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ANGLE-FLOXA™

Airless Angle Merge Conveyor

OWNER'S MANUAL

Conveyor Location: _____

Model Number: _____

Serial Number: _____

Year of Manufacture: _____

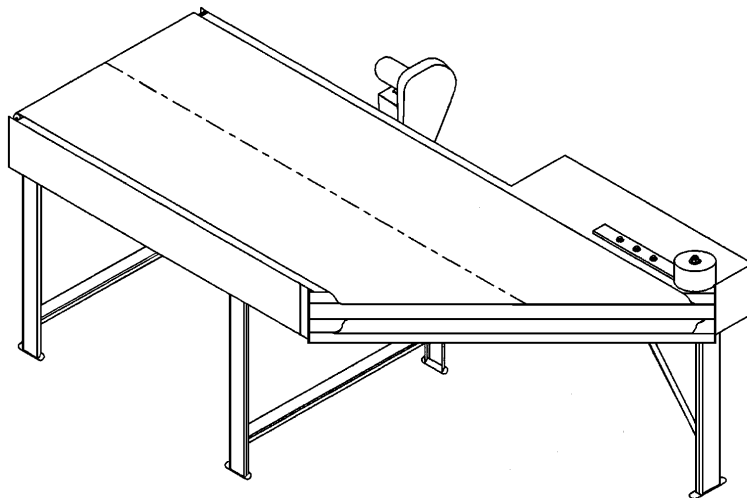


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Section I

Tool Requirements for Conveyor Installation, Maintenance, and Belt Replacement

Tool	Used For
15 mm Wrench	Take-up Roll Tensioners
15 mm Wrench or Socket	Bearing Housing to Frame 1-3/16" (30 mm) dia shaft & smaller
18 mm Wrench or Socket	Bearing Housing to Frame 1-7/16" (35 mm) dia shaft & larger
Socket Wrench Set with 3/8" drive and imperial and/or metric sockets	Standard Drive Arrangements Slider Bed Removal
5/32" Allen Wrench	End Rolls
3/16" Allen Wrench	Sprocket Set Screws
5/32" Allen Wrench	Bearing to Shaft 1-7/16" (35 mm) dia. shaft & larger
1/8" Allen Wrench	Bearing to Shaft 1-3/16" (30 mm) dia. shaft & smaller
3/32" Allen Wrench	Return Wheels
Electricians Nut Driver Set Or Adjustable Wrench	Electrical Motor Connections
Flat Blade (standard) Screw Driver	Guide Material

NOTE: Only trained personnel should perform all required work on the conveyor to prevent any danger to operators or other persons, and to prevent damage to the conveyor.

WARNING: Disconnect and lock-out power before performing any installation or maintenance procedures. All guards must be in place before startup of conveyor.

Section II

Preventive Maintenance

Perform a complete conveyor inspection after the first 40 hours of operation.

- Check belt tracking and tension.
- Check drive components for alignment and check that all fasteners are secure.

A Portec conveyor may be provided with regreaseable bearings at the drive roll. Lubricate these bearings at the same time as other system conveyors, which are typically on a quarterly service interval.

NOTE **No other lubrication is required on the conveyor.**

Maintain the lubrication of the gearbox and drive chain (if equipped) according to the manufacturer's recommendations.

Keep the area between the conveyor belt and bedplate relatively free from debris. Excessive debris may cause premature belt wear.

WARNING: **Always disconnect the power and perform the appropriate lock-out/tag-out procedures before beginning service or maintenance on the conveyor**

