



ABX-3L Triple Flex Lance
Machine

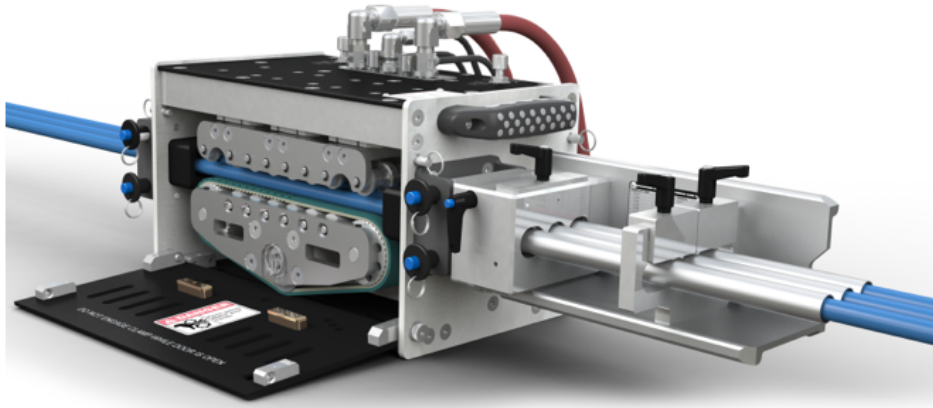
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ABX-3L Tractor and Guide Assembly



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The ABX-3L is a flex lance tractor for automated cleaning of tube bundle and Fin Fan heat exchangers. The tractor is capable of feeding one to three hoses simultaneously with the hoses ranging in size from 3/2 to 8/4. The ABX-3L can be used with any pressure rated hose having an end crimp of $\varnothing.74"$ ($\varnothing18.8\text{mm}$) or smaller.

The ABX-3L is designed to connect directly to the existing Light Weight Positioner used with the ABX-2L.

Design Overview – Specifications

ABX-3L Tractor Weight:	49 lbs	(22.2 kg)
ABX-3L Tractor Size:	8.3"w 8.2"t 16.9"l	(203w 203t 429l mm)
Max Feed Rate:	3.0 ft./sec	(1 mtr)
Min Feed Rate:	0.3 ft./sec	(1 mtr)
Max Push/Pull Force:	150 lbs	(68 kg)
Min Push/Pull Force:	15 lbs	(6.8 kg)
Manway access:	18"	(457 mm)
Positioner Weight:	120 lbs	(54.4 kg)
Guide Assembly Weight:	13 lbs	(5.8 kg)
Pitch Adjustment Range - Triple:	5/8" – 1.5"	(15.8 – 38.1 mm)
Pitch Adjustment Range - Dual:	5/8" – 3.0"	(15.8 – 76.2 mm)
Control Box Weight:	48 lbs	(21.7 kg)
Max air consumption:	50 cfm at 100 psi	
Max air pressure:	100 psi	



Design Overview – Belt side



The ABX-3L is belt driven to provide great hose traction across a wide range of cleaning scenarios. The machine was designed to permit easy hose loading.

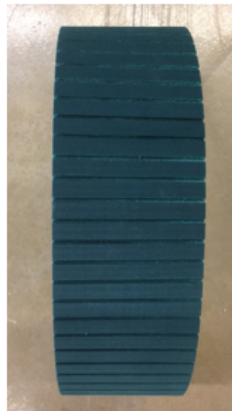
Similar to the ABX-2L, the drive motors are isolated from the debris coming back into the machine. Peinemann units receive all the debris back into the drive chain and poly tracks, greatly increasing the wear and deterioration of the drive train.

Keep the door closed while in operation as there are two bronze brackets that engage into the belt drive assembly for support. The door is also slotted to permit water to flush through the machine.

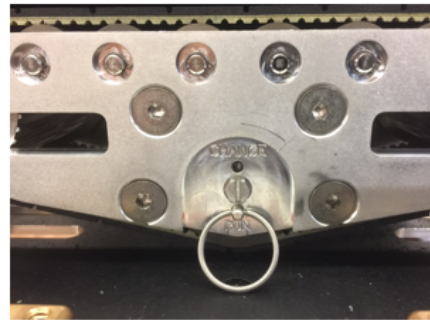
Design Overview – Belts



ABX 305-80
Standard Belt



ABX 305-70
Oily Option Belt



Belt
Replacement



Belts:

The production units will use ABX 305-80, an 80 durometer material, with 25 mm cross groove spacing. (black) This belt provides strong performance in a wide range of cleaning scenarios and also good life. Several hundred hours of belt life is not uncommon with normal usage. New ABX-3L machines will come standard with one ABX 305-80 belt installed, and one spare included. This belt is black.

