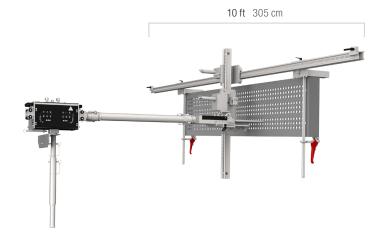
FIN FAN ACCESSORY

Designed for On-site Aerial Heat Exchanger Tube Cleaning



OVERVIEW

The StoneAge Fin Fan Accessory is a specifically engineered accessory for the AutoBox hose tractor family. The Fin Fan Accessory adapts AutoBox hose tractors for easy mounting to a Fin Fan header box for efficient tube cleaning.

The included scaffold mount allows AutoBox hose tractors to be attached to the catwalk railing—keeping hoses clear of the walkway for easy setup and operation. The Fin Fan Snout and Guide assemblies provide anti-withdrawal protection and precise tube pitch adjustment.

FEATURES	BENEFITS
Compatible with the AutoBox series of hose tractors (ABX-2L, ABX-3L, ABX-PRO) and Lightweight Positioner (LWP-500-V2)	 Increases utilization rates for owners of StoneAge tube cleaning equipment Provides controlled and adjustable feed rates for highest quality cleaning in both "in" and "out" directions Eliminates hand-held flex lancing of Fin Fans, demonstrates commitment to automated, handsfree cleaning
Light weight positioning system	Easy to set up and assemble in tight locationsCustomizable to fit most fin fan exchangers
Hose snout and tube guide assembly	 Accurate lance control and indexing Built-in backout prevention increases safety Adjustable pitch, up to 6" dual-lance Maintains parallel guide tubes throughout the full pitch adjustment range
Scaffold mount	Simple mounting of AutoBox tractor on existing structures

SPECIFICATIONS			
Horizontal Positioner*	Full Length: 10 ft 305 cm Allowance: 30 in. 76 cm		
Vertical Positioner*	Full Length: 3.5 ft 107 cm Allowance: 18 in. 46 cm		
Hose Size	3/4-8/4		
Pitch Adjustment	0.6-6.0 in. 15-153 mm		

^{*}Additional allowance required to complete travel distance. Custom lengths available.



FIN FAN ACCESSORY CONFIGURATION

To configure the Fin Fan Accessory, the following information should be obtained:

DRIVE TRACTOR AND CARRIAGES

• Will the Fin Fan Accessory be used with an existing AutoBox and Lightweight Positioner? This product is offered as an accessory to the AutoBox family of hose tractors. The required AutoBox tractor and drive carriages are sold separately. If customer owns the Lightweight Positioner or is purchasing one, the stops, horizontal and vertical carriages can be used for the Fin Fan Accessory. If the customer does not own a Lightweight Positioner, the carriages and stops will need to be added as optional items.

RAIL SELECTION

- What is the width of the fin fan exchanger?

 The horizontal rail will need to be a minimum of 30 inches (76 cm) longer than the fin fan unit to allow the drive carriage to travel the complete distance of the exchanger face.
- What is the height of the fin fan exchanger?

 The vertical rail will need to be a minimum of 18 inches (46 cm) longer than the fin fan unit is in height.

HOSE COLLET STOP SELECTION

What is the hose (flex lance) size to be used?
 The appropriate hose stop collet/collets (FF 121-XXX) will be required.

GUIDE TUBE SELECTION

• What is the ID of the tubes being cleaned? What size Banshee tools will be used? The appropriate size guide tube will be required.

STINGERS/COUPLERS

- What is the depth of the header box (distance from outside surface to tube sheet)? The guide tube length will need to be approximately 6–8 inches (15–20 cm) longer than the depth of the header box. The nipple/stinger will need to be about 2 inches (5 cm) shorter than the header box depth.
- What is the hose end fitting size, type, and thread?

ADDITIONAL INFORMATION

 Make sure the hoses (flex lances) to be used are at least 13 ft (4 m) longer than the fin fan heat exchanger to be cleaned.

