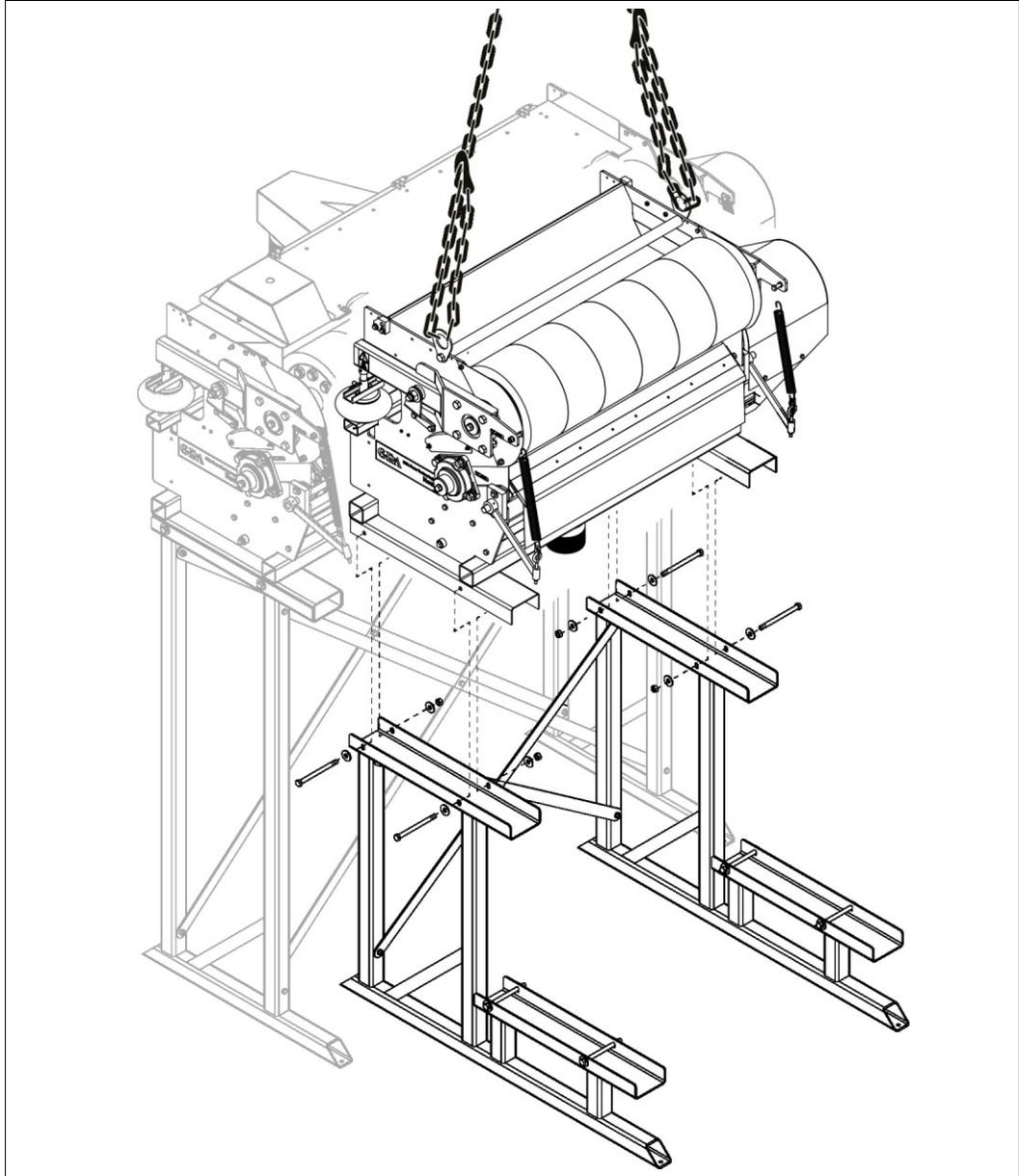
- ▶ Do not climb on the equipment.

- Remove the lifting support from the XPress. Store.

Assembly and installation

XPress 6FT-4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

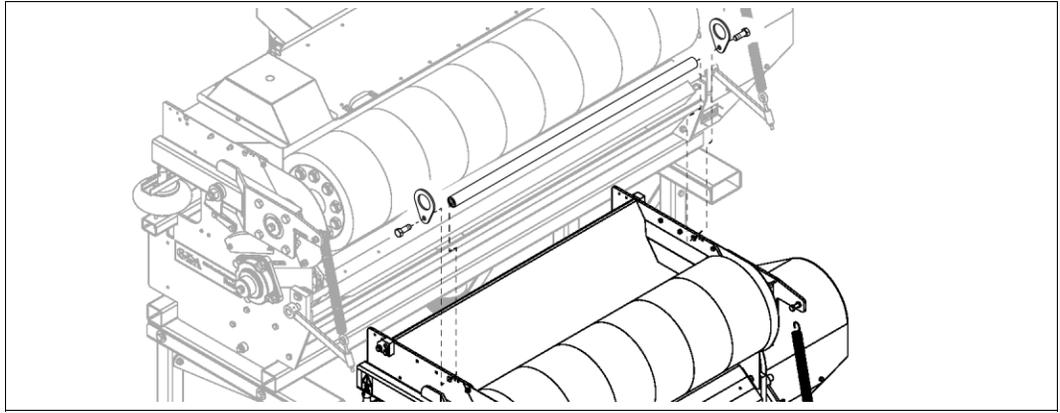


Warning!

Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 2500 lb [1250 kg].

- Lift the XPress 4FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided.

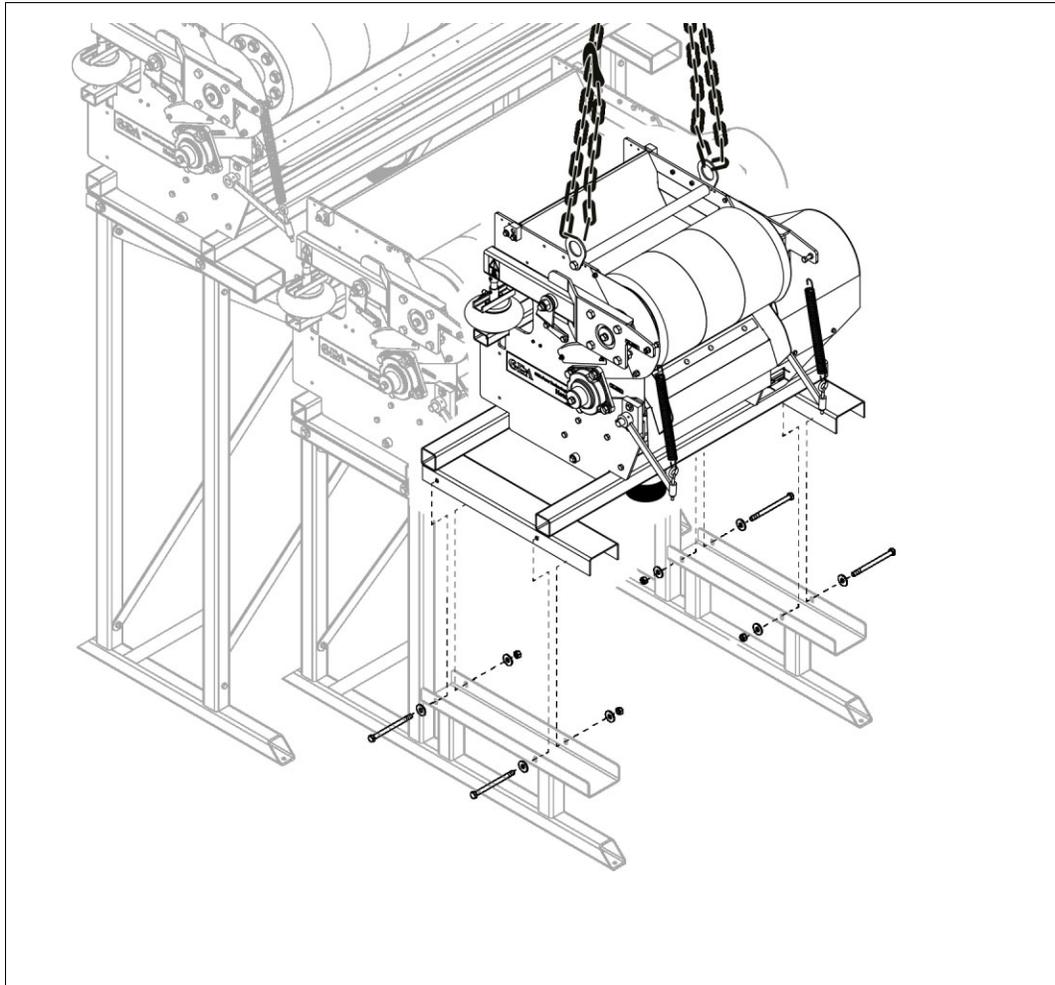


- Remove the lifting support from the XPress.

Assembly and installation

XPress 6FT-4FT-2FT system assembly

Hardware required	Description	Quantity
Bolt	5/8" - 11NC x 8"	4
Washer	5/8"	8
Nylon lock nut	5/8" - 11NC	4

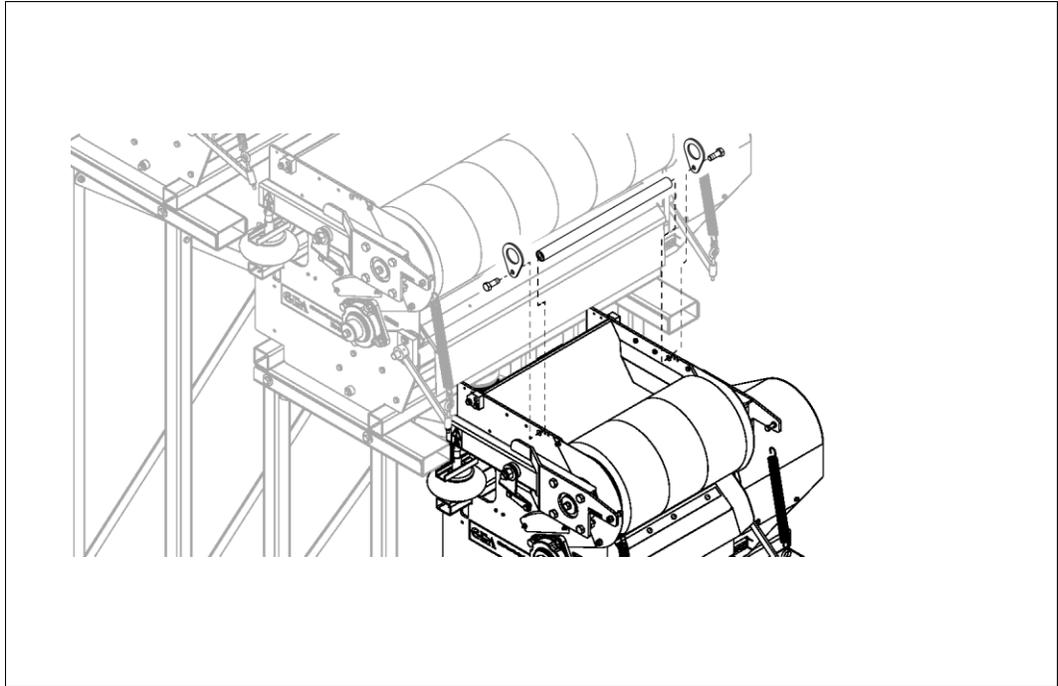


Warning!

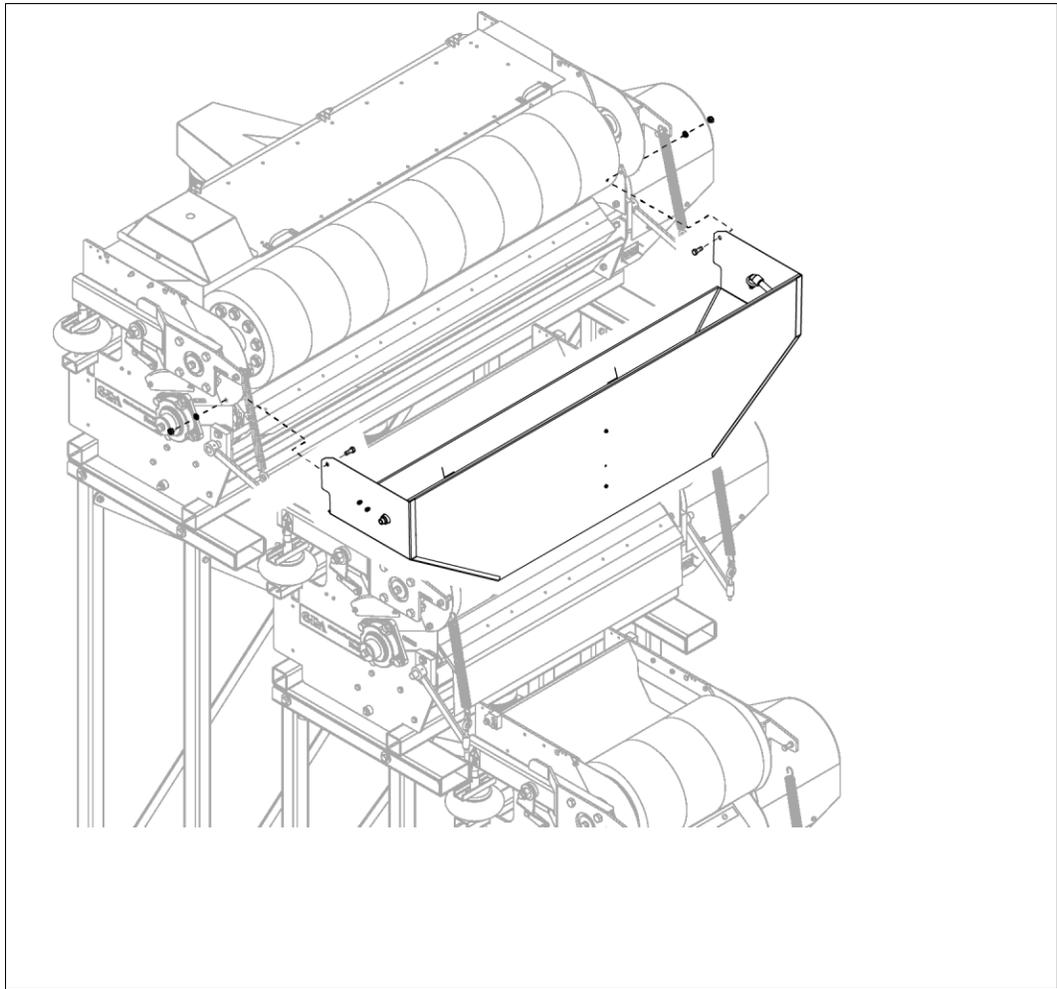
Risk of injury or death!

► Use a lifting device with a minimum lifting capacity of 2000 lb [1000 kg].

- Lift the XPress 2FT and position it on the stands.
- Assemble the XPress to the stands using the hardware provided. Torque.



- Remove the lifting support from the XPress. Store.



⚠ Caution!

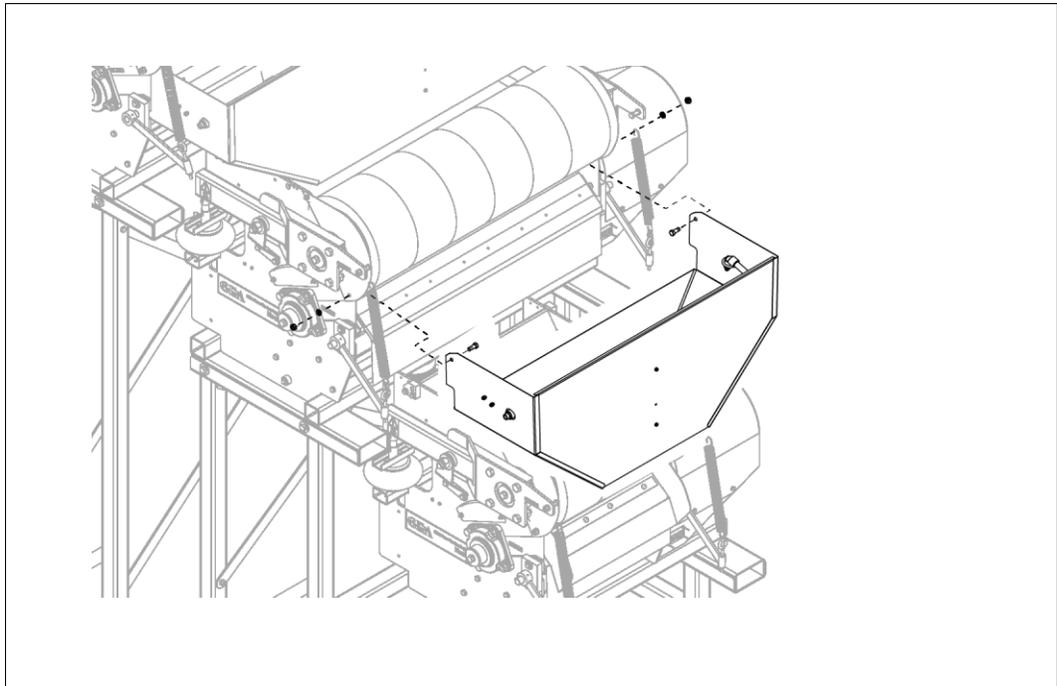
Fall hazard!

▶ Do not climb on the equipment.

👉 Note!

The tarp under the roller scraper is used to keep liquid away from the extracted fiber. Keep the tarp inside the XPress.

- Remove the two bolts from the XPress 6FT.
- Lift the large chute and clip it to the frame of XPress 6FT. Use the two brackets behind the chute.
- Position the chute to align holes and assemble it using the hardware previously removed. Torque.

