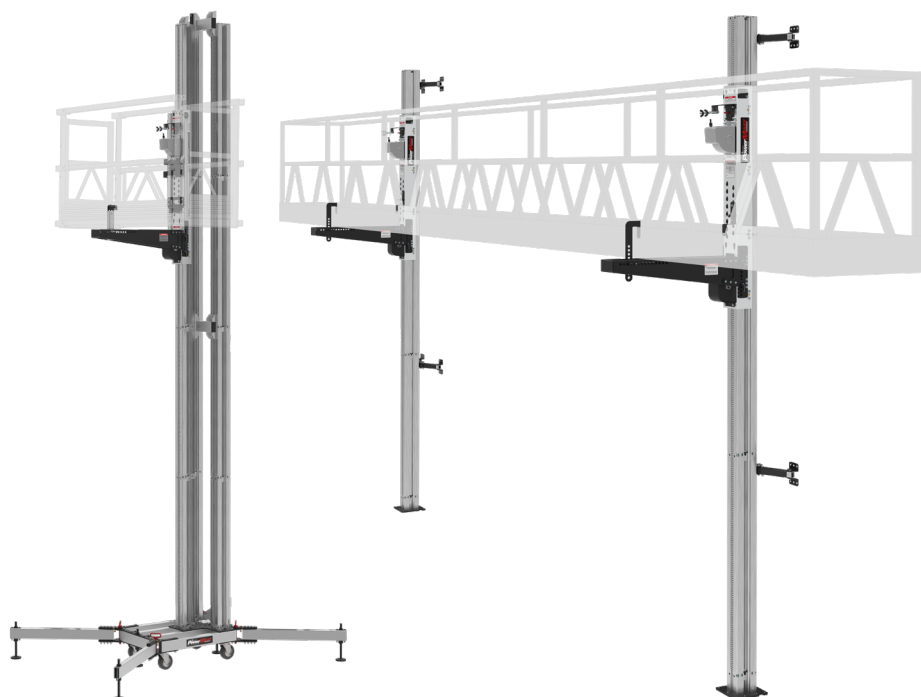




# POWERMAST OPERATOR'S SAFETY MANUAL





reechcraft.com/powermast

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**Product General Information:** Model – PowerMast

## SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS



This is the Safety Alert Symbol. It is used on the machine to alert you to potential personal injury hazards. Understand and obey all safety messages that correspond with this symbol to avoid possible injury or death.

**⚠ DANGER**

INDICATES AN IMMINENTLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE A RED BACKGROUND.

**⚠ WARNING**

INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE AN ORANGE BACKGROUND.

## CAUTION

INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS DECAL WILL HAVE A YELLOW BACKGROUND.

## WARNING

THIS PRODUCT MUST COMPLY WITH ALL SAFETY-RELATED BULLETINS. CONTACT REECHCRAFT, INC. OR THE LOCAL AUTHORIZED REECHCRAFT REPRESENTATIVE FOR INFORMATION REGARDING SAFETY-RELATED BULLETINS THAT MAY HAVE BEEN ISSUED FOR THIS PRODUCT.

## NOTICE

REEHCRAFT, INC. SENDS SAFETY-RELATED BULLETINS TO THE OWNER ON RECORD OF THIS MACHINE. CONTACT REECHCRAFT TO ENSURE THAT THE CURRENT OWNER RECORDS ARE UPDATED AND ACCURATE.

REEHCRAFT MUST BE NOTIFIED IMMEDIATELY IN ALL INSTANCES WHERE OUR PRODUCTS HAVE BEEN INVOLVED IN AN ACCIDENT INVOLVING BODILY INJURY OR DEATH OF PERSONNEL, OR WHERE SUBSTANTIAL PERSONAL PROPERTY DAMAGE OR DAMAGE TO THE REECHCRAFT PRODUCT HAS OCCURRED.

### **Contact Us Regarding:**

- Accident Reporting
- Product Safety Publications
- Current Owner Updates
- Product Safety Questions
- Standards and Regulations Compliance Information
- Questions Regarding Special Applications
- Questions Regarding Product Modifications