ORDERING A FIN FAN ACCESSORY PACKAGE

The Fin Fan Accessory is offered in six packages to accommodate different configurations. The table below illustrates different package options:

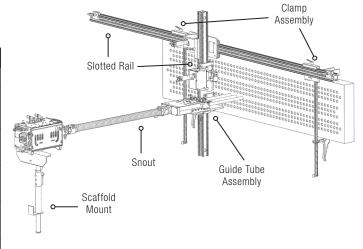
NUMBER OF LANCES	MOUNTING	AUTOBOX SYSTEM	PACKAGE PART ID	
3 - Triple lance cleaning	Snout mount	ABX-3L	FF-380-3LS3L-10-PKG	
	Snout mount	ABX-3L	FF-280-2LS3L-10-PKG	
2 - Double lance cleaning	SHOUL HIOUHL	ABX-2L	FF-280-2LS2L-10-PKG	
2 - Double lattice cleaning	Direct Mount	ABX-3L	FF-280-2LR3L-10-PKG	
		ABX-2L	FF-280-2LR2L-10-PKG	
	Snout mount	ABX-3L	FF-380-3LS3L-10-PKG or FF-280-2LS3L-10-PKG	
	SHOUL HIOUHL	ABX-2L	FF-280-2LS2L-10-PKG	
1 - Single lance cleaning	Direct mount	ABX-3L	FF-280-2LR3L-10-PKG	
		ABX-2L	FF-280-2LR2L-10-PKG	
		ABX-PRO	PR0-675-PKG + LWP-500-X-V2	

FF-380-3LS3L-10-PKG

ABX-3L, 3 LANCE CLEANING, SNOUT MOUNT

This package accommodates 3-lance cleaning for an AutoBox ABX-3L hose tractor mounted off the positioner and utilizing a snout. Scaffold mount included.

QTY	PART ID	DESCRIPTION		
3	ABX ???-16*	Guide Tube		
1	BOP 103-07-2.0MCL- 2.0FCL	Snout, Interlock, 2inMCL - 2.0inFCL, 7ft		
1	BR 006-2.5-001	2.5" Splice Tube		
2	BR 008-2.5-001	2.5" Wedge Bolt Assembly		
2	BU 002-4-001	Box Rail, Slotted, 2.5", 4', w/round holes		
1	BU 002-6-001	Box Rail, Slotted, 2.5", 6', w/round holes		
2	FF 102	Fin Fan Clamp Assembly, 30"		
1	FF 104	Scaffold Mount Assembly		
1	FF 105-3L-K	Kit, ABX-3L to Fin Fan		
3	FF 121-???*	Hose Stop, Collet Style		
1	FF 200-S	OO-S ABX Snout, Fin Fan, 3-Lance		
1	HCS 310	Adapter, Weldment 3L Snout		
3	HS 121-???*	Hose Stop, Clamp Style		



^{*??? -} Specify full part ID based on hose/nozzle size



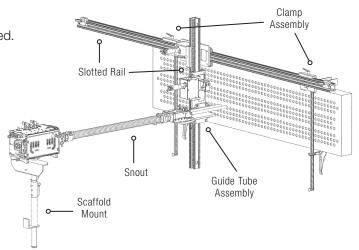
FIN FAN ACCESSORY CONFIGURATION

FF-280-2LS3L-10-PKG

ABX-3L, 2 OR 1 LANCE CLEANING, SNOUT MOUNT

This package accommodates double or single lance cleaning for an AutoBox ABX-3L hose tractor mounted off the positioner and utilizing a snout. Scaffold mount included.

QTY	PART ID	DESCRIPTION	
2	ABX ???-16*	Guide Tube	
1	BOP 103-07-2.0MCL- 2.0FCL	Snout, Interlock, 2inMCL - 2.0inFCL, 7ft	
1	BR 006-2.5-001	2.5" Splice Tube	
2	BR 008-2.5-001	2.5" Wedge Bolt Assembly	
2	BU 002-4-001	Box Rail, Slotted, 2.5", 4', w/round holes	
1	BU 002-6-001 Box Rail, Slotted, 2.5", 6', w/round holes		
2	FF 102	Fin Fan Clamp Assembly, 30"	
1	FF 104	Scaffold Mount Assembly	
1	FF 105-3L-K	Kit, ABX-3L to Fin Fan	
2	FF 121-???*	Hose Stop, Collet Style	
1	FF 200-S ABX Snout, Fin Fan		
1	HCS 310	SS 310 Adapter, Weldment 3L Snout	
2	HS 121-???*	Hose Stop, Clamp Style	



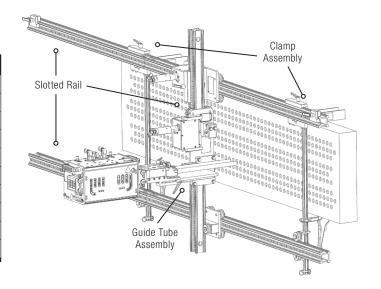
FF-280-2LR3L-10-PKG

ABX-3L, 2 OR 1 LANCE CLEANING, DIRECT MOUNT

This package accommodates double or single lance cleaning for an AutoBox ABX-3L hose tractor directly mounted to the positioner frame.