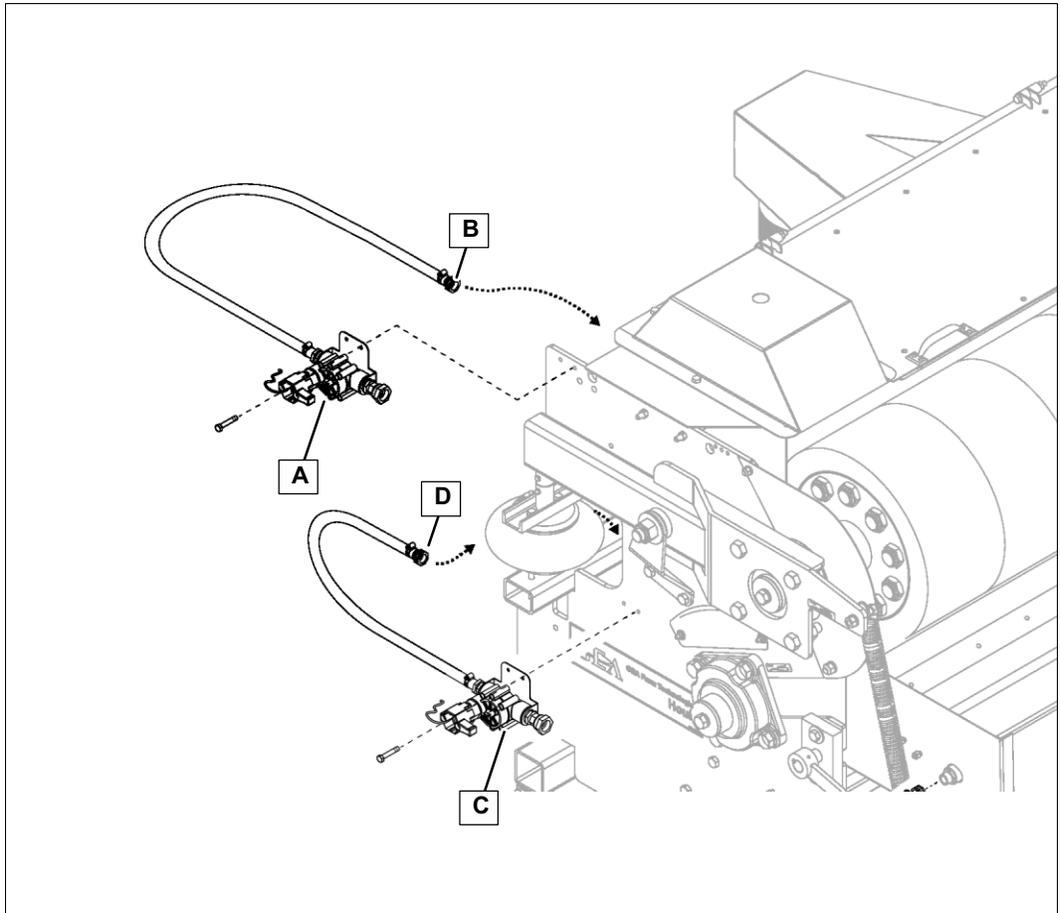


- Remove the two bolts from the XPress 4FT.
- Lift the small chute and clip it to the frame of XPress 4FT. Use the two brackets behind the chute.
- Position the chute to align holes and assemble it using the hardware previously removed. Torque.

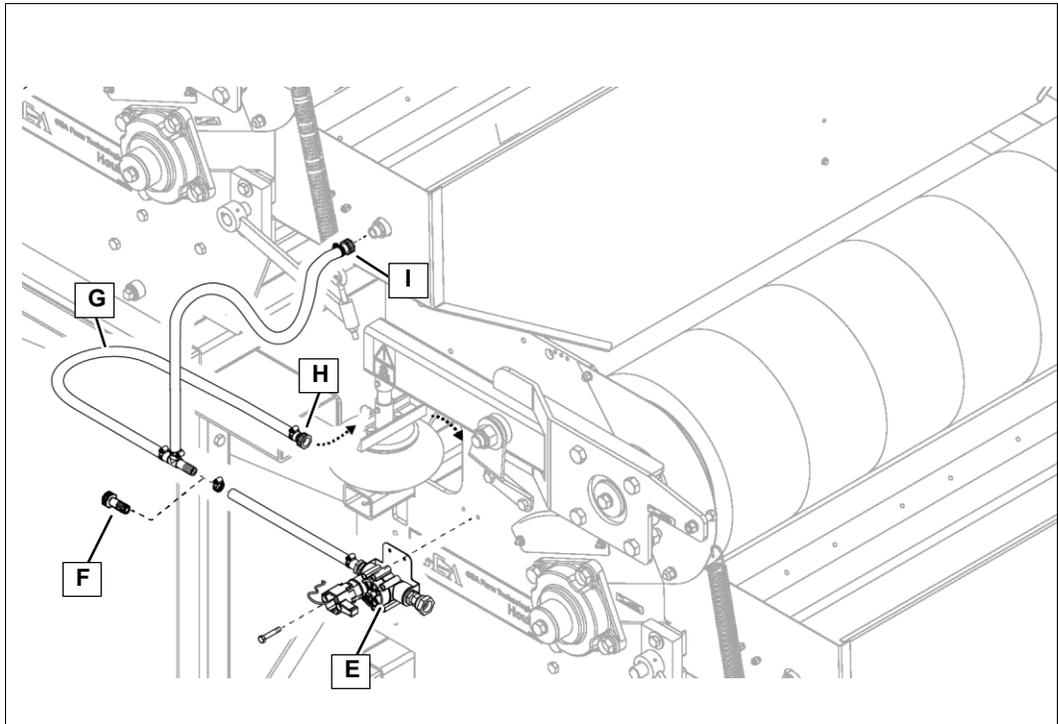


Note!

The tarp under the roller scraper is used to keep liquid away from the extracted fiber. Keep the tarp inside the XPress.



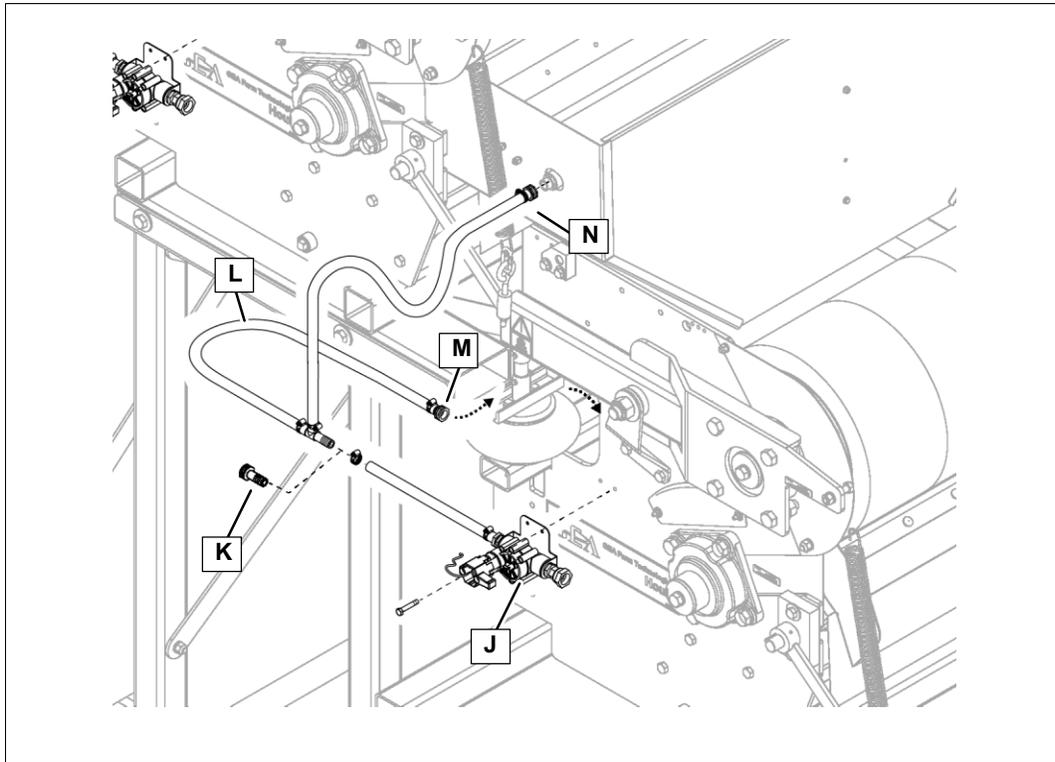
- Bolt the valve assembly (A) to the frame using the hardware provided.
- Connect the hose (B) to the tank spray bar.
- Bolt the valve assembly (C) to the frame using the hardware provided.
- Connect the hose (D) to the roller spray bar.



- Bolt the valve assembly (E) to the frame using the hardware provided.
- Remove the hose fitting (F) from the assembly.
- Assemble the hose assembly (G) to valve assembly.
- Connect the hose (H) to the roller spray bar.
- Connect the hose (I) to the tank spray bar.

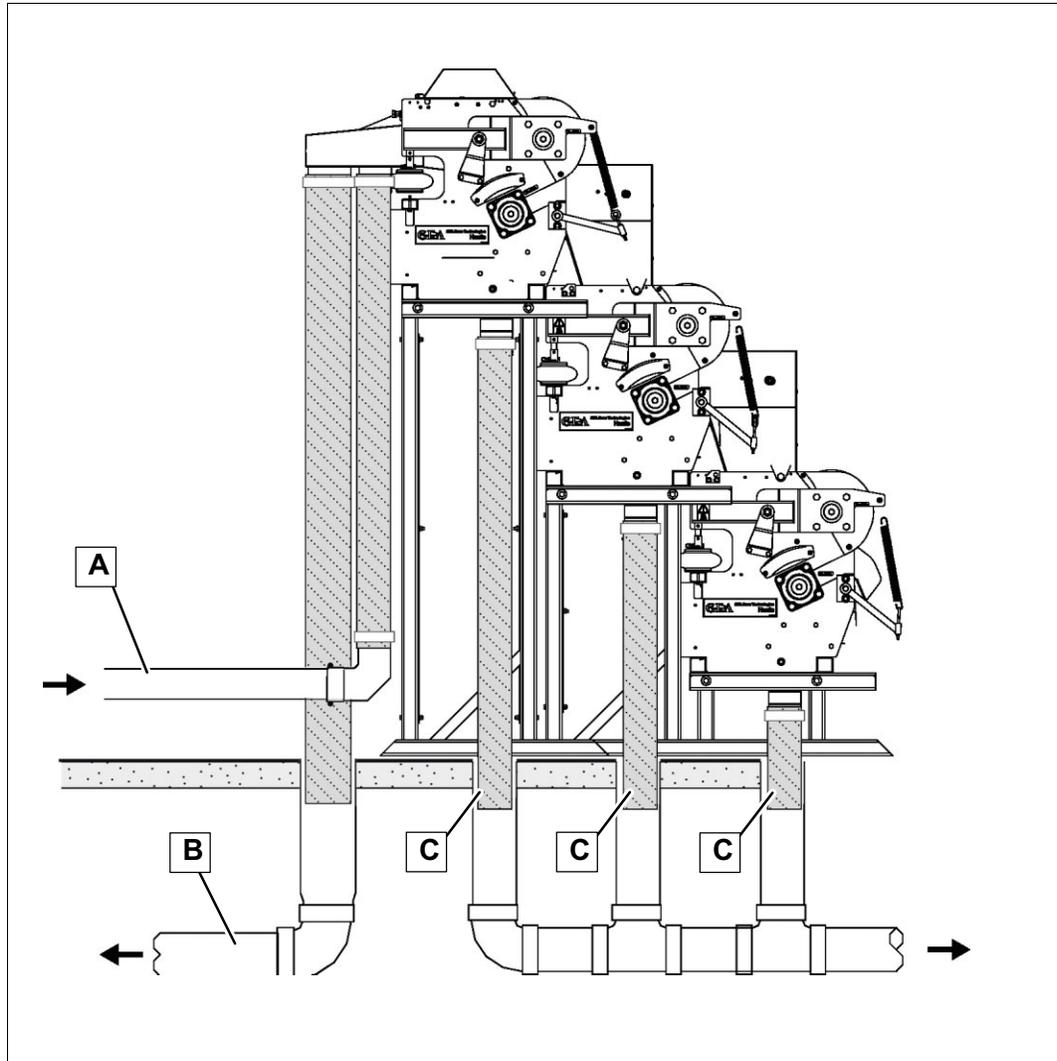
Assembly and installation

XPress 6FT-4FT-2FT system assembly



- Bolt the valve assembly (J) to the frame using the hardware provided.
- Remove the hose fitting (K) from the assembly.
- Assemble the hose assembly (L) to valve assembly.
- Connect the hose (M) to the roller spray bar.
- Connect the hose (N) to the chute spray bar.
- Connect all valves to tap water line. To prevent nozzle plugging, make sure to flush the tap line before connection.

5.14 Piping connections



Note

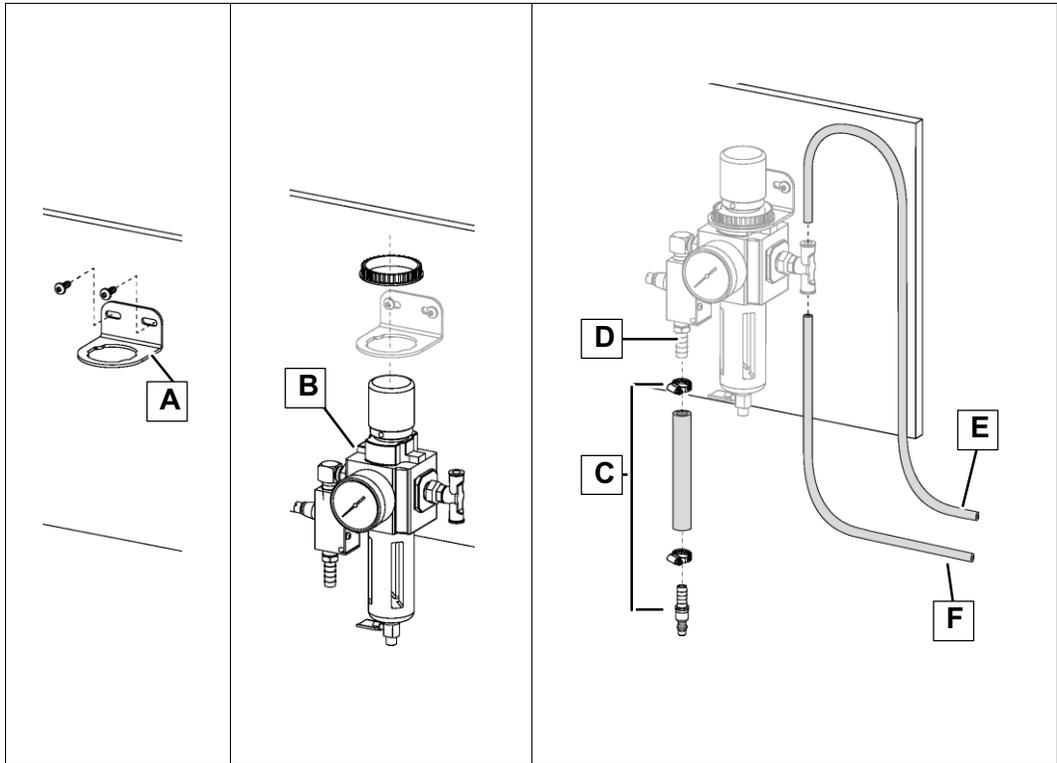
Horizontal piping must be installed at 1% slope minimum to ensure proper drainage and prevent clogging.



For piping position, refer to section: Technical data

- Connect the feeding line (A) to the regulator tank using a 6" hose and a collar.
- Connect the overflow line (B) to the regulator tank using a 8" hose and a collar.
- Connect each XPRESS drain (C) using a hose adaptor, a circle lock, a 6" hose and a collar.

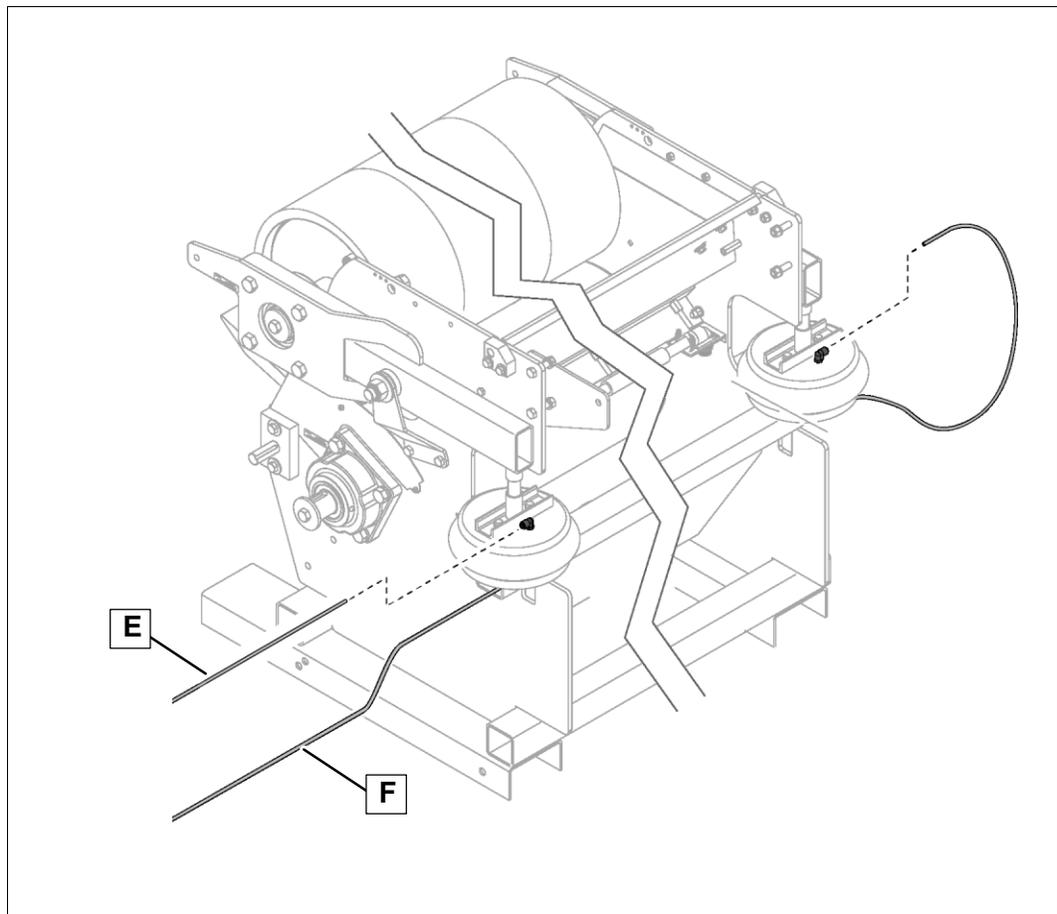
5.15 Pneumatic line installation



Note

One air regulator is required per XPress. Install it on a wall, near the system.

- Install the support (A) to the wall using two screws.
- Assemble the air regulator (B) on the support (A). Tighten slightly.
- Assemble an $\frac{3}{8}$ " pneumatic air hose (C) to air regulator intake (D). The hose and adaptor are not supplied with the product.
- Refer to steps below to connect hoses (E,F) between the regulator and the XPress air springs.