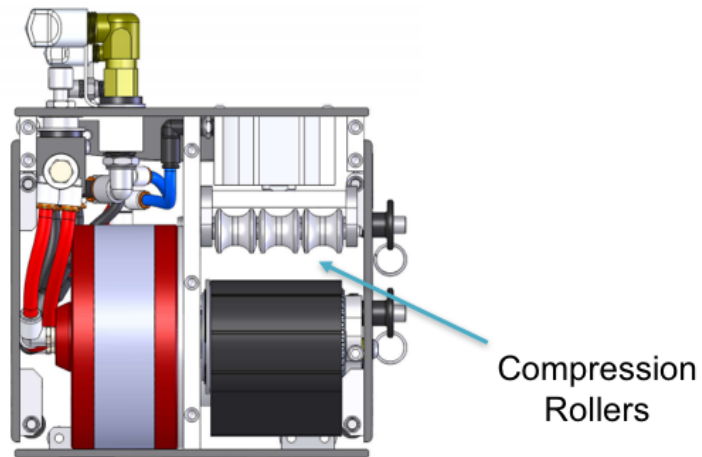
Belts are traction components as well as power transmission components. Belts should be replaced when the hoses wear into the belt below the cross groove depth (2mm). If belts are operated beyond their usable life, damage may occur to other drive components (idlers/sprockets)

For special applications with very slippery effluent, an optional belt will be available, the ABX 305-70. This belt is made from a 70 durometer material with 10mm cross groove spacing. This belt is green.

Belt Replacement:

This is incredibly easy, and a major selling point. Simply pull the retaining pin, use a flat head screwdriver and rotate the screw 180° to release tension on the belt. Slide the belt off, replace with a new belt, tighten the screw, and replace the pin. The belts can be replaced with the hoses still installed and should take no more than one or two minutes!

Design Overview – Belt Compression



Another competitive advantage is how this unit applies even pressure along the hoses. The image above shows how rollers are individually compressing each hose along the length of the belt.

Individual compression rollers also allow much improved hose synchronization capabilities. Eight sets of compression rollers also result in significantly increased traction compared to the ABX-2L.

Design Overview – Air Motor Side



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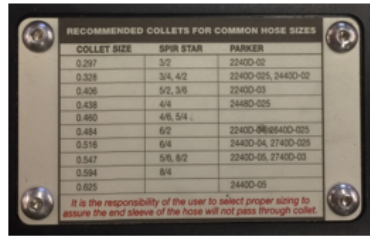
The ABX-3L has two drive motors.

This provides 100% more torque than the ABX-2L and provide optimal torque for a wide range of applications. Therefore, the ABX-3L tractor is the preferred choice for challenging applications, like vertical large hose (6-8mm), with long stroke lengths even if they only intend to operate two hoses.

These motors have low internal leakage and play a key role in the Autostroke functionality. These also last longer under poor quality air supply than vane air motors.

As seen in the picture, these motors are very easy to access, repair, replace.

Design Overview – Exterior



RECOMMENDED COLLETS FOR COMMON HOSE SIZES

COLLET SIZE	SPR STAR	PARKER
0.297	3/2	2240D-02
0.329	3/4, 4/2	2240D-025, 2440D-02
0.406	5/2, 3/8	2240D-03
0.438	4/3	2448D-025
0.480	4/5, 5/4	
0.484	6/2	2240D-06, 2440D-025
0.516	6/4	2440D-04, 2740D-025
0.547	5/6, 8/2	2240D-05, 2740D-03
0.594	8/4	
0.625		2440D-05

It is the responsibility of the user to select proper sizing to ensure the end sleeve of the hose will not pass through collet.

Hose / Collet reference chart



Model / Serial Number Plate



Independent forward/reverse speed controls



Each unit will have the Hose / Collet reference chart

Each unit will have its unique Model / Serial Number Plate

The ABX-3L has independent forward and reverse speed controls located on top of the tractor. These are typically adjusted once at the beginning of each new job.

The ABX-3L comes standard with the manifold and internal plumbing to support StoneAge's Autostroke accessory as an optional add-on item.

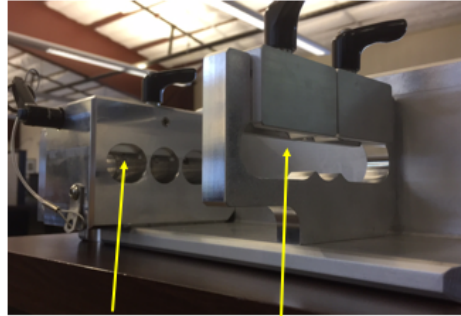
Guide Tube Assembly



ABX-301 Guide Assembly



ABX 171-XXX



Guide Tube Clamps



The ABX-301 Guide Tube Assembly is an all new design compared to the ABX-2L version. It uses half of the 4" box rail and new style clamping mechanisms. This design is durable, easy to use, and doesn't require any adapters to accommodate different guide tube sizes. The Guide Assembly provides good visibility of the guide tube to enhance tube alignment when indexing.

The hose collets are similar to the proven design used on the ABX-2L, but have been expanded to handle up to three hoses. As stated on the previous slide, each ABX-3L has an engraved plate that shows a cross reference between the SpirStar or Parker hose and the appropriate corresponding collet.

The ABX-3L uses the same hose stops (footballs) as the ABX-2L, the HS 121 series.