### **Contact Information:**

**Technical Safety and Engineering Department**  
845 34th St N, Fargo, ND 58102  
customer.service@reechcraft.com

**In USA:** 888-600-6160 • **Outside USA:** 701-280-5900

# SAFETY GUIDELINES

1. Safety comes first. To help ensure safety, always have a competent person assemble, erect, operate, transport, store, and maintain this product. A competent person is defined as one who has the:
  - a. Ability to identify any present or foreseeable hazards.
  - b. Authority to take immediate corrective action.
  - c. Knowledge and training to assemble, erect, operate, transport, store, and maintain the system.
  - d. Operator's Safety Manual available at all times.
  - e. Field experience to correctly assemble, erect, operate, transport, store, and maintain the system.
2. Be sure to follow all of the guidelines set forth in the Operator's Safety Manual for proper assembly, erection, operation, transport, storage, and maintenance.
3. Workers exposed to hazards are required to wear personal protective equipment (PPE) such as hard hats, eyewear, ear protection, vest, gloves, fall protection, and safety boots as prescribed by federal, state, and local authorities.
4. Make a layout plan for how your mast climbing work platform will be used for the specific task. Examine the structure and ground conditions where the system will be placed. On long walls, use multiple systems to allow for more flexibility in access. Always place masts in a position that provides a stable base and suitable connection to the structure.
5. Establish the distance of the platform to the wall or structure, taking into consideration wall offsets, curves, balconies, architectural features, trees, wires, etc.
6. Be aware of and refer to federal, state, and local guidelines for proper distance away from non-system electrical lines.
7. Be sure the ground will support the bearing forces of the system in accordance with this Operator's Safety Manual.
8. Always carry out maintenance and inspection as detailed in this manual to help ensure system safety and efficiency. Be sure to manage all jobsite inventory and ensure proper inspection and maintenance has been conducted on all system components prior to use.
9. Never make modifications to the system. Always use factory manufactured parts on the system. Modifications to the system, or configurations in a manner other than what is detailed in this manual and other ReechCraft publications, will void the warranty and could lead to equipment damage or personal injury. If you have any questions on components or accessories and how they should be used, contact your local dealer or call ReechCraft customer service.
10. Be sure you have the proper guardrails, endrails, midrails, and toeboards properly installed.
11. Once the system is installed and prior to operation, provide a barrier as necessary surrounding the work area below the work platform in accordance with federal, state, and local regulations. Prepare an emergency escape plan and keep a phone list of emergency numbers.

12. Never overload the system beyond the duty rating of 750 pounds (340 kg). Refer to the loading section of the Operator's Safety Manual for more information. Although the system is designed with large safety factors, excessively overloading the system could create system instability or structural damage, which may result in personal injury or death.
13. The work platform of the wall-tied system should not be raised higher than 194 feet (59.1 m). The indoor freestanding system should not be raised higher than 46.2 feet (14.1 m), and the outdoor freestanding system should not go higher than 26.8 feet (8.2 m). For system configurations not detailed in this manual, consult with the ReechCraft engineering team.
14. Always keep hands, limbs, and clothing a safe distance from any moving parts.
15. Be sure all switches are off before connecting any electrical cords.
16. When working from any platform above the ground, do not overreach. Keep proper footing and balance at all times.
17. Ensure the system is lowered to the ground prior to entering or exiting the platform.
18. In the event of a system abnormality that could cause a safety hazard, contact the worksite supervisor immediately.
19. The system should never be operated during an electrical storm.
20. Wind speeds must not exceed 25 mph (11.2 m/s) for the outdoor freestanding system during erection and dismantling. In service, wind speeds must not exceed 35 mph (15.6 m/s) for the wall-tied system.
21. For repairs or service questions, contact your local dealer or call ReechCraft customer service.

# REVISION LOG

Updated Version of Manual.....	May 2025
Updated Version of Manual.....	May 2022
Updated Version of Manual.....	April 2019
Updated Version of Manual.....	September 2018
Original Version of Manual.....	June 2013