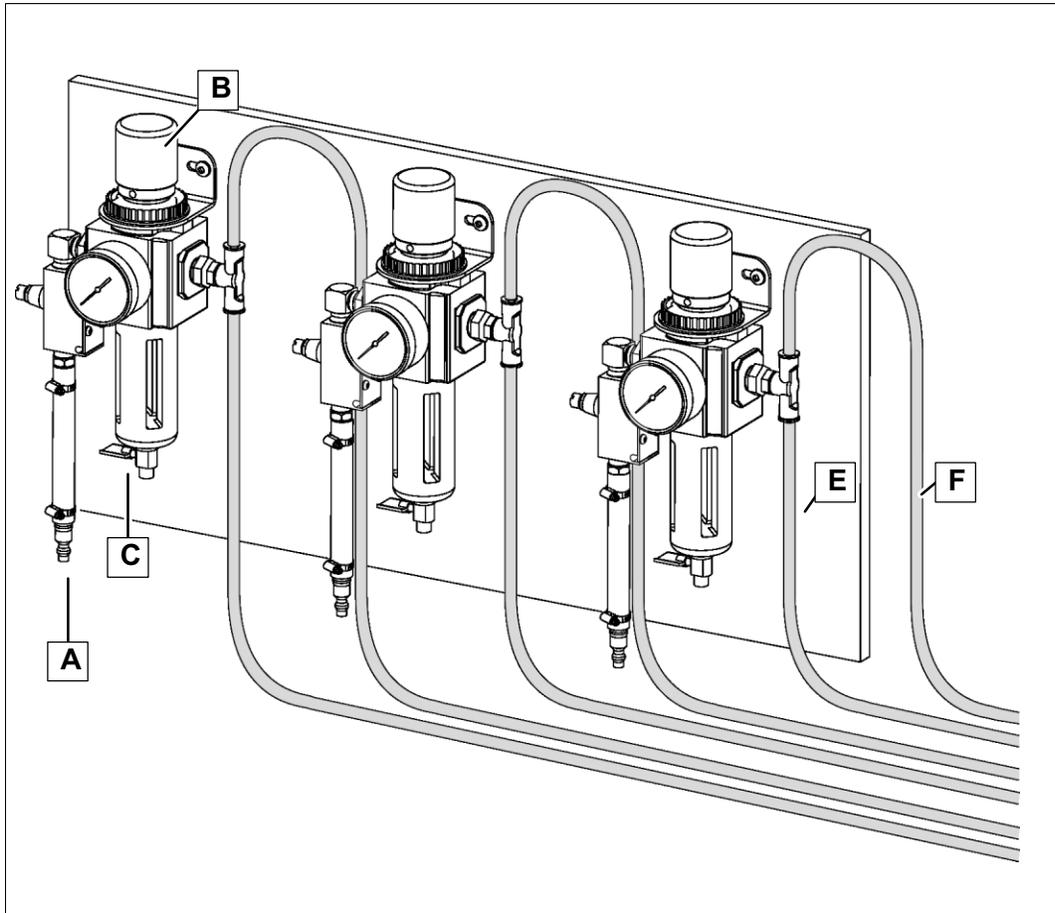


⚠ Caution!

Fall hazard!

- ▶ Do not climb on the equipment.

- Connect a hose (E) to the first air spring (G).
- Run the hose (F) inside the frame and connect it to the second air spring (H).
- Connect both hoses to the air regulator (see next page).
- Repeat all steps for each XPress.



Warning!

High air pressure can cause severe eye injury.

- ▶ Wear safety glasses

Attention!

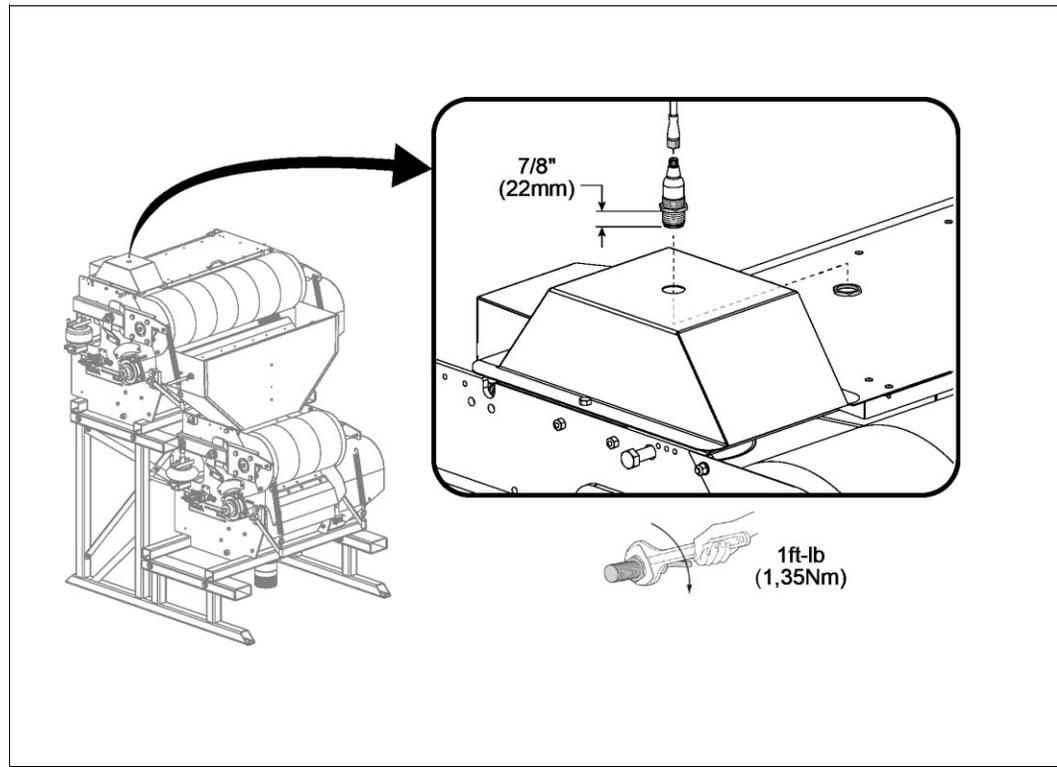
Excessive air pressure into the system can damage components.

- ▶ Never set the regulator to a pressure exceeding 100 PSI (689kPa).

- Connect an air compressor to the air regulator intake (A).
- Start the air compressor to add pressure in the pneumatic circuit.
- Using the knob (B), adjust the air pressure to 100 psi (689 kPa).
- Open the valve (C) to purge the regulator.
- Repeat for each air regulator.

5.16 XPress sonar installation

5.16.1 Tank sonar assembly (3 level sonar)



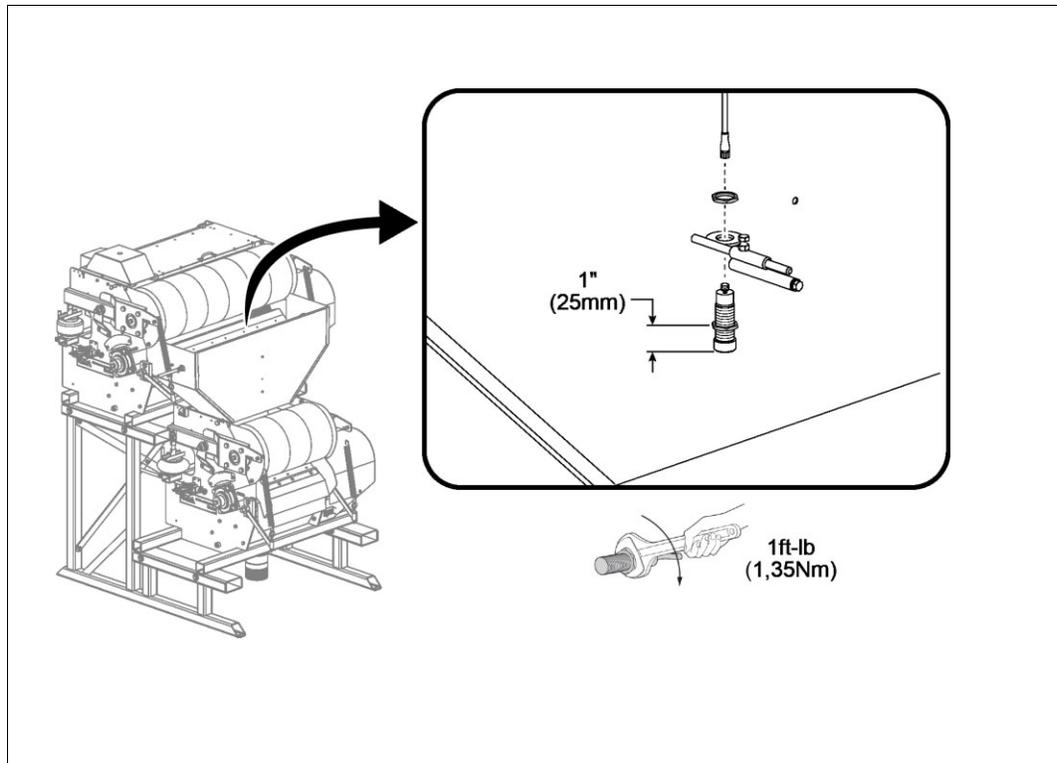
⚠ Caution!

Fall hazard!

- ▶ Do not climb on the equipment.

- Assemble the sonar to the regulator tank, as illustrated above.
- Torque to 1ft-lb (1,35Nm) maximum.

5.16.2 Chute sonar assembly (2 level sonar)



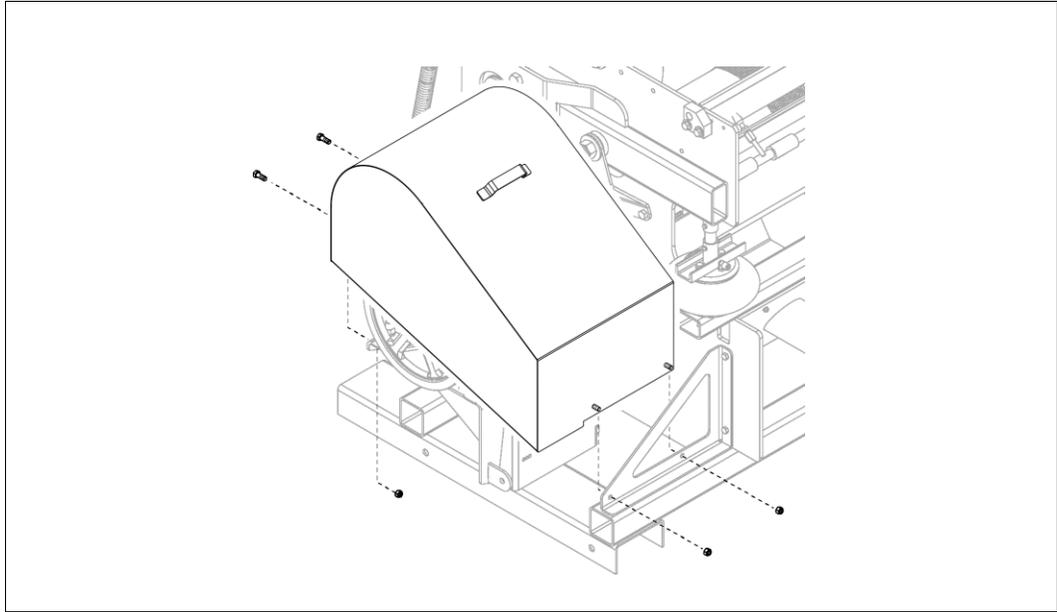
Caution!

Fall hazard!

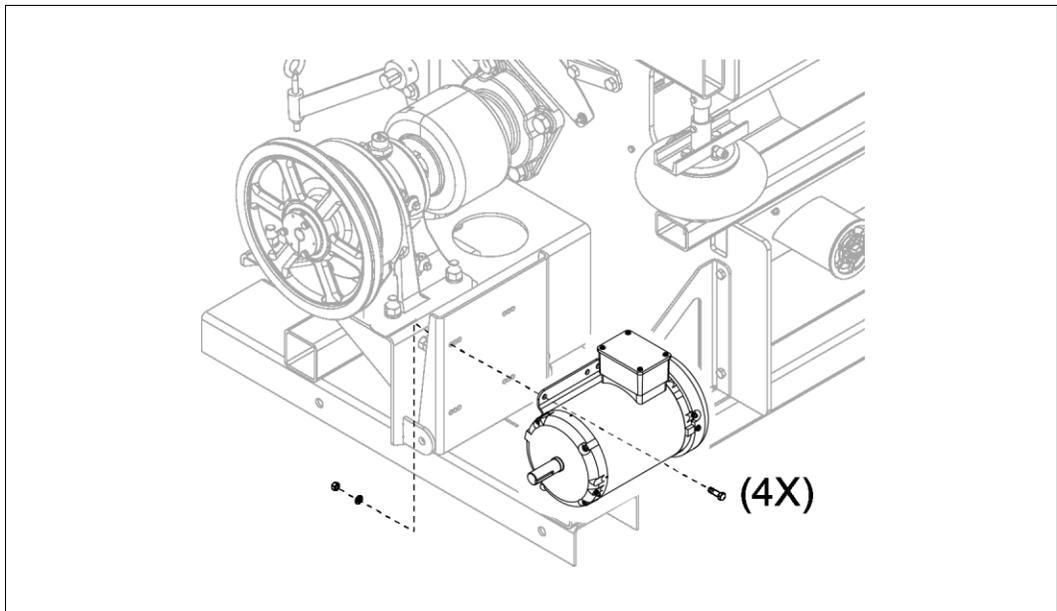
- ▶ Do not climb on the equipment.

- Assemble the sonar inside the chute, as illustrated above.
- Torque to 1ft-lb (1,35Nm) maximum.
- Connect the wire to the sonar.
- Adjust the support to align the sonar with the rollers contact point.
- Fasten the wire to the spray bar with tie-wraps.
- Repeat for each chute, when applicable.

5.17 Electric motor installation



- Remove the safety guard.

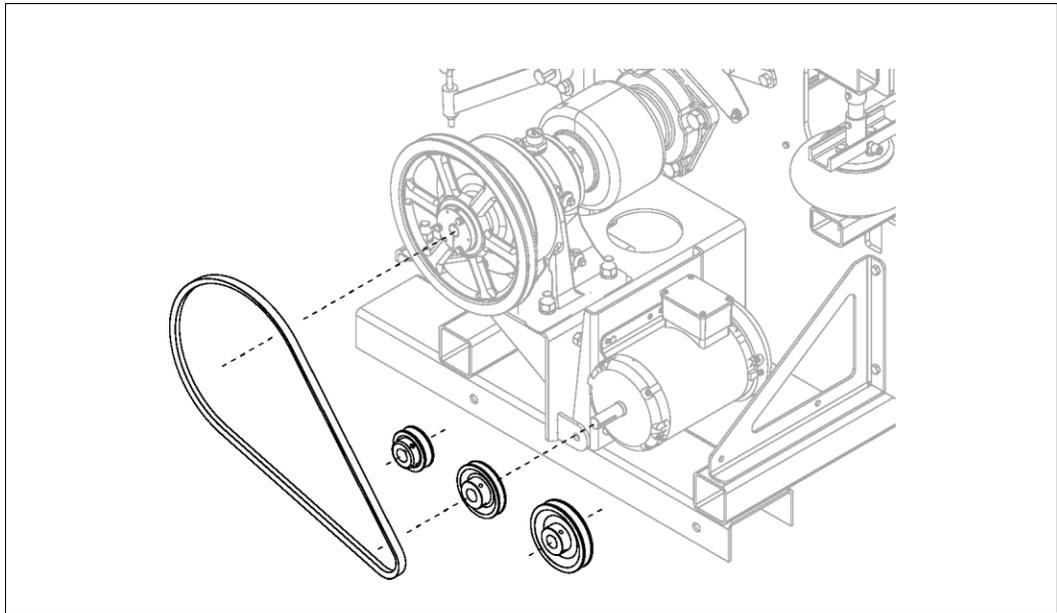


Caution!

Risk of finger pinching!

- ▶ Wear protective gloves .

- Install the electric motor using the hardware. Torque.



⚠ Caution!

Risk of finger pinching!

- ▶ Wear protective gloves when handling the electric motor.

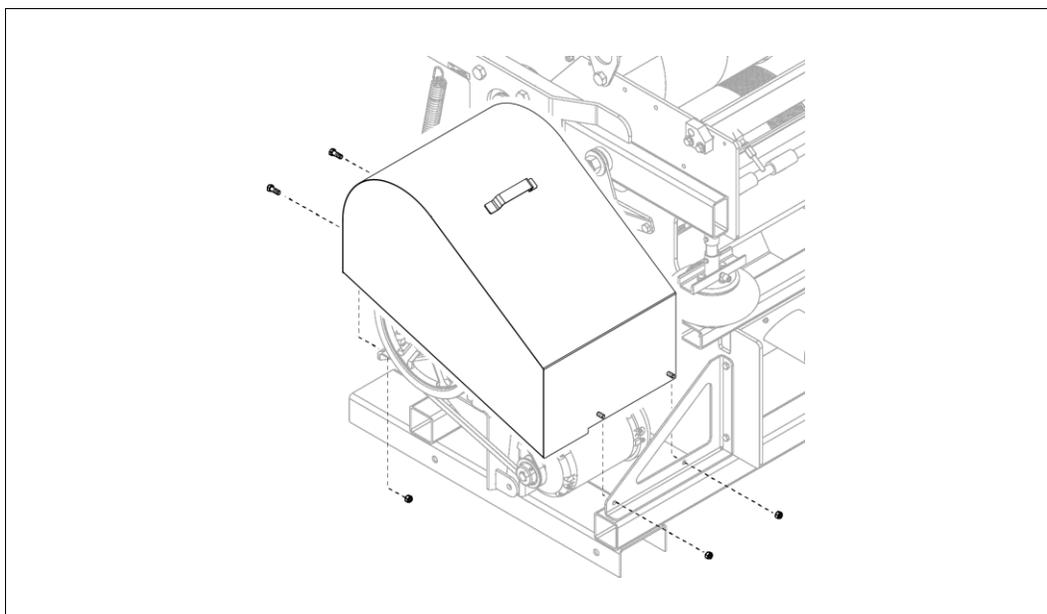
Attention!

Improper alignment of the pulley can cause damages to the equipment.

- ▶ Align pulleys perfectly.

- Install pulleys on motor shafts. See recommendations table below.
- Using a straight edge, check the pulleys alignment.
- When aligned, tighten the pulley set screws.
- Install the belt. Do not tension.

	4FT	6FT	4FT-2FT	6FT-4FT	6FT-4FT-2FT
XPress 6FT		3"		3"	4"
XPress 4FT	3"		3"	2.5"	3"
XPress 2FT			2.5"		2.5"



- Install the safety guard using the hardware.

5.18 Control panel installation



Note

The control panel must not be connected at this step.



Note

Follow the local regulations on where and how to position properly a control panel.

STEP 1: Check the control panel electric components

- Before performing any electric connection, tighten the screws of all the electric components inside the control panel.
- Make sure all wires are properly connected and secured.

STEP 2: Locate the control panel

Make sure the control panel is installed:

- On a solid wall, at a convenient height, sheltered from sun ray and weather conditions;
- In a convenient area for the operator;
- Near the separation system;
- Near the external cut-off switch;
- In an area having free space around the control panel for aeration purposes.

STEP 3: Wall mount the control panel



Warning!

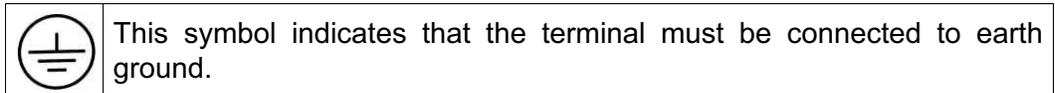
Risk of injury!

► Use a lifting device with a minimum lifting capacity of 200 lb [100 kg].

- Lift the control panel with lifting device.
- Place the control panel on the wall and use the holes to sketch the drill pattern.
- Drill through the bolt pattern.
- Secure the control panel in place. DO NOT OVERTIGHTEN.

5.19 Electric connections

5.19.1 Connecting the control panel



- Connect the control panel to the external cut-off switch.
- Connect the control panel and all conductive equipments to an equipotential bond.

