

# AUTOBOX ABX-2L

## Automated Heat Exchanger Tube Cleaning



### OVERVIEW

The StoneAge AutoBox ABX-2L is an automated system for hands-free heat exchanger tube cleaning applications. It was designed to reliably control a pair of flex lances for cleaning exchanger tube IDs with an emphasis on portability, ease of setup, and safety.

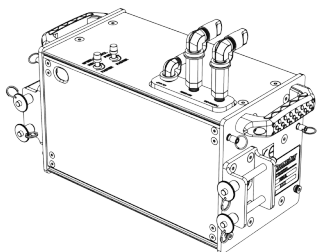
Paired with StoneAge Banshee rotary tube cleaning nozzles and our lightweight positioner, the ABX-2L offers safe and efficient tube cleaning in the harshest exchanger environments.

### COMPETITIVE ADVANTAGES

- **Quick setup** — intuitive features like quick-release pins and plug-and-play assembly minimize downtime
- **Cost of ownership is greatly reduced** as compared to competitive equipment through simple maintenance and affordable replacement parts
- **All parts are stocked and ready to ship** same day to minimize work interruption
- **Hose clamp pressure and feed rates can be quickly adjusted** for repeatable, consistent cleaning
- Side by side field use with other competitive machines has shown the ABX-2L to **operate reliably in highly corrosive environments** after other systems failed
- **Full line of accessories available** to help you make the most of your investment

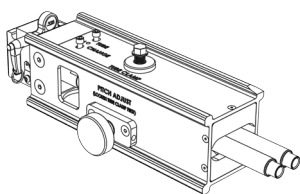
FEATURES	BENEFITS
<ul style="list-style-type: none"><li>• Roller-based drive system</li></ul>	<ul style="list-style-type: none"><li>• Handles hose sizes from 3/2 to 8/4 for a wide range of tube cleaning applications</li><li>• Single or dual lance operation</li><li>• Good traction in changing conditions</li><li>• Quick, low cost roller replacement — <i>no tools required</i></li></ul>
<ul style="list-style-type: none"><li>• Independent forward/reverse speed control from 0.2–3.0 ft/sec</li></ul>	<ul style="list-style-type: none"><li>• Consistent cleaning in both directions produces better results in less time</li></ul>
<ul style="list-style-type: none"><li>• Remotely adjustable hose clamp</li></ul>	<ul style="list-style-type: none"><li>• Adjust to changing conditions on the fly and minimize hose wear without interrupting workflow</li></ul>
<ul style="list-style-type: none"><li>• Portable, ergonomic control box with integrated dump</li></ul>	<ul style="list-style-type: none"><li>• Operate all features from outside the blast zone for safety and better line of sight</li></ul>
<ul style="list-style-type: none"><li>• Modular, lightweight positioner</li></ul>	<ul style="list-style-type: none"><li>• System is easy to set up on different exchanger sizes and mounting options with no additional tools</li></ul>
<b>FULL RANGE OF HOSE STOPS, COLLETS, GUIDE TUBES, AND BANSHEE NOZZLES AVAILABLE</b>	

# AUTOBOX ABX-2L OVERVIEW



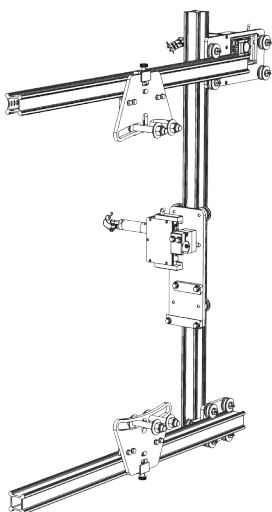
## ABX-2L HOSE TRACTOR

- Lightweight and compact design
- Six powered drive rollers ensure traction in all operating conditions
- Quick-change rollers accommodate hoses sized 3/2–8/4 - *three sizes provided*
- Can be used in dual or single lance applications
- Quick pin attachment to guide assembly
- Hinged side doors for easy access to rollers and drive components