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# SECTION 1

## GENERAL SYSTEM INFORMATION

### 1.0 System Configurations

Figure 1.0 - Wall-tied System Configuration - Single Mast/Twin Mast

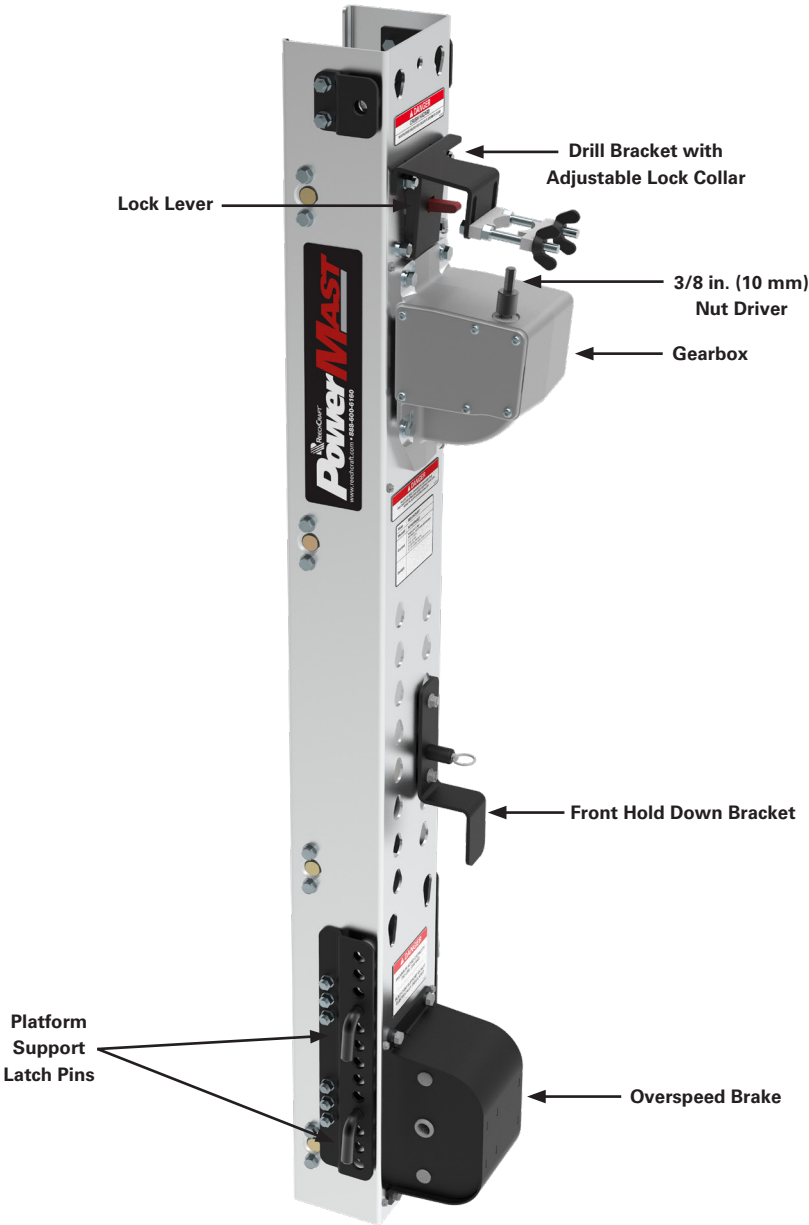


Figure 1.1 - Freestanding System Configuration - Single Mast/Twin Mast



# 1.1 Climbing Unit

Figure 1.2 - Climbing Unit



## 1.2 Mast + Base Assembly

Figure 1.3 - Wall-tied System Base

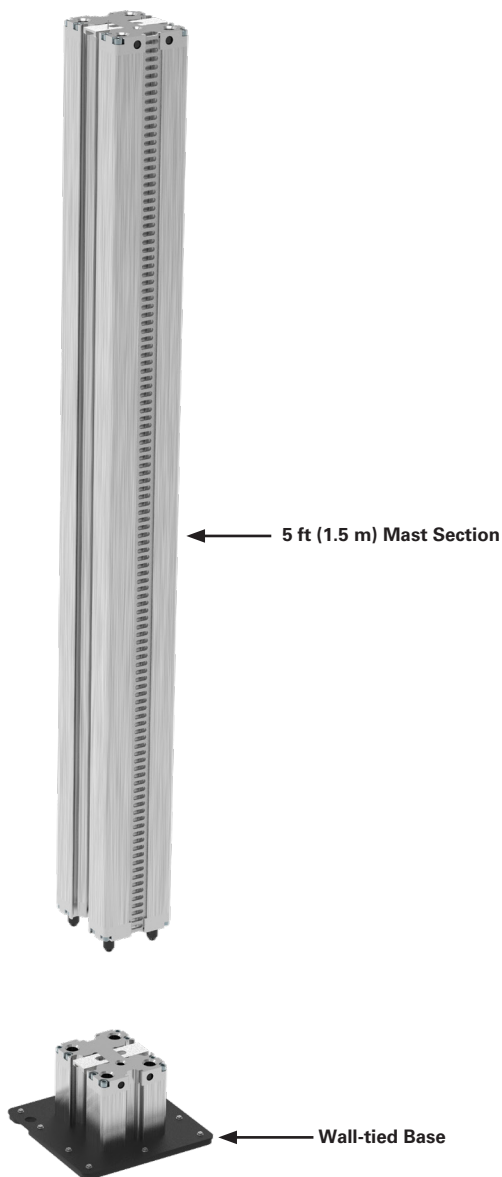
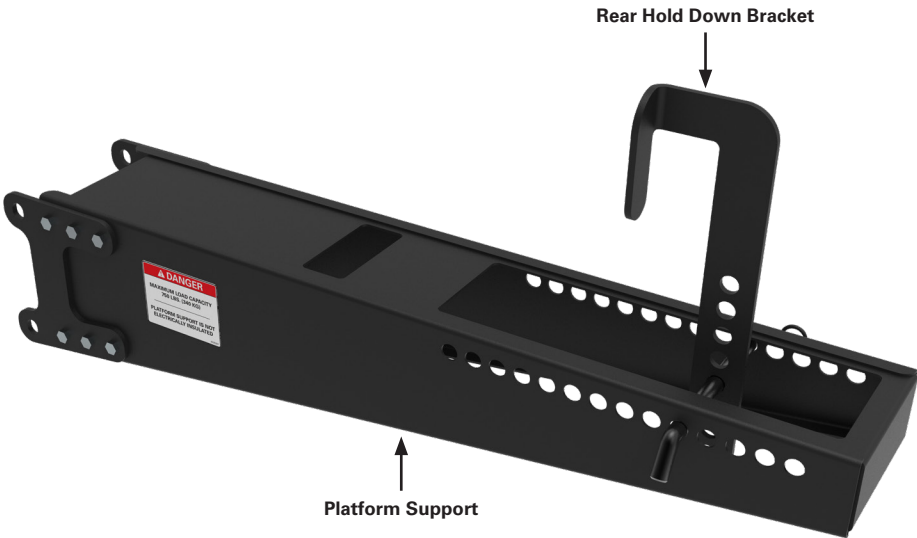