5.19.2 Connecting the 3 level sonar and the 2 level sonar

- Shutdown and lock the power supply.
- Secure cables to the frame using tie wraps. Make sure the cables does not touch mobile elements.
- Connect each sonar to the control panel as indicated in the wiring diagram. Refer to section: Appendix - Wiring diagrams

5.19.3 Connecting the electric motor(s)

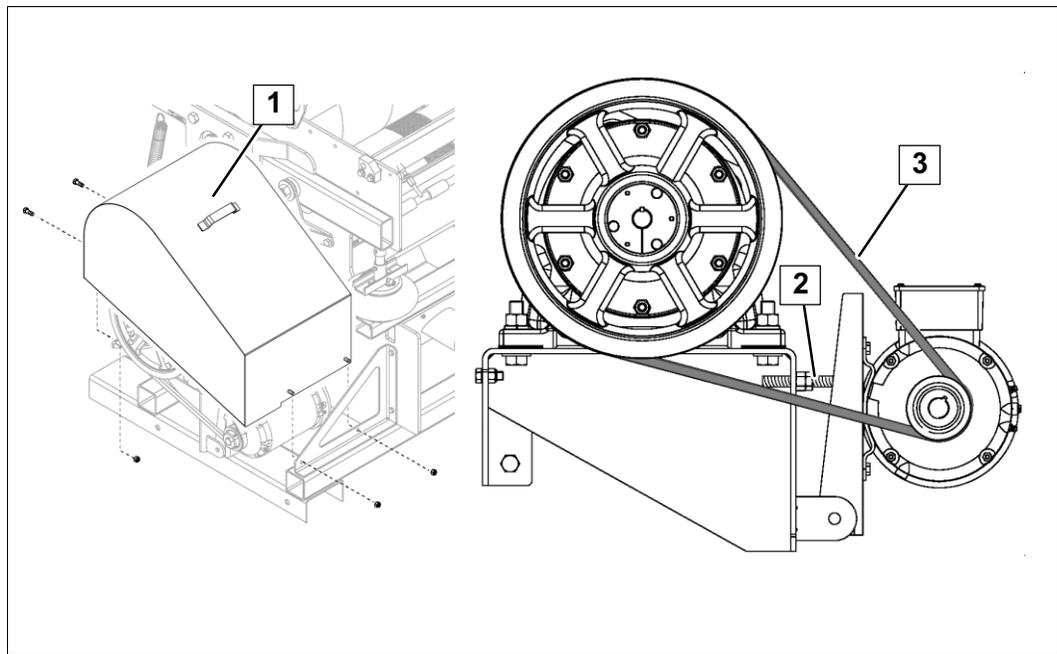
 **Note**
GEA provides specifications and wiring diagrams related to Baldor motor(s). For any other motor brand, contact the manufacturer.

 **Danger!**
Risk of electric shock!
Shutdown is required!
▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

 **Warning!**
Inadvertent start causing injuries!
▶ Never connect an external cut-off switch directly to the motor(s). The external cut-off switch must be connected to the control panel to shutdown or energize the entire system through the control panel only.

Attention!
Improper wiring of a motor can cause motor failure.

Attention!
Keep the motor wires away from the supply lines to prevent interferences.

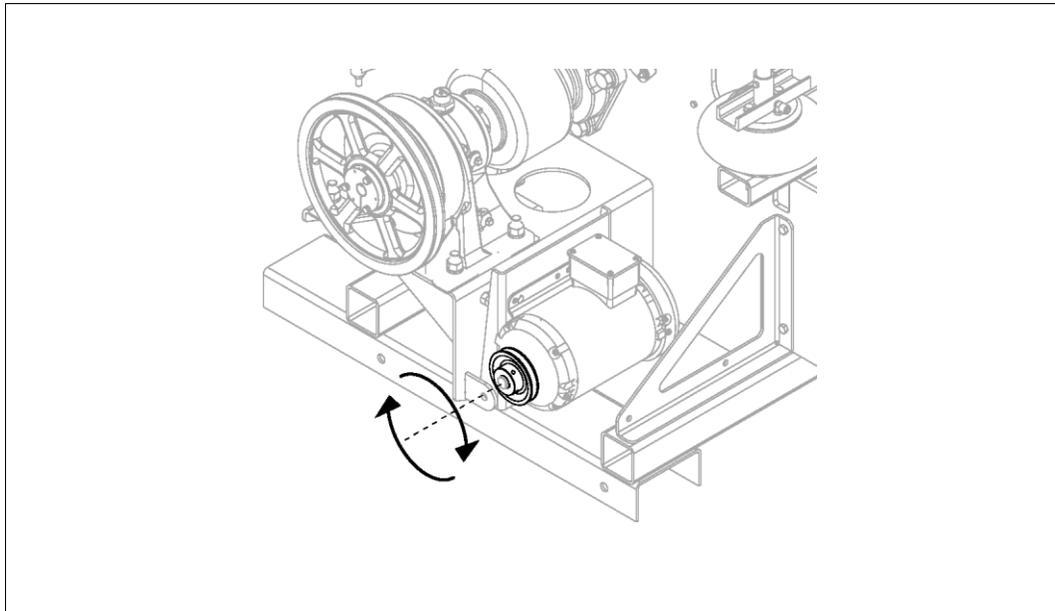


Caution!

Risk of finger pinching!

► Wear protective gloves .

- Remove the safety guard (1).
- Screw the adjustment bolt (2) of the motor support to release belt tension.
- Remove the belt (3).
- Connect the electric motor to the control panel. Refer to wiring diagram.
- Repeat for each XPress.



Warning!

Risk of injury!

- ▶ Be aware of the rotating motor pulley.

- Turn on the main power supply.
- Using the control panel, engage the motor by activating the contact.
- Check the rotation of each XPress motor.
- If a motor rotates in wrong direction, perform steps as follow:

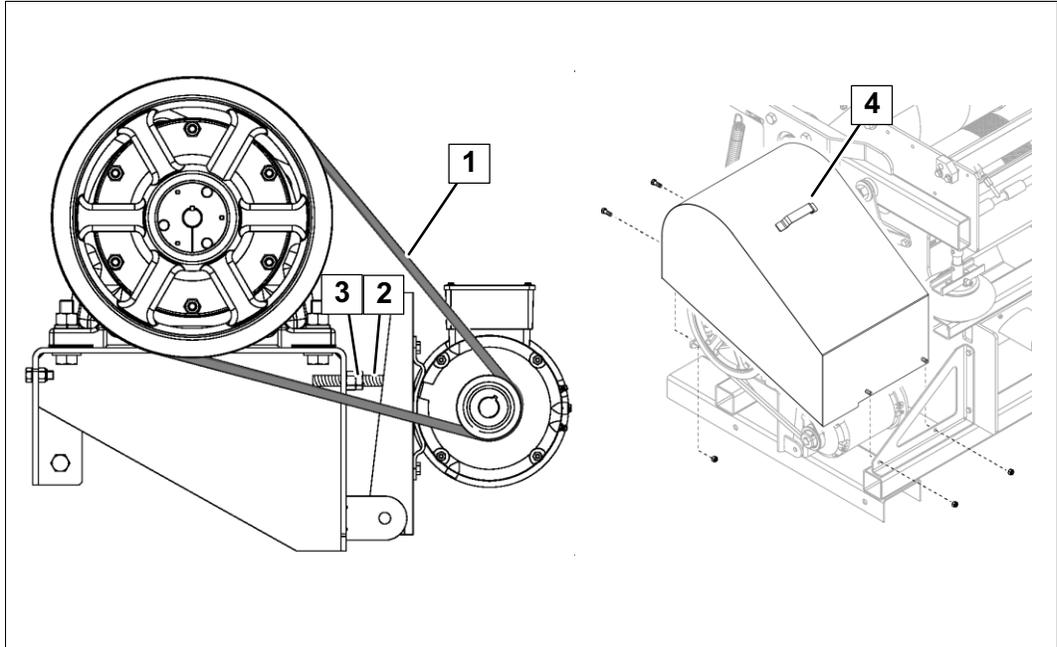
Warning!

Risk of electric shock!

- ▶ Unload the electric motor capacitor before disconnecting the motor.

- Shut off the main power supply.
- Unload the electric motor capacitor by activating manually the motor contact in the control panel.
- Reconnect the motor once unloaded.

5.19.4 Adjusting belt tension



Warning!

Inadvertent start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Caution!

Risk of finger pinching!

- ▶ Wear protective gloves.

- Install the belt (1).
- Unscrew the adjustment bolt (2) of the motor support to apply belt tension.
- Check tension by applying 12lbs [5kg] of pressure midway between the pulleys. When pressure is applied, the belt must deflect ½" (13mm).
- Lock the adjustment bolt (2) with the nut (3).
- Install the safety guard (4).
- Repeat for each XPress.

6 Programming

6.1 Programming the control panel

6.1.1 Demio module



Legend:	
	Para: Parameter menu.
	Scroll: Scroll down
	Scroll: Scroll up
	Select: Select the parameter or value.

6.1.1.1 Programming parameters

	key
<ul style="list-style-type: none"> Press key until (ParA) appears; 	
<ul style="list-style-type: none"> Press key to select; 	
<ul style="list-style-type: none"> Press key until the desired parameter appears; 	
<ul style="list-style-type: none"> Press key to select; 	
<ul style="list-style-type: none"> Press keys to set the range. 	

For more information about parameters, refer to section:
Default setting

6.1.1.2 Default setting

XPress 4FT		
Code	Description	Default value
L1	Tank sonar - Low level setting (0-100%)	70.0%
L2	Tank sonar - High level setting (0-100%)	75.0%
L3	Tank sonar - High-High level setting (0-100%)	95.0%
T1	N/A	0.00 minutes
T2	N/A	0.00 minutes
T3	XPress 4FT spray bar valve - Run time (valve #3)	2.00 minutes
T4	N/A	0.00 minutes
T5	Start delay for cleaning cycle	5 seconds
T6	Delay between rinse cycles (during separation)	0.00 minutes
T7	Valve #3 rinse run time	0.00 minutes
T8	Valve #4 rinse run time	0.00 minutes

XPress 6FT		
Code	Description	Default value
L1	Tank sonar - Low level setting (0-100%)	70.0%
L2	Tank sonar - High level setting (0-100%)	75.0%
L3	Tank sonar - High-High level setting (0-100%)	95.0%
T1	XPress 6FT Tank spray bar valve - Run time (valve #1)	2.00 minutes
T2	XPress 6FT roller spray bar valve - Run time (valve #2)	2.00 minutes
T3	N/A	0.00 minutes
T4	N/A	0.00 minutes
T5	Start delay for cleaning cycle	5 seconds
T6	Delay between rinse cycles (during separation)	0.00 minutes
T7	Valve #3 rinse run time	0.00 minutes
T8	Valve #4 rinse run time	0.00 minutes

XPress 4FT-2FT		
Code	Description	Default value
L1	Tank sonar - Low level setting (0-100%)	70.0%
L2	Tank sonar - High level setting (0-100%)	75.0%
L3	Tank sonar - High-High level setting (0-100%)	95.0%
T1	N/A	0.00 minutes
T2	N/A	0.00 minutes
T3	XPress 4FT spray bar valve - Run time (valve #3)	2.00 minutes
T4	XPress 2FT spray bar valve - Run time (valve #4)	2.00 minutes
T5	Start delay for cleaning cycle	5 seconds
T6	Delay between rinse cycles (during separation)	0.00 minutes
T7	Valve #3 rinse run time	0.00 minutes
T8	Valve #4 rinse run time	0.00 minutes

XPress 6FT - 4FT		
Code	Description	Default value
L1	Tank sonar-Low level setting (0-100%)	70.0%
L2	Tank sonar - High level setting (0-100%)	75.0%
L3	Tank sonar - High-High level setting (0-100%)	95.0%
T1	XPress 6FT Tank spray bar valve - Run time (valve #1)	2.00 minutes
T2	XPress 6FT roller spray bar valve - Run time (valve #2)	2.00 minutes
T3	XPress 4FT spray bar valve - Run time (valve #3)	2.00 minutes
T4	N/A	0.00 minutes
T5	Start delay for cleaning cycle	5 seconds
T6	Delay between rinse cycles (during separation)	0.00 minutes
T7	Valve #3 rinse run time	0.00 minutes
T8	Valve #4 rinse run time	0.00 minutes

XPress 6FT - 4FT - 2FT		
Code	Description	Default value
L1	Tank sonar-Low level setting (0-100%)	70.0%
L2	Tank sonar - High level setting (0-100%)	75.0%
L3	Tank sonar - High-High level setting (0-100%)	95.0%
T1	XPress 6FT Tank spray bar valve - Run time (valve #1)	2.00 minutes
T2	XPress 6FT roller spray bar valve - Run time (valve #2)	2.00 minutes
T3	XPress 4FT spray bar valve - Run time (valve #3)	2.00 minutes
T4	XPress 2FT spray bar valve - Run time (valve #4)	2.00 minutes
T5	Start delay for cleaning cycle	5 seconds
T6	Delay between rinse cycles (during separation)	0.00 minutes
T7	Valve #3 rinse run time	0.00 minutes
T8	Valve #4 rinse run time	0.00 minutes

6.1.1.3 Alarm codes and troubleshooting

Code	Description	Explanation
A1	High - high level	The liquid level in the regulator tank has exceeded the L3 value of the sonar.
A2	Alarm input	The input alarm is deactivated. If no input alarm is used, a jumper must be installed between terminals.
A3	No signal	Problem with the sonar. Check the sonar and wiring.

<ul style="list-style-type: none"> • Press key to reset the alarm; 	
---	---

6.1.2 Programming the frequency drive

Note The control panel is factory configured and tested for your system. Do not change parameters which are not listed in this manual otherwise any warranty will be void. Contact your dealer if required.

6.1.2.1 Frequency drive module



1	Rotate for navigate Push to select or validate
2	Push to return back

6.1.2.2 Programming the speed for an XPress without chute sonar

Program the motor speed (Hertz):

<ul style="list-style-type: none"> • Rotate the knob until (Conf) appears; • Press the knob to validate; • Rotate the knob until (FULL) appears; • Press the knob to validate; • Rotate the knob until (Set-) appears; • Press the knob to validate; • Rotate the knob until (LSP) appears; • Press the knob to validate; • Rotate the knob to set the value. • Press the knob to validate; 	<p>key</p>
---	-------------------

6.1.2.3 Programming the variable speed for an XPress using a chute sonar

Step 1: Activate the sonar reading (PS2)

<ul style="list-style-type: none">• Rotate the knob until (Conf) appears;• Press the knob to validate;• Rotate the knob until (FULL) appears;• Press the knob to validate;• Rotate the knob until (Fun-) appears;• Press the knob to validate;• Rotate the knob until (PSS-) appears;• Press the knob to validate;• Rotate the knob until (PS2-) appears;• Press the knob to validate;• Rotate the knob to set the value to LI2.• Press the knob to validate;	<p>key</p>
	

Step 2: Activate the sonar reading (PS4)

<ul style="list-style-type: none">• Rotate the knob until (Conf) appears;• Press the knob to validate;• Rotate the knob until (FULL) appears;• Press the knob to validate;• Rotate the knob until (Fun-) appears;• Press the knob to validate;• Rotate the knob until (PSS-) appears;• Press the knob to validate;• Rotate the knob until (PS4-) appears;• Press the knob to validate;• Rotate the knob to set the value to LI3.• Press the knob to validate;	<p>key</p>
	

Step 3: Set the low speed (Sp3)

i Note This parameter sets the roller speed in normal conditions.

<ul style="list-style-type: none">• Rotate the knob until (Conf) appears;• Press the knob to validate;• Rotate the knob until (FULL) appears;• Press the knob to validate;• Rotate the knob until (Set-) appears;• Press the knob to validate;• Rotate the knob until (Sp3) appears;• Press the knob to validate;• Rotate the knob to set the low speed.• Press the knob to validate;	<p style="text-align: center;">key</p> 
--	---

Step 4: Set the high speed (Sp4)

i Note This parameter sets the roller high speed when accumulations are detected in the chute.

<ul style="list-style-type: none">• Rotate the knob until (Conf) appears;• Press the knob to validate;• Rotate the knob until (FULL) appears;• Press the knob to validate;• Rotate the knob until (Set-) appears;• Press the knob to validate;• Rotate the knob until (Sp4) appears;• Press the knob to validate;• Rotate the knob to set the high speed.• Press the knob to validate;	<p style="text-align: center;">key</p> 
---	---

6.1.2.4 Factory setting

Code	Description	Default value
CfG	Macro configuration	std
FCS	Configuration recall	InI
bFr	Standard motor frequency (Hz)	Spec*
UnS	Motor nominal voltage (V)	Spec*
FrS	Motor nominal frequency (Hz)	Spec*
nCr	Motor nominal current (A)	Spec*
nSP	Motor nominal speed (Hz)	Spec*
tUn	Auto-setting	POn
tFr	Max output frequency (Hz)	72,0
LSP	Low speed limit (Hz)	10,0
HSP	High speed limit (Hz)	72,0
ItH	Maximum thermal current (A)	Spec*
Sp3	Preset speed 3 (Hz)	25,0
Sp4	Preset speed 4 (Hz)	50,0
rrS	Reverse assignment	nO
CHCF	Command	SEP
Fr1	Reference channel 1	AIU1
PS2	2 preset speeds	nO
PS4	4 preset speeds	nO
rSF	Fault reset	LI5
EtF	External fault assignment	LI4

* Factory configured, according to the motor specification provided.

6.1.2.5 Alarm codes and troubleshooting



Danger!

Crushing hazard!

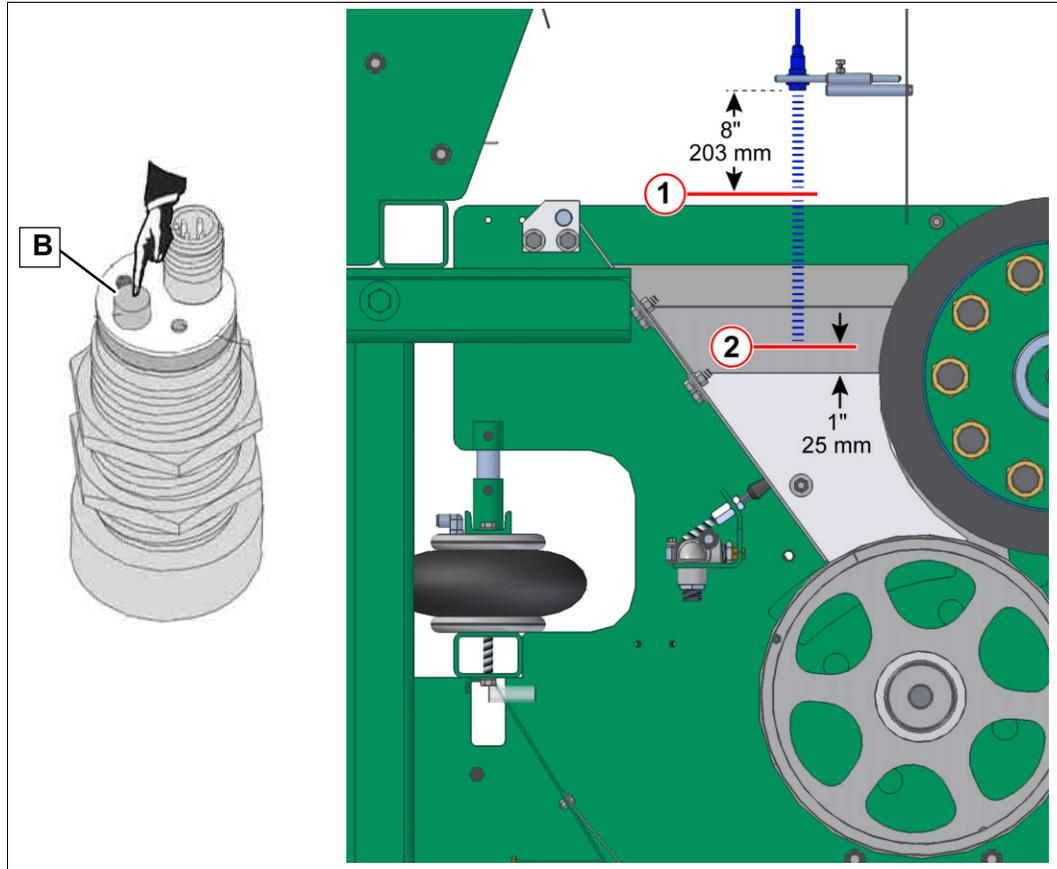
- ▶ Before releasing the emergency stop button, make sure no one stands near the separator. Also make sure all tools were removed from the product.