QTY	PART ID DESCRIPTION	
2	ABX ???-16*	Guide Tube
2	BR 006-2.5-001	2.5" Splice Tube
4	BR 008-2.5-001	2.5" Wedge Bolt Assembly
3	BU 002-4-001	Box Rail, Slotted, 2.5", 4', w/round holes
2	BU 002-6-001 Box Rail, Slotted, 2.5", 6', w/round holes	
2	FF 102 Fin Fan Clamp Assembly, 30"	
2	FF 121-???* Hose Stop, Collet Style	
2	FF 160 Lower Support Bracket Assembly	
1	FF 200-3LR ABX-3L Rigid Mount Guide Tube Assembly	
2	HS 121-???* Hose Stop, Clamp Style	

^{*??? -} Specify full part ID based on hose/nozzle size



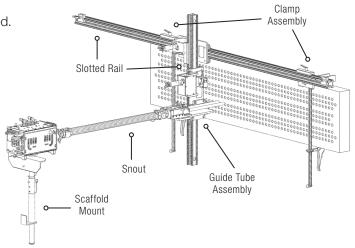
^{*??? -} Specify full part ID based on hose/nozzle size

FF-280-2LS2L-10-PKG

ABX-2L, 2 OR 1 LANCE CLEANING, SNOUT MOUNT

This package accommodates double or single lance cleaning for an AutoBox ABX-2L hose tractor mounted off the positioner and utilizing a snout. Scaffold mount included.

QTY	PART ID	DESCRIPTION		
2	ABX ???-16*	Guide Tube		
1	ABX 210	Plate, Bottom		
1	BOP 103-07-2.0MCL- 2.0FCL	Snout, Interlock, 2inMCL - 2.0inFCL, 7ft		
1	BR 006-2.5-001	2.5" Splice Tube		
2	BR 008-2.5-001	2.5" Wedge Bolt Assembly		
2	BU 002-4-001	Box Rail, Slotted, 2.5", 4', w/round holes		
1	BU 002-6-001	Box Rail, Slotted, 2.5", 6', w/round holes		
2	FF 102	Fin Fan Clamp Assembly, 30"		
1	FF 104	Scaffold Mount Assembly		
1	FF 105-RK	Retrofit Kit, (ABX-2L to FinFan)		
2	FF 121-???*	Hose Stop, Collet Style		
1	FF 200-S	ABX Snout, Fin Fan		
2	HS 121-???*	Hose Stop, Clamp Style		



*??? - Specify full part ID based on hose/nozzle size

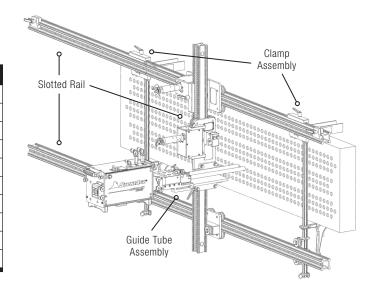
FF-280-2LR2L-10-PKG

ABX-2L, 2 OR 1 LANCE CLEANING, DIRECT MOUNT

This package accommodates double or single lance cleaning for an AutoBox ABX-2L hose tractor directly mounted to the positioner frame.

QTY	PART ID DESCRIPTION	
2	ABX ???-16*	Guide Tube
2	BR 006-2.5-001	2.5" Splice Tube
4	BR 008-2.5-001	2.5" Wedge Bolt Assembly
3	BU 002-4-001	Box Rail, Slotted, 2.5", 4', w/round holes
2	BU 002-6-001 Box Rail, Slotted, 2.5", 6', w/round holes	
2	FF 102 Fin Fan Clamp Assembly, 30"	
2	FF 121-???* Hose Stop, Collet Style	
2	FF 160 Lower Support Bracket Assembly	
1	FF 200-2LR ABX-2L Rigid Mount Guide Tube Assembly	
2	HS 121-???* Hose Stop, Clamp Style	

^{*??? -} Specify full part ID based on hose/nozzle size





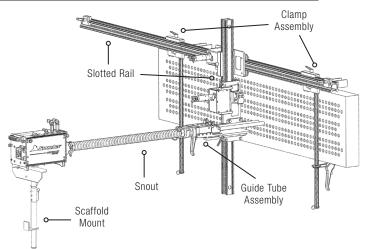
FIN FAN ACCESSORY CONFIGURATION

PRO-675-PKG \ ABX-PRO, 1 LANCE CLEANING, DIRECT MOUNT

This package accommodates single lance cleaning for an AutoBox ABX-PRO hose tractor directly mounted to the positioner frame.

