

STANDARDLINE

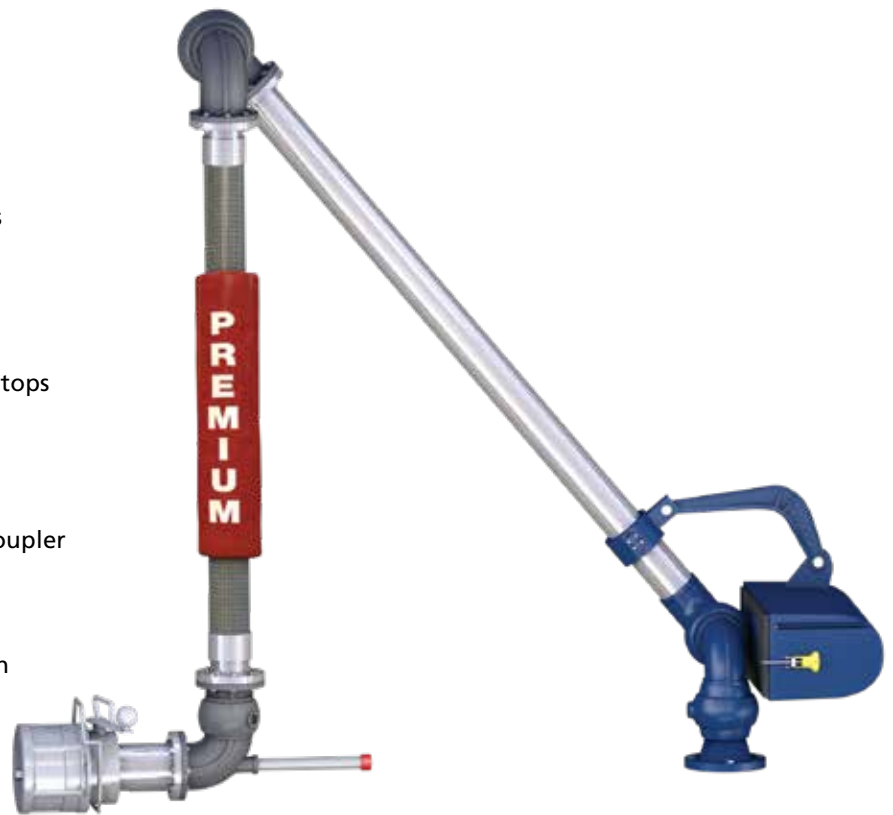
A-Frame Hose (AFH) Bottom Loading Arm

StandardLine Loading Arms by OPW Engineered Systems raise the bar in quality and performance for the industry. Get OPW's best-in-class loading systems in pre-engineered sizes, materials and feed orientations with delivery in 20 days or less.

The AFH Loader is ideal for those applications with lower riser heights. Its simple, yet robust, design has provided decades of reliable service. Its compact design makes it ideal for loading islands where the arm needs to serve both sides of the platform. Also a good choice for vapor-recovery applications.

Features and Benefits:

- 3000 Series Swivel Joints
 - Simple, Proven Design
 - Carbon Steel/Aluminum Construction
 - Low-Temperature Fluorocarbon Seals
 - Wide Compatibility
- 790 EZ Adjust Counterbalance
 - Safe, Easy Spring Adjustment
 - Integral Upward, Downward Travel Stops
 - 5-Year Warranty
- Braided Stainless Steel or Rackmaster Composite Hoses
- Available with Lynx Bottom Loading Coupler
 - 3-Year Warranty
- Available In 3" and 4" Sizes
- Stores In Upright, Near-Vertical Position