Refer to the frequency drive instruction manual for more detail.

Code	Description	Explanation
OCF	Motor over current	<ul style="list-style-type: none"> ● Make sure the overload and nameplate motor setup is done.
OLF	Motor overload	<ul style="list-style-type: none"> ● Make sure the motor is not overloaded or damaged.
OPF	Motor phase loss	<ul style="list-style-type: none"> ● Make sure the 3 phases are connected to the motor. ● Make sure the frequency drive is not damaged.
PHF	Input phase loss	<ul style="list-style-type: none"> ● Make sure all fuses in the panel are good. ● Make sure the 3 phases are connected to the frequency drive.
OSF	Over supply voltage	<ul style="list-style-type: none"> ● Make sure the supply voltage is ok.
USF	Under supply voltage	<ul style="list-style-type: none"> ● Make sure the supply voltage is ok.
OHF	Drive overheat	<ul style="list-style-type: none"> ● Make sure the ambient temperature is lower than 30°C or 86°F.
EPF	External fault (High-high level is detected by the sonar)	<ul style="list-style-type: none"> ● Verify manure accumulation or sensor calibration. To reset the alarm, press the Emergency Stop button.

6.1.3 Programming the chute sonar (2 level sonar)



Warning!

Inadvertant start!

XPress rollers can start at any time.

- ▶ Press the emergency stop button on the control panel before programming the sonar.

- Press and hold the teach button (B) until a green LED blinks;
- Set the first detection level (High-high level) by positioning a piece of cardboard at the desired height for high-high level detection (1).
- Press the teach button to validate;
- Set the second detection level (High level) by positioning a piece of cardboard at the desired height for high level detection (2).
- Press the teach button (B) to validate. The green LED blinks for 3 seconds once the programming is completed.

6.2 Disposal of installation material after installation is completed

Handle unused installation material properly and dispose in accordance with current valid local regulations on waste disposal and utilization.

7 Commissioning

7.1 Special Qualification

Initial commissioning may only be carried out by specially qualified personnel in accordance with the safety instructions.

See also the section on "Personnel qualification".

7.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- Before starting for the first time, check that all tools and foreign bodies have been removed from the danger area.
- Activate all safety equipment and emergency-off switches before commissioning.
- Check the direction of rotation of the motor before commissioning.
- Read the "Safety" section as well.

7.3 Special hazards

- Incorrectly wired connections may destroy electrical/electronic components.
- Defective connections can cause the product to start up unexpectedly or make uncontrolled movements.
- Connections that have been mixed up will cause the motor to run in the wrong direction - which may cause serious damage to property and/or life-threatening injury to people.

7.4 Successful separation

Prerequisites for successful separation are resumed by the 4 keywords:

- Time
- Input consistency
- Output fiber mat
- Cleaning



Read the following sections to learn more about the 4 keywords.

7.4.1 Time

Time is your first allied to meet successful separation.

The best separation result occurs when the XPress operates at the lowest possible speed. Evidently, the speed must be adjusted as per the daily separation needs.

”The slower, the better”

The speed of each XPress can be adjusted by the frequency drive inside the control panel.

7.4.2 Input consistency

The composition of the effluent can influence the separation results. It is very important to keep the effluent stable and homogenized at all time.

7.4.3 Output fiber mat

”Thick on the full width”

A good separation occurs when the last XPress produce a thick and regular fiber mat on the full width of rollers.

To obtain it, the system must be adjusted correctly.

Read the following to learn more about the fiber mat as well as the factors influencing the result.

 Good fiber mat characteristics	 Poor fiber mat characteristics
<ul style="list-style-type: none"> • Regular fiber mat on full roller width 	<ul style="list-style-type: none"> • Irregular fiber mat 
<ul style="list-style-type: none"> • Thickness from 1” to 2” (25 to 51mm) 	<ul style="list-style-type: none"> • Thickness less than 1” (25mm) 

Factors influencing the fiber mat

Roller compression surface

The roller compression surface is the thin linear zone where the rubber roller compress fiber on the screen roller.

To compress adequately, the XPress must be sufficiently fed in fiber in order to fill the full rollers width.

When rollers are insufficiently fed, the separation performances are reduced. In fact, the final moisture content will be higher.

The lack of fiber processed allows the liquid runs between fiber clusters.



Moreover, while compressing fiber spots, the liquid runs to free space. Then, once it get out, the fibers spots reabsorb the liquid standing in free space, like a sponge.

Fiber mat thickness

The thicker the fiber mat is, the better the separation process will be.

It is important to keep a thick fiber mat in order to minimize the reabsorbing effect.



Reabsorbing effect

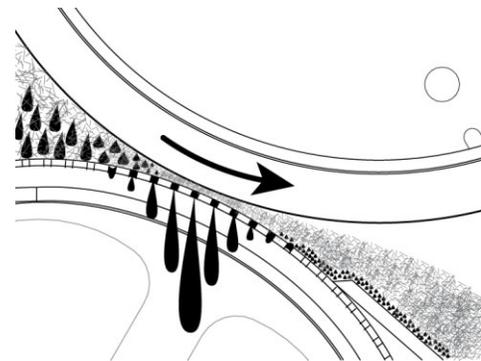
Important phenomenon affecting the separation process when using a XPress.

During the compression, the liquid in the fiber mat is expelled through the screen roller holes and is evacuated thru the drain.

As screen roller is designed with many holes, some incomplete drops are retained in each hole by capillarity.

These incomplete drops are reabsorbed by the fiber mat just like a sponge after the compression zone.

This effect reduces the separation efficiency of the fiber mat.



The reabsorbed water quantity is exactly the same for a thick or a thin fiber mat.

The thicker is the fiber mat, the lower is the influence of the reabsorbing effect on the final moisture content of the fiber.

With a thin fiber mat, the water reabsorbed represents a high percentage of liquid limiting the separation efficiency of the process.

7.4.4 Cleaning

A good separation starts with a clean equipment.

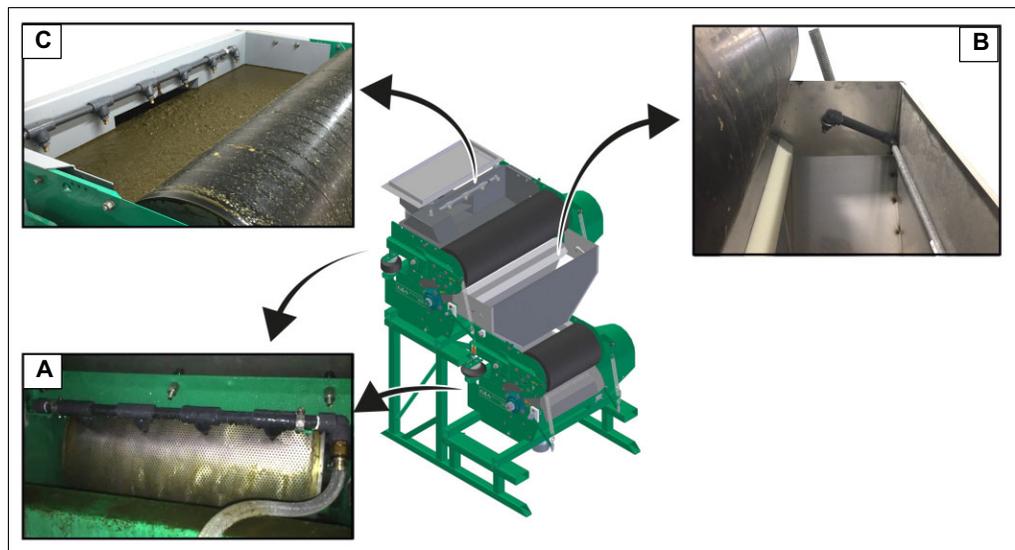
Each XPress system is equipped with spray bars that automatically clean the equipment on a regular basis. Sequenced by the control panel, the spray bars remove accumulations on screen rollers, chutes and inside the regulator tank.

- The screen rollers (A) and the chutes (B) are cleaned at regular intervals while operating. The interval can be adjusted as per the need.
- The regulator tank (C) is cleaned when the feeding pump stops.



Note

In addition, a daily manual cleaning is required to the chutes, rollers, scrapers, tank and drains.



7.5 First start

7.5.1 How to correctly set the system



For more information about separation, refer to section: Successful separation

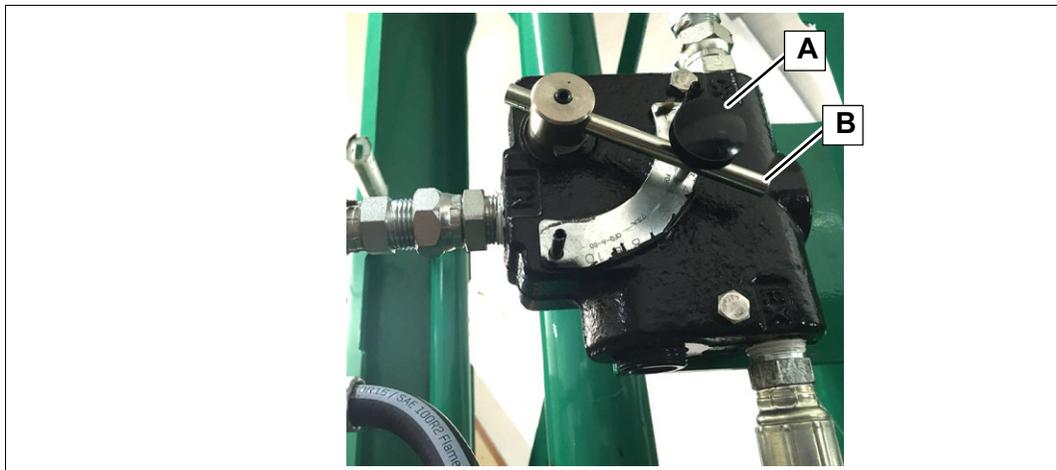
Step 1: Check the liquid manure consistency

- Start the Electromix agitator to homogenize the reception pit content.
- Note time required for complete homogenization.
- Perform a manure consistency test. Make sure it is between ½" - 1½" (13mm - 38mm). Refer to section: Appendix - Consistency test

Step 2: Adjust homogenization time

- Following the time required for complete homogenization, adjust the run time timer in the Electromix agitator control panel.

Step 3: Set the pump flow rate



- Adjust the Electromix pump flow regulator to get 50 usgpm (190lpm) transfer rate:
 - Unlock the knob (A).
 - Position the lever (B) to 3 on the ruler.
 - Lock the knob (A).

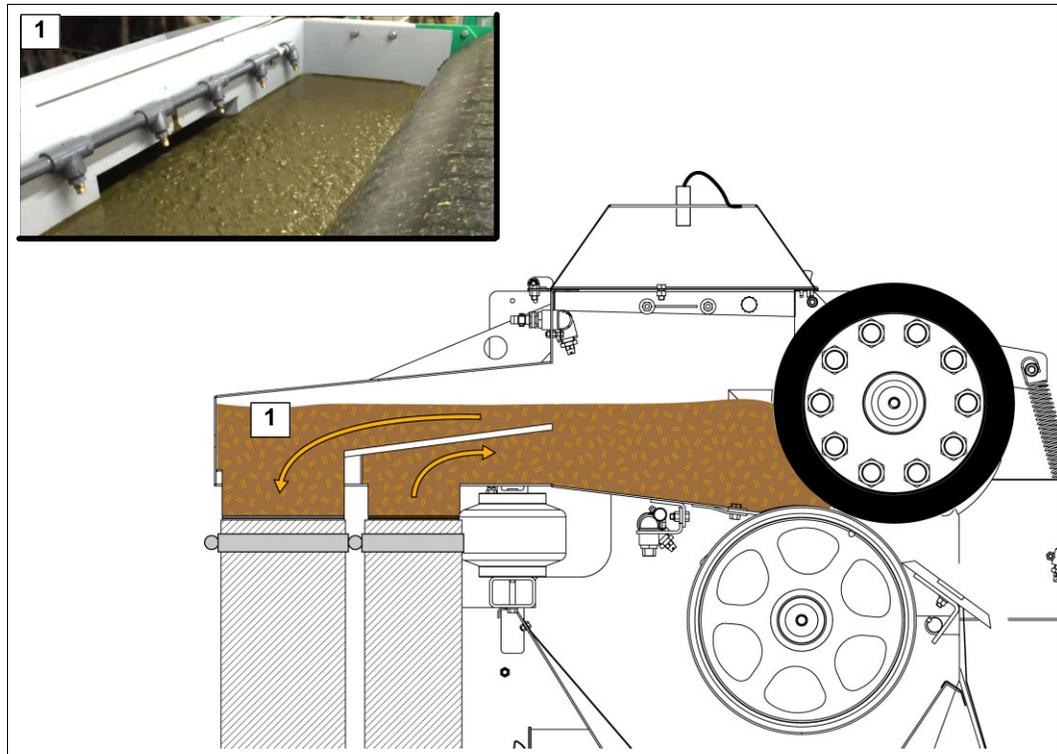
Step 4: Start the system

- Activate the Electromix agitator control panel.
- Activate the Electromix pump control panel.
- Activate all XPress in Auto mode.
 - Turn XPress selectors to "AUTO"
- Deactivate the wash mode.
 - Turn Wash selector to "OFF"

**Note**

The XPress system will only start when a high level is detected in the regulator tank.

Step 5: Check the regulator tank level



- Make sure the regulator tank level is adequate. The pump flow rate must be adjusted to feed the tank and to allow the liquid to return back to the pit by the overflow (1).

Step 6: Check the separation result and adjust

**Note**

Always adjust roller speed of the last XPress first, then adjust upstream XPress roller speed if necessary.

After each parameter change, always wait at least 5 minutes to allow time for stabilization, then measure the effect of the change.

1. Check the fiber mat at the output.
 - Make sure it is thick on full roller width.
 2. Using a piece of wood, check the fiber mat thickness.
 - Make sure it stands between 1" to 2" (25mm to 51mm)
- If the fiber mat is irregular or too thin, reduce the roller speed. Refer to section: Programming the frequency drive.





7.6 Checks after initial commissioning

This checklist must be completed by the dealer and the customer. The initial commissioning steps intend to test the product to validate its functionality.

Therefore, the dealer and the customer must operate the product to make sure the product is assembled and/or installed according to the manufacturer's instructions.

General	DONE	N/A
The owner received the instruction manual from the dealer and commits to read it.		
The owner is instructed by the dealer on how to operate and maintain the product.		
The safety labels are installed.		
The lubrication points are lubricated.		
The oil levels are adequate.		
All bolts are torqued.		
All drains are closed.		
All connections are secured.		
A visual inspection is performed to ensure there are no leaks, signs of distortion or defective parts.		
The pressure in the air spring system is set to 100 psi (690 kPa).		
The drive belts are properly tensioned.		
The spraybar nozzles work perfectly.		
The cleaning devices are connected to tap water.		
The roller speed of each XPress are correctly set.		
The sonar (s) is programmed correctly.		
The control panel is programmed correctly.		
The equipment/component provided by the owner comply with the specifications contained in section Technical data.		



Note

The dealer and the owner must fill the warranty registration form when the checklist is completed.

Dealer's signature: _____

Owner's signature: _____

Date: _____

Checks after commissioning

The owner must make sure that:

- there are no damaged, worn, defective parts or signs of distortion;
- the safety devices such as guards, covers, chains, etc. are in perfect working condition and remain in place to ensure safety;
- the lubricants such as grease, oil, etc. are at an appropriate level;
- there are no leaks;
- all bolts are tight. Refer to section Description - Technical data - Bolt torque chart;
- the product works perfectly;

7.7 Handing over to the owner

- The warranty registration form must be completed and signed by the customer and the dealer. The warranty registration form must be returned to GEA Farm Technologies Canada Inc. / Division GEA Houle to validate the warranty.

Declaration of conformity and CE mark

(only necessary for European Union member states)

A declaration of conformity must be produced and a CE mark applied if an entire operational installation is assembled from individual components.

If several directives apply to the complete system, the CE mark indicates that the requirements of all relevant directives have been met.

The technical center/specialist dealer performing the installation work must:

- perform the installation work in accordance with the installation and safety information given in the relevant operating and installation manuals
- complete the hand-over report and have it signed
- produce the declaration of conformity for the total installation being handed over
- apply the CE mark so that it is clearly visible on the installation.

8 Operation and handling

8.1 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- Use the product for its intended purpose only.
- Read the "Safety" section as well.

Prior to operation, the operator should be adequately familiar with the following:

- The operating and control elements
- The equipment included
- The method of operation
- The immediate surroundings
- The safety devices

Carry out the following checks before every start:

- Check and make sure that all of the safety devices (deflector plates, emergency-off switches, etc.) are present and working.
- Check the product for visible damage; immediately remove any faults that are found (observe personnel qualification required) or contact your specialist dealer - the product may only be used if it is in perfect condition.
- Check and make sure that only authorized personnel are in the work area of the machine and no other people will be endangered by the machine starting.
- Check and make sure that there are no objects or materials in the working area if they are not necessary for operation.

In normal operation:

- No safety devices may be removed or deactivated during operation.
- Remaining inside the hazardous area during operation is strictly forbidden!
- Operating personnel should make sure that no unauthorized personnel are in the working area.

8.2 Operation / Control



Warning!

Crushing hazard!

There is a danger of being grabbed by rollers.

- ▶ Accessing inside the chute is strictly forbidden.



The system operates in automatic mode as per the control panel settings.



Refer to section: Programming the control panel

9 Maintenance

If necessary, contact your nearest authorised technical dealer.

9.1 Special Qualification

Maintenance work may only be performed by specially qualified personnel in accordance with the safety instructions.

- Participation in corresponding product training is necessary.