## GUIDE ASSEMBLY

- Turn-knob control provides precise pitch adjustment
- Quick-change guide tubes are common material
- 17-4 SS hose stop collets for anti-withdrawal protection

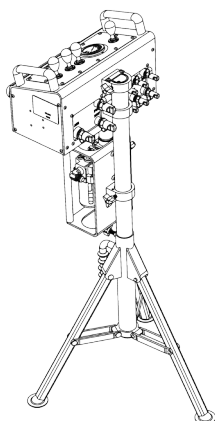


## LIGHTWEIGHT POSITIONER

- Modular and expandable
- Quick-install drive carriages enable assembly without air supply
- Utilizes lightweight 2.5" box rail
- Durable stainless steel air motors
- Variety of clamp and bolt-on attachment options are available
- Compatible with full line of AutoBox systems (ABX-3L, ABX-2L, ABX-PRO)

## CONTROL BOX

- Small, lightweight, ergonomic design that includes a portable stand and filter-regulator-lubricator assembly
- Controls forward/reverse hose feed, clamp pressure
- Positioner controls: left/right and up/down
- Pneumatic dump control switch

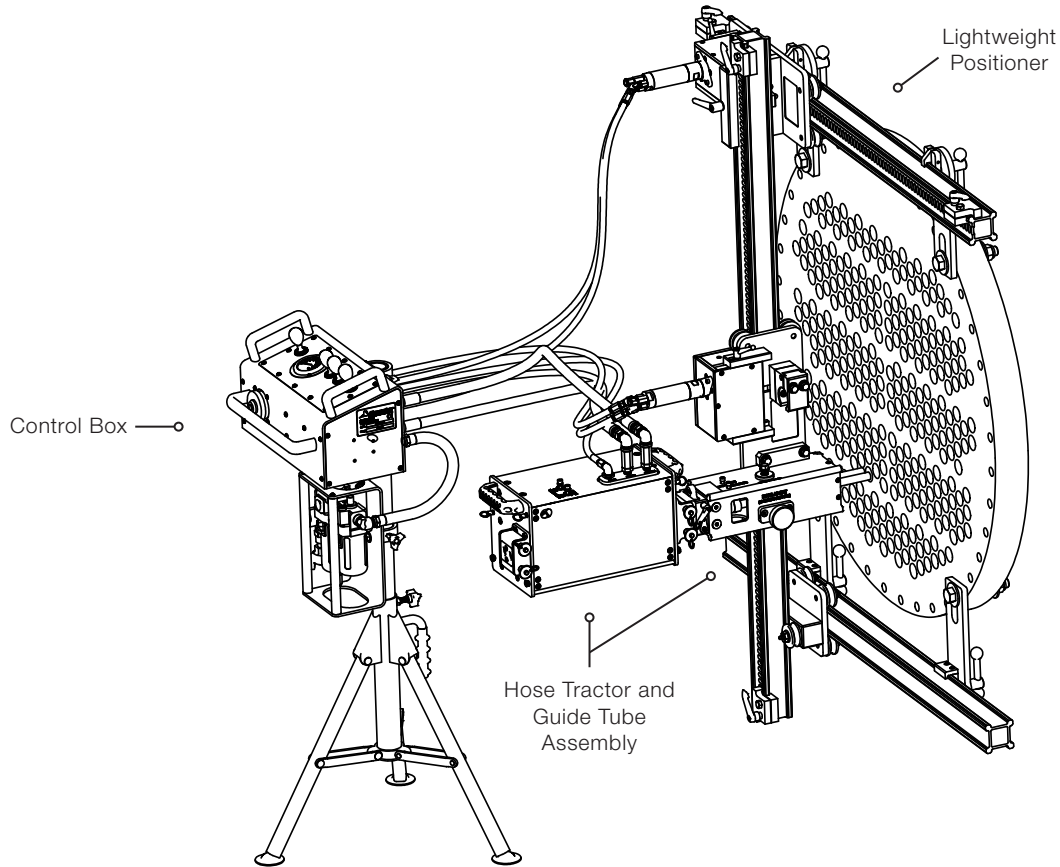


## TOOL SPECIFICATIONS

MODEL	ABX-2L-V2
Hose Feed Rate	0.2–3.0 ft/sec 0.06–0.90 m/sec
Hose Size	3/2–8/4
Push/Pull Force	10–60 lb 4.5–27 kg
Pitch Adjustment	0.6–2.4 in. 16–61 mm
Operating Air Pressure	100 psi 0.70 MPa
Dimensions	8.3 in. H x 16.7 in. L x 7.2 in. W 211 mm x 424 mm x 183 mm
Weight*	42 lbs 19 kg

\*ABX-2L only, does not include guide assembly, positioner or control box.

# AUTOBOX ABX-2L CONFIGURATION



**To configure an AutoBox ABX-2L, the following information should be obtained:**

- Size of rotary tool
- Size of hose
- Diameter of tube bundle (positioner window size)
- Length of guide tubes required – standard 12.5" and 36" lengths, custom lengths also available
- Preferred mounting clamp(s) for positioner