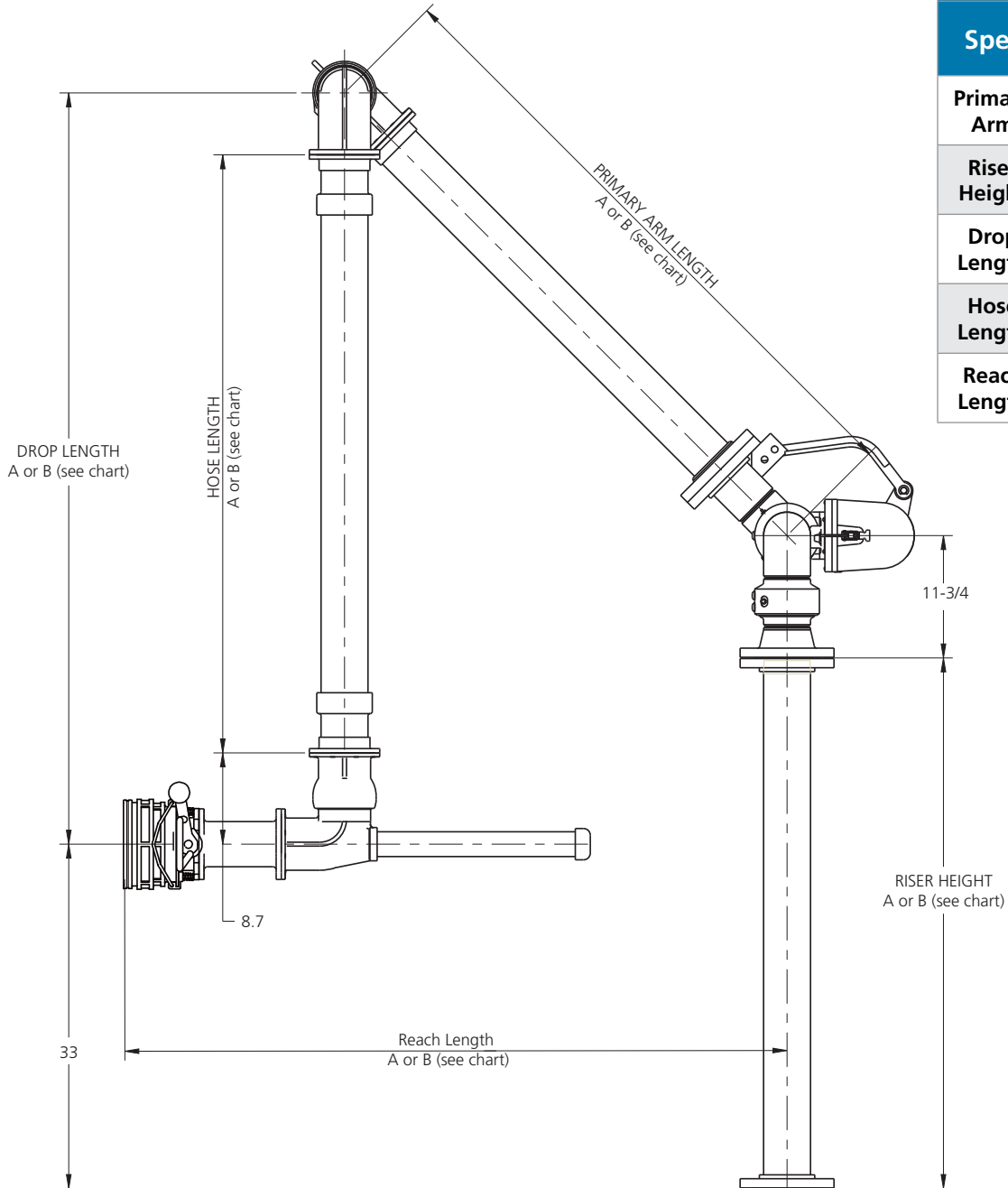
ALL STANDARDLINE ARMS FEATURE

- Fast Delivery – 20 Days or Less!†
- Menu of Options to customize your arm
- Freight is included across continental U.S. & Canada
- Exclusive 3-Year Warranty included

A-Frame Hose (AFH) Loader Dimensions*

StandardLine Terminal Configuration

AFH Specs		
Spec	Version A	Version B
Primary Arm	60"	84"
Riser Height	50.9"	50.9"
Drop Length	72"	89"
Hose Length	57"	74"
Reach Length	63.50"	80.4"



* Required to accommodate StandardLine Offering. Other options are available upon request.