See also the section on "Personnel qualification".

9.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

Attention!

The installation or use of products from other manufacturers may affect the specified properties of the original parts and lead to injury to people and animals.

Only use original spare parts / original wear parts / original accessories.

The manufacturer does not accept any liability for injury to people or animals, or damage to the product, caused by the use of products from other manufacturers.

-
- All of the steps involved in the maintenance work must be worked through in the order specified.
 - The maintenance work specified in the instructions (adjustment, cleaning, lubrication, inspection, etc.) must be performed at the times specified.
 - Maintenance should only be carried out using the tools designated for this purpose.
 - All warnings and warning signs must be present and legible.
 - Immediately replace any components that are not in perfect condition.
 - Read the "Safety" section as well.

Before carrying out any maintenance work, ensure the following:

- The area for the maintenance work and access to the working area should be secured over a wide area and there should not be any unauthorised persons in the working area.
- Before performing any work on electrical installations or equipment (components, housing, etc.) switch off all sources of voltage and make sure they cannot be switched back on again. Put up a sign warning against switching them back on again.
Obey the safety rules:
 - isolate
 - Ensure devices cannot be switched back on again
 - verify safe isolation from supply.
 - Earth and short circuit if necessary.
 - cover or enclose any nearby live parts.
- Suitable lifting gear and load suspension equipment must be available when replacing larger components.

After completing the maintenance work, check the following:

- The system settings must not be altered as a result of these measures (see setup protocol).
- All screw connections that were previously loosened must be tightened again.
- All protective devices, covers, panels, strainers, filters, etc. that were removed previously must be reinstalled correctly.
- Safety equipment must be in perfect working order again.
- All tools, materials and other equipment used must be removed from the work area.
- The work area must be cleaned again.
(remove any fluids or similar substances that came out of the machine)
- After maintenance has been carried out or parts have been replaced, check that they are working. If required, create a full test report.

9.3 Special hazards

- Serious damage to property may occur if incorrect replacement or wearing parts are installed.
- If energy sources are switched on unintentionally, this may lead to serious bodily injury or damage to property.
- There is a risk of injury from accessible components/tools... with sharp edges.
- Compressed air/gases/vapours/... discharged can cause serious physical injury.
- Injury can be caused by contact with leaking liquids.
- There is a fire hazard associated with welding work.
- Electronic components (e.g. control cards) may be destroyed by welding work.
 - Always disconnect these components from the mains before carrying out any welding work.
 - Disconnect components within a radius of 2 metres.
- Lines which are not laid properly (e.g. bending radius too small) can cause scorching and electrical fires
- Leaking lubricants, solvents, preservatives, can cause injury if they come into direct contact with the skin.
- Electrostatic processes can cause damage to electronic components.
 - Only touch the edge of the printed circuit board and avoid static caused for example by clothing.
- Incorrectly wired connections may destroy electrical/electronic components.
- Serious injury to persons or property can be caused if incorrect torque is applied when tightening screws.

9.4 Inspections and preventive maintenance

Scheduled maintenance responsibilities

Maintenance interval: Every 24 hours			
Action (by)	Module / component	Construction	
Check air pressure regulator. (qualified personnel)			
Clean nylon scraper. (qualified personnel)	XPress 2FT XPress 4FT XPress 6FT	2019-3900-060 2019-3900-410 2019-3900-640	Nylon scraper
Clean level sonar (s). (qualified personnel)			

Maintenance interval: First 100 hours of operation			
Action (by)			
Check bolts and anchor bolts. (qualified personnel)			
Check XPress belt tension. (qualified personnel)			

Maintenance interval: Every 100 hours of operation/ Once a week			
Action (by)	Module / component	Construction	
Clean and inspect XPress rollers. (qualified personnel)			
Clean chutes and regulator tank. (qualified personnel)	Regulator tank 4FT Regulator tank 6FT	2019-3900-580 2019-3900-610	Urethane blade
Check the bolt torque on XPress rubber roller. (qualified personnel)			
Grease the bearings. (qualified personnel)			

Maintenance interval: Every 3 months			
Action (by)			
Check spring tension. (qualified personnel)			
Lubricate the hinges of the regulator tank cover. (qualified personnel)			

Maintenance interval: Once a year			
Action (by)	Module / component	Construction	
Check pneumatic lines. (qualified personnel)			
Check XPress air springs (qualified personnel)			
Replace air springs (qualified personnel)	XPress	2019-4500-210 2019-4500-230 2019-4500-300	4" air spring 5" air spring 6" air spring

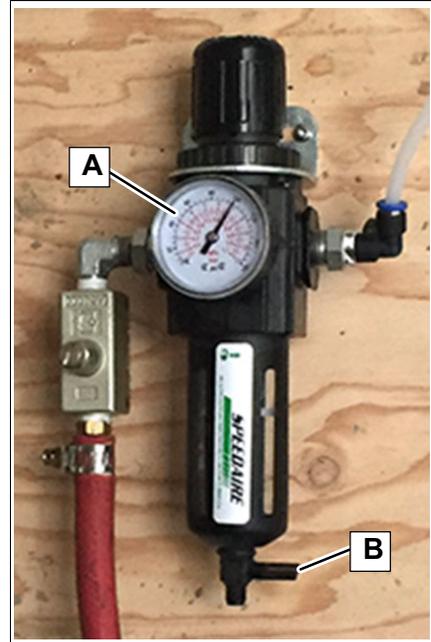
Maintenance

Check air pressure regulator

Maintenance interval: Every 6 years			
Action (by)	Module / component	Construction	
Replace air springs (qualified personel)	XPress	2019-4500-210	4" air spring
		2019-4500-230	5" air spring
		2019-4500-300	6" air spring
Replace drive belt (qualified personel)	XPress	2019-3502-720	V-belt (BX54)

9.5 Check air pressure regulator

1. Check the pressure gauge (A) and make sure the pressure is 100psi (689kPa).
2. Bleed the air regulator by opening the drain valve (B) for 3 seconds.
3. Add air to the system until the pressure gage indicates 100psi (689kPa).
4. Repeat for each air regulator.



Note

If the air pressure has decreased, check for leaks, bleed the circuit and repair.

9.6 Check nylon scraper

Warning!

Inadvertent start!

Shutdown is required!

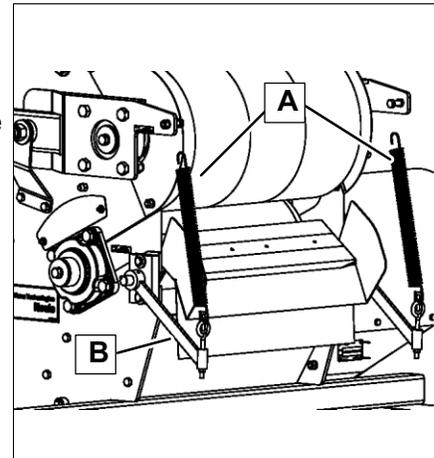
- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Attention!

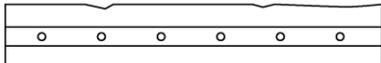
Water splashes can damage the bearing unit.

- ▶ Protect the bearings against splashes.

- Unhook the two springs (A) from the XPress.
- Lower the scraper lever (B).
- Clean the scraper with tap water. Remove accumulations under the scraper.



- Inspect the nylon scraper and make sure it is in good condition. See below.

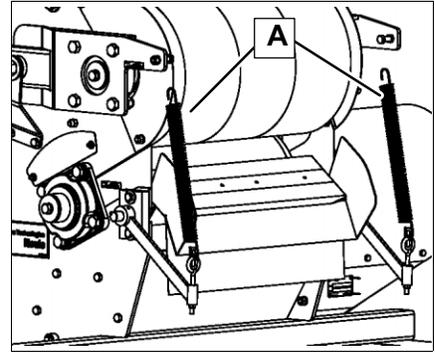
Top view		Side view	
			
			

- Rotate or replace the scraper when worn or damaged. Refer to instruction below.

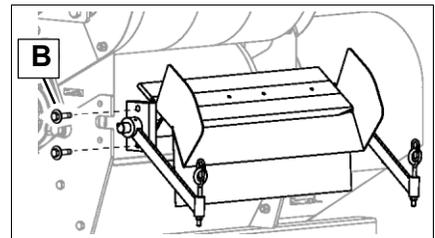
- Hook the two springs back to initial position.

Replace the nylon scraper

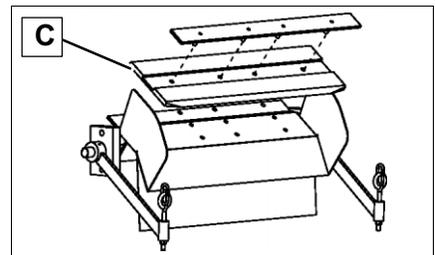
- Unhook the two springs (A) from the XPress.



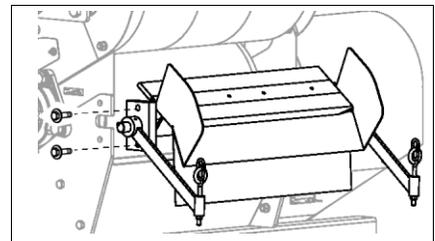
- Remove the two bolts (B) from the nylon plate.
- Unlock the lever set screw.
- Raise the lever to slide out the scraper assembly.



- Remove the scraper (C) from its support.
- Rotate or replace.
- Assemble it to initial position. Tighten.



- Position back the scraper assembly.
- Assemble the two nylon plates to the frame.
- Position the lever against the nylon plate.
- Tighten the set screw.
- Install the springs back to initial position.



9.7 Clean level sonar



Warning!

Inadvertant start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.
-

Attention!

Cleaning agent can damage the sonar.

- ▶ Only use tap water.
-

- Clean each sonar with a wet cloth.

9.8 Check bolts and anchor bolts

- Check bolt torque of the following elements:
 - Floor anchor bolts.
 - XPress support stands.
 - Deck.
 - Chutes.
 - Motor safety guards.
 - Roller side guards.
 - Sonar.

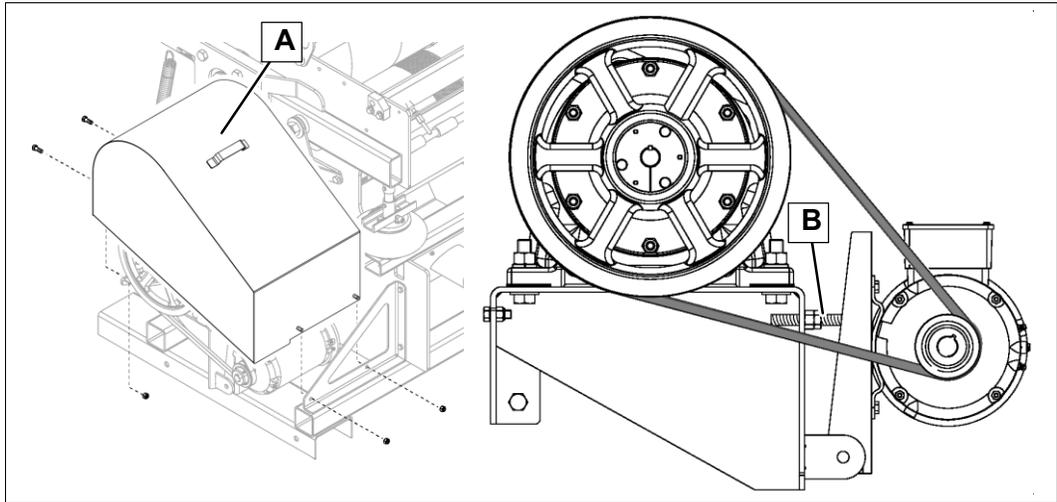
9.9 Check belt tension

 **Warning!**

Inadvertant start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.



- Remove the safety guard (A).
- Check tension by applying 12lbs [5kg] of pressure midway between the pulleys. When pressure is applied, the belt must deflect ½" (13mm).
- If required, adjust the belt tension using the bolt (B).

9.10 Clean and inspect rollers

Warning!

Inadvertant start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Attention!

Water splashes can damage the bearing unit.

- ▶ Protect the bearings against splashes.

Step 1: Clean

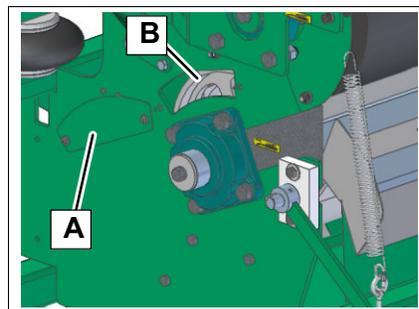
- Shut off the pump feeding the system.
- Cover the bearings.
- Start the XPress using the control panel (MAN) .
- Clean the roller using tap water.
- Stop the XPress using the control panel (OFF).

Attention!

Pressure washer can damage the rubber roller.

- ▶ Do not clean the rubber roller with a pressure washer.

- Remove the screen roller access door (A).
- Using the pressure washer, clean inside the screen roller by the side access (B).
- Repeat on the other side.



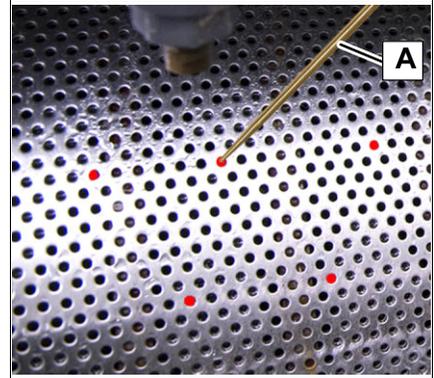
- Using a pressure washer (2000 psi max), clean the screen roller from the rear side of the XPress. Always keep at least 1" (25mm) between the pressure washer nozzle and the steel roller surface.
- Start the XPress in manual mode to rotate the rollers to access to the hidden portion.
- Stop the XPress and complete the screen roller cleaning.



- Install the access doors.

Step 2: Inspect

- Shut off the system.
- Insert a 3/32" (2mm) needle (A) randomly into the screen openings, it should easily penetrate.
- Check over the entire surface proceeding section by section.
- If most of the openings are plugged, a descaling treatment is required. Contact your dealer.



9.11 Clean chutes and regulator tank

 **Warning!**

Inadvertant start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Attention!

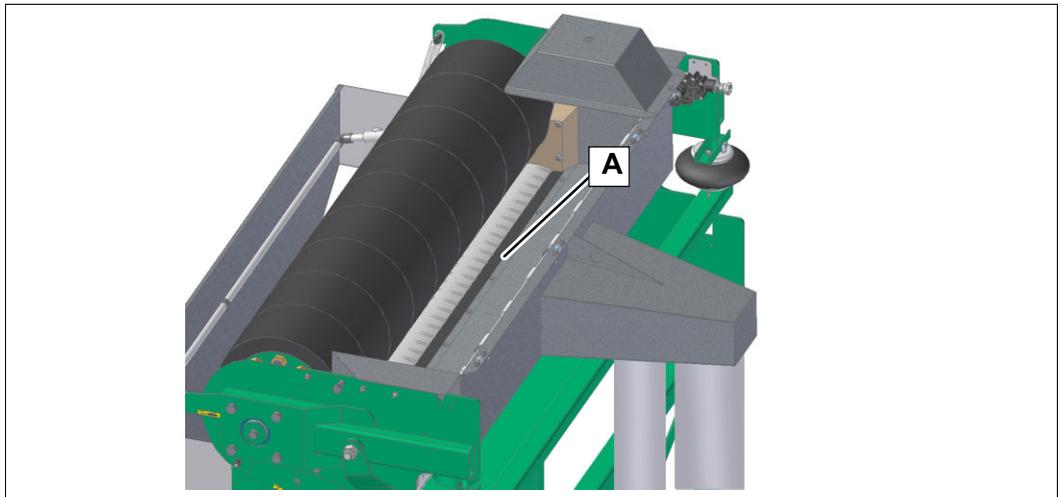
Water splashes can damage the bearing unit.

- ▶ Protect the bearings against splashes.

Attention!

Pressure washer can damage the rubber roller.

- ▶ Do not clean the rubber roller with a pressure washer.



- Cover the bearings.
- Using a pressure washer, clean the regulator tank and the chute (s). Always keep at least 1" (25mm) between the pressure washer nozzle and the surface.
- Check the urethane blade (A) and replace when worn.

9.12 Check the nuts torque on rubber roller



Warning!

Inadvertant start!

Shutdown is required!

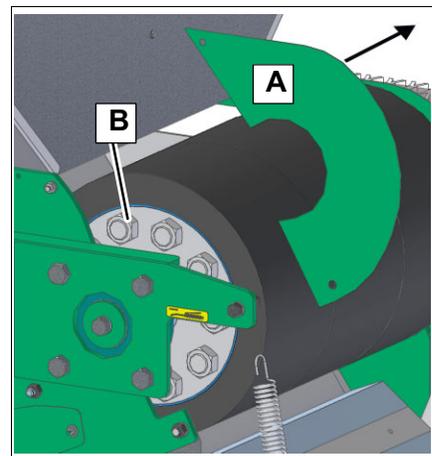
- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Attention!

To complete the procedure, it requires to operate the equipment.

- ▶ Follow the steps and make sure the system is shutdown before working on the equipment.

- Shut down the system.
- Remove the side guards (A) each side of the rubber roller.
- Torque each nut (B) to 300 ft-lb (406Nm).
- Use the manual mode to rotate the roller and have access to hidden nuts.
- Shut down the system.
- Repeat the steps until all nuts are torqued.
- Install the side guards.



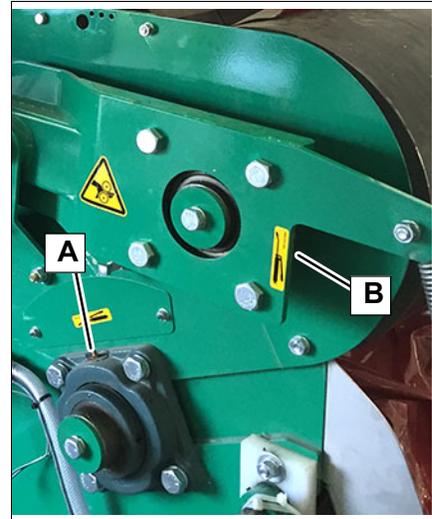
9.13 Grease roller bearings

Attention!

Applying grease quickly will damage the bearing seals.

- ▶ Slowly lubricate the bearing.

- Remove the cap from the grease fitting (A).
- Wipe the grease fitting clean.
- Using a grease gun, SLOWLY add 16 grams of EP2 general purpose grease while the bearing runs.
- Install the cap back.
- Repeat steps for each bearing.



9.14 Check spring tension

Warning!

Inadvertent start!

Shutdown is required!

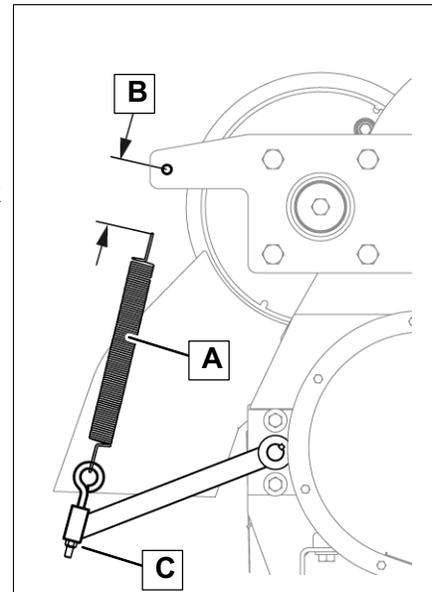
- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

Caution!