# AUTOBOX ABX-2L CONFIGURATION

## ORDERING THE AUTOPACK

StoneAge offers a complete package for the AutoBox ABX-2L that includes **all the available sizes of all component parts in a portable job box**. The ABX-2L AutoPack configuration is shown below:

PACKAGE PART ID		<b>AUTO-2L-LWP-PKG</b>
QTY	DESCRIPTION	PART ID
1	Kit, 12in Tubes w/Adapters, (2 ea ABX 115, 116, 117, 119)	ABX 630-12
1	Hose Guide Tube Assy, (up to 8mm hose)	ABX-100-8
1	AutoBox, 2L Assy (8mm), (Automated Machine Assy)	ABX-2L-V2
1	Kit, Autobox 2L, Extra Parts Package (small hose)	ABX-2L EPPS
1	Placeholder Kit, Y Manifold with Plugs and Glands	ABX 369-???-K
1	Control Box, Stand, FRL Assy, for ABX	CB-ABX
1	Job Box, Set up for 2L, AE and LWP	GPT 067-2L
1	Kit, Hose Stop and Collet 2L	GPT 107
2	Tool Bag, 18in	GPT 310
1	Kit, Quick Clamp Assy (Clamp to flange, 4 Pcs.)	LWP 621
1	Kit, Plate Clamp Assy (Bolted to flange, 2 Pcs.)	LWP 622
1	Lightweight Positioner, 6ft, 48in/1220mm Flange	LWP-500-6-V2

??? - Specify manifold options

## ORDERING THE COMPLETE PACKAGE

StoneAge offers a complete package for the AutoBox ABX-2L that includes **all the available sizes of all component parts**. The ABX-2L complete package configuration is shown below:

PACKAGE PART ID		<b>ABX-2L-V2-1-PKG</b>
QTY	DESCRIPTION	PART ID
1	Kit, 12in Tubes w/Adapters, (2 ea ABX 115, 116, 117, 119)	ABX 630-12
1	Hose Guide Tube Assy, (up to 8mm hose)	ABX-100-8
1	AutoBox, 2L Assy (8mm), (Automated Machine Assy)	ABX-2L-V2
1	Kit, Autobox 2L, Extra Parts Package (small hose)	ABX-2L EPPS
1	Placeholder Kit, Y Manifold with Plugs and Glands	ABX 369-???-K
1	Control Box, Stand, FRL Assy, for ABX	CB-ABX
1	Kit, Quick Clamp Assy (Clamp to flange, 4 Pcs.)	LWP 621
1	Kit, Plate Clamp Assy (Bolted to flange, 2 Pcs.)	LWP 622
1	Lightweight Positioner, 6ft, 48in/1220mm Flange	LWP-500-6-V2