Build Your Standard AFH Arm

1. Fill in the corresponding code for your selections.
2. Add accessories by filling in the appropriate corresponding number for each option.

Example												
AFH	CA	60	UR	0402	—	1	0	0	0	0	0	0

AFH **CA** **60** **UR** **0402** — **0**


1 **2** **3** **4** **5** **6** **7** **8**

Arm Style: (AFH) A-Frame Hose Type


Material Options: (CA) Carbon Steel/Aluminum

Dimension Options: (60) 60" (84) 84"


Orientation:




(UR) Upfeed/RH



(DR) Downfeed/RH



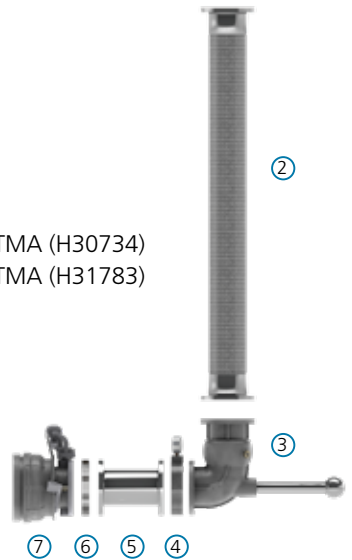
(UL) Upfeed/LH



(DL) Downfeed/LH

Size and Seal Type: (0302) 3" with fluorocarbon (0402) 4" with fluorocarbon

- 1 Drop Spool**
 - 0 - Not Applicable for AFH
- 2 Drop Hose**
 - 0 - Drop Hose by Others
 - 1 - 3" x 57" Rackmaster Composite - 60" Primary w/ 72" Drop, TTMA B/E (HX110105)
 - 2 - 3" x 57" Braided Stainless Steel - 60" Primary w/ 72" Drop, TTMA B/E (HX109621)
 - 3 - 3" x 74" Rackmaster Composite - 84" Primary w/ 89" Drop, TTMA B/E (HX109622)
 - 4 - 3" x 74" Braided Stainless Steel - 84" Primary w/ 89" Drop, TTMA B/E (HX109630)
 - 5 - 4" x 57" Rackmaster Composite - 60" Primary w/ 72" Drop, TTMA B/E (HX109631)
 - 6 - 4" x 57" Braided Stainless Steel - 60" Primary w/ 72" Drop, TTMA B/E (HX109632)
 - 7 - 4" x 74" Rackmaster Composite - 84" Primary w/ 89" Drop, TTMA B/E (HX109633)
 - 8 - 4" x 74" Braided Stainless Steel - 84" Primary w/ 89" Drop, TTMA B/E (HX109634)
- 3 Coupler Swivel**
 - 0 - Coupler Swivel By Others
 - 1 - 4" Style 30 (90°) Swivel Joint w/ handle, Alum/Fluorocarbon, TTMA B/E (3635FTH-0402)
 - 2 - 3" Style 30 (90°) Swivel Joint w/ handle, Alum/Fluorocarbon, TTMA x FNPT (3635FTO-0302)
 - 3 - 3" Style 30 (90°) Swivel Joint w/ handle, Alum/Fluorocarbon, TTMA B/E (3635FTH-0302)
- 4 Isolation Valve**
 - 0 - Isolation Valve by Others
 - 1 - 4" Full Flow (LBV 450VGL)
- 5 Spacer Spool**
 - 0 - Spacer Spool by Others
 - 1 - 4" x 8" OAL, TTMA FLG (VSS4)
 - 2 - 3" x 4" Spacer Spool, 3" MNPT x 4" TTMA (H30734)
 - 3 - 3" x 4" Spacer Spool, 3" TTMA x 4" TTMA (H31783)
- 6 Site Glass**
 - 0 - Site Glass by Others
 - 1 - 4" Acrylic (BF4-SG-25)
- 7 API Coupler**
 - 0 - API Coupler by Others
 - 1 - 1004D3-0402
 - 2 - Lynx Coupler (852VG)
- 8 Assembly, Testing & Boxing (ATB)**
 - 0 - No ATB
 - 1 - ATB Included
 - 2 - ATB Export