Spring is under tension

- ▶ Handle the spring with care.

- Unhook the two springs (A) from the top to release scraper tension.
- Keeping the bottom hooked, pull the spring toward the top anchor.
- Measure the distance (B) between the hook and the top of the spring. The distance must be from 2 ½" to 3 ½" (from 65mm to 89mm).
- To adjust distance, screw or unscrew the eye bolt nut (C).
- Repeat these steps for second spring.
- Hook the 2 springs.



9.15 Lubricate cover hinges of the regulator tank

- Using a spraycan of biodegradable oil, apply lubricant to the hinges of regulator tank cover.

9.16 Check pneumatic lines



Warning!

High air pressure can cause severe eye injury.

- ▶ Wear safety glasses
-

- Check the pneumatic line. Replace when damaged.

9.17 Check air springs



Warning!

High air pressure can cause severe eye injury.

- ▶ Wear safety glasses
-

- Check the pneumatic air springs.
- Replace when cracked or damaged. Refer to section: Replace air springs.

9.18 Replace air springs

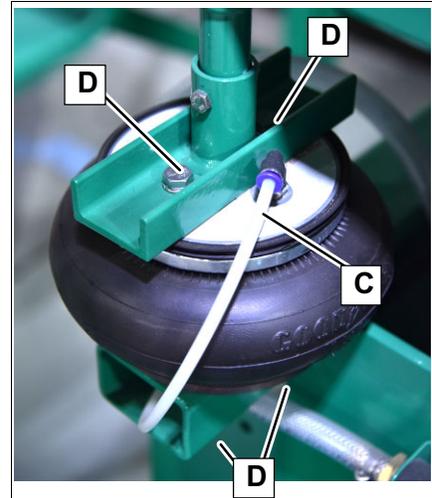
 **Warning!**

Inadvertant start!

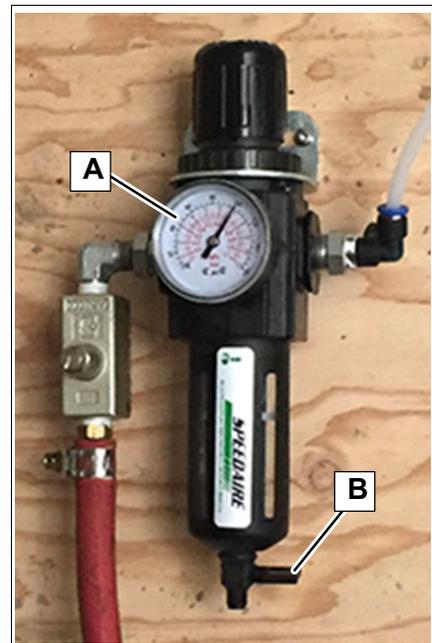
Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.

- Shut off the main supply.
- Open the drain valve (B) from air regulator to bleed the air pressure from the pneumatic circuit.
- Disconnect hoses (C) from the air spring.
- Remove the 4 bolts (D) and replace the air spring. Torque bolts.
- Connect hoses to the new air spring.



- Add air to the system until the pressure gage (A) indicates 100psi (689kPa).



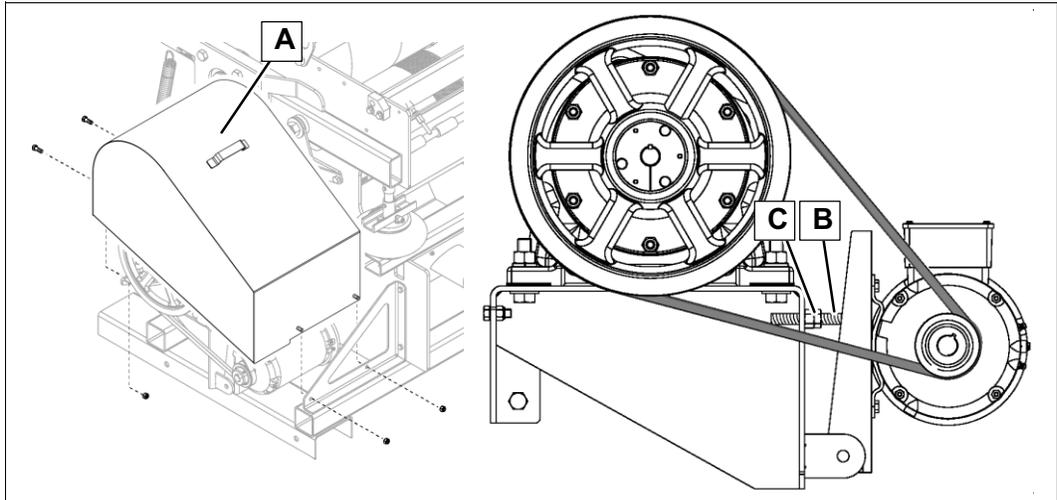
9.19 Replace drive belt

 **Warning!**

Inadvertant start!

Shutdown is required!

- ▶ Shut the main power supply and lock with a locking device. Post a sign on the panel stating: "Do not turn on, electric work in progress" in order to prevent an inadvertent energizing of the main electric supply.



- Shut off the main supply and lock.
- Remove the safety guard (A).
- Screw the bolt (B) to remove belt tension.
- Replace the belt.
- Unscrew the bolt (B) to increase belt tension. Make sure the belt deflection is adequate.
- Check tension by applying 12lbs [5kg] of pressure midway between the pulleys. When pressure is applied, the belt must deflect ½" (13mm).
- If required, adjust the belt tension using the bolt (B).
- Screw the nut (C) to lock the adjustment.
- Install the motor safety guard.

10 Troubleshooting

If necessary, contact your nearest authorised technical dealer.

10.1 Special Qualification

Troubleshooting may only be performed by specially qualified personnel in accordance with the safety instructions.

- Participation in corresponding product training is necessary.

See also the section on "Personnel qualification".

10.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- First of all, prevent the product from being restarted accidentally.
- Ensure that the system can be switched off by a second person at any time.
- Secure the operating range of the moving parts of the equipment.
- Read the "Safety" section as well.

10.3 Special hazards

- If energy sources are switched on unintentionally this may lead to serious damage to property and/or life-threatening injuries to people and animals.
- Compressed air/gases/vapours/... discharged can cause serious physical injury.

10.4 Fault messages and troubleshooting help

Symptom	Possible Cause	Remedy (by)
The system does not start	Control panel selector is set in OFF position.	Set the selector in AUTO or MAN position.
	The emergency stop is activated	Deactivate the emergency stop. (qualified personnel)
	The control panel main supply is shut off	Check the main supply. (electrician)
XPress rollers do not run but control panel is operational	The pump feeding the system does not work. Therefore, the tank sonar does not activate the system	Check the wiring. (electrician) Make sure the run time parameters are well programmed (qualified personnel) Validate the feeding pump operates (prime loss, obstruction)
	The regulator tank sonar is dirty	Clean the sonar with a wet cloth. (qualified personnel)
	Wrong motor wiring	Check the wiring. (electrician)
	Damaged drive component	Check mechanical components (Dealer)
	Motor circuit protection is activated	Check the motor, wiring. (electrician)
Abnormal noise coming from the rollers	Loose, corroded or damaged motor wire	Check the wiring. (electrician)
	Foreign object in the rollers	Remove the object. (qualified personnel)
	Damaged mechanical component	Check mechanical components (Dealer) Check pulley alignment (Dealer)

Symptom	Possible Cause	Remedy (by)
Extracted fibers too wet	Fiber mat too thin or uneven	Make sure the input level is adequate Reduce roller speed
	Roller speed too fast	Reduce roller speed
	Unstable input manure consistency	Make sure the manure is kept homogenised while operating Make sure the pump transfer rate is constant
	Input manure composition has changed due to bedding/feeding change	Adjust roller speed
	Leak on XPress air spring	Repair (Dealer)
	Roller damaged	Repair or replace the roller (Dealer) Make sure there is no foreign objects in the manure
	Screen roller openings partially plugged	Clean the screen roller (qualified personnel) Perform a treatment (Dealer)
The regulator tank overflows	The overflow drain is plugged	Unplug the drain (qualified personnel)
Fiber sticks/accumulates on nylon scraper	The nylon scraper is worn	Clean the scraper (qualified personnel) Rotate or replace the scraper (qualified personnel)
Liquid runs out by the sides of the screen roller	Screen roller openings partially plugged	Clean the screen roller (qualified personnel) Perform a treatment (Dealer)
	Too high pressure in the XPress air spring	Regulate the air pressure to 100 psi (689kPa)

Troubleshooting

Fault messages and troubleshooting help

Symptom	Possible Cause	Remedy (by)
Fiber sticks/accumulates under the roller	Too high pressure in the XPress air spring	Regulate the air pressure to 100 psi (689kPa)
	Scraper spring too loose	Adjust scraper tension (qualified personnel)
	The nylon scraper is worn	Clean the scraper (qualified personnel) Rotate or replace the scraper (qualified personnel)
The primary XPress process a few fiber quantity since the regulator tank empties quickly.	The urethane blade in the regulator tank is worn or damaged.	Replace the urethane blade (qualified personnel)
The cleaning cycle does not work	Wrong programming	Review the programming
Spraybar does not spray correctly	Nozzle is plugged by a particle	Clean the nozzle
	Nozzles are plugged by limestone, struvite...	Descale the nozzles using vinegar. Unplug the nozzles with a needle 1/16" (1,5mm)
	Tap water line is closed	Open the line valve
	Wiring defective	Check the wiring (electrician)
The high-high level alarm is active in the regulator tank	The overflow is plugged	Unplug the overflow. (qualified personnel)

11 Shut-down

11.1 Special Qualification

Decommissioning may only be performed by specially qualified personnel in accordance with the safety instructions.

See also the section on "Personnel qualification".

11.2 Safety Instructions

To prevent damage to property and/or life-threatening injury to personnel, always observe the following:

- All of the steps involved in the decommissioning work must be worked through in the order specified.
- First of all, make the operating area for decommissioning completely safe.
- Make sure that operating media are disposed of without harming the environment.
- Read the "Safety" section as well.

11.3 Special hazards

- Leaking lubricants, solvents, preservatives, can cause injury if they come into direct contact with the skin.
- Compressed air/gases/vapours/... discharged can cause serious physical injury.
- Components which have not been set down correctly may fall off or twist.
- There is a risk of injury from open components / tools / with sharp edges.
- Do not stand beneath a suspended load. A suspended load may fall unexpectedly, which may cause death.
- Using load suspension devices other than those specified here may result in serious injury to people and damage to property.

11.4 Final decommissioning

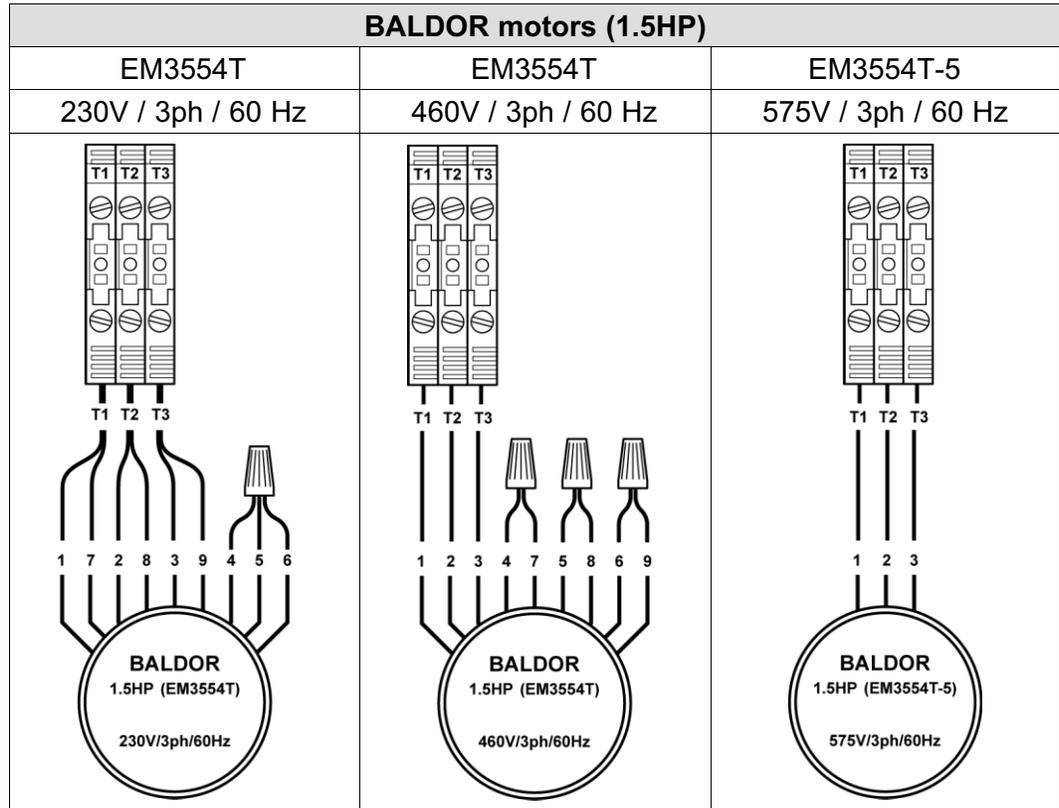
11.5 Disposal

After final decommissioning, handle all components properly and dispose of them in accordance with valid local regulations on waste disposal and utilization.

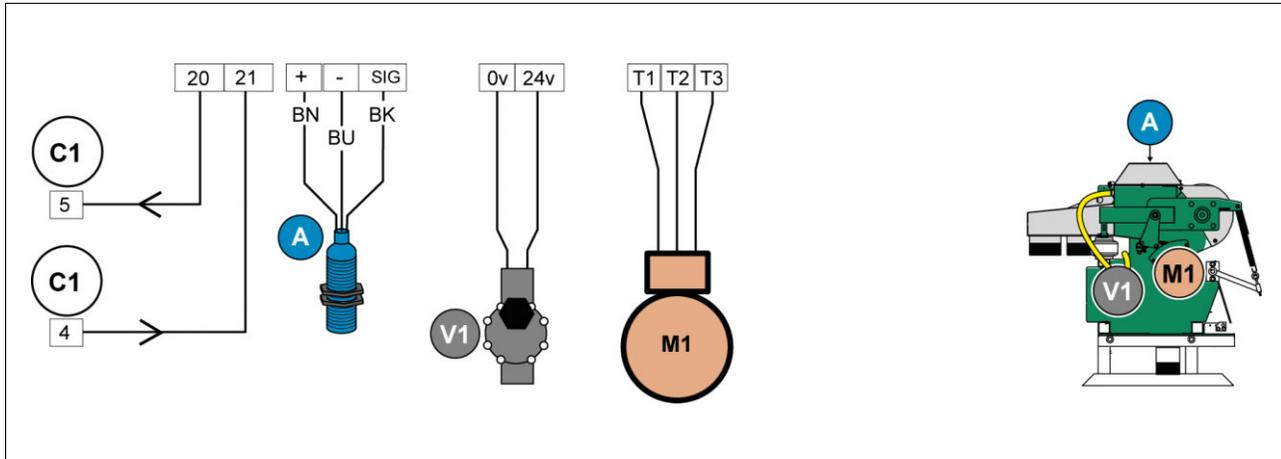
12 Wiring diagram

12.1 Electric motor wiring diagram

Note
GEA provides specifications and wiring diagrams related to Baldor motor(s).
For any other motor brand, contact the manufacturer.

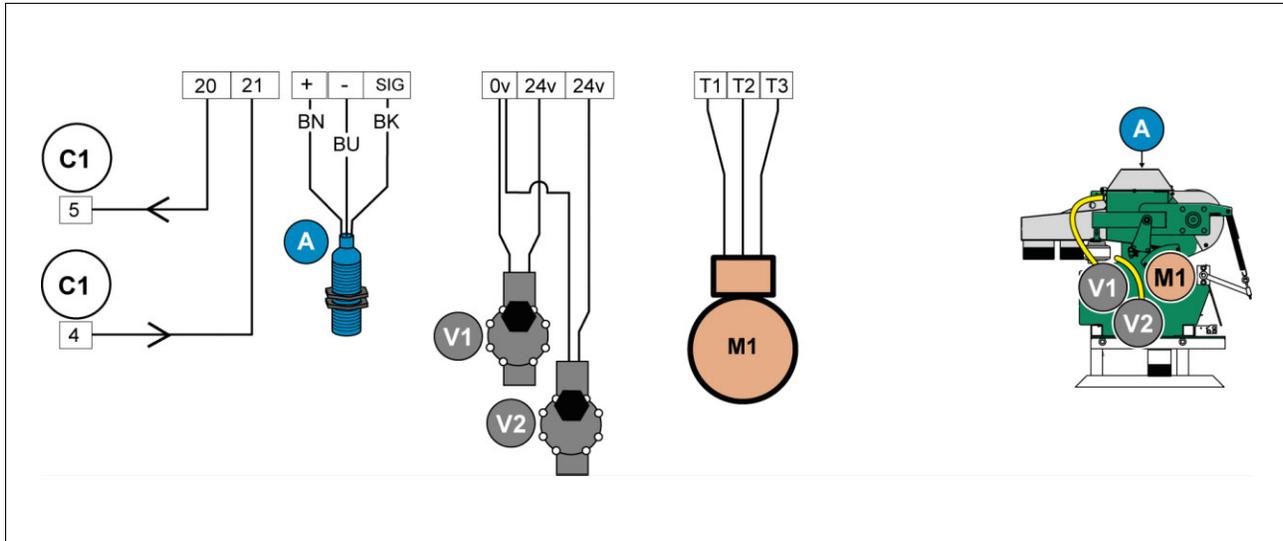


12.2 XPress 4FT control panel wiring diagram



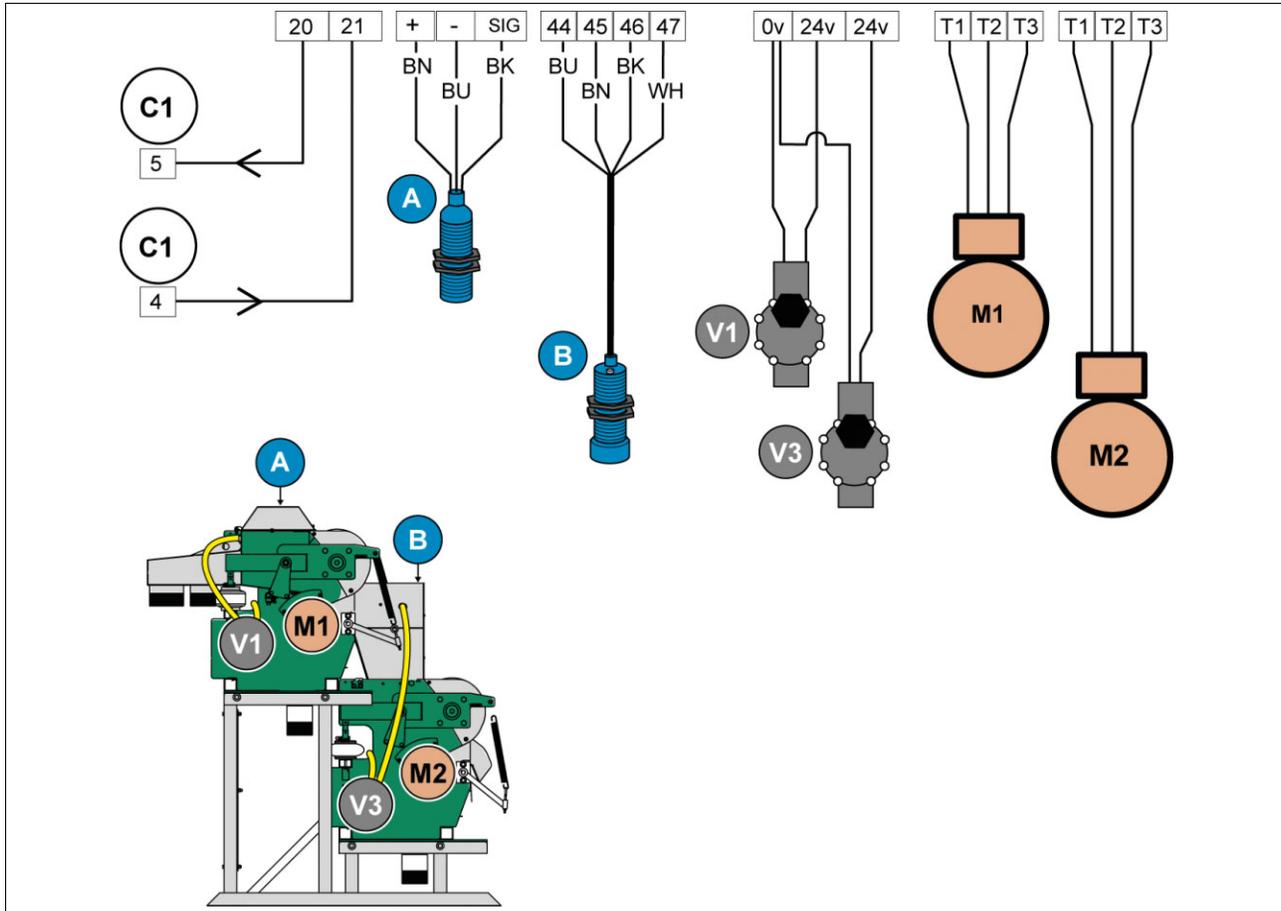
C1	Electromix agitator control panel	V1	Chute and roller spray bars (valve #1)
A	Regulator tank sonar	M1	Motor (XPress 4FT)