Figure 1.4 - Freestanding System Base



1.3 Platform Support Assembly

Figure 1.5 - Platform Support Assembly



## 1.4 Ties

Figure 1.6 - Adjustable Wall Tie

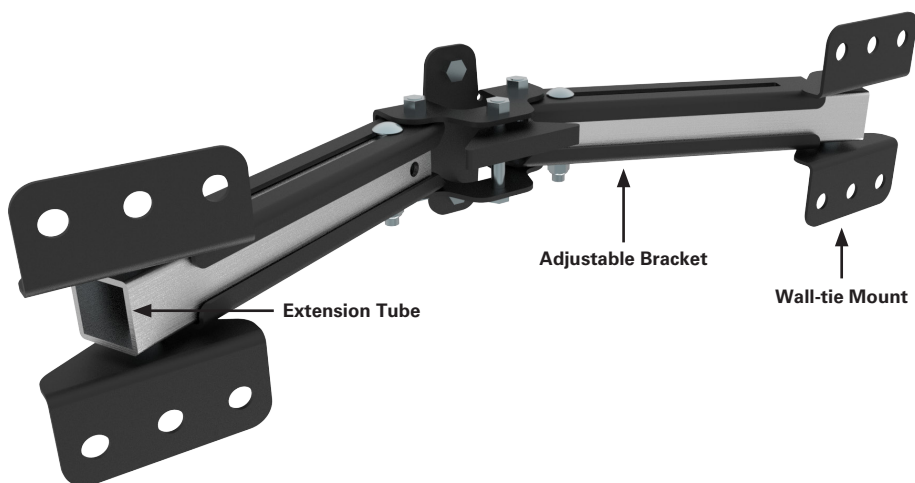
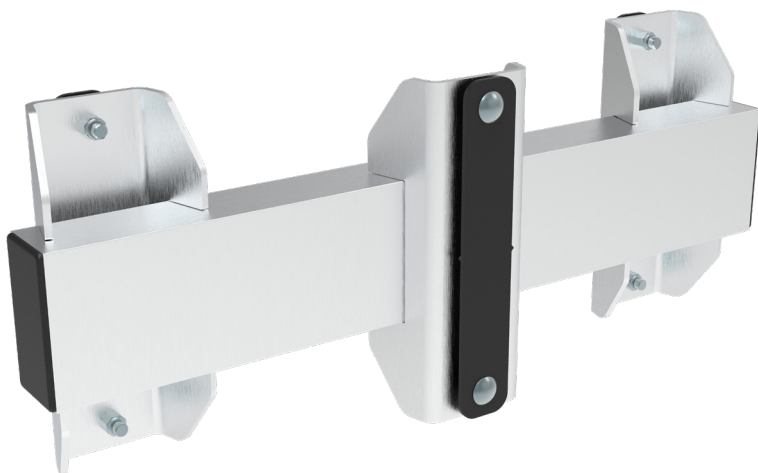


Figure 1.7 - Tri-mast Tie



## 1.5 Specifications

Table 1.0 - System Specifications

DESCRIPTION	SPECIFICATION
<b>PERFORMANCE</b>	
Single Mast System Rated Load (Platform + Person(s) + Payload)	750 lbs (340 kg)
Twin Mast System Rated Load (Platform + Person(s) + Payload)	1500 lbs (680 kg)
Maximum Climbing Speed	25 ft/min (7.6 m/min)
Tie Pull-out Force	<b>Wall-tied System:</b> 1500 lbs (680 kg) per Tie <b>Freestanding System:</b> N/A
Maximum Allowable Wind Speed in Service	<b>Wall-tied System:</b> 35 mph (15.6 m/s) <b>Freestanding System (Indoor):</b> 0 mph (0 m/s) <b>Freestanding System (Outdoor):</b> 25 mph (11.2 m/s)
Maximum Allowable Wind Speed During Setup	<b>Wall-tied System:</b> 35 mph (15.6 m/s) <b>Freestanding System (Outdoor):</b> 25 mph (11.2 m/s)
<b>DRIVE SYSTEM AND SAFETY FEATURES</b>	
Safety Devices	Lock Lever, Overload Clutch, and Overspeed Brake
Mast Connection Type	Interference Locking Cam Lever
Drive System	120:1 Clutch Protected Transmission
Required Voltage	110 VAC Single Phase
Operating System	1/2 in. 8 Amp Minimum Drill Motor
<b>WEIGHTS</b>	
Climbing Unit	62 lbs (28.1 kg)
5 ft Mast	32 lbs (14.5 kg)
Tie	7 lbs (3.2 kg)
Platform Support	29 lbs (13 kg)
Maximum System (Single)	<b>Wall-tied System:</b> 2241 lbs (1016 kg) <b>Freestanding System (Indoor):</b> 2061 lbs (935 kg) <b>Freestanding System (Outdoor):</b> 1675 lbs (760 kg)
<b>DIMENSIONS (L x W x H)</b>	
Climbing Unit	12.3 in. x 10.8 in. x 56 in. (312 mm x 274 mm x 1422 mm)
Mast	6 in. x 5 in. x 58 in. (152 mm x 127 mm x 1473 mm)
Platform Support	38.5 in. x 8 in. x 8 in. (978 mm x 203 mm x 203 mm)
Wall-tied System Assembly Stowed	11 in. x 5 in. x 5 in. (278 mm x 127 mm x 127 mm)
Wall-tied System Base	10 in. x 10 in. x 3 in. (254 mm x 254 mm x 76 mm)