Inspection & Service Schedule

Component(s)	Service Interval	Task(s)	Comments
Conveyor	Monthly	Check belt tracking.	Adjust position if required.
		Check belt tension.	To tighten belt, adjust the position of the take-up roll.
		Check belt condition.	Observe overall condition for fraying, cuts, gouges, seams, etc.
		Check drive components alignment/performance.	Adjust if required.
		Check that all fasteners and hardware are secure.	Tighten if required. Do not operate unless secure.
		Check that all guards are securely in place and properly adjusted.	Readjust for clearances and secure.
Belt	Quarterly	Check for belt and seam damage.	Repair or replace as needed.
End Roll	Quarterly	Check end roll bearings for noise and lubrication.	Lubricate or replace as needed.
		Check end roll alignment.	Adjust if required.
		Check drive roll assembly set screws to ensure they are tight.	Adjust/tighten if required.
		Check shafts for condition with no visible damage.	If shaft is damaged from spinning in loose bearing collar or sprocket, replace as needed.
Drive Arrangement	Quarterly	Check drive sprockets/chain or v-belts for wear.	Replace as needed.
		Check motor/reducer or gear motor for noise.	Adjust if required or replace as needed.
		Check chain or belt tension.	Adjust if required.
		Check gear box lubrication level.	Refer to manufacturer's specifications.
Return Rollers	Semi-Annually	Check return rollers for noise.	Replace as needed.
		Check to ensure that return rollers are in contact with belt.	Adjust if required.
		Check that return rollers turn freely when in contact with belt.	Replace as needed.

Section III

Belt Tension and Tracking Adjustment Procedure

Belt Tension Adjustment

Proper tension of the Angle-Flo conveyor belt is achieved by adjusting the springs within a range of 2.125-2.375" (54-60 mm) compression length. Tension is set in the factory at 2.25" (57 mm) and further adjustment should not be required except for extremes in environmental or operating conditions, but always within the adjustment range. If too much spring pressure is applied at the take-up roll, excessive heat will build up in the angle bar assembly. Adjust belt tension as follows:

1. Loosen the springs at the take-up roller enough to cause the belt to slip at the drive pulley.
2. Apply even pressure to each spring at the take-up roller until the belt stops slipping over the drive pulley. The spring length should be the same on both sides and always within the adjustment range.
3. If the end roll is repositioned to reduce the transfer gap with the adjoining conveyor, the take-up roll springs **MUST** be returned to the previous compressed length.

- Notes:**
1. The adjustments would be made with your live load running on the belt.
 2. The belt will feel loose when properly tensioned. Do not be concerned with this condition.
 3. **OVER TENSIONING THE CONVEYOR BELT BEYOND THE PRE-SET POSITION OF THE SPRINGS WILL RESULT IN EXCESSIVE LOAD ON THE DRIVE MOTOR AND PREMATURE FAILURE OF THE CONVEYOR BELT.**

Belt Tracking Adjustment:

The Angle-Flo belt is tracked at assembly and should not require additional retracking. However, if the belt does mistrack, it is easily retracked as follows:

1. Set all roller square with the drive roller.
2. Turn the conveyor on and watch the belt after it makes a few revolutions.
3. If it is tracking to one side, tighten the snub roller on that side of the conveyor. After a few revolutions, the belt will begin to come back to the conveyor center.
4. Additional tracking can be obtained by moving other pulleys.

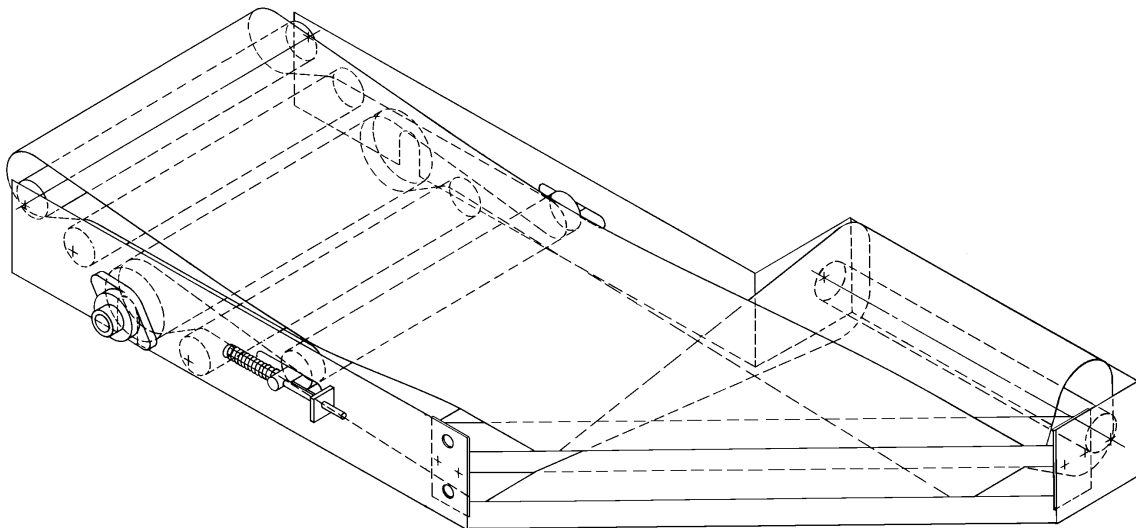
- Notes:**
1. Use care when making adjustments because the belt responds very rapidly and the edges of the belt can be damaged by running up against the side of the conveyor frame.
 2. **DO NOT USE THE SPRING-LOADED TAKE-UP ROLL FOR TRACKING.**
 3. When the conveyor is started up "cold", the belt will run to the long side. After it runs for a short time and the belt warms up, it will return to a more central position.
 4. **DO NOT** attempt to track the belt too soon. Make adjustments only if the belt continues to run off to one side.