12.3 XPress 6FT control panel wiring diagram



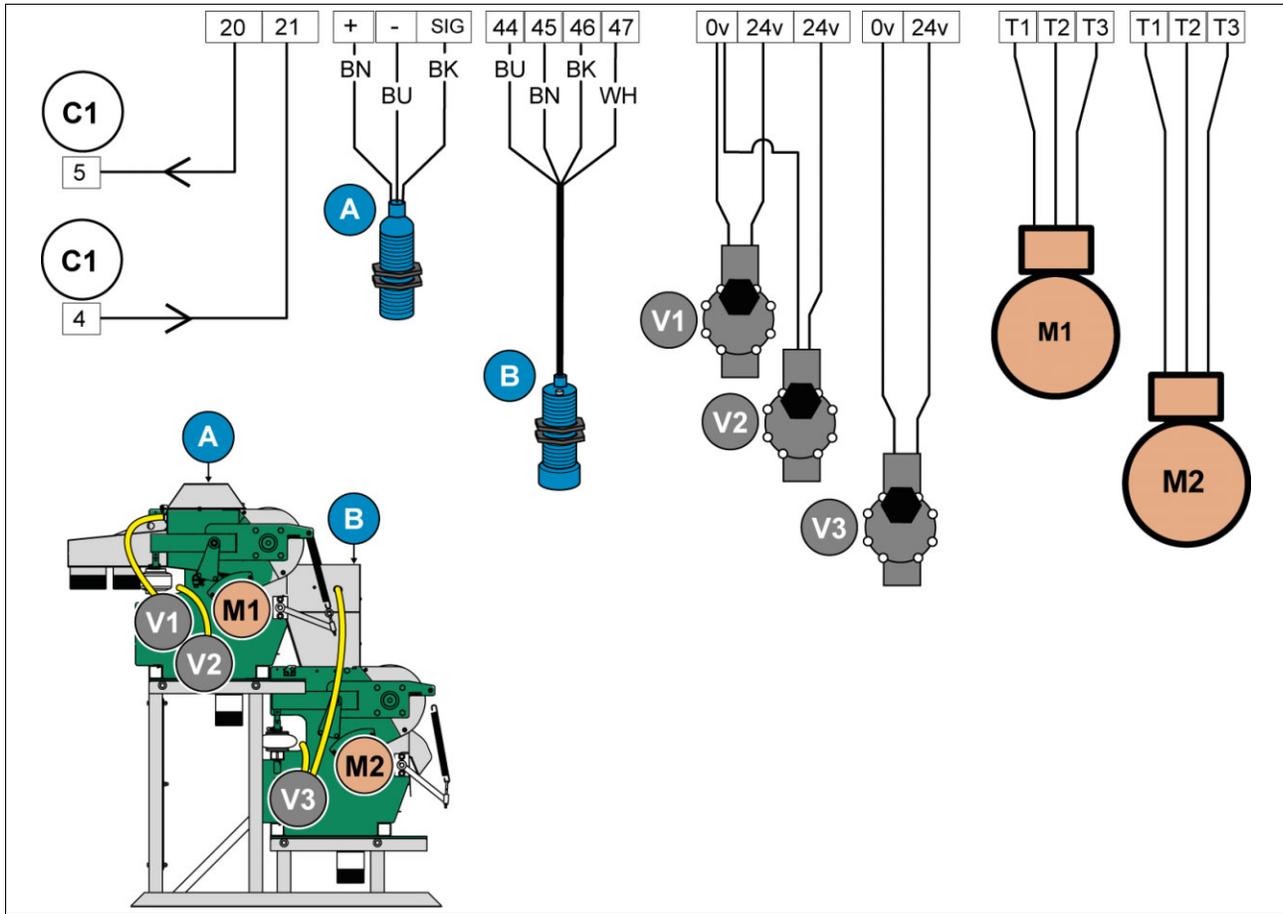
C1	Electromix agitator control panel	V2	Screen roller spray bars (valve #2)
A	Regulator tank sonar	M1	Motor (XPress 6FT)
V1	Regulator tank spray bars (valve #1)		

12.4 XPress 4FT-2FT control panel wiring diagram



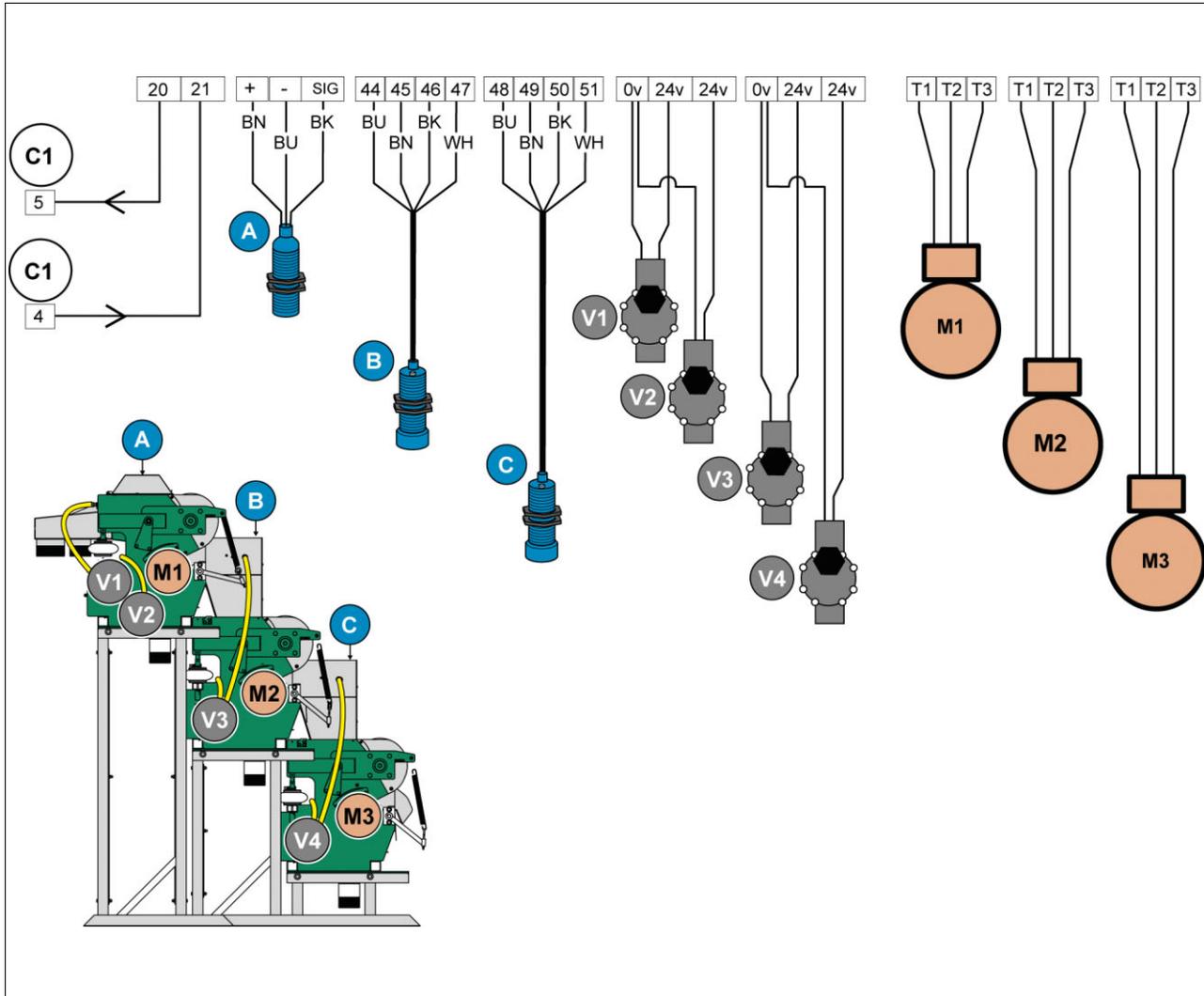
C1	Electromix agitator control panel	V4	Chute and roller spray bars (valve #4)
A	Regulator tank sonar	M1	Motor (XPress 4FT)
B	XPress chute sonar	M2	Motor (XPress 2FT)
V3	Chute and roller spray bars (valve #3)		

12.5 XPress 6FT-4FT control panel wiring diagram



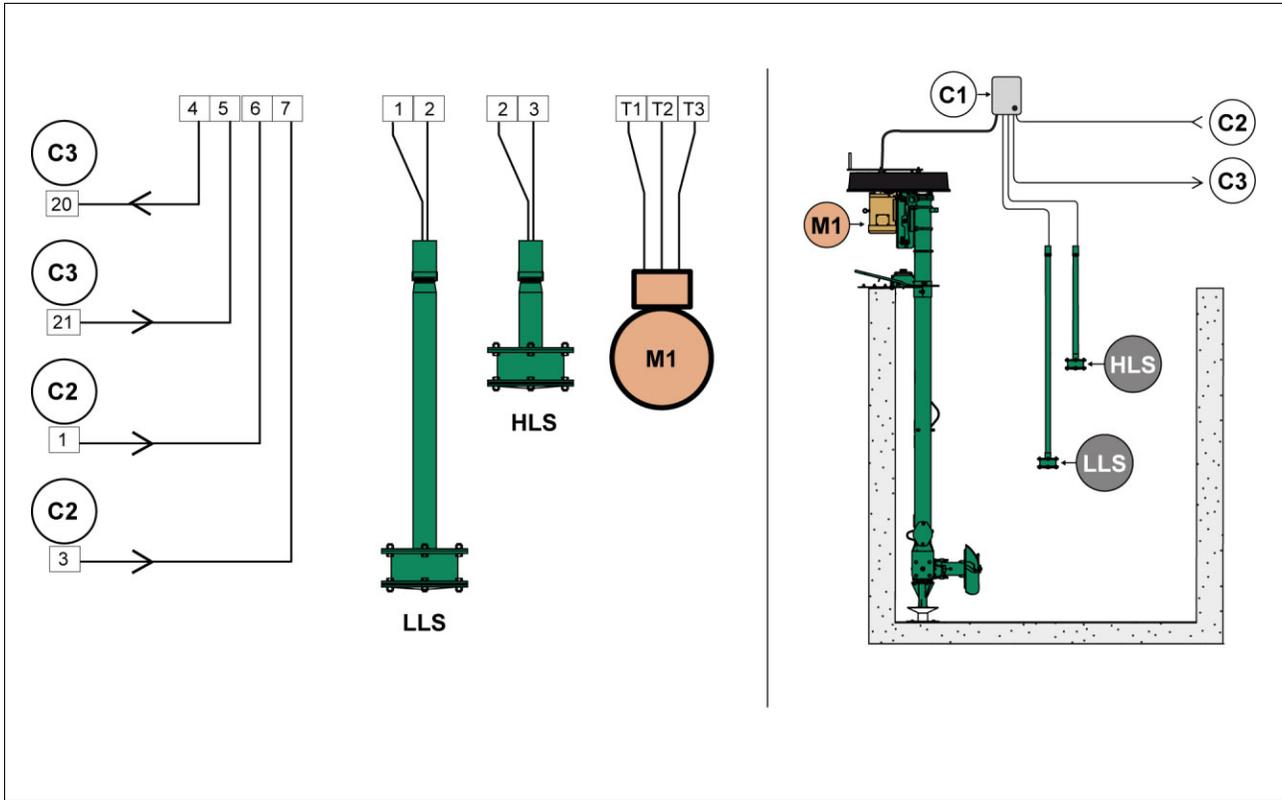
C1	Electromix agitator control panel	V2	Screen roller spray bar (valve #2)
A	Regulator tank sonar	V3	Chute and roller spray bars (valve #3)
B	XPress chute sonar	M1	Motor (XPress 6FT)
V1	Regulator tank spray bar (valve #1)	M2	Motor (XPress 4FT)

12.6 XPress 6FT-4FT-2FT control panel wiring diagram



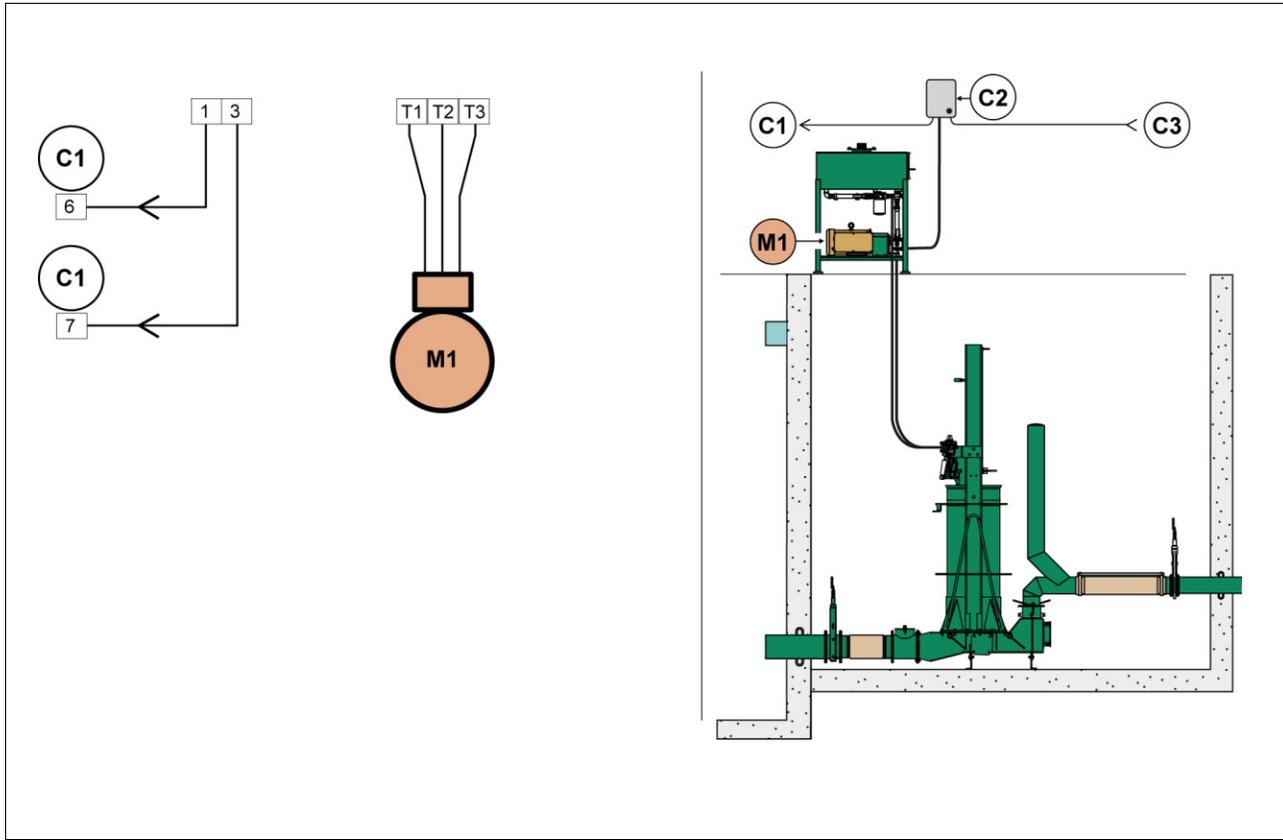
C1	Electromix agitator control panel	V3	Chute and roller spray bars (valve #3)
A	Regulator tank sonar	V4	Chute and roller spray bars (valve #4)
B	XPress chute sonar	M1	Motor (XPress 6FT)
C	XPress chute sonar	M2	Motor (XPress 4FT)
V1	Regulator tank spray bar (valve #1)	M3	Motor (XPress 2FT)
V2	Screen roller spray bar (valve #2)		

12.7 Electromix Agitator control panel wiring diagram



C2	Electromix pump control panel	HLS	High level switch
C3	XPress control panel	LLS	Low level switch
M1	Motor (Agitator)		

12.8 Electromix pump control panel wiring diagram



C1	Agitator control panel	M1	Motor (Hydraulic power unit)
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13 Appendix

13.1 Directories

Abbreviations

Term	Explanation
∅	Diameter

Units

Unit	Explanation
°	Degrees (angles)
°C	Degrees Celsius/ Centigrade
s	Second
min	Minute
" (in)	Inch (= 25.4 mm)
mm	Millimetres
cm	centimetres
m	Meters
kg	Kilogram
kPa	Kilo-pascal
kW	Kilowatts
A	Amp (current)
V	Volt (voltage)



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