??? - Specify manifold options

## Manifold Options

QTY	PRESSURE	DESCRIPTION	PART ID
1	22k psi 1500 bar	Y Manifold kit with Plugs and Glands, 22k psi/1500 bar	ABX 369-MP12-K
1	40k psi 2800 bar	Y Manifold kit with Plugs and Glands, 40k psi/2800 bar	ABX 369-H9-K

## ORDERING THE BASE PACKAGE

StoneAge offers a base package for the AutoBox ABX-2L hose tractor. The ABX-2L base package is preconfigured for the most common applications to include: 1. AutoBox ABX-2L hose tractor with three sizes of rollers and two guide tube adapters, 2. Guide assembly, 3. Control box, 4. Backout collet, 5. Hose feed stops for specified hose size.

The base ABX-2L package can be configured to the specifications of your job with the addition of customized options. Fully custom solutions are possible by contacting StoneAge Customer Service.

The ABX-2L base package and standard options are shown below:

PACKAGE PART ID		ABX-2L-V2-PKG
QTY	DESCRIPTION	PART ID
1	AutoBox, 2L Assy (8mm), (Automated Machine Assy)	ABX-2L-V2
1	Hose Guide Tube Assy, (up to 8mm hose)	ABX-100-8
1	Control Box, Stand, FRL Assy, for ABX	CB-ABX
1	Hose Stop, Collet Style, .297"/7.54mm (3/2, 2240D-02)	ABX 121-297
1	Kit, Hose Stop and Collet 2L	HS 121-34-42
2	Hose Stop, Clamp Style, .34-.42", 8.6-10.7mm	GPT 310

### Base Package Options

QTY	DESCRIPTION	PART ID
2	Guide Tube, .546 ID, 12.5"/315.7 mm L (BN13)	ABX 116-12
1	Lightweight Positioner, 6" 48"/1220 mm Flange	LWP-500-6-V2
1	Kit, Plate Clamp Assembly (Bolted to flange, 2 Pcs.)	LWP 622
1	Plate Clamp, Bolted to flange, 2 Pcs.	ABX-2L EPPS
1	Manifold, Tail Y - 22k psi (MP12-MP6)	BRLM 269-MP12

# AUTOBOX ABX-2L CONFIGURATION

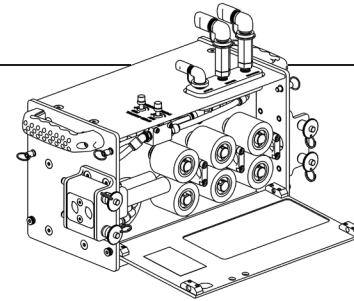
## ORDERING BY LINE ITEM

A complete AutoBox ABX-2L can be configured by line item by following the steps outlined below. Contact your StoneAge Account Representative for questions about specific applications.

### STEP 1 HOSE TRACTOR

The AutoBox ABX-2L comes supplied with three sets of drive rollers to accommodate hoses sized 3/2 – 8/4.

WEIGHT	TRACTOR PART ID
42 lbs 19 kg	<b>ABX-2L-V2</b>



### ROLLER OPTIONS

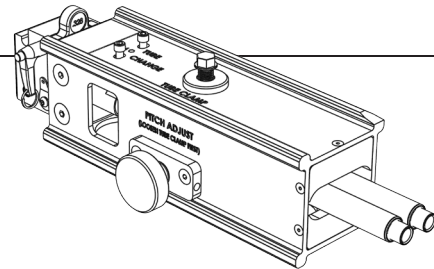
HOSE OD	DESCRIPTION	PART ID
0.44–0.50 in. 11–13 mm	Drive Roller, Large, 70A, (Black)	<b>ABX 271</b>
	Kit, AutoBox 2L, Extra Parts Package (large hose)*	<b>ABX-2L EPP</b>
0.27–0.41 in. 7–10 mm	Drive Roller, Small, 70A, (Orange)	<b>ABX 272</b>
	Kit, AutoBox 2L, Extra Parts Package (small hose)*	<b>ABX-2L EPPS</b>
0.52–0.61 in. 13–16 mm	Drive Roller, Large, 8 mm Hose, (Blue)	<b>ABX 273</b>
	Kit, AutoBox 2L, Extra Parts Package (up to 8 mm)*	<b>ABX-2L EPP-001</b>