Section IV

Belt Replacement Procedure

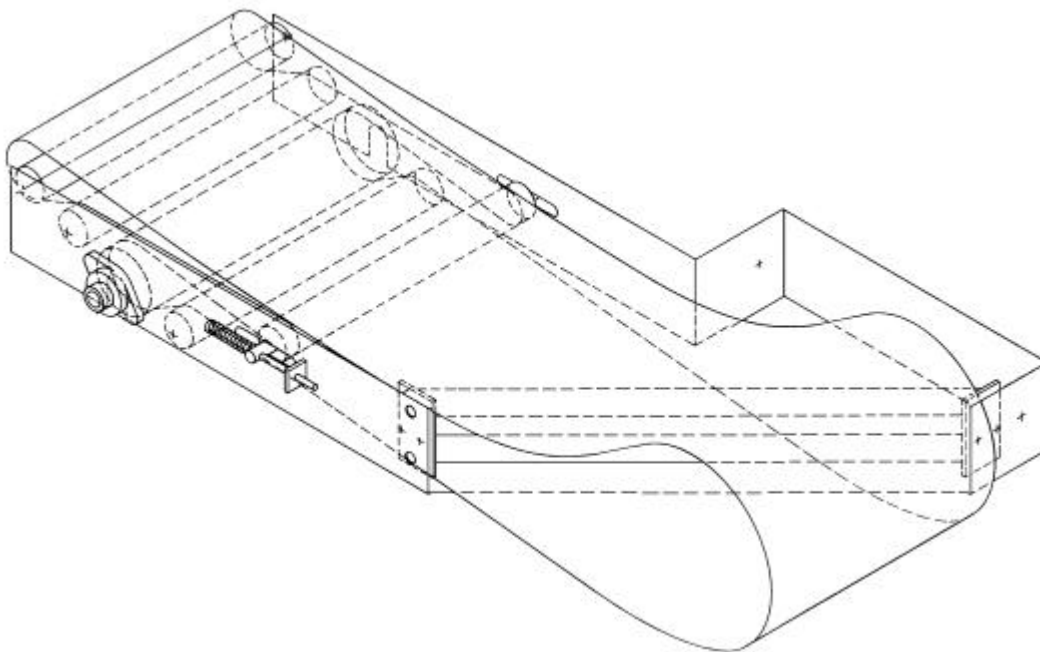
Removing the Conveyor Belt

1. Isolate the electrical supply.
2. Separate the drive unit from the drive roll. If the conveyor uses a V-belt, chain or timing belt to drive the drive roll, simply remove the belt or chain from the drive shaft. If the conveyor has a shaft-mounted gear reducer, it will be necessary to move the gear reducer from the drive shaft.
3. Release the belt tension at the take-up roll.