## 1.6 Wall-tied System Configuration

**Table 1.1** - Wall-tied System Configuration (See Figure 1.8)

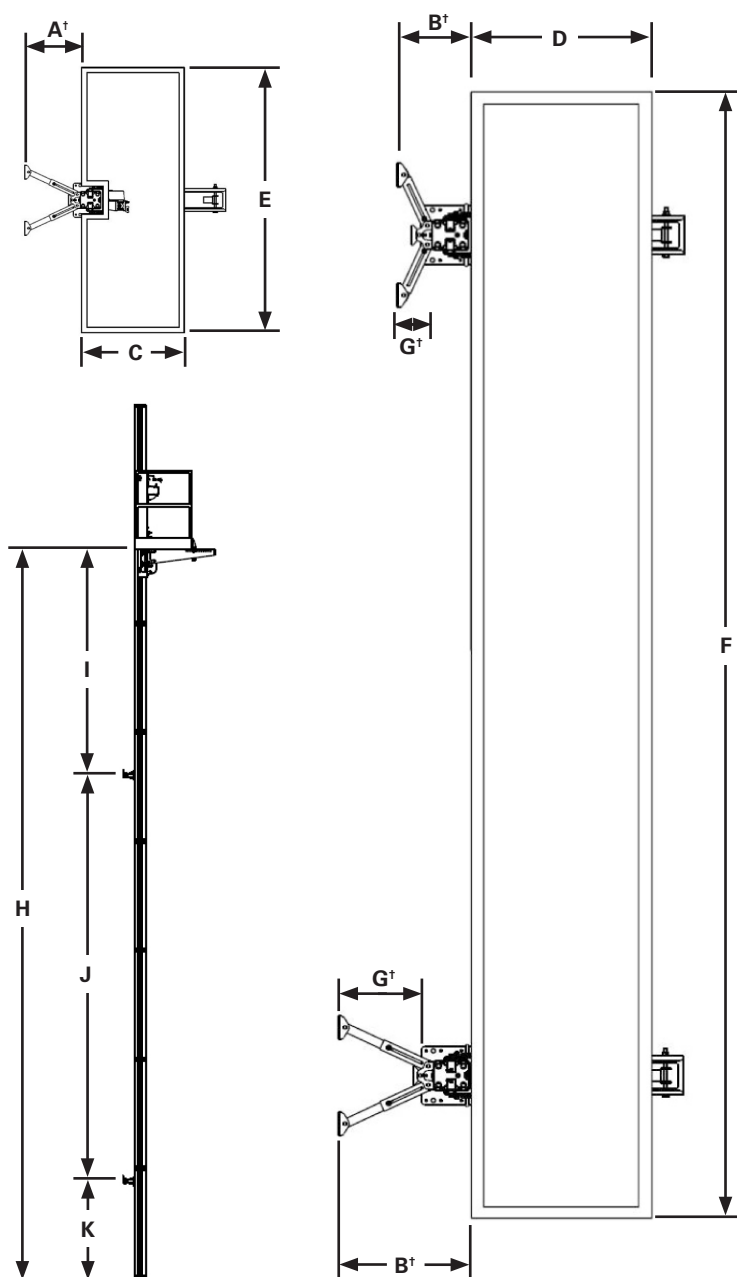
DESCRIPTION		SPECIFICATION
A <sup>†</sup>	Single Platform Clearance (Standard Wall Tie)	6-16.5 in. (152-419 mm)
B <sup>†</sup>	Twin Platform Clearance (Standard Wall Tie)	13-23.5 in. (330-597 mm)
C	Platform Width (Single Mast System)	30 in. (762 mm)
D	Platform Width (Twin Mast System)	20-33 in. (508-838 mm)
E	Platform Length (Single Mast System)	6.6 ft (2 m)
F	Platform Length (Twin Mast System)	No Maximum if Under Rated Load
G <sup>†</sup>	Mast Clearance (Standard Tie)	6-16.5 in. (152-419 mm)
H	Maximum Platform Height	194 ft (59.1 m)
I <sup>*</sup>	Maximum Platform Height Above Lower Tie During Use	<b>Single Mast Tied:</b> 0 ft (0 m) <b>Twin Mast Tied:</b> 5 ft (1.5 m)
J	Maximum Tie Spacing	18 ft (5.5 m)
K	Minimum Tie Spacing	4 ft (1.2 m)
	Maximum Working Height	200 ft (61.0 m)

† Based on standard tie with no platform or tie extensions. Call ReechCraft for more options.

\* While erecting/dismantling only, the maximum platform height above the lower tie may temporarily increase but shall not exceed 13 feet (4 m). Platform must be uniformly loaded to avoid large cantilever forces on the mast.