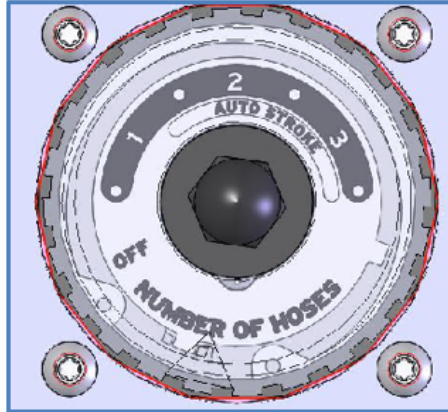
Control Panel



There are many similarities between the ABX-2L CB and the new ABX-3L CB. Both offer air piloted dump valve levers, clamp control and pressure gauge, in and out hose feed levers, and directional levers for positioner control. The clamp pressure works exactly the same as the ABX-2L and should be set at the minimum level to achieve proper hose feed traction.

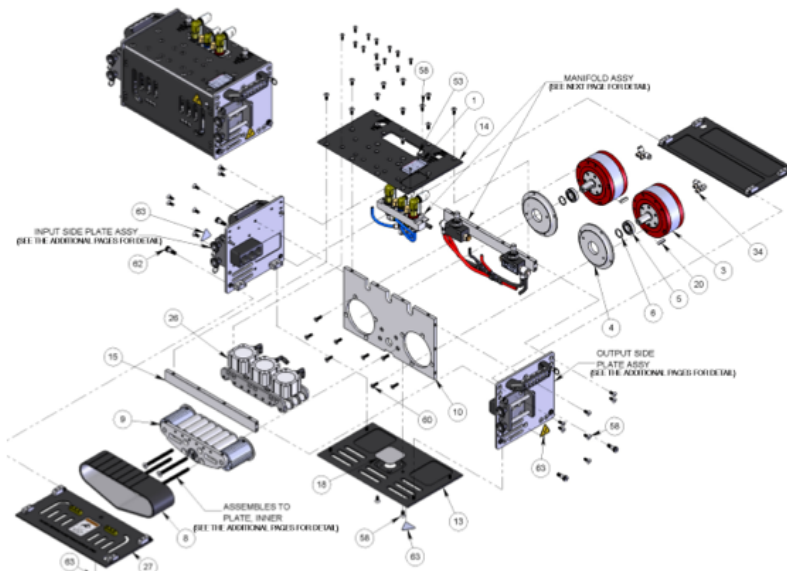
The ABX-3L was designed to effectively feed 1, 2 or 3 hoses depending upon the contractor's specific needs.

Hose Selector Switch



To maximize performance of the ABX-3L, the ABX-3L CB offers a unique *Hose Setting Adjustment*. This provides the operator the ability to easily set the available motor torque to best suit the number of hoses being used (1, 2 or 3). The graphic on the *Hose Setting Adjustment* is intuitively designed to show optimal setting positions for 1, 2 or 3 hoses and also the proper range of settings to use when operating your ABX-3L with Autostroke. The selector can be turned up or down to the 'dot' positions closest to the number of hoses. However, we do not recommend going beyond that setting to ensure maximum tool life.

Maintenance



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Normal maintenance is minimal for this machine. Drive belts will likely be the only semi-regular maintenance. Repair Kits for the upper idler assembly and the drive belt assembly will be available for refurbishment of these sub-systems. As was said earlier, one of the major discriminators for StoneAge flex lance feeders (ABX-PRO, ABX-2L and ABX-3L) is the low cost of ownership. Our belts and rollers are affordable and very quick and easy to replace – minimizing cost and downtime.

The complete operation and maintenance manual can be found here prior to launch:
N:\Engineering\Manual_Inserts

Once launched please refer to the website for the latest editions.

Configuration

There have been two Package Configurations set up in EPICOR.

The Package that all Sales should start with is the Complete Package, **ABX-3L-1-PKG**. This package includes the tractor, control panel, guide assembly, complete hose stop kit, complete collet kit, set of all 12" guide tubes, LWP with 6' window, two clamp style kits, and the 20k psi Y manifold. This will get them with most of everything they need.

If the customer only wants a machine for one size of hose, use part ID **ABX-3L-PKG**. This includes just one collet, one hose stop, one size guide tube, one positioner clamp style, and the 20k psi Y manifold. Sales history has taught us that customers get upset when they receive this kit as it can only operate one hose size.

Price lists / Configurations can be found here: <file:///N:/Sales/Price%20Sheets/ABX-3L.pdf>



International Offerings

The international quotes and sales will need to:

1. Convert the inlet manifold options, **ABX 369-MP12** or **ABX 369-H9** to metric connections
2. Offer metric hoses
3. Offer metric Banshee tools

It was decided to not manufacture metric specific manifolds until sales reach sufficient volumes.

Customers will need American Standard hex keys for the Hose stops, and standard wrench sizes for Banshee head replacement.

The configurators include Metric package options.



Pricing

Pricing:

ABX-3L-PKG: (For one hose size) \$39,900.00

ABX-3L-1-PKG: (Complete Pkg) \$45,550.00

Shown as List Price