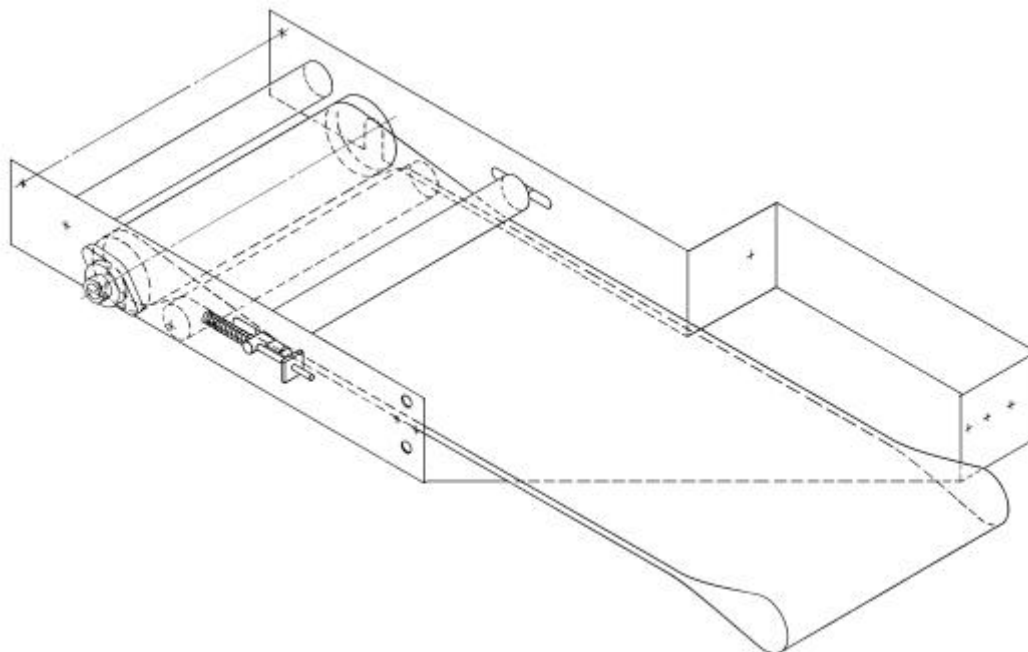


4. Remove the slider belt sections.
5. Remove the mounting bolts at each end of the angle bar assembly and push the angle bar to the inside.
6. Lift the belt up above the spur end and remove the idler roller.

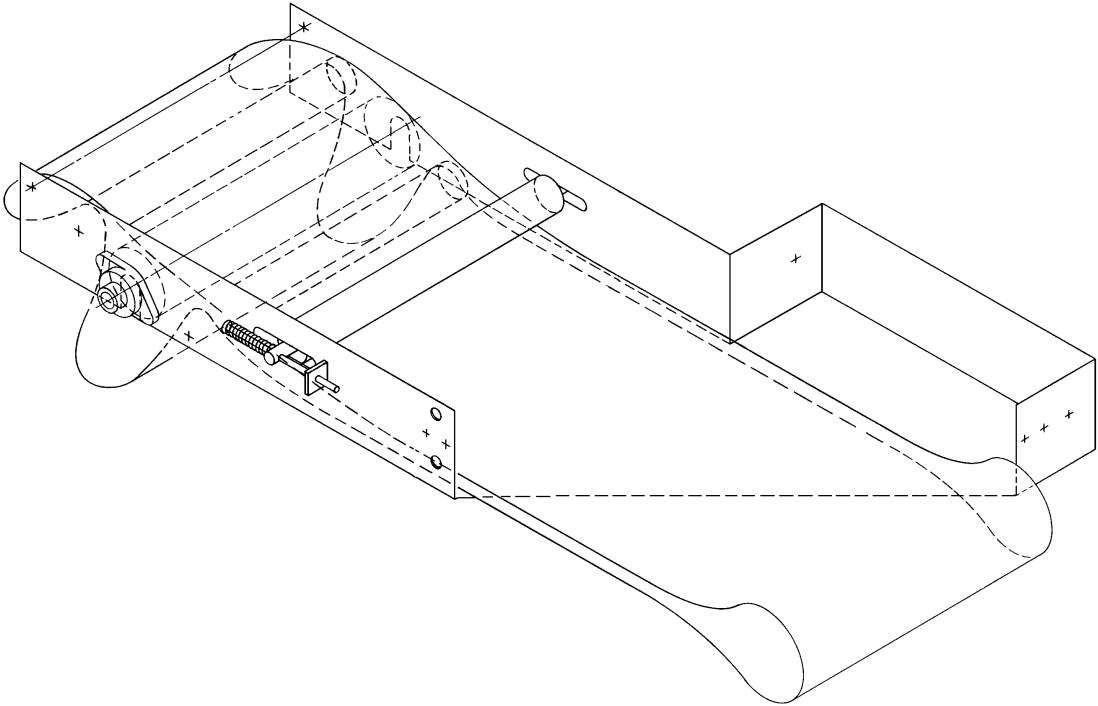
7. Pull the belt out from between the upper and lower angle bars.