QTY	PART ID	DESCRIPTION		
1	BOP 035-???	Guide Tube Collet Block Assemblyy		
1	BOP 048	Hose Stop Adaptor, ABX-PRO		
1	ABX ???-??? Guide Tube (Size and Length)			
1	FF 121-??? Hose Stop, Collet Style			
1	HS 121-??? Hose Stop, Clamp Style			
1	LWP-500-???-V2*	Lightweight Positioner (Specify Length)		

^{*}Positioner is not included in PRO-675-PKG and must be ordered separately



PACKAGE CONFIGURATION OPTIONS

The Fin Fan Accessory can be configured to specified requirements. Configuration options are described below:

Rail Options

The Fin Fan Accessory and Lightweight Positioner utilize 2.5" slotted rail for horizontal and vertical framing. Rail lengths are customizable and can be spliced together to accommodate many different exchanger sizes. Standard lengths are listed below:

RAIL LENGTH	DESCRIPTION	PART ID
2.00 ft 61 cm	Box Rail, Slotted, 2.5", 2', w/round holes	ABX 115-12
3.50 ft 107 cm	Rail, 3.5', 2.5" Slotted w/round holes	ABX 115-36
3.75 ft 114 mm	Rail, 3.75ft, 2.5in Slotted w/round holes	ABX 116-12
4.00 ft 914 mm	Box Rail, Slotted, 2.5", 4', w/round holes	ABX 116-36
6.00 ft 316 mm	Box Rail, Slotted, 2.5", 6', w/round holes	ABX 117-12
10.0 ft 914 mm	Rail, 10', 2.5" Slotted w/round holes	ABX 117-36
15.0 ft 316 mm	Rail, 15', 2.5" Slotted w/round holes	ABX 119-12
	EXTENSION KITS	
2.00 ft 61 cm	Box Rail, Slotted, Extension Kit, 2.5", 2'	LWP 580-2-001
4.00 ft 914 mm	Box Rail, Slotted, Extension Kit, 2.5", 4'	LWP 580-4-001
6.00 ft 316 mm	Box Rail, Slotted, Extension Kit, 2.5", 6'	LWP 580-6-001

Hose Stop Collet and Clamp Options

Appropriate size collet selection is **CRITICAL** to ensuring proper backout prevention of the tool.

HOSE OD	SPIRSTAR	PARKER	COLLET SIZE	COLLET PART ID	CLAMP SIZE	CLAMP PART ID
	3/2	2240D-02	.297 in. 8 mm	FF 121-297	0.27-0.34	HS 121-27-34
0.26-0.38 in. 7-10 mm	3/4, 4/2	2240D-025, 2440D-02	.328 in. 8 mm	FF 121-328	7–9 mm	пъ 121-21-34
	3/6, 5/2	2240D-03	.406 in. 10 mm	FF 121-406	0.34-0.42	HS 121-34-42
	4/4	2448D-025	.438 in. 11 mm	FF 121-438	9–11 mm	по 121-34-42
0.39-0.50 in.	4/6, 5/4, 6/2	2240D-04	.460 in. 12 mm	FF 121-460	0.42-0.50	UC 101 40 E0
11–13 mm		2640D-025, 2740D-03	.484 in. 12 mm	FF 121-484	11–13 mm	HS 121-42-50
	6/4	2440D-04	.516 in. 13 mm	FF 121-516	0.50-0.56	UC 101 EO EG
	5/6, 8/2	2240D-05, 2740D-03	.547 in. 14 mm	FF 121-547	13–14 mm	HS 121-50-56
0.51–0.61 in. 13–16 mm	8/4		.594 in. 14 mm	FF 121-594	0.56-0.61	UC 404 FC C4
10 10 11111		2440D-05	.625 in. 15 mm	FF 121-625	14–16 mm	HS 121-56-61
	HOSE STOP COLLET KITS					
0.26- 0.61 in. 7-16 mm Kit (Extended), Hose Stop Collets, (2ea .297625)			FF 622			

Guide Tube Options

Custom lengths are available. Contact StoneAge Customer Service about your application.

TUBE LENGTH	BANSHEE MODEL	TUBE SIZE	TUBE PART ID
	BN9.5	.459 in. 12 mm	ABX 115-16
	BN13	.546 in. 14 mm	ABX 116-16
	BN15	.674 in. 17 mm	ABX 117-16
16 in. 406 mm	BN18	.745 in. 19 mm	ABX 119-16
	BN24	1.01 in. 25 mm	ABX 125-16
	BN24, BN27	1.12 in. 28 mm	ABX 126-16
	BN33	1.38 in. 35 mm	ABX 127-16

Visit our website for tool resources including operation and maintenance videos:

WWW.STONEAGETOOLS.COM