\*Includes 6 rollers and 6 keys

### STEP 2 GUIDE ASSEMBLY

The hose guide assembly houses the guide tubes and protective backout collet/hose stops and enables precise indexing and pitch adjustment to the tube face.

ASSEMBLY PART ID
<b>ABX-100-8</b>



### GUIDE TUBES

Guide tubes can be cut to length to accommodate channel head requirements. We offer two standard lengths in three diameter options based on the rotary tool used. Contact StoneAge Customer Service for custom lengths.

ROTARY TOOL	GUIDE TUBE ID	GUIDE TUBE LENGTH	GUIDE TUBE PART ID
Banshee BN9.5	0.459 in. 12 mm	12.5 in. 316 mm	<b>ABX 115-12</b>
		36.0 in. 914 mm	<b>ABX 115-36</b>
Banshee BN13	0.546 in. 14 mm	12.5 in. 316 mm	<b>ABX 116-12</b>
		36.0 in. 914 mm	<b>ABX 116-36</b>
Banshee BN15	0.674 in. 17 mm	12.5 in. 316 mm	<b>ABX 117-12</b>
		36.0 in. 914 mm	<b>ABX 117-36</b>
Banshee BN18	0.745 in. 19 mm	12.5 in. 316 mm	<b>ABX 119-12</b>
		36.0 in. 914 mm	<b>ABX 119-36</b>

## GUIDE TUBE OPTIONS

GUIDE TUBE ID	DESCRIPTION	PART ID
0.46 in. 12 mm	Reducer, .459 ID, w/set screw, (used w/ABX 115 guide tubes)	<b>ABX 114</b>
0.75 in. 19 mm	Adapter, Guide Tube, .745 (used w/ABX 119 guide tubes)	<b>ABX 124</b>

## HOSE STOP OPTIONS

Hose stops are required safety mechanisms and come in collet and clamp styles. A working ABX-2L configuration requires one (1) backout collet and two (2) clamp-style hose stops.

HOSE OD	SPIR STAR	PARKER	COLLET SIZE	COLLET PART ID	CLAMP SIZE	CLAMP PART ID
0.27–0.41 in. 7–10 mm	3/2	2240D-02	0.297 in. 8 mm	<b>ABX 121-297</b>	0.27–0.34 in. 7–9 mm	<b>HS 121-27-34</b>
	3/4, 4/2	2240D-025, 2440D-02	0.328 in. 8 mm	<b>ABX 121-328</b>		
	3/6, 5/2	2240D-03	0.406 in. 10 mm	<b>ABX 121-406</b>	0.34–0.42 in. 9–11 mm	<b>HS 121-34-42</b>
0.44–0.50 in. 11–13 mm	4/4	2448D-025	0.438 in. 11 mm	<b>ABX 121-438</b>		
	4/6, 5/4, 6/2	2240D-04	0.460 in. 12 mm	<b>ABX 121-460</b>	0.42–0.50 in. 11–13 mm	<b>HS 121-42-50</b>
		2640D-025 2740D-025	0.484 in. 12 mm	<b>ABX 121-484</b>		
	6/4	2440D-04	0.516 in. 13 mm	<b>ABX 121-516</b>	0.50–0.56 in. 13–14 mm	<b>HS 121-50-56</b>
0.52–0.61 in. 13–16 mm	5/6, 8/2	2240D-05, 2740D-03	0.547 in. 14 mm	<b>ABX 121-547</b>		
	8/4		0.594 in. 14 mm	<b>ABX 121-594</b>	0.56–0.61 in. 14–16 mm	<b>HS 121-56-61</b>
		2440D-05	0.625 in. 15 mm	<b>ABX 121-625</b>		