8. Remove angle bar assembly.
9. Pull belt toward the square end of conveyor and form a loop above the end roll.
10. Remove the end roll.
11. Pull the belt towards the angle end of the conveyor.



12. Form a bottom loop with the belt and remove the drive roll.



13. Pull the belt out from under the take-up roll.

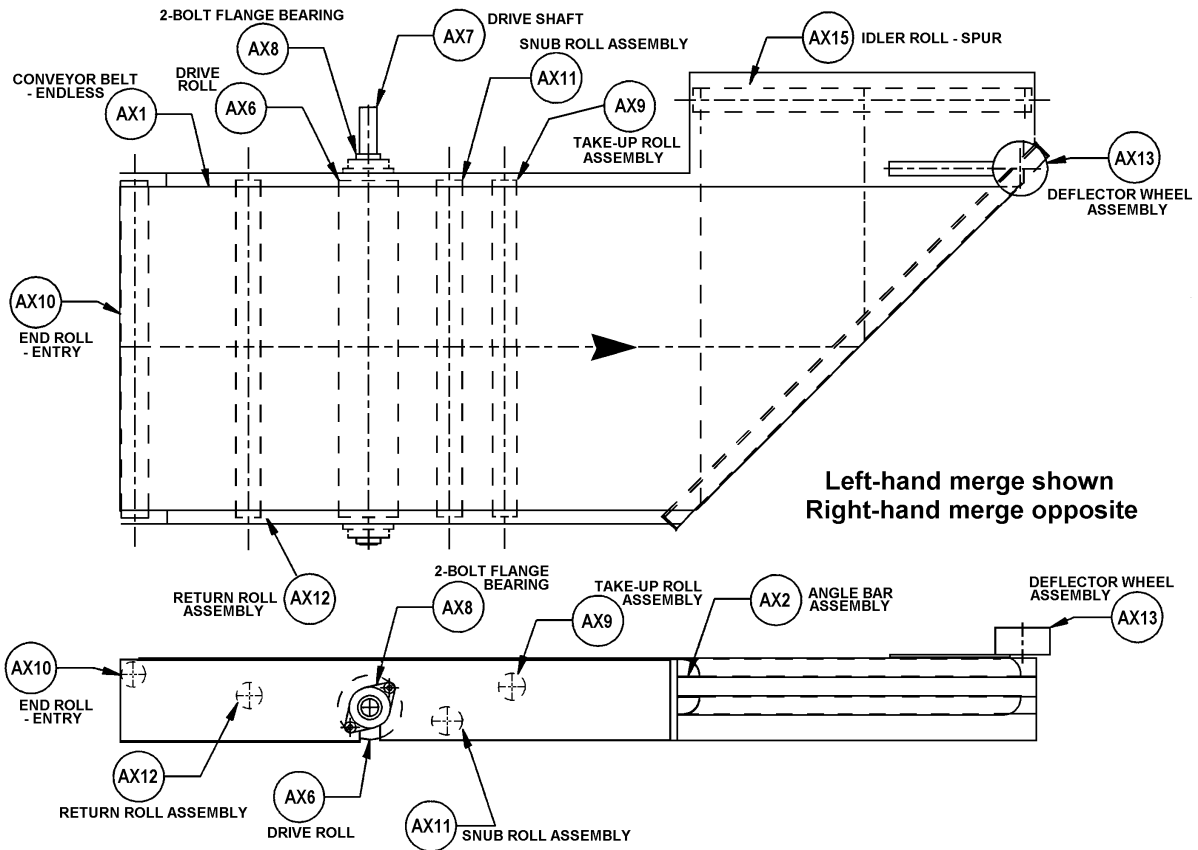
Installing the Conveyor Belt:

Installing a conveyor belt is done in the opposite sequence of removing the belt. After installing the conveyor belt, adjust the belt for tension and tracking.