Technical Features	
Materials	Carbon Steel/Aluminum
Seals	Low-Temp Fluorocarbon
Working Pressure	80 PSI (5.5 Bar)
Test Pressure	120 PSI (8.2 Bar)
Operating Temperature	-20°F to 140°F (-29°C to 60°C)
Up/Down Angular Movement	+45° to -15° (from horizontal)
Typical Horizontal Spacing	26" (660 mm)
Typical Vertical Spacing	15" (381 mm)
Typical Reach (radius)	60" to 80" (1,524 mm to 2,032 mm)
Nominal Diameter	3" and 4"
Typical Flow Rates (Velocities < 15 ft/sec (7.5 M/sec))	200-600 GPM (757-2271 LPM)
Weight	~275 lbs*

Materials of Construction	
Inlet Flange	4" 150 ANSI ASTM A105
Inlet Swivel	Carbon Steel ASTM A105
Primary Arm Piping	Sch 40 Aluminum ASTM B241
Apex Swivel (p/n 3640FT-0402)	Aluminum ASTM B26 A356 T6
Drop Hoses	(H31781M) Rackmaster Composite, TTMA Ends 3"x 57" (HX108471) Rackmaster Composite, TTMA Ends 4"x 57"
Coupler Swivel (p/n 3635FTH-0402)	Aluminum ASTM B26 A356 T6
Isolation Valve (LBV450VGL)	Cast Aluminum/Fluorocarbon
Spacer Spool (p/n VSS4)	Cast Aluminum
API Coupler (p/n: 1004D3, Lynx852VG)	Aluminum/Fluorocarbon Low-Temp Fluorocarbon

Additional Information	
Weld Procedure	Per the ASME Boiler & Pressure Vessel Code Section IX
Radiograph/X-Ray	Per OPW Standard, 5% random/factory lot
Testing	All assembled Loading Arms shall be tested to 1.5X the rated design pressure.
Surface Treatments	All Carbon Steel components to be protected with a 2-part paint process. Aluminum components to be unpainted.
Lubricant	OPW 880 High-Performance Synthetic Lubricant
Gasketing	KlingerSil C5400
Warranty	Standard warranty of three years after date of invoice shall apply. LYNX API Coupler warranty to be three years after shipment from factory. 790 Counterbalance warranty to be five years after shipment from factory.
Freight	All shipments are F.O.B Factory Lebanon, OH. Full freight is allowed on surface transportation within continental United States and Canada.
Factory Assembly, Testing & Boxing (ATB)	If this option is selected, Loading Arm would be fully assembled, tested and shipped in protective wooden crate. Note: It may be necessary to ship Loading Arm in sections to accommodate crating, shipping and rigging. Arm will be shipped as fully assembled as possible.

Recommended Spare Parts List**			
Materials	Description	Where Used	Qty
3000RK-0402 [†]	3000 Series Swivel Seal Kit, 4" Fluorocarbon	All Swivels (Counterbalance, Apex, Coupler Swivels)	4
1004D3SRK-0402	Coupler Seal Repair Kit, 4" Fluorocarbon	1004D3-0402 (API Coupler)	1

* Estimated weight for entire Loading Arm (72" Reach). Weight can vary depending on selected options.

** Other seal kits/materials available upon request.

† '20 Days or Less' refers to twenty working days.