# AUTOBOX ABX-2L CONFIGURATION

## STEP 3 POSITIONER

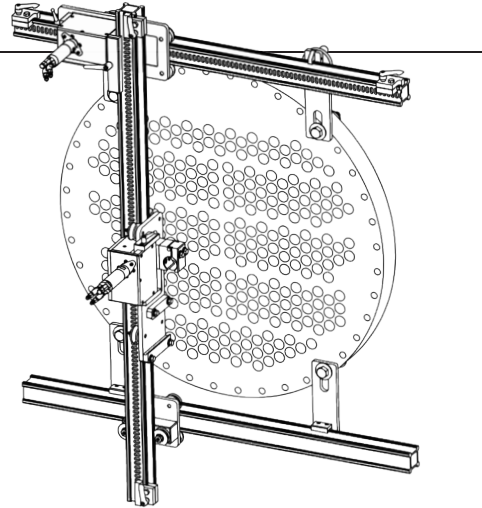
The lightweight positioner frame utilizes 2.5-inch (64 mm) rail components. Two lengths of slotted box rail are used for horizontal and vertical positioning and one length of solid box rail acts as a guide.

The positioner comes in two standard sizes:

- 4 ft (1220 mm) for flanges up to 24 in. (610 mm)
- 6 ft (1830 mm) for flanges up to 48 in. (1220 mm)

Rails can be connected with standard clamps to a maximum total length of 10 feet (3 m).

*Custom lengths are available.*



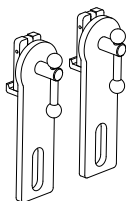
LENGTH	DESCRIPTION	POSITIONER PART ID
4 ft 1.2 m	Lightweight Positioner, 4' 24"/610 mm Flange	<b>LWP-500-4-V2</b>
6 ft 1.8 m	Lightweight Positioner, 6' 48"/1220 mm Flange	<b>LWP-500-6-V2</b>
OPTIONAL EXTENSIONS		
2 ft 0.6 m	Box Rail, Slotted, Extension Kit, 2.5", 2'	<b>LWP 580-2-001</b>
	Box Rail Extension Kit, 2.5", 2'	<b>LWP 581-2-001</b>
	LWP Rail Extension Kit, 2' (2 Slotted Rail, 1 Box Rail)	<b>LWP 582-2-V2</b>
4 ft 1.2 m	Box Rail, Slotted, Extension Kit, 2.5", 4'	<b>LWP 580-4-001</b>
	Box Rail Extension Kit, 2.5", 4'	<b>LWP 581-4-001</b>
	LWP Rail Extension Kit, 4' (2 Slotted Rail, 1 Box Rail)	<b>LWP 582-4-V2</b>
6 ft 1.8 m	Box Rail, Slotted, Extension Kit, 2.5", 6'	<b>LWP 580-6-001</b>
	Box Rail Extension Kit, 2.5", 6'	<b>LWP 581-6-001</b>
	LWP Rail Extension Kit, 6' (2 Slotted Rail, 1 Box Rail)	<b>LWP 582-6-V2</b>



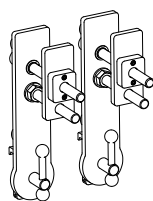
## STEP 4 MOUNTING CLAMPS

Mounting options are available to anchor the positioner to various types of exchanger flanges.