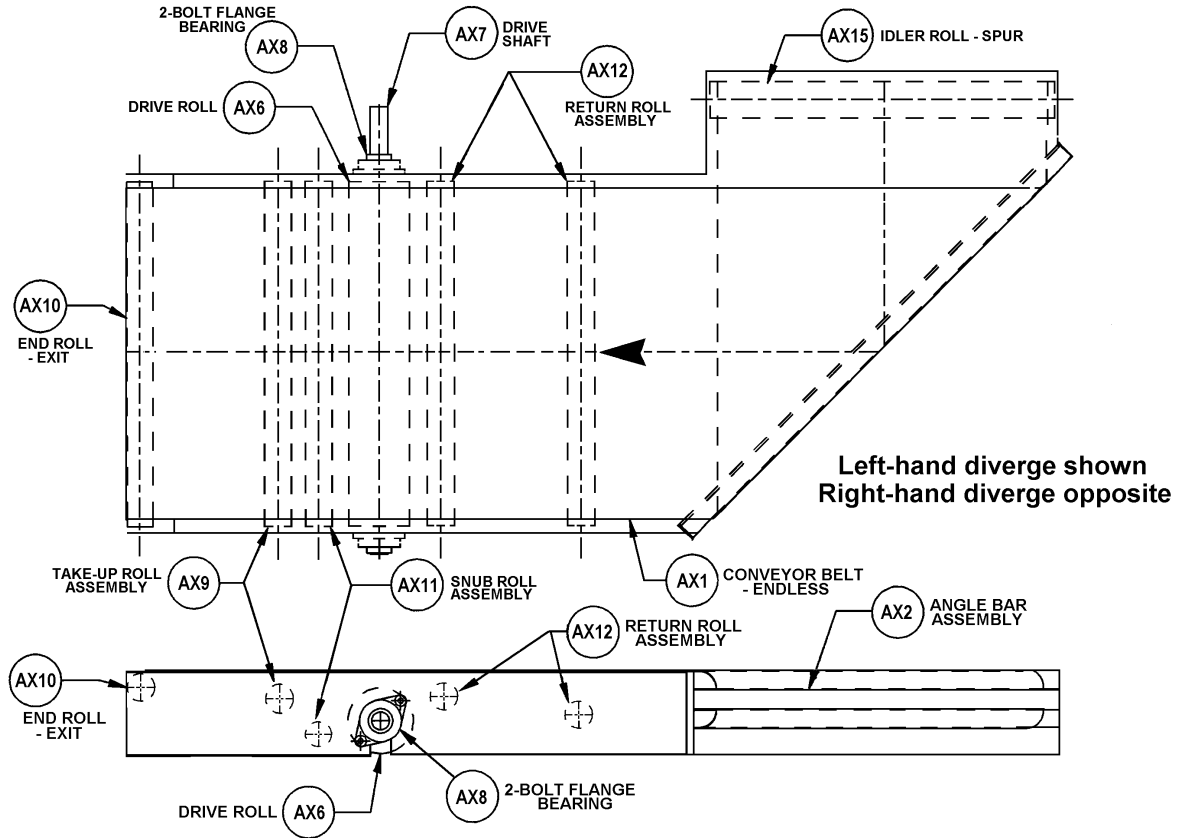
Note: Before installing the belt, check all parts for wear and/or damage. Replace any parts as necessary.

Section V Illustrated Parts Diagram — Angle-Flo XA

Merge Unit



Diverge Unit





TERMS AND CONDITIONS

VALIDITY – Quotations shall be considered current if outstanding no more than thirty (30) days from date of quotation, unless otherwise stated on quotation.

FREIGHT POLICY – Shipments of products, unless otherwise stated, is EX WORKS PORTEC'S factory. Written claims for damage in shipment should be made against the carrier. Written claims for shortages should be made against the carrier, specifically if there is evidence of shipping carton/container damage and/or if according to the shipping records there is a discrepancy in numbers of containers shipped versus numbers received.

Only in a situation where the container(s) shipped have been received in good condition, checked for physical content, and signed for verification within three days of delivery, and if such shortage has been found, and if PORTEC is notified in writing within 10 days upon receipt of order, PORTEC will establish that there was or was not a shortage. If a shortage is determined, PORTEC will provide the customer with the product/parts at PORTEC'S expense and shall ship F.O.B. as stated in the freight policy. If no shortage is determined, or if others than PORTEC caused the shortage, the claim shall be deemed invalid and it shall be the responsibility of the customer to arrange payment to PORTEC to fill the requirements of the deficiency.