**Figure 1.8 - Wall-tied System Configuration**

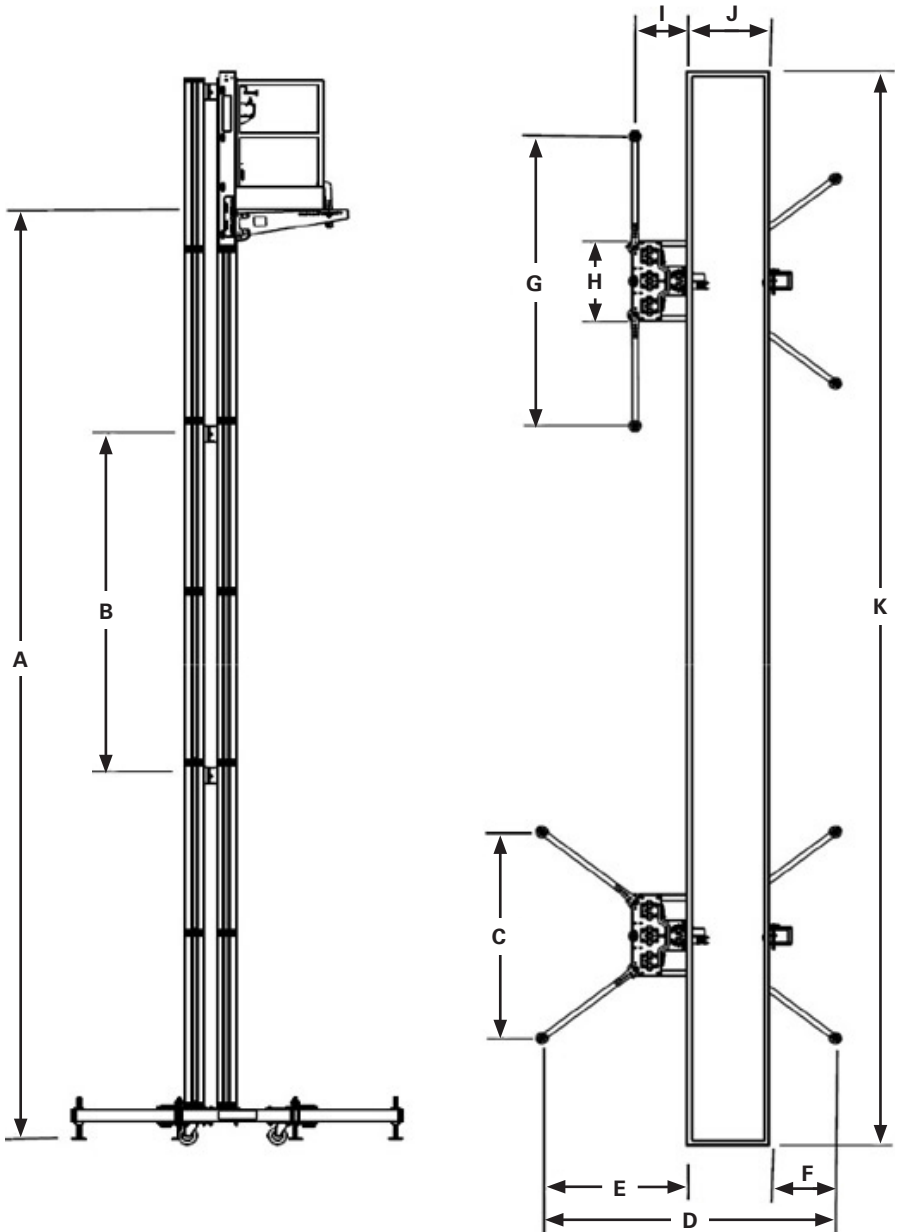


## 1.7 Freestanding System Configuration

**Table 1.2** - Freestanding System Configuration (See Figure 1.9)

DESCRIPTION		SPECIFICATION
A	Maximum Platform Height	<b>Indoor:</b> 46.2 ft (14.1 m) <b>Outdoor:</b> 26.8 ft (8.2 m)
B	Maximum Tri-mast Tie Spacing	10 ft (3.0 m)
C	Outrigger Width (Standard)	75 in. (1905 mm)
D	Outrigger Depth (Standard)	101 in. (2565 mm)
E	Platform Clearance - Mast Side (Standard)	49.7 in. (1262 mm)
F	Platform Clearance - Gearbox Side	<b>Standard:</b> 25 in. (635 mm) <b>Retraction:</b> 0 in. (0 mm)
G	Outrigger Width (Retracted)	106.2 in. (2698 mm)
H	Base Width	30 in. (762 mm)
I	Platform Clearance (Retracted)	<b>Standard:</b> 20 in. (508 mm) <b>Alternate Position:</b> 10 in. (254 mm)
J	Platform Width	20-33 in. (508-838 mm)
K	Platform Length (Twin Mast System)	No Maximum if Under Rated Load

**Figure 1.9 - Freestanding System Configuration**



# SECTION 2

## LAYOUT PLANNING

### 2.0 Layout Planning

- Wall-tied system or freestanding system:
  - Consider if a structure is available to tie or not.
  - Consider the height of work and whether it is indoor or outdoor.
- Single or twin mast:
  - Consider straight runs of the wall, shared setups, ground obstructions, etc.
- Determine platform length:
  - 6.5 feet (2 m for single mast platform or longest straight run without going over 750 pounds (340 kg) rated load on each climbing unit.
- Mast locations:
  - What is the mast distance from the wall?
  - Will there be any special provisions for ground support needed?
- Wall-tied system locations:
  - 18 feet (5.5 m) is the maximum tie spacing. Consider wall tie locations that provide solid anchorage. Allow for areas of wall where no ties can go, requiring more ties.
- Component quantities:
  - Climbing units
  - Platform supports
  - Platforms
  - Masts
  - Wall ties
  - Bases
- Accessory items:
  - Drills
  - Cords - power source location or generator needed
  - Cribbing or sill needed (extreme setups only)

Table 2.0 - Example Layout Plan

DESCRIPTION	SPECIFICATION	COMMENT
System Configuration (Single or Twin)	18 ft (5.5 m)	Left Side
Platform Length	24 ft (7.3 m)	
Mast Distance from Structure	6 in. (152 mm)	
Platform Height	100 ft (30.4 m)	
Masts [Height (ft)/4.8] (2x forTwin)	100/4.8 = 21 Masts (2x) = 42 Masts	
Minimum Ties Needed [Height (ft)/18 + 1] (2x forTwin)	100/18+1 = 6.6 => 7 (2x) = 14	14 Ties
Climbing Unit	2 qty	
Platform Support	2 qty	
Base	2 qty	
Drill	2 qty	
Extension Cords	3 qty	100 ft (30.5 m)
Power Strip/Splitter	2 qty	

## 2.1 Ground Preparation

Referring to the layout plan, examine the ground conditions to ensure the surface can support the intended load of the system. Prepare the base surface for erection, removing any debris, obstacles, or any other conditions that could lead to injury during erection. Prepare the bearing areas by leveling and/or compacting the ground surface. Add cribbing or base plates to properly support the bearing force. (See Table 2.1)