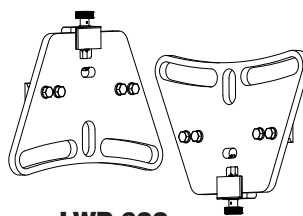
MOUNT STYLE	DESCRIPTION	MOUNTING CLAMP PART ID
Slotted Quick Clamp	Bolted to flange, 4 Pcs.	LWP 620
Quick Clamp	Clamp to flange, 4 Pcs.	LWP 621
Plate Clamp	Bolted to flange, 2 Pcs.	LWP 622
Multiple	Kit, includes Slotted Quick Clamp, Quick Clamp, and Plate Clamp	LWP 625
Scaffold	Scaffold Quick Clamp Assy	LWP 554
Scaffold	Set of 4, Scaffold Quick Clamp Assy	LWP 554-K



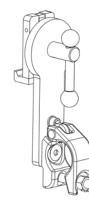
LWP 620



LWP 621



LWP 622

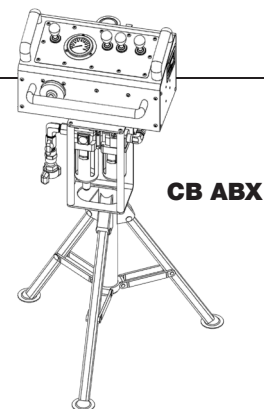


LWP 554

## STEP 5 CONTROL BOX

The control box facilitates remote operation of all functions of the ABX-2L and comes supplied with air hoses. The CB-ABX has been designed to be versatile and ergonomic.

CONTROL BOX PART ID
CB-ABX

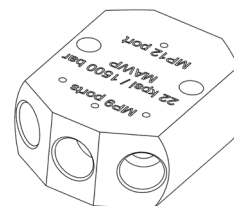


CB ABX

## STEP 6 MANIFOLD

The Y-manifold is used to divide your main supply hose to two lancing hoses. Manifolds can be used to accommodate single, dual, or triple lance cleaning.

PRESSURE	DESCRIPTION	PART ID
22k psi 1500 bar	Y Manifold Kit with Plugs and Glands	ABX 369-MP12-K
40k psi 2800 bar		ABX 369-H9-K



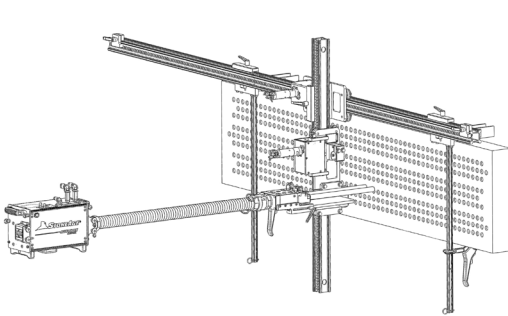
# AUTOBOX ABX-2L CONFIGURATION

## STEP 7 ACCESSORIES

The following accessory systems are available for the AutoBox ABX-2L.

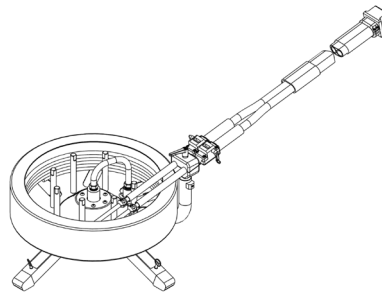
Visit our website for Tools Talks and specifications for these accessory systems:

**WWW.STONEAGETOOLS.COM**



### FIN FAN ACCESSORY

Adapts ABX-2L for fin fan exchanger cleaning



### HOSE CONTAINMENT SYSTEM

Safely manages high pressure hose and prolongs hose life



### AUTOSTROKE

Increases productivity when cleaning plugged tubes

## STEP 8 MAINTENANCE RESOURCES

DESCRIPTION	PART ID
Kit, AutoBox 2L, Extra Parts Package (large hose)	<b>ABX-2L EPP</b>
Kit, AutoBox 2L, Extra Parts Package (small hose)	<b>ABX-2L EPPS</b>
Kit, AutoBox 2L, Extra Parts Package (up to 8 mm)	<b>ABX-2L EPP-001</b>
Kit, ABX-2L Belt Replacement	<b>ABX 614</b>

Tool manuals and training videos are available on our website:

**WWW.STONEAGETOOLS.COM**

For questions or help with a specific application, configuration or tool repairs, please contact StoneAge Customer Service.