PRICE ACCEPTANCE – The prices quoted herein are based on the quantities specified. Any change in quantities may affect quoted price. All orders are subject to acceptance at PORTEC'S factory. Any expense incurred by PORTEC as a result of cancellation or the making of any change will be included in PORTEC'S invoice unless prior waiver of such expense is obtained from PORTEC.

SHIPMENTS – Quoted Shipment dates are subject to change, without liability for delays beyond PORTEC'S control.

TERMS OF PAYMENT – Invoices are payable net cash 30 days, unless otherwise noted. There will be an interest charge of 1-1/2% per month for all payments received after 35 days. International (**except Canada**) orders are shipped against confirmed irrevocable letters of credit. All payments shall be in U.S. dollars. If the financial responsibility of a purchaser becomes impaired or is unsatisfactory, or if credit is not established, PORTEC reserves the right to request payment in advance or satisfactory guarantee that invoices will be paid promptly when due.

QUALITY ASSURANCE – All of its manufactured products are subject to PORTEC'S Warranty for material and workmanship.

GENERAL – Terms, conditions, and product specifications are subject to change without further obligation to PORTEC.

LIMITED WARRANTY ON NEW EQUIPMENT – PORTEC provides a Limited Warranty that warrants the material and workmanship of its manufactured products, with exceptions noted, for a period for 60 months beginning one month from the date of shipment from PORTEC'S factory, according to recorded serial numbers.

Within the stated warranty period, any material or workmanship showing defects will be repaired or replaced, provided PORTEC is given written notice within 30 days after failure, and a willingness is expressed to submit the product to PORTEC, and

if PORTEC authorizes the return of the product, and the product is returned. This warranty does not cover against normal wear of parts or materials. Warranty parts are supplied via EX WORKS PORTEC'S factory and unless PORTEC makes express agreement, the purchaser shall bear the expense of installation. PORTEC reserves the right at any time to supervise or install any part of replacement, or supervise adjustment incident to satisfactory operation of equipment. *A possible Warranty PO for parts and/or service may be required prior to shipping parts or exercising warranty labor.*

ITEMS IDENTIFIED AS COMPONENT AND REPLACEMENT PARTS – PORTEC parts will be warranted for a period of one (1) year from the date of shipment from the PORTEC Factory. This warranty on parts will cover only defects in workmanship or material. *The warranty does not cover the costs of the installation of such parts unless authorized by the designated PORTEC representative.*

Unauthorized returns, modifications, additions or variations, from procedures and information contained in PORTEC'S Owner's Manuals, and Product Data bulletins, or any misuse, negligence, accident, product jam, or loading beyond rated capacity invalidates this warranty.

EXCEPTIONS:

1. Because of varying operating conditions, all belting supplied will necessarily be subject to manufacturers', warranty rather than that of PORTEC.

2. Some OEM equipment including motors and gear reducers will be subject to the manufacturer's warranty, not PORTEC'S. PORTEC Customer & Product Support will provide assistance in contacting the proper manufacturer's representative. If a replacement is provided from PORTEC stock, a Possible Warranty PO must be provided. If the warranty is deemed invalid and PORTEC is not reimbursed for the warranty claim, the PO will be exercised.

3. PORTEC further reserves the right to void its warranty where final destination and specific application are withheld; product is improperly installed or maintained by others; product is modified without the consent from the designated PORTEC service representative; product is improperly protected against hazards and adverse environmental conditions during storage prior to or during installation; and/or product is used for applications/conditions other than indicated upon placement of order.

The foregoing warranty is exclusive and in lieu of all other warranties whether written, oral, or implied (including any warranty of merchantability or fitness for any purpose). Under no circumstances shall PORTEC be liable for incidental or consequential damages. The foregoing warranty cannot be changed except by written authorization signed by an authorized PORTEC representative, and no attempt to repair or promise to repair or improve PORTEC products by any other representative of PORTEC shall change or extend said warranty in any manner whatsoever.