



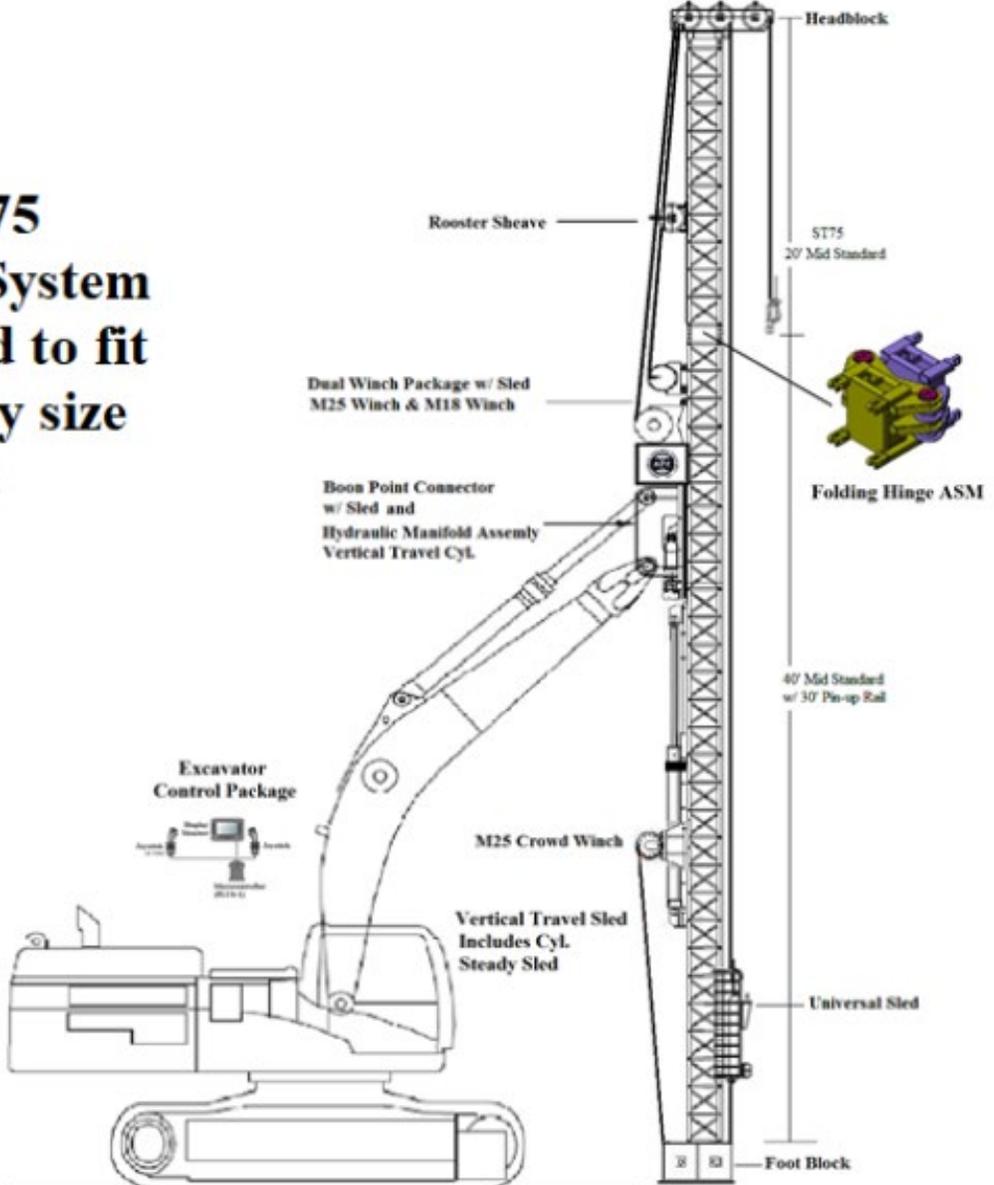
# **INTRODUCING THE APE EXCAVATOR PILEDIVING MAST SYSTEM**

**Revolutionizing the Piledriving Industry**

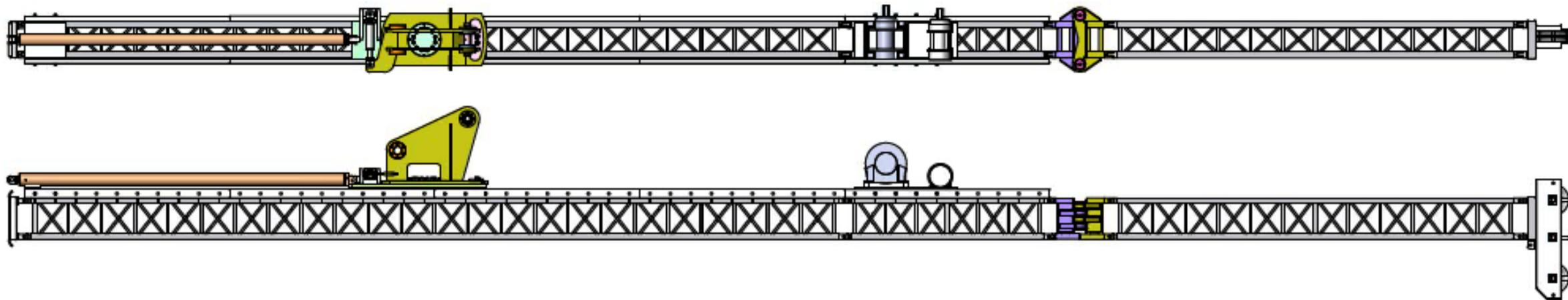
**One Pile at a Time**

# APE ST75 Excavator Mast System

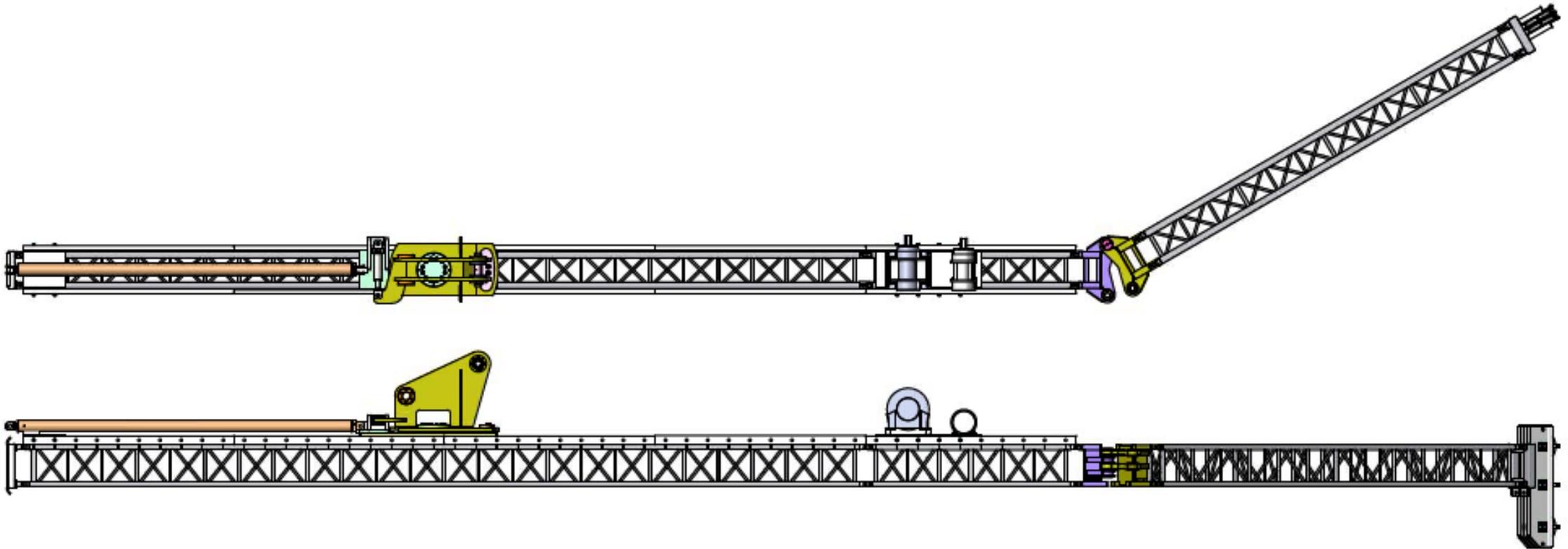
The APE ST75  
Excavator Mast System  
can be customized to fit  
just about any size  
excavator.



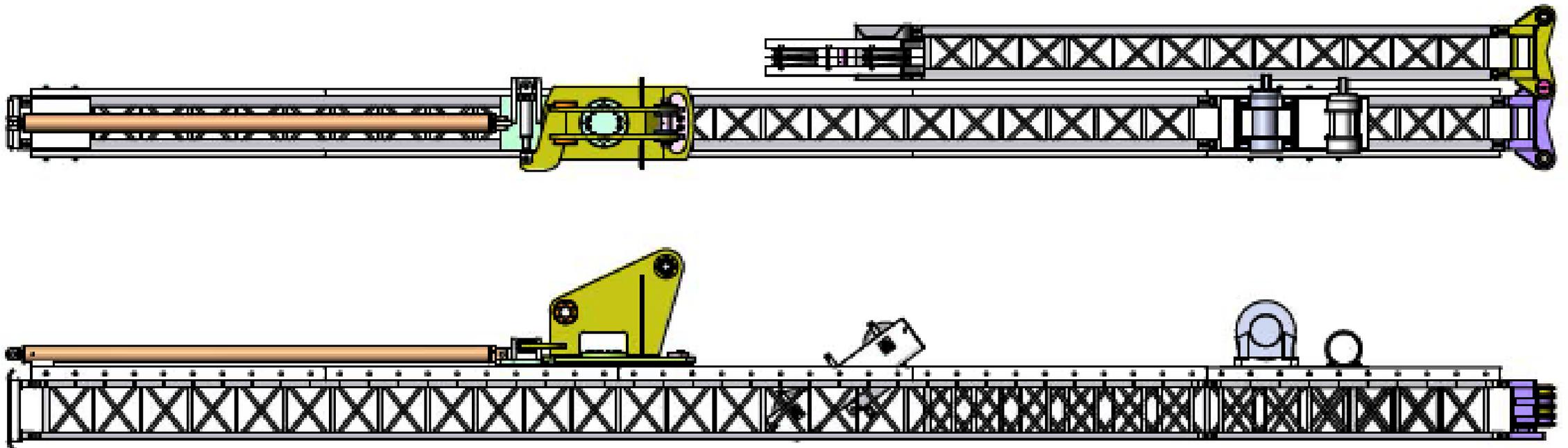
# Fully Extended Example



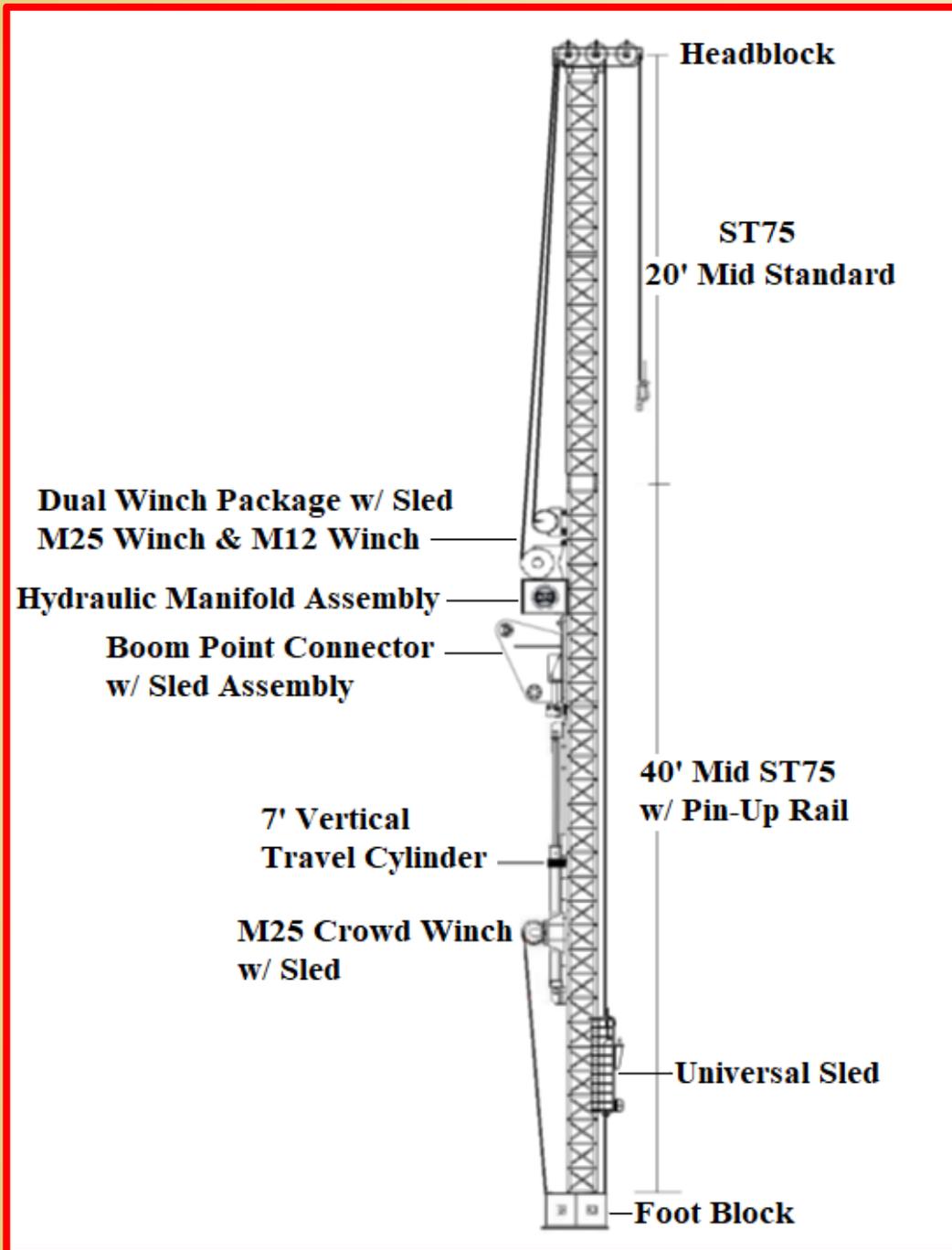
# Leader Folding Hinge



# Leader Folded for Transport



# Leader Components



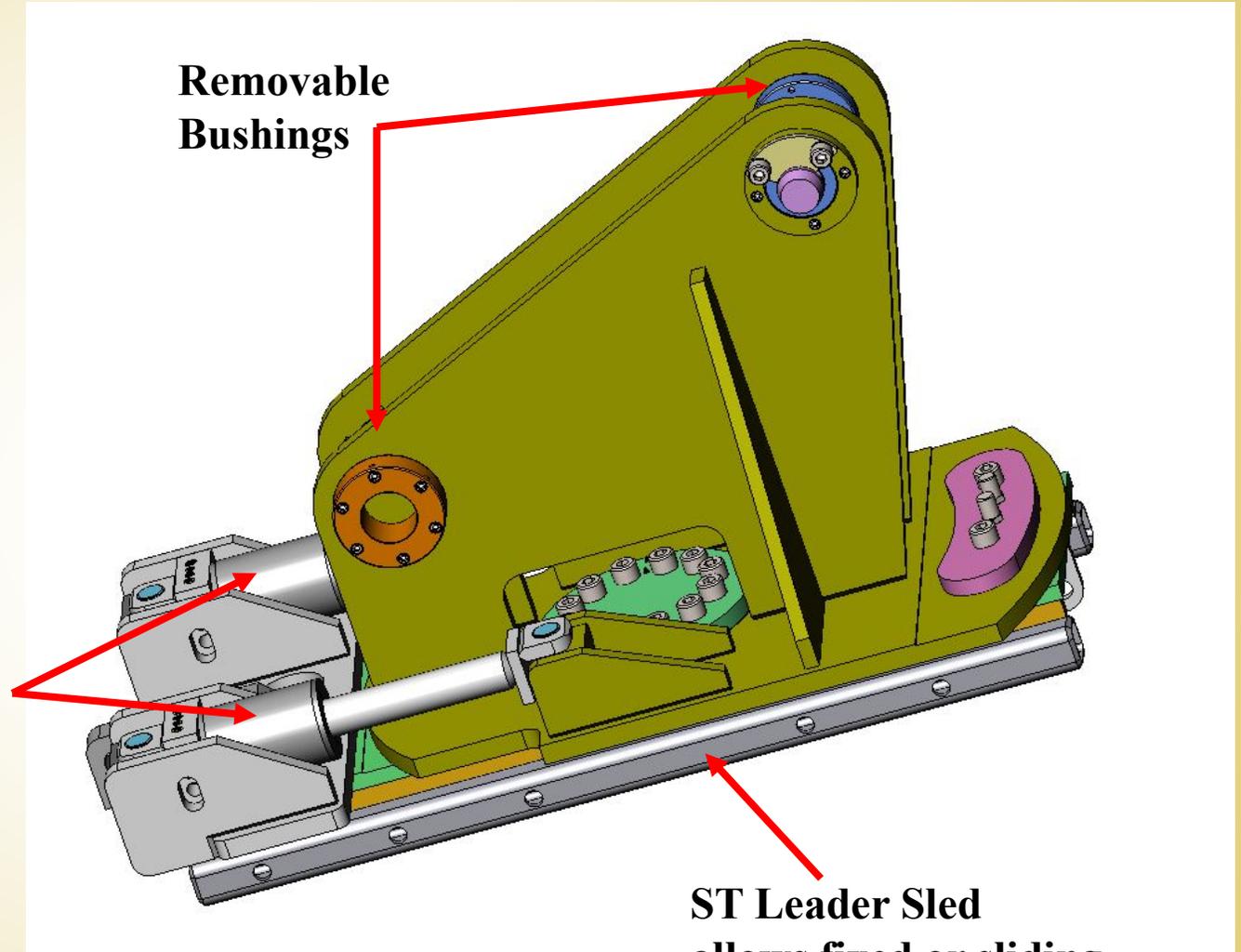
## Universal Boom Point Connector with Dual Cylinder 3° side tilt action and ST Leader Sled

### Note:

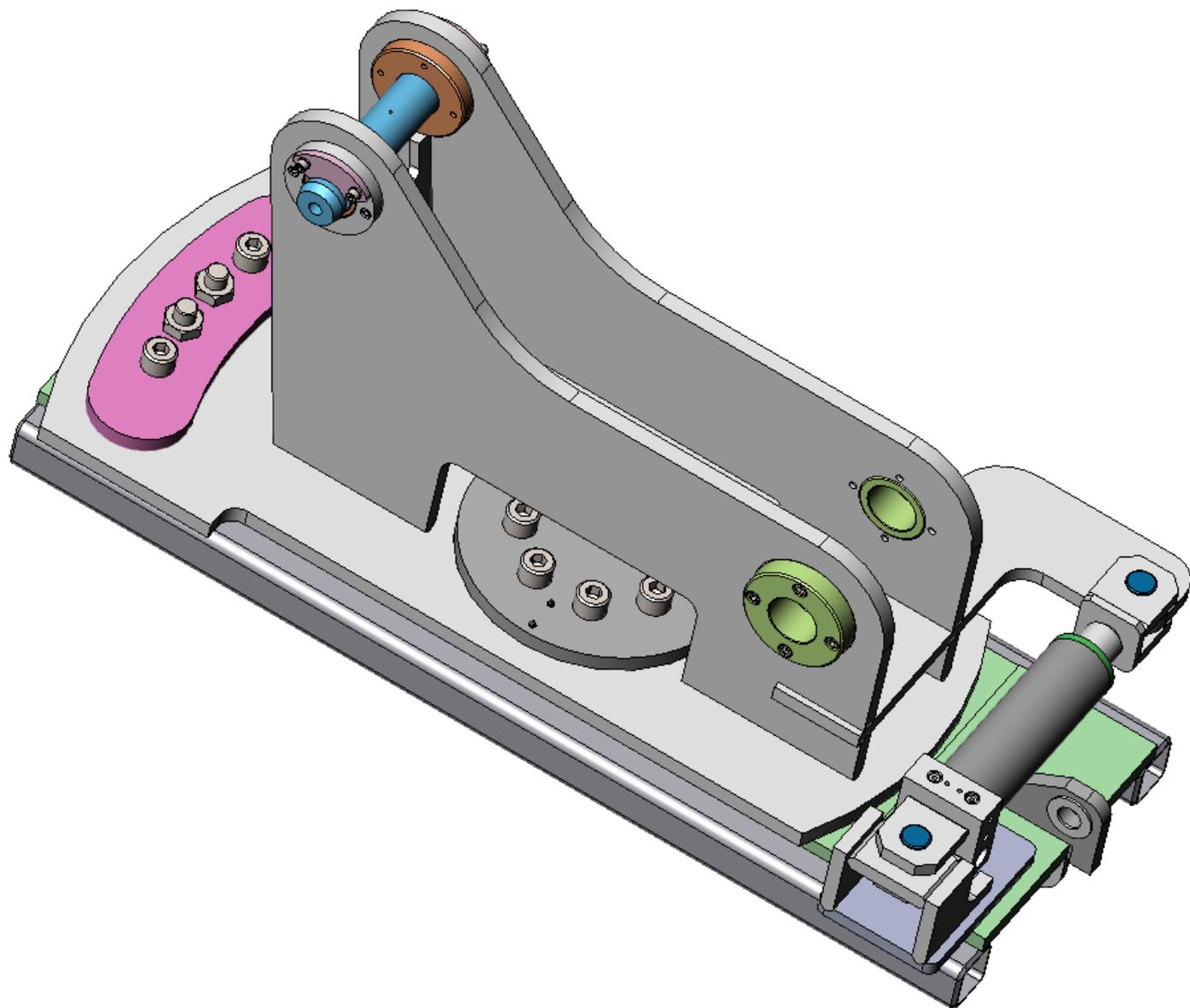
This Boom Point Connect has removable bushing that can be made for just about any excavator making this a universal fit item.

Note: This is a Heavy-Duty Boom Point Connector for extended Leader Systems and the larger size Excavators such as the JD670 or the Cat 374.

Dual Cylinder  
3-degree tilt cylinders



ST Leader Sled  
allows fixed or sliding  
location on the leader

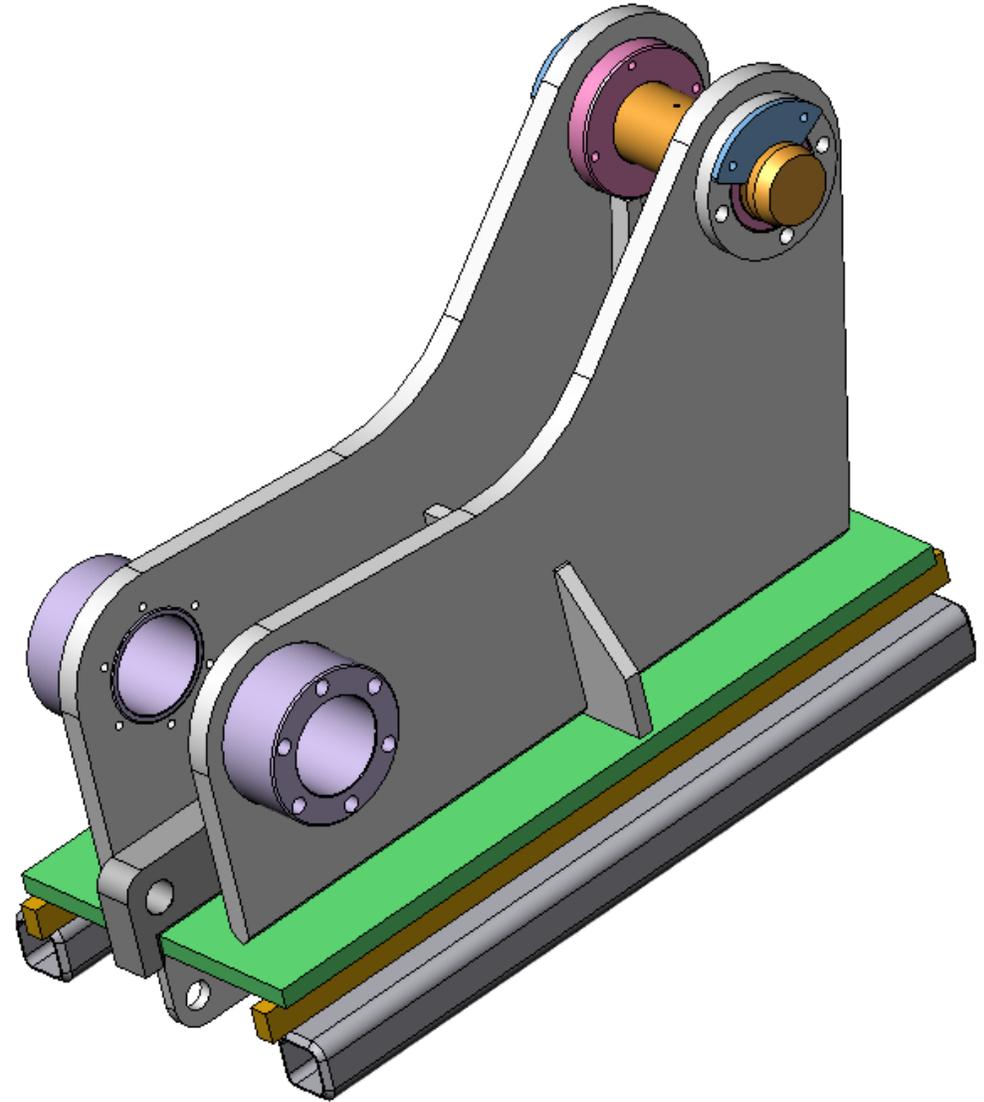


**This is a smaller, Light Duty Universal Boom point connector that works on most systems up to a Cat 349 or Komatsu PC490.**

**This is a single cylinder, 3° side tilt Boom Point Connector with removable bushings for a Universal fit for different size and model excavators.**

**APE light duty Universal Boom Point Connector fits up to a 100K class excavator and does not boast a side tilt option.**

**Note that this Boom Point Connector does have removable bushings to fit different size and makes excavators.**



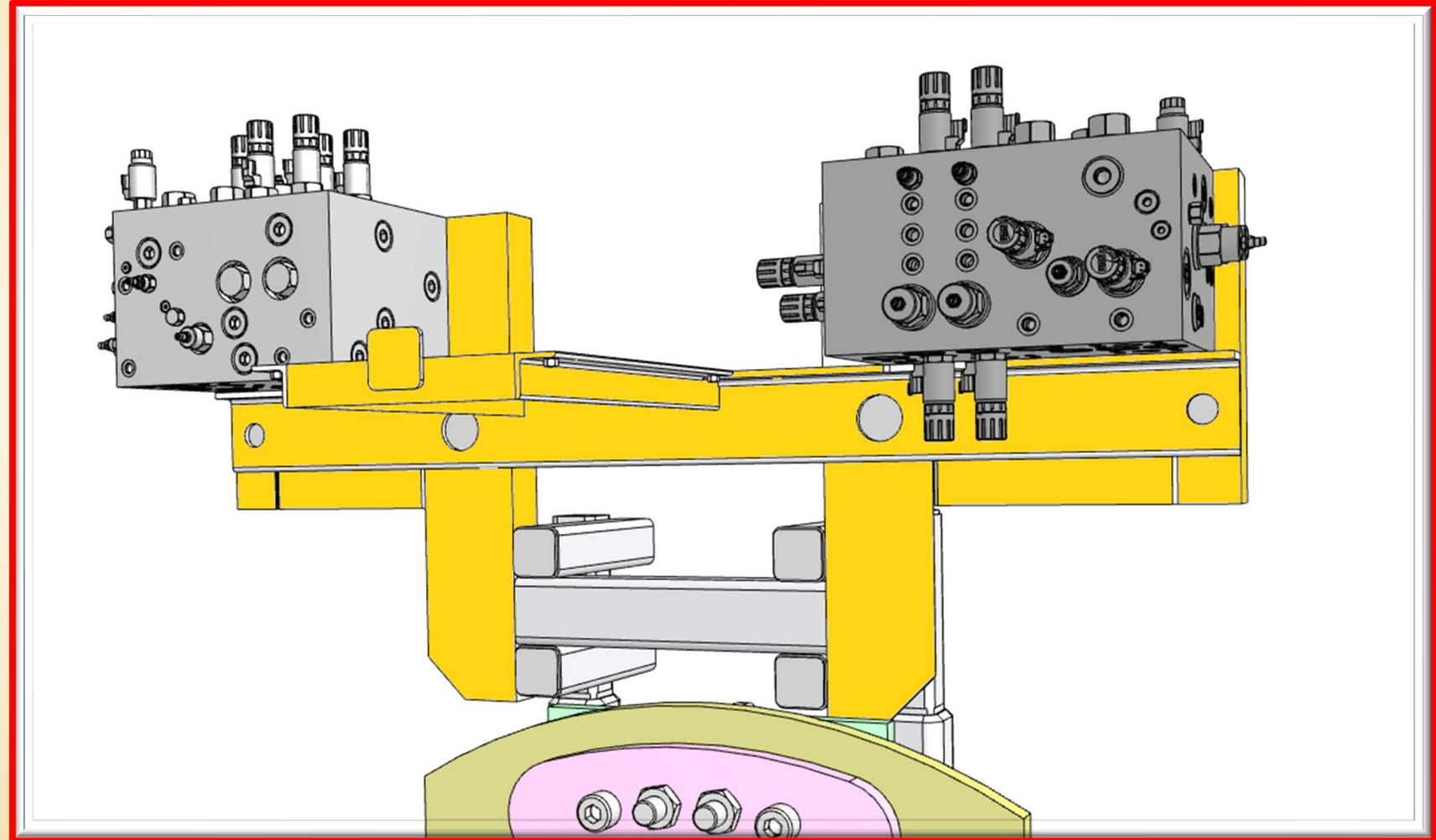
**Dual Full-Service Manifold ASM does it all.  
Operates all winches, hydraulic cylinders and all tools  
compatible with the Excavator Hydraulic System.**

**Manifold Assemblies**

**APE has two different versions  
of the Hydraulic Manifold  
Assemblies.**

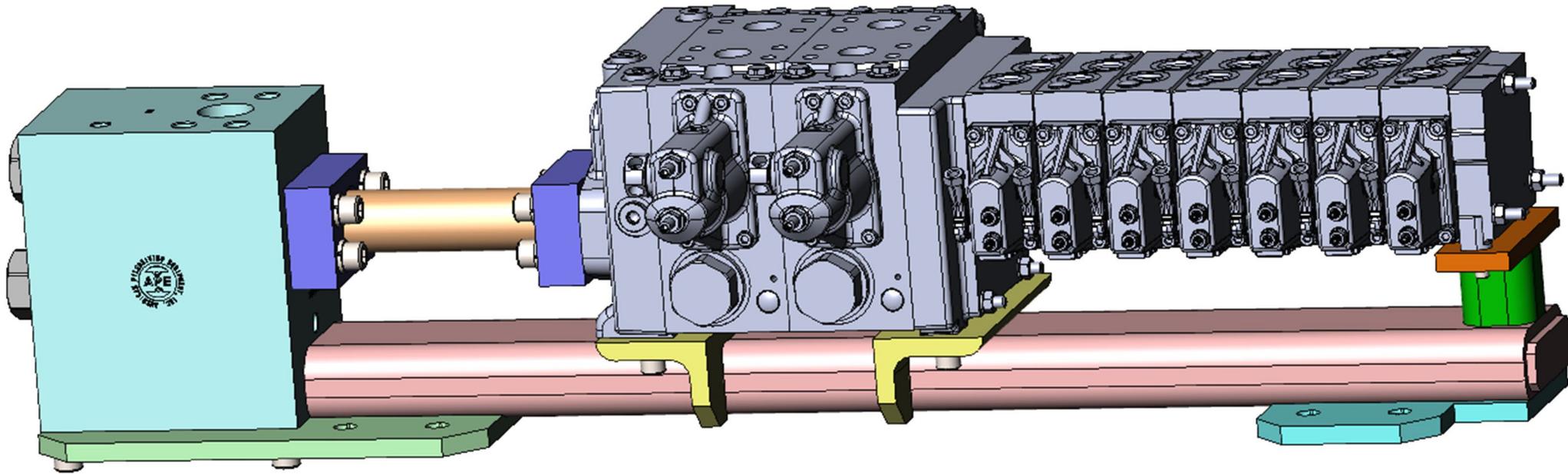
**Dual Full-Service Manifold**

**This manifold does it all.  
It operates all the winches,  
the vertical travel leader  
cylinder as well as all the  
different tools that can be used  
to run off the excavator  
hydraulics such as HD Drills,  
Vibratory Driver/ Extractors,  
Top Drive Augers, Hydraulic  
Impact Hammers or Diesel  
Hammer Hydraulic trip system.**



**The APE Danfoss System allows operations of chosen mast functions such as vertical travel, main and axillary winch operation, crowd winch operation and side tilt operation.**

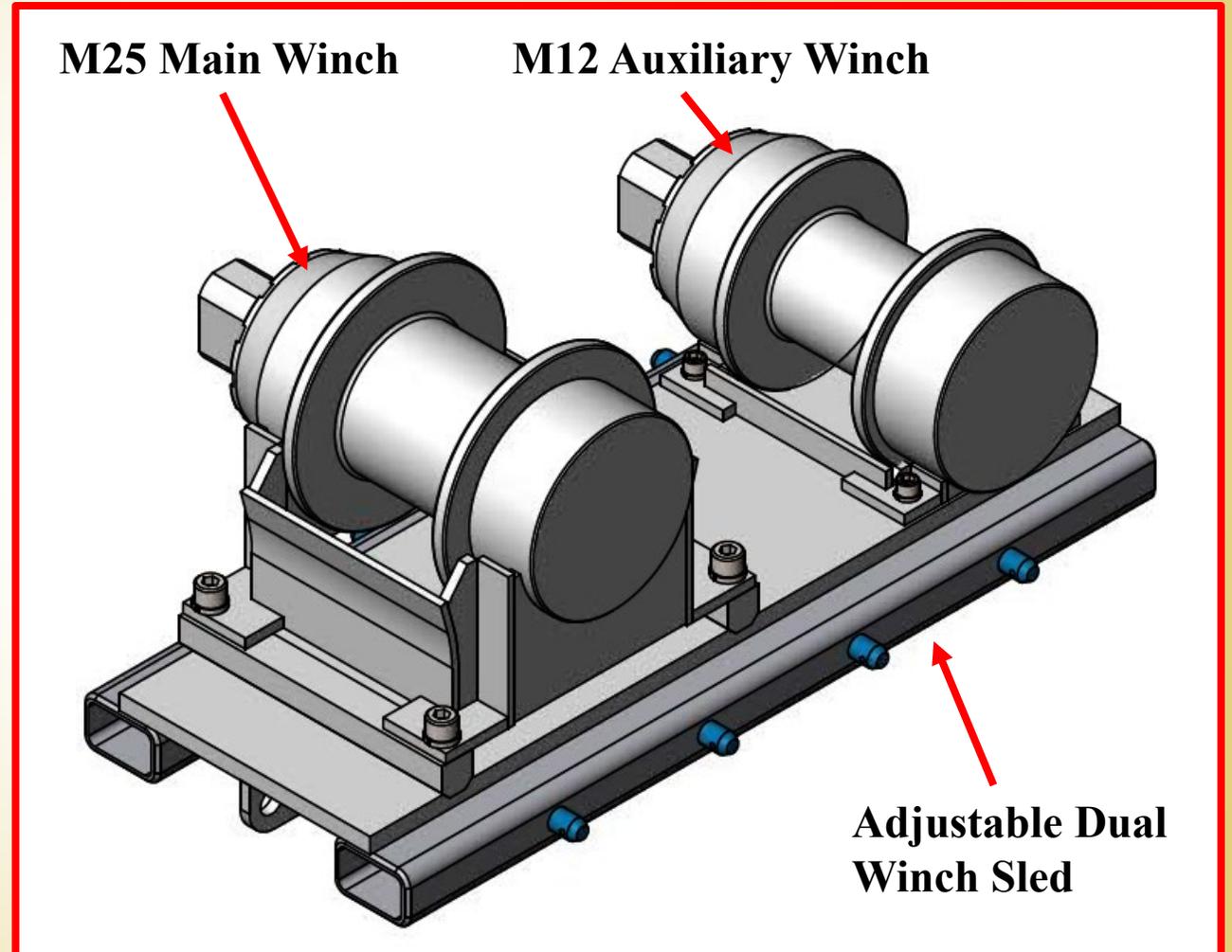
**This manifold system is not designed to operate the tool such as a vibro, drill or Hydraulic Impact Hammer. It is selective.**



## Dual Winch Package

APE uses a Pull Master M25 for the main winch and a Pull Master M12 for the Auxiliary winch to complete the package.

We mount these on a ST Leader sled for ease of location on the leader.

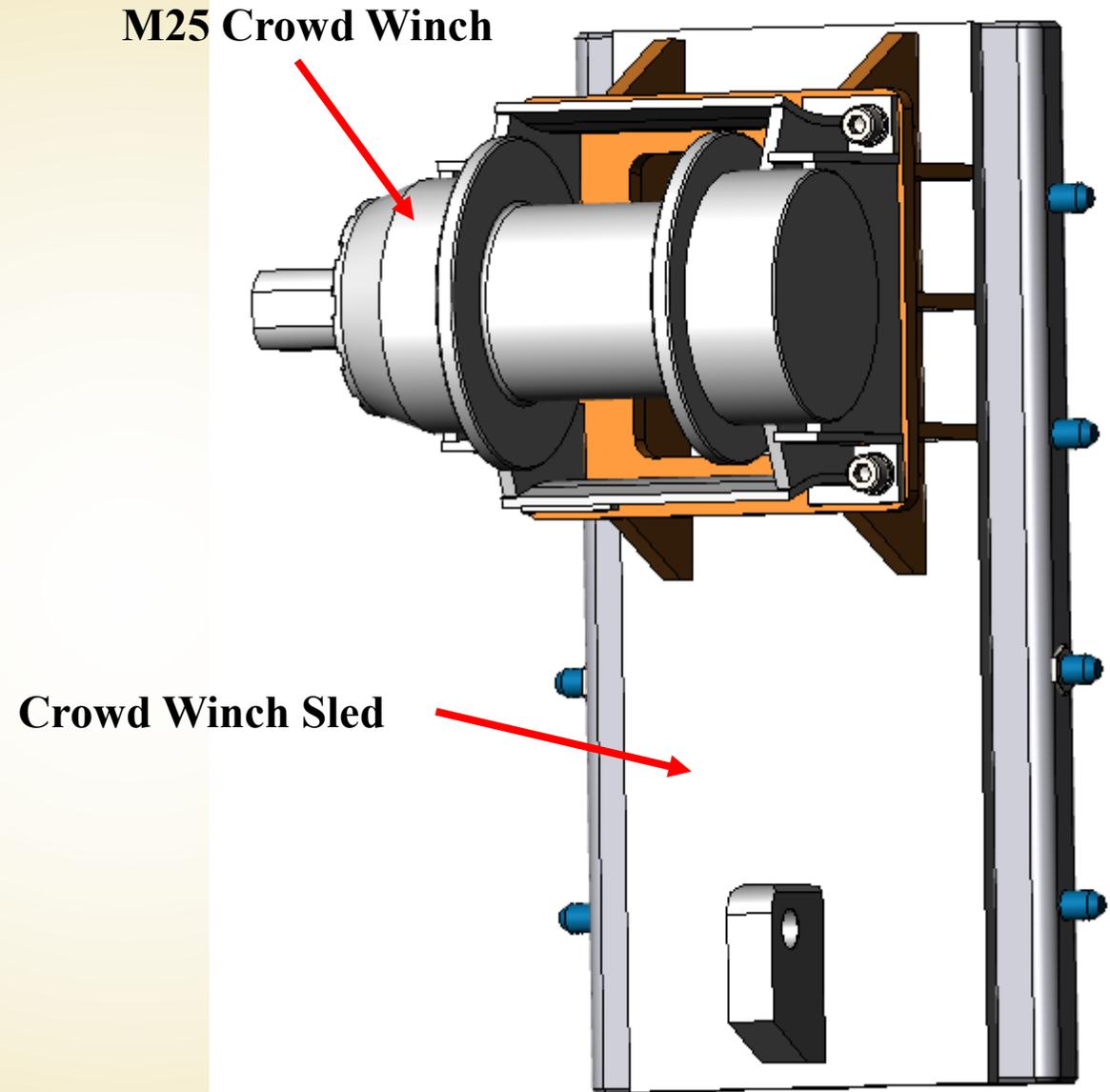


## Crowd Winch Assembly

**This crowd winch assembly is made up of a Pull Master M25 winch on a raised platform with an adjustable skid for the ST Leader System.**

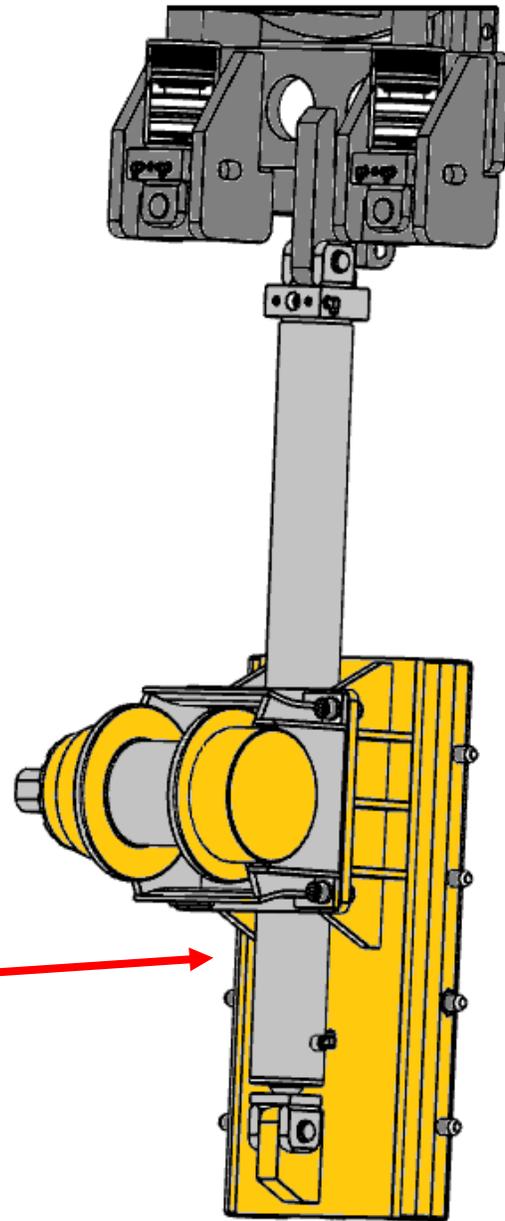
**It enables the vertical travel cylinder to be in operation while crowding with the tool.**

**Tools that would be used with this crown system are a vibro or a drill.**



**Vertical Travel Cylinder  
allows you to raise and  
lower the mast system 7' - 6".**

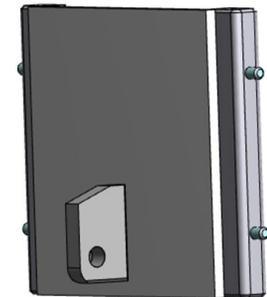
**It can be used with or  
without the crowd winch.**



**Vertical Travel Cylinder  
with Crowd Winch ASM**

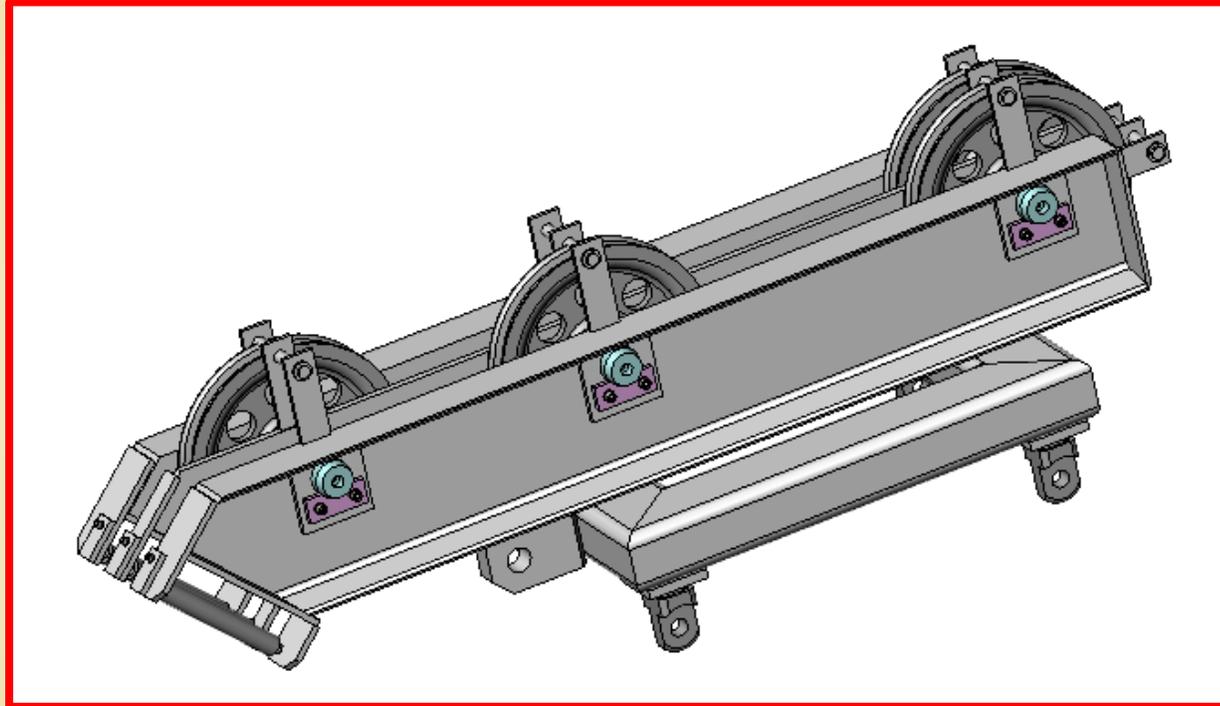


**Vertical Travel  
Cylinder w/  
Lifting Sled ASM**



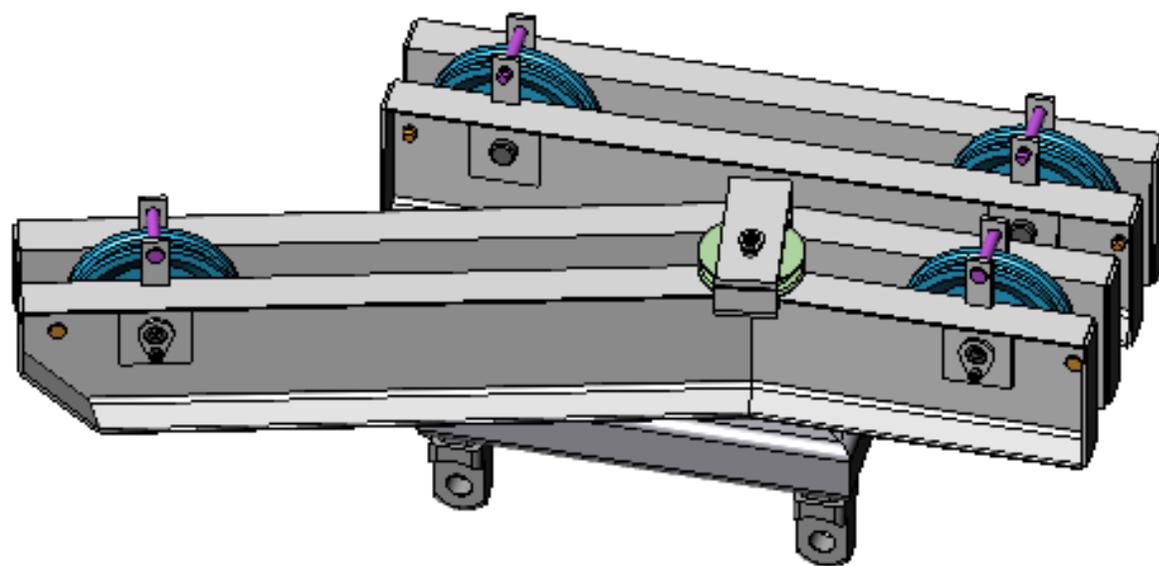
# Headblock Assemblies

APE Offers two different types of Headblock Assemblies to fit the need of the application.

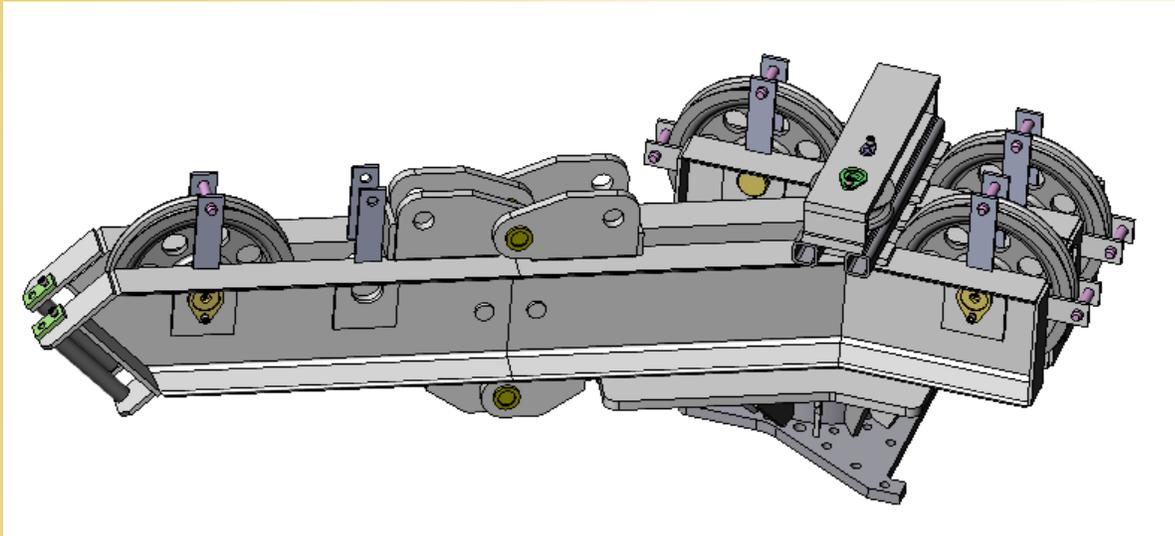


**Standard 2-line Headblock**

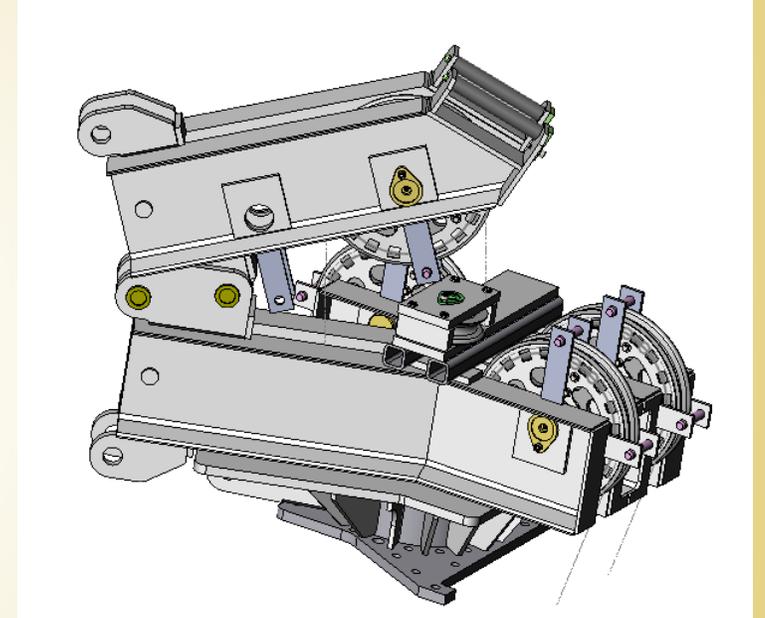
**APE ST75 Off-Set Fixed Headblock  
(Non- Hinge)**



# APE Folding Headblock Assembly



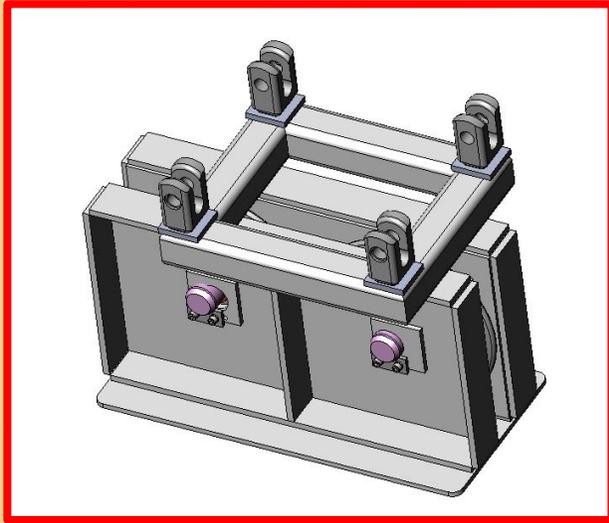
**Folding Headblock Extended**



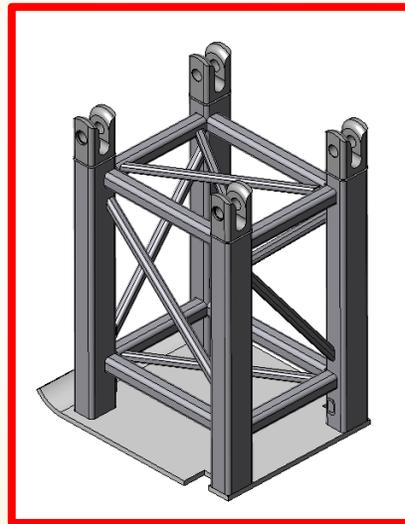
**Folding Headblock Collapsed**

# Footblock ASM

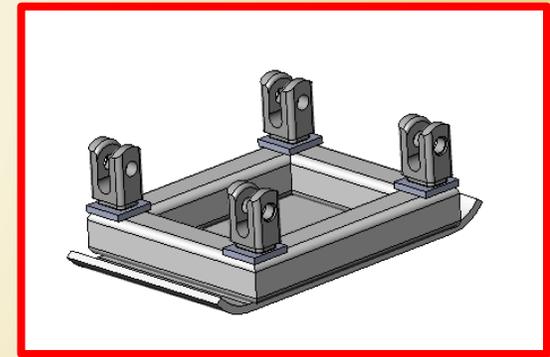
Depending on the application, APE offers three Footblock options.



**Crowd Foot Block  
w/ sheave pack.  
Used with Crowd  
Winch Application**



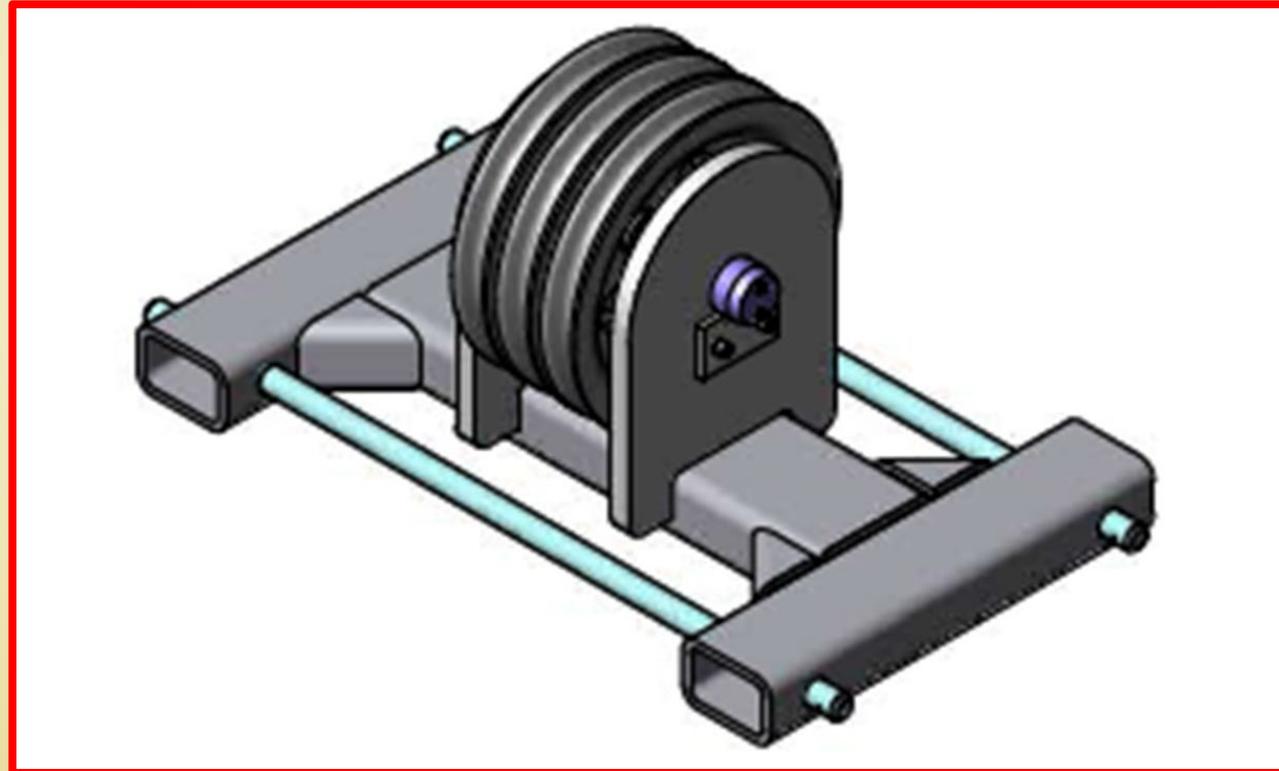
**3' Extended  
Footblock  
Not for use  
With Crowd Application**



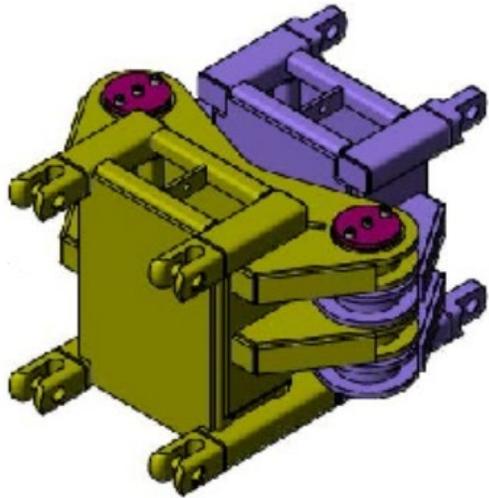
**Standard Footblock  
Not used with  
Crowd Application**

**Some Assemblies may require a Rooster Sheave ASM  
depending on the length of the leader System.**

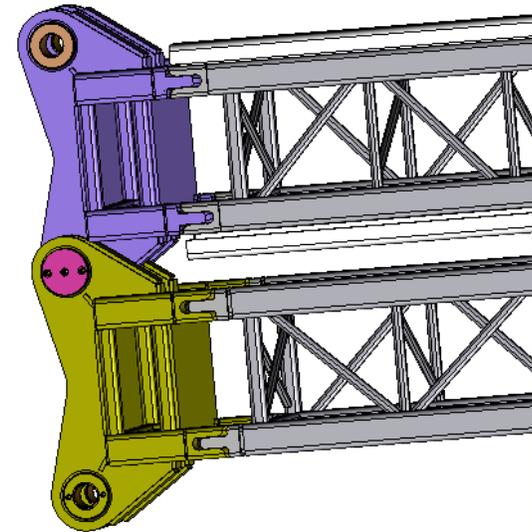
**Most Excavator Leader Systems do not require a  
Rooster Sheave ASM.**



# APE ST Lattice Style Folding Hinge Assembly



**Folding Hinge ASM**



**Folded for Transport**

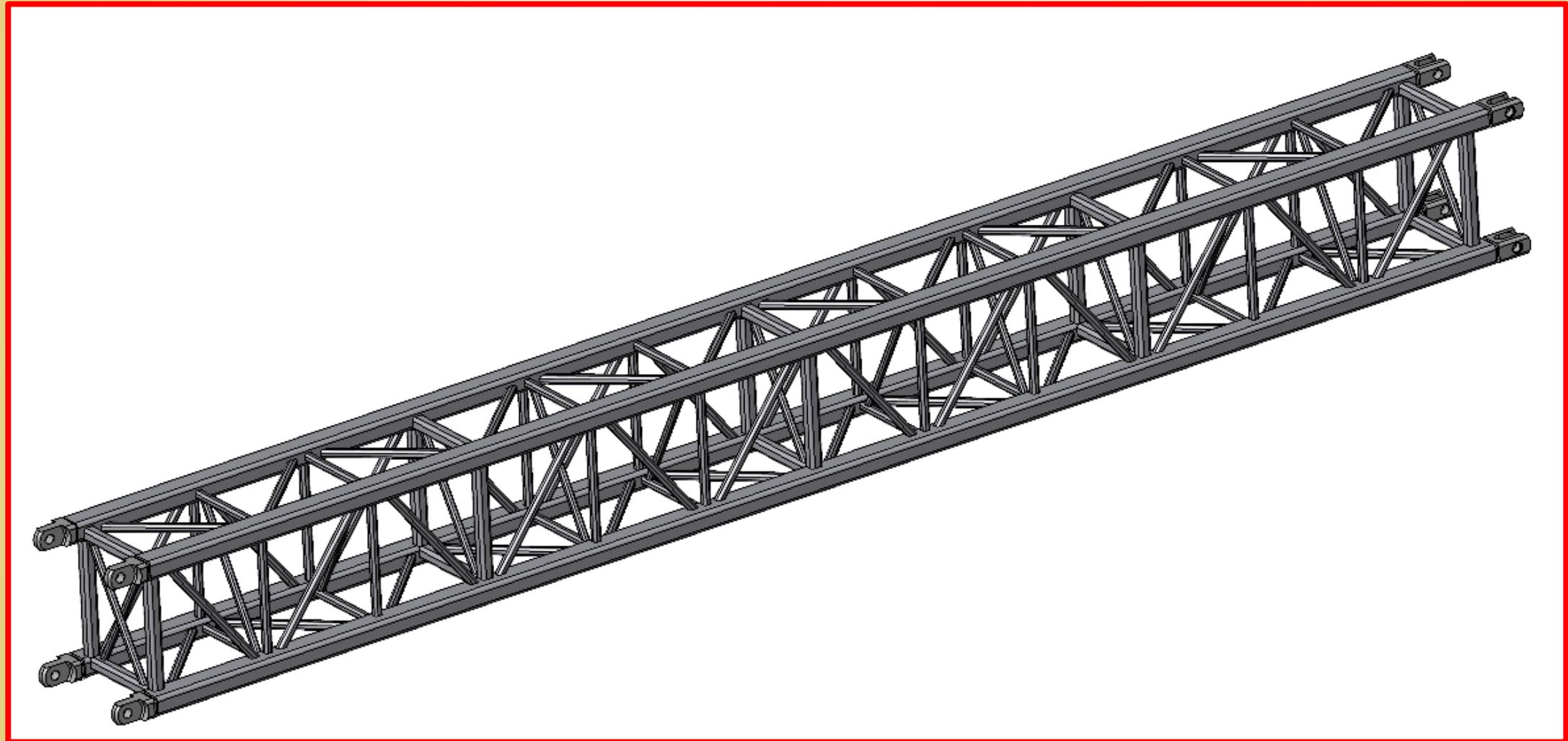
# 40' APE ST Leader with Pin-Up Rail

This is the base section of the leader assembly.

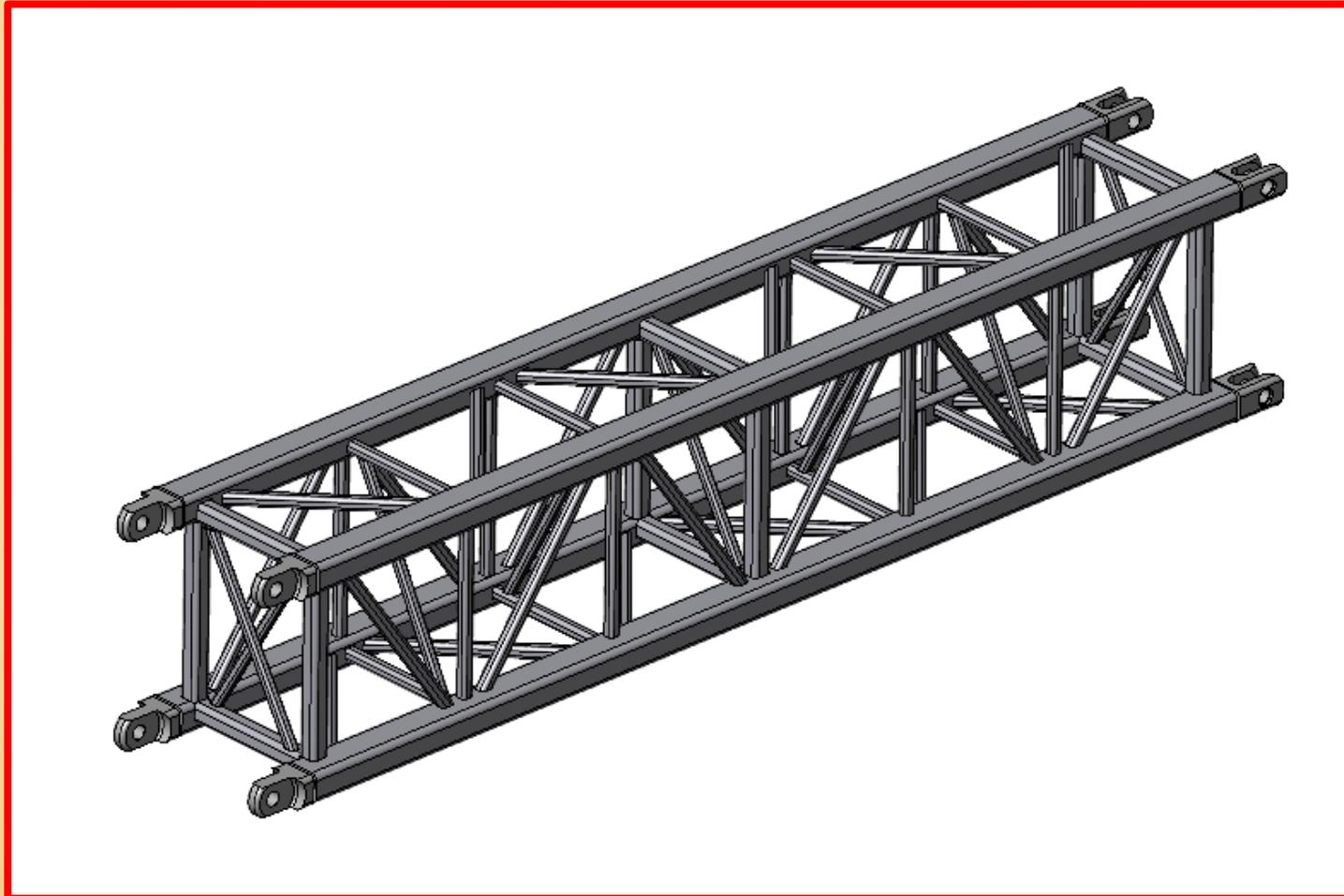
It houses all the leader components such as the Boom Point Connector and the Dual Winch Assembly and much more.



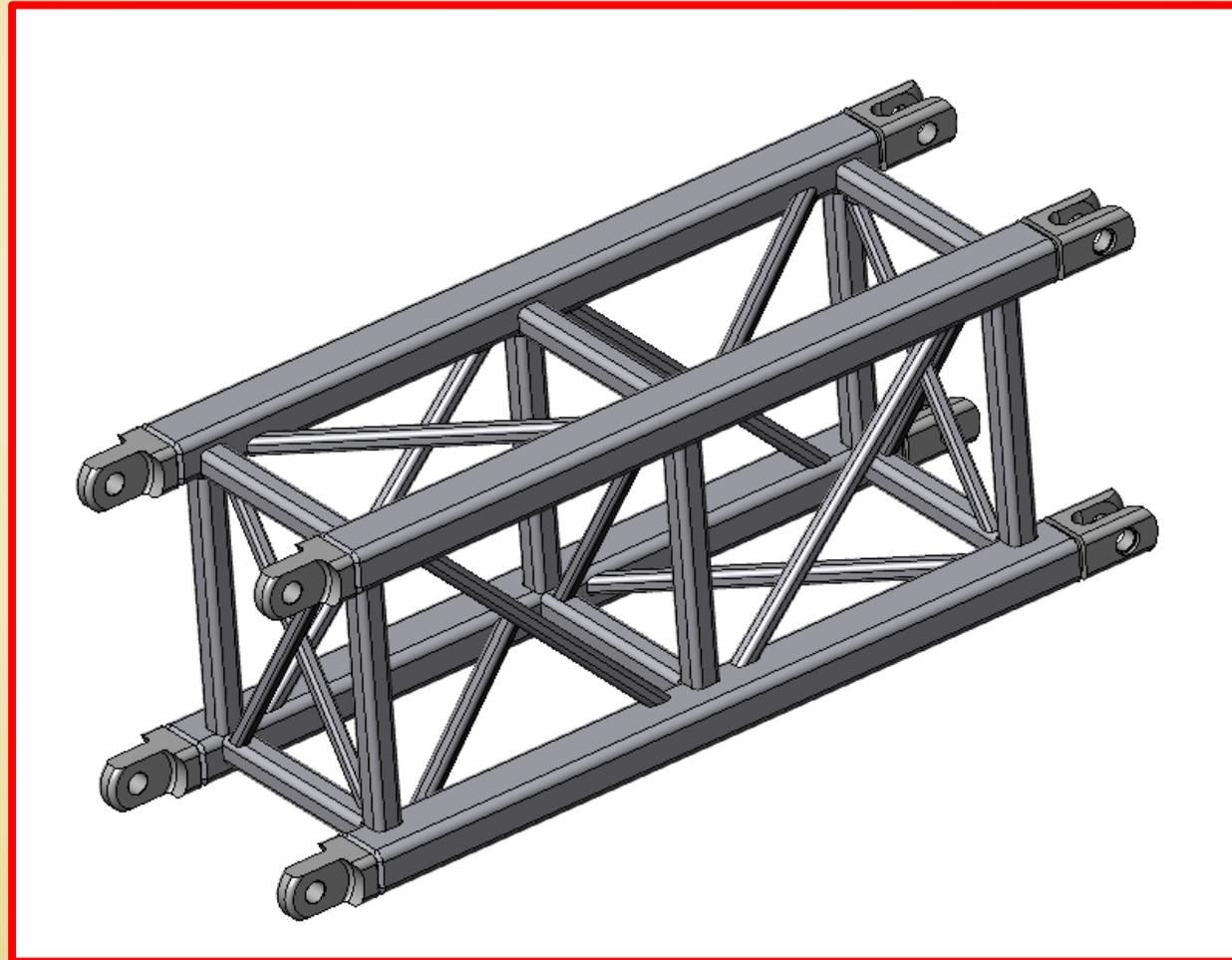
# 20' APE ST Lattice MID section



# 10' APE ST Lattice MID section



# 5' APE ST Lattice MID section



## APE ST75 Wick Leader for Bottom Drive Wick Machines

Wick Guide Tube

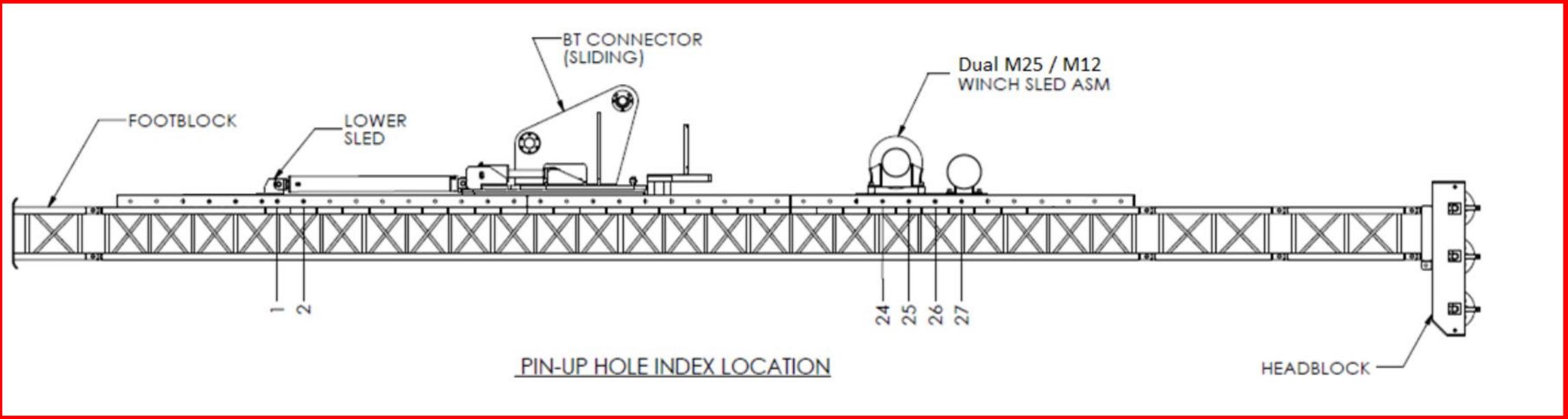
Mandrel Guide

Note that ST75 Wick Leads weigh more and cost more

APE ST75 Wick Leads are manufactured in 40', 30', 20', 15', 10' & 5' sections as needed to customize your Wick installation project requirements



# Leader Example



## The Right tool for the Right job

APE offers a variety of tools that are functional with the APE Mast System.

Top Drive Auger  
HD Helical Pile Driver  
Hydraulic Impact Hammer  
Vibratory Hammer  
Diesel Hammer

**CROSS COMPATIBLE**  
ONE RIG. MANY APPLICATIONS.

**CFA AUGER TOOL**  
Pre-drill and create auger cast piles all using the HD Driver and our CFA tool. The driver clamps easily attach the CFA tool to the hex-head socket drive interface of the driver's motor, delivering direct-drive energy for maximum torque. The hollow center of the driver and tooling allows for grout for auger cast material to be inserted into the pre-drilled hole, even during pre-drill extraction.

**DOWN THE HOLE**  
Break apart rock, ice, permafrost and other tough geologies to create ideal soil conditions and reach your target depth.  
(Sizes are available up to 24" in diameter.)

**HD MATERIAL**  
Our material is available in a variety of sizes and lengths. They are proven to provide the most reliable foundations, resist deformation, can be grouted or un-grouted during installation, & are guaranteed to last!

**HYDRAULIC IMPACT HAMMERS**  
Green, fast, and reliable, our Hydraulic Impact Hammer series can be easily attached to the Mobile Mast for high-powered piledriving.

**VIBRATORY HAMMERS**  
Low-noise and high speed, our vibratory hammers allow you to drive a variety of piles in record time. Easy installation with the Mobile Mast increases production speeds even more!

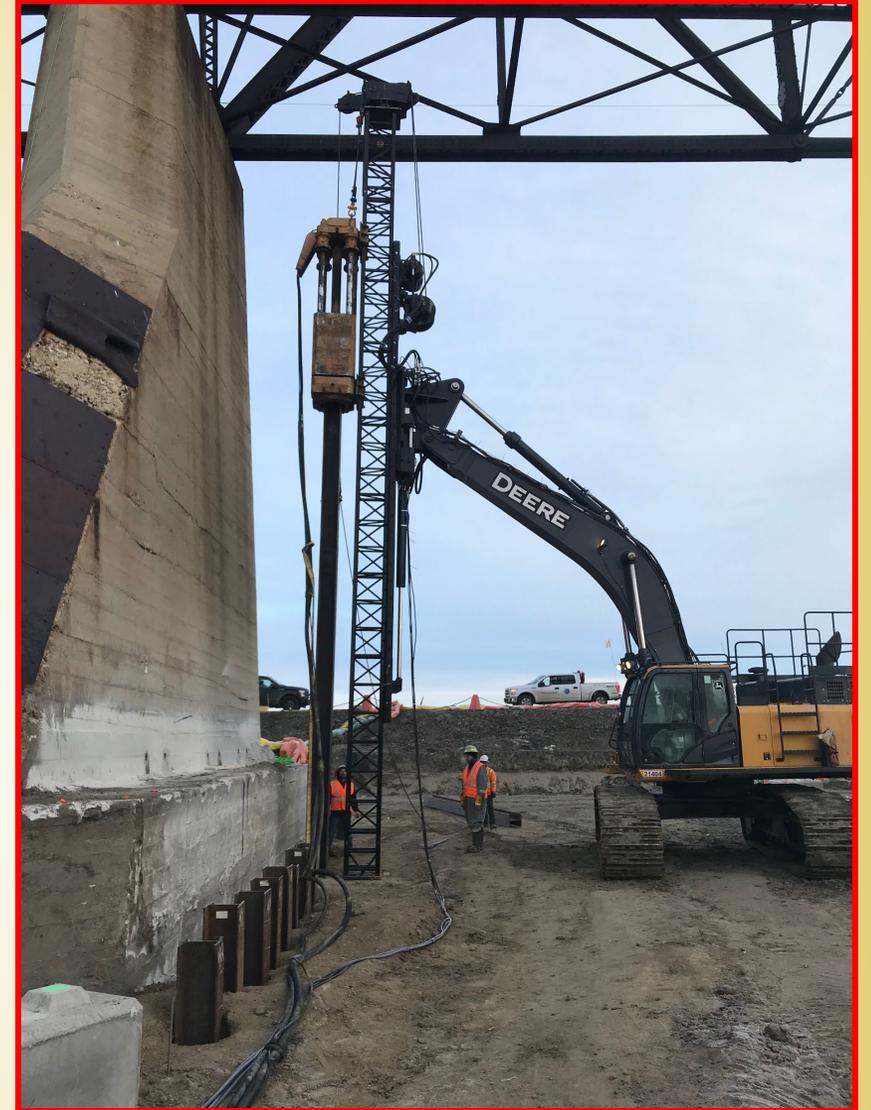
**DIESEL HAMMERS**  
The simple design and efficiency of the Diesel Hammer has made it a veteran in the industry. Our Mobile Mast allows for mounting Diesel Hammer sizes up to APE's D19 model easily, so you can get on the job and get to work right away.



**Drive Deep or Go Home**



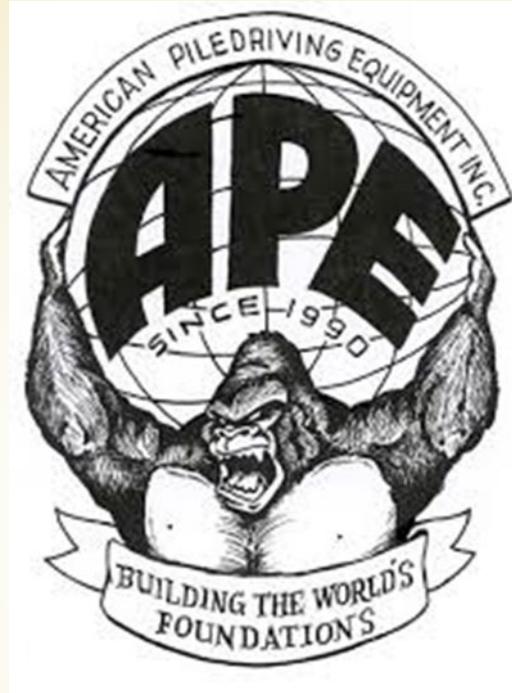
**800-248-8498**



**Hydraulic Impact Hammers**



**Primal Strength**



**Go APE  
800-248-8498**



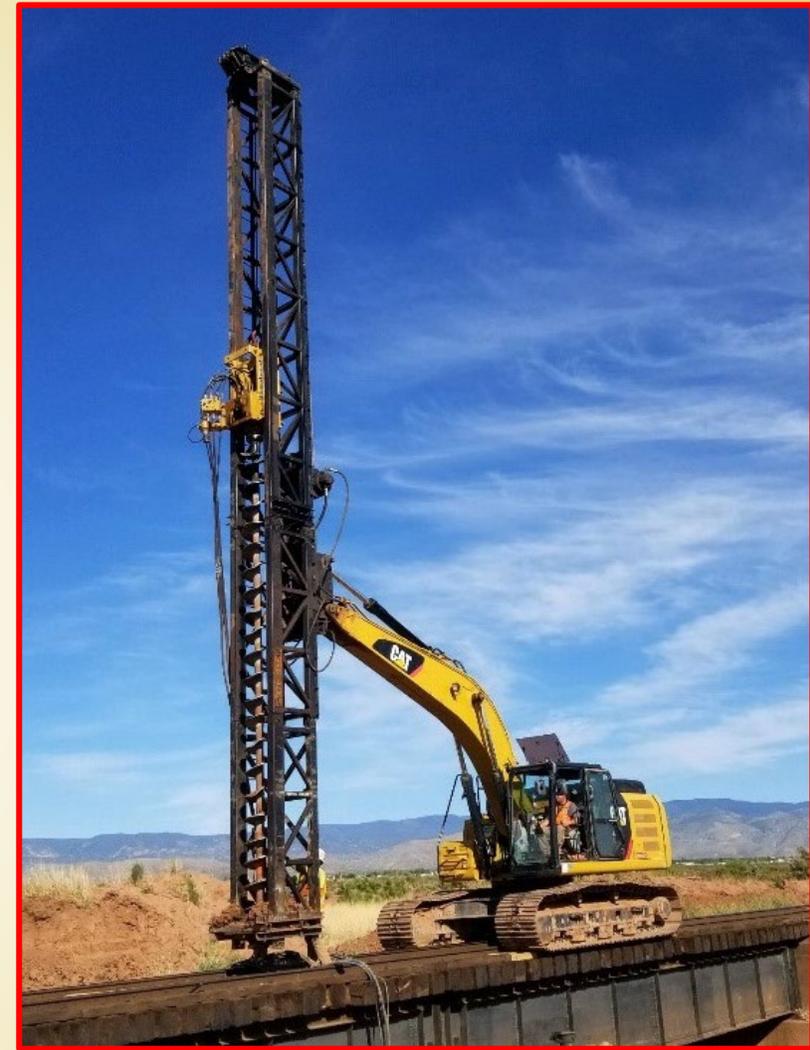
**Vibro Driver/ Extractors**



**Advanced Silverback Technology**



**Go APE  
800-248-8498**



**Drills / Auger Cast**



**Power to Drive**



**Go APE  
800-248-8498**

**Diesel Impact Hammers**



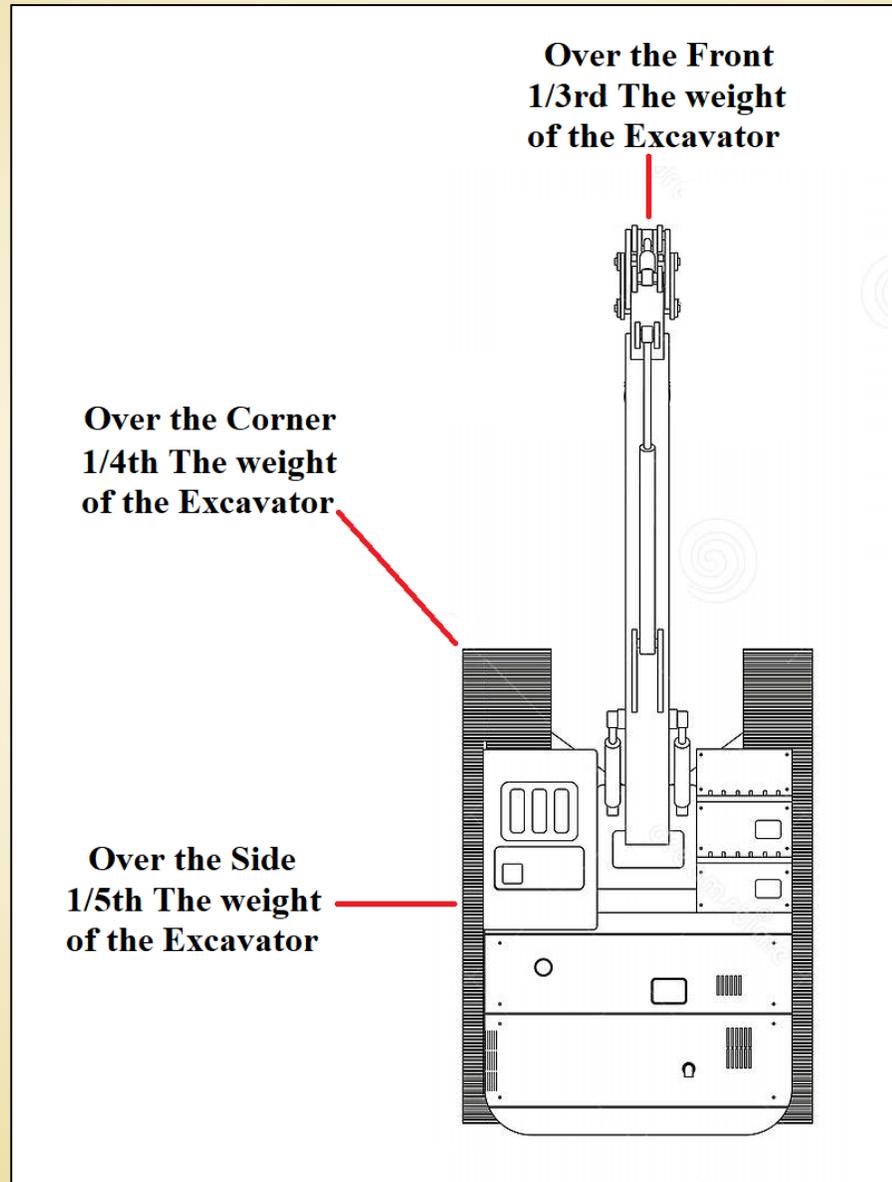
## Bottom Drive Wick Machine



**Go APE**  
**800-248-8498**

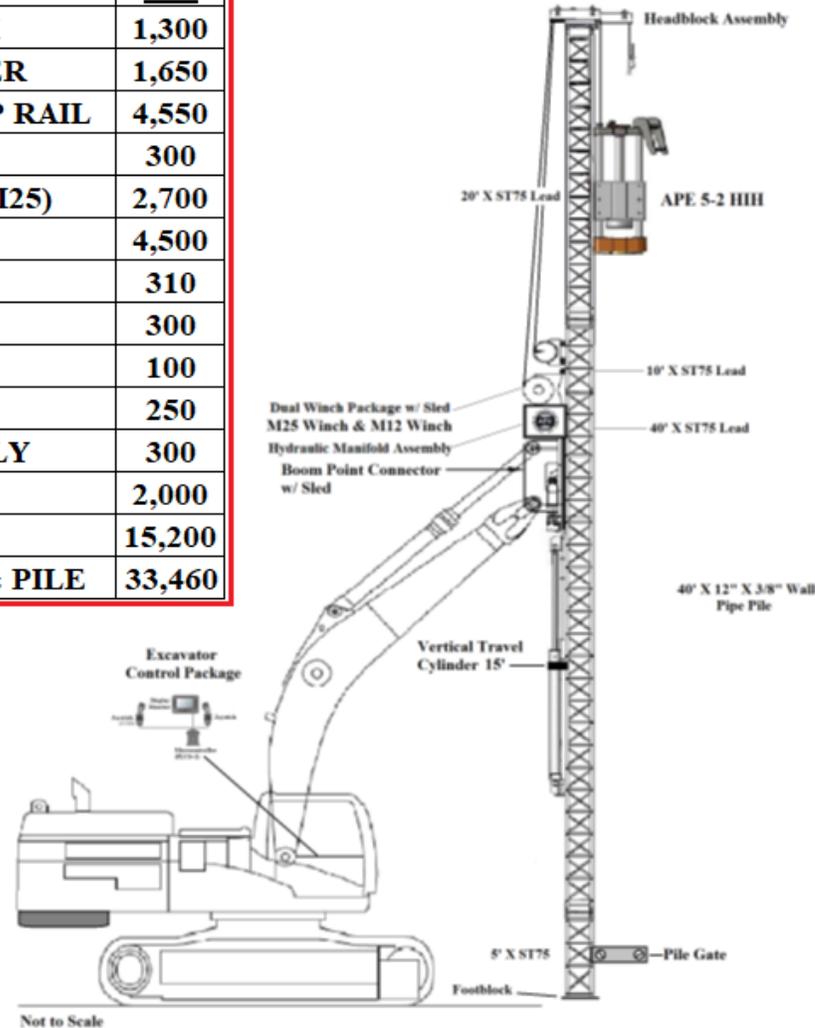


# Safe Workload “Rule of Thumb”



## Example

	<u>PART</u>	<u>WT</u>
1	TWO SERVICE LINE HEADBLOCK	1,300
2	20' X ST75 STANDARD MID LEADER	1,650
3	40' X ST75 MID LEADER W/ PIN-UP RAIL	4,550
4	FOOTBLOCK (NO SHEAVES)	300
5	DUAL WINCH SLED ASM (M12 & M25)	2,700
6	SINGLE-CYL BT CONN ASM	4,500
7	VERTICAL TRAVEL SLED	310
8	7' VERTICAL TRAVEL CYLINDER	300
9	MECHANICAL PILE GATE	100
10	WIRE ROPE PACKAGE	250
11	HYDRAULIC MANIFOLD ASSEMBLY	300
12	PILE WEIGHT	2,000
13	5-2 HIH (Direct Drive)	15,200
	<b>TOTAL MAST WEIGHT w/ TOOL &amp; PILE</b>	<b>33,460</b>



**When sizing a mast system for your excavator, using the “Rule of Thumb” be sure to add in the entire weight of the system including:**

- 1) Leader and component weights**
- 2) Equipment/ Tool weight**
- 3) Pile weight**

**“Rule of Thumb” excavator size weight:**

**100,000 lbs** Excavator for over the front work only

**134,000 lbs** Excavator for over the front and over the corner work

**168,000 lbs** Excavator for full 360 work including over the side

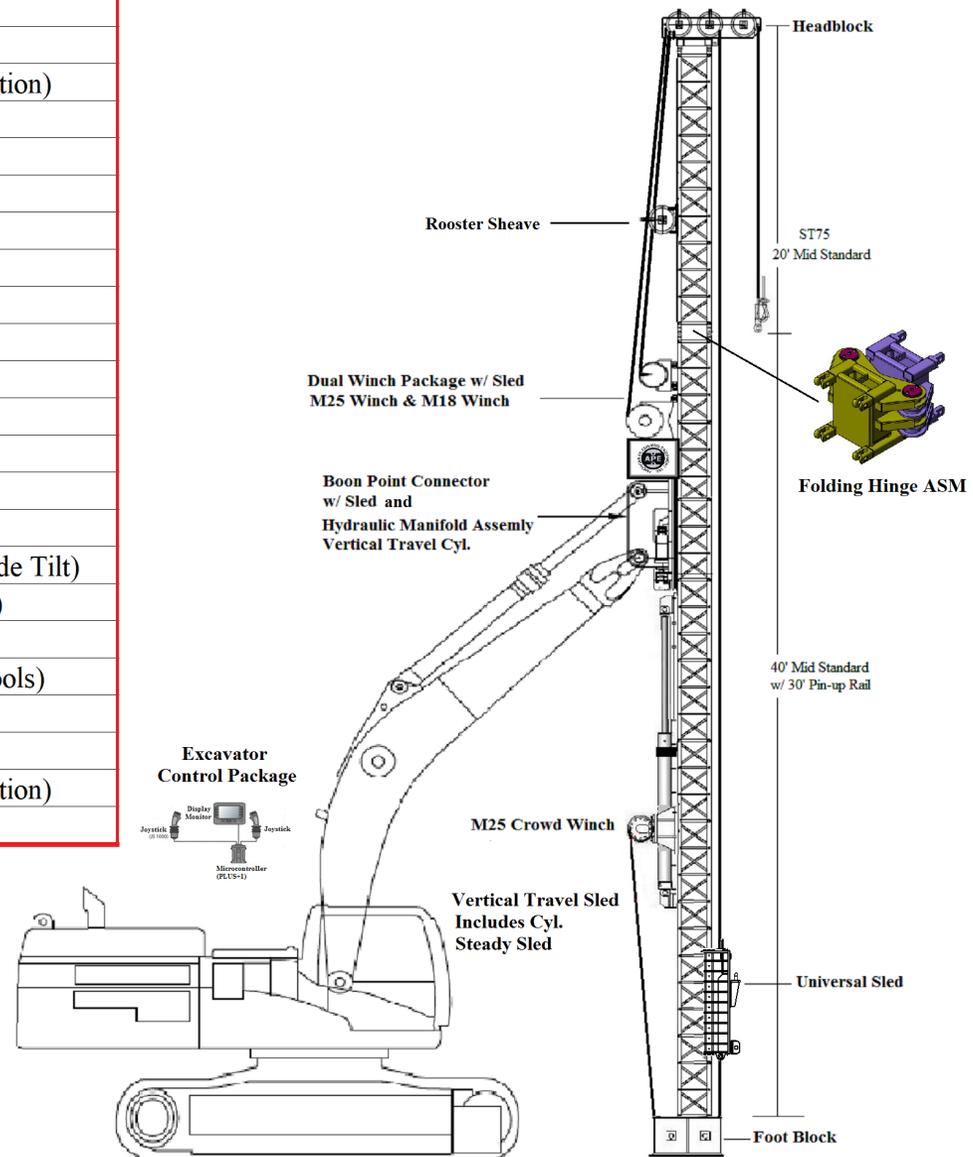
# APE ST75 Excavator Mast System

- Dual Winch Package (Includes Adjustable Mounting Sled)
- \*Standard Headblock (Non Folding Option)
- \*Folding Headblock (Allows Headblock to fold up for transportation)
- 5' ST75 Standard Mid
- 10' ST75 Standard Mid
- 20' ST75 Standard Mid
- 40' ST75 Mid w/ Pin-Up Rail (Base Section)
- Universal Sled
- \*Foot Block (No Sheaves)
- \*Foot Block (w/ Crowd Sheaves)
- Vertical Travel Sled w/ Hyd. Cylinder (No Winch Mount)
- Vertical Travel Sled w/ Hyd. Cylinder (With Winch Mount)
- M25 Crowd Winch
- Excavator Control Package
- \*Boom Point Connector w/ Sled (No Side Tilt)
- \*Standard Single Cylinder Boom Point Connector w/ Sled (3° Side Tilt)
- \*HD Dual Cylinder Boom Point Connector w/ Sled (3° Side Tilt)
- \*APE Danfoss Hydraulic Manifold (Selective)
- \*APE HD Manifold Assembly (Operates All Accessories and Tools)
- Wire Rope Package
- Rooster Sheave Assy (Optional for 60' plus length leaders)
- ST75 Folding Hinge ASM (allows leads to fold up for transportation)
- (\* Indicates Options)

## Excavator Quick Guide:

<b>40' - 50' System</b>	<b>75k Excavator</b>
<b>50' - 70' System</b>	<b>100k Excavator</b>
<b>70' - 100' System</b>	<b>150k Excavator</b>

Contingent upon job requirement and engineering approval.



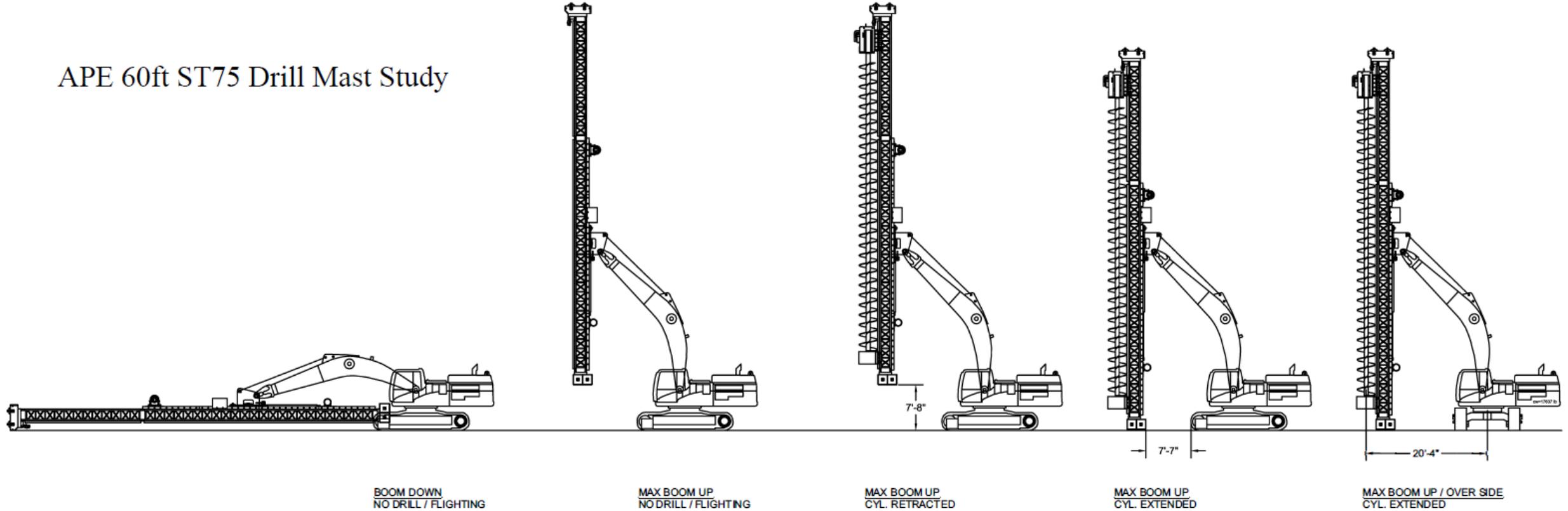






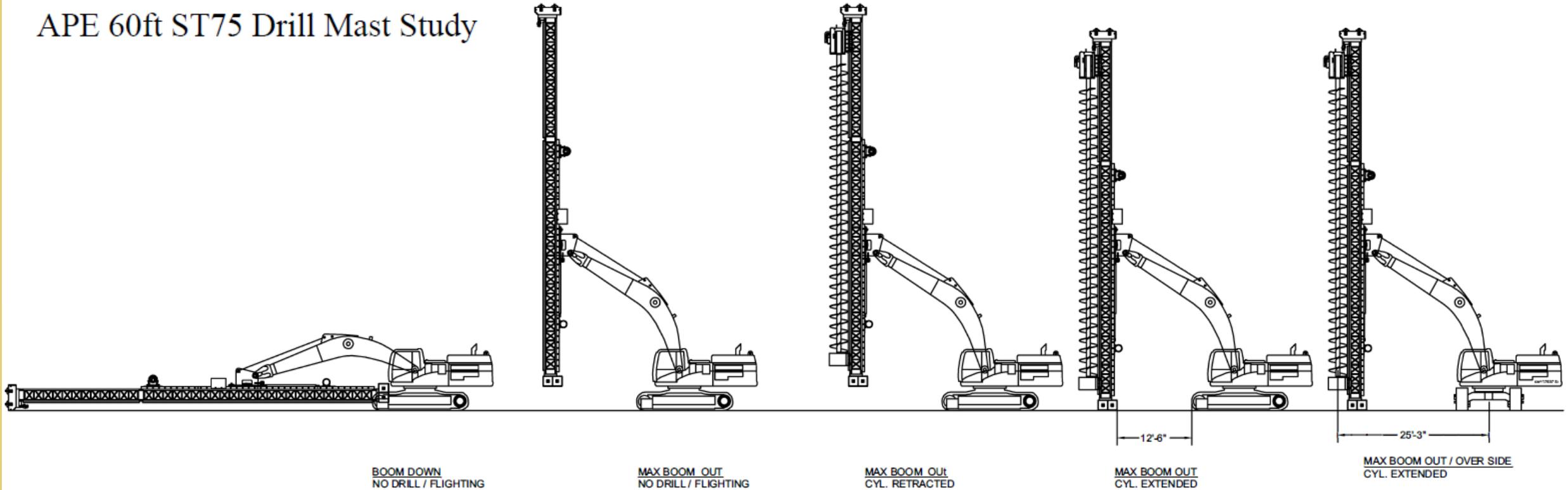
# Lifting Sequence

APE 60ft ST75 Drill Mast Study



# Lifting Sequence

APE 60ft ST75 Drill Mast Study



**With 11 locations strategically placed around the USA, Canada and Mexico, APE has the finest and fastest service to meet the contractors needs.**

**APE also has the largest foundation equipment rental fleet of in the world to meet the needs of the contractor.**

**Call APE to find the  
closest location to your  
project needs.  
800-248-8498**



**Work with confidence**  
**Go with the leader in the Foundation Equipment Industry**  
**Go Silverback...Go APE!**



## **WHAT IS SILVERBACK TECHNOLOGY?**

**Silverback Technology is the result of leaving a lot of skin and blood on a lot of bolts and steel.**

**Silverback Technology is listening, hearing and asking questions.**

**Silverback Technology is ideas, innovation and adjustments.**

**Silverback Technology is born in the field with an understanding that keeping your customer running is job#1.**



**The benefit of going APE is taking the guess work out of your foundation project and knowing at the end of the day, you can rest assured that APE has your back...**

**“Silverback”!**