Table 2.1 - Ground Preparation

DESCRIPTION	SPECIFICATION
Maximum System Weight [200 ft Single Mast System with 750 lbs Rated Load (or 841 lbs) + (7 lbs/ft x 200)]	2241 lbs (1016 kg)*
Surface Area of Wall-tied Base	93 sq in. (600 sq cm)*
Maximum Ground Pressure on Base (200 ft + 750 lb Load)	24 psi (1.69 kg/sq cm)*

*\*Actual system weight is less for heights less than 200 feet (61 m). The freestanding system base configurations would also weigh less.*

## 2.2 Wall-tied System Planning

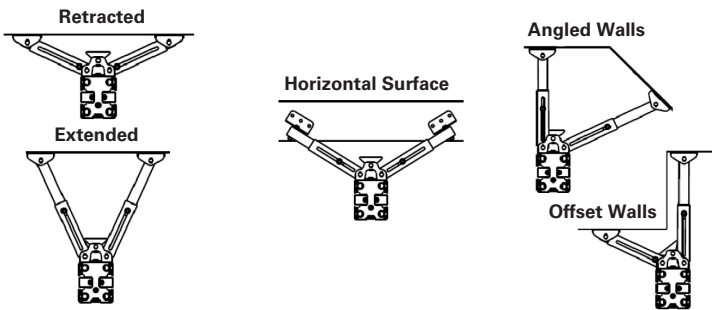
Based on the layout plan, determine the location of each system and where the ties will be connecting to the structure.

The wall-tied system assembly adjusts in several directions. (See Figure 2.0)

Table 2.2 - Wall-tied System Requirements

DESCRIPTION	SPECIFICATION
Maximum Tie Spacing	18 ft (5.5 m)
Total Tie Pull-out Force	1500 lbs (680 kg) Total 750 lbs (340 kg) per Tie Arm

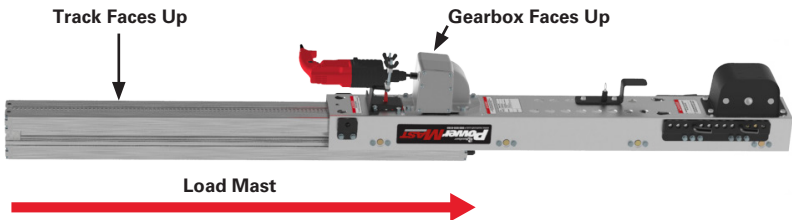
Figure 2.0 - Wall-tied System Configuration Examples



## 2.3 Pre-assembly

- Position the mast horizontally on the ground (track up) and slide on the climbing unit (gearbox up), until the gearbox drive gear engages with the mast track. (See Figure 2.1)

Figure 2.1 - Loading the Mast



- Run the drill motor in the forward (clockwise) position to move the mast through the climbing unit, extending it through the bottom rollers. Continue until the mast extends approximately 1.5 inches (38 mm) out of the bottom of the climbing unit. (See Figure 2.2)
- Secure the base to the bottom of the mast by locking the cam levers with the cam lever locks. (See Figure 2.3 and 2.4)

Figure 2.2 - Extending the Mast

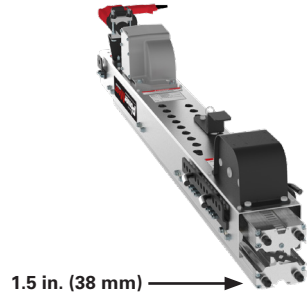
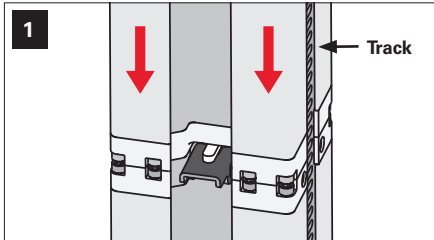


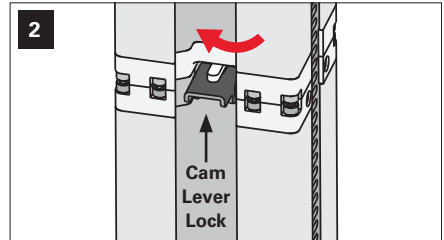
Figure 2.3 - Securing the Base



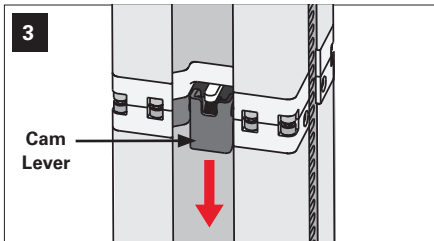
Figure 2.4 - Connecting the Masts



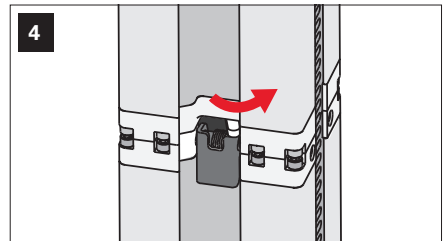
1. Stack the mast, ensuring that the track is aligned and facing toward the platform.



2. Rotate the cam lever lock until it stops in the center position.



3. Press both cam levers down and in at the same time.



4. Be sure the cam lever lock springs automatically into the locked position.

# SECTION 3

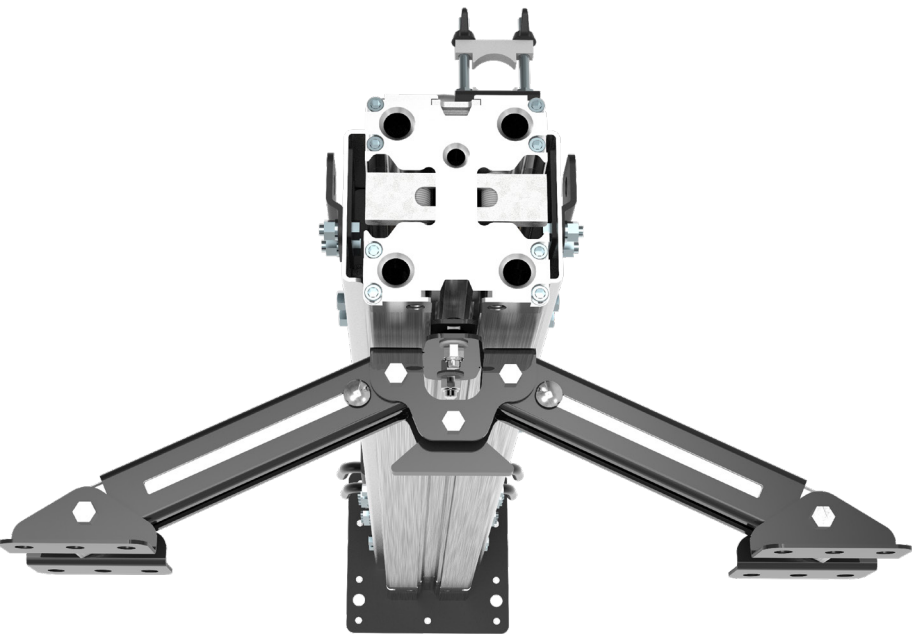
## ERECTING THE SYSTEM

### 3.0 Erecting the Wall-tied System

Erection should only be carried out by a competent person in compliance with all local, state, and federal requirements.

Refer to the layout plan (see Section 2.0) to determine the complete list of equipment required for erection. Be sure all components have been inspected and maintained in accordance with product labels on the unit, information contained in this manual, and any other documents supplied by the ReechCraft service team.

**Figure 3.0** - Fastening the Tie to the Mast





1. Slide the tie down the rear of the mast to the desired height.
2. Using the mounting hole locations highlighted, secure the tie to the structure.
  - Pull-out force is 750 lbs (340 kg) per side or 1,500 lbs (680 kg) total per tie.
  - Use 1-6 holes per side, depending on the material of the structure and pull-out force of the anchors.
  - For one-hole mounting, use the center hole.
3. Use a tether strap to position the mast the desired distance from the wall.
4. Fully secure every bolt connection on the tie and remove the tether. Do not overtighten.

**Important:** The tie must be anchored securely using pull-out force (see Table 2.2).

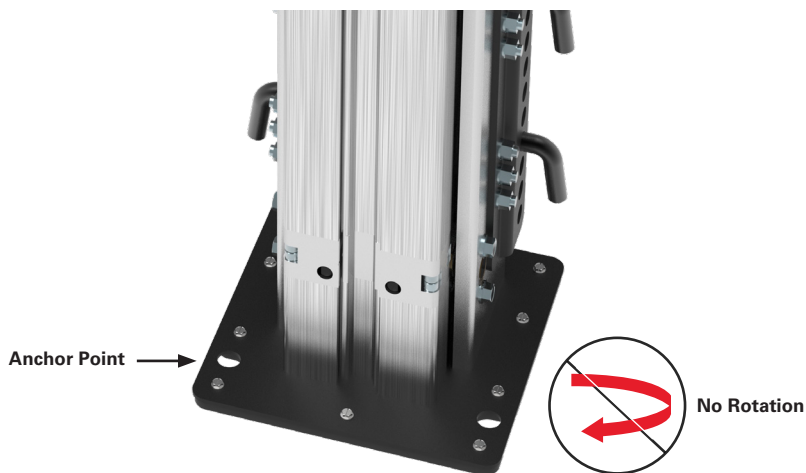
**Figure 3.1** - Anchoring the Tie to the Wall



## ERECTING THE SYSTEM

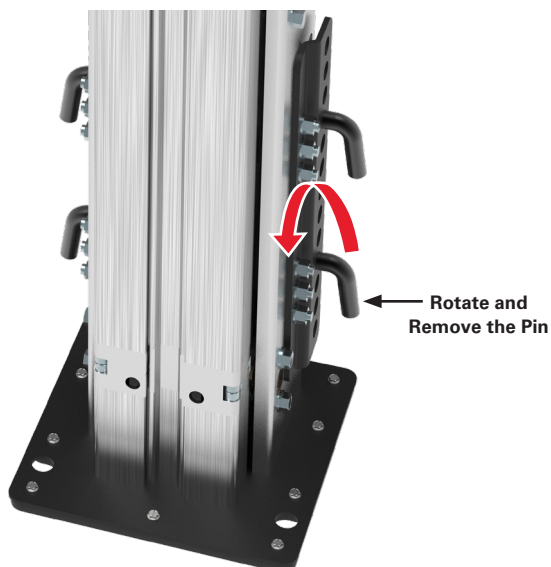
- Use the anchor points to secure the base. (See Figure 3.2)

**Figure 3.2** - Erecting the Base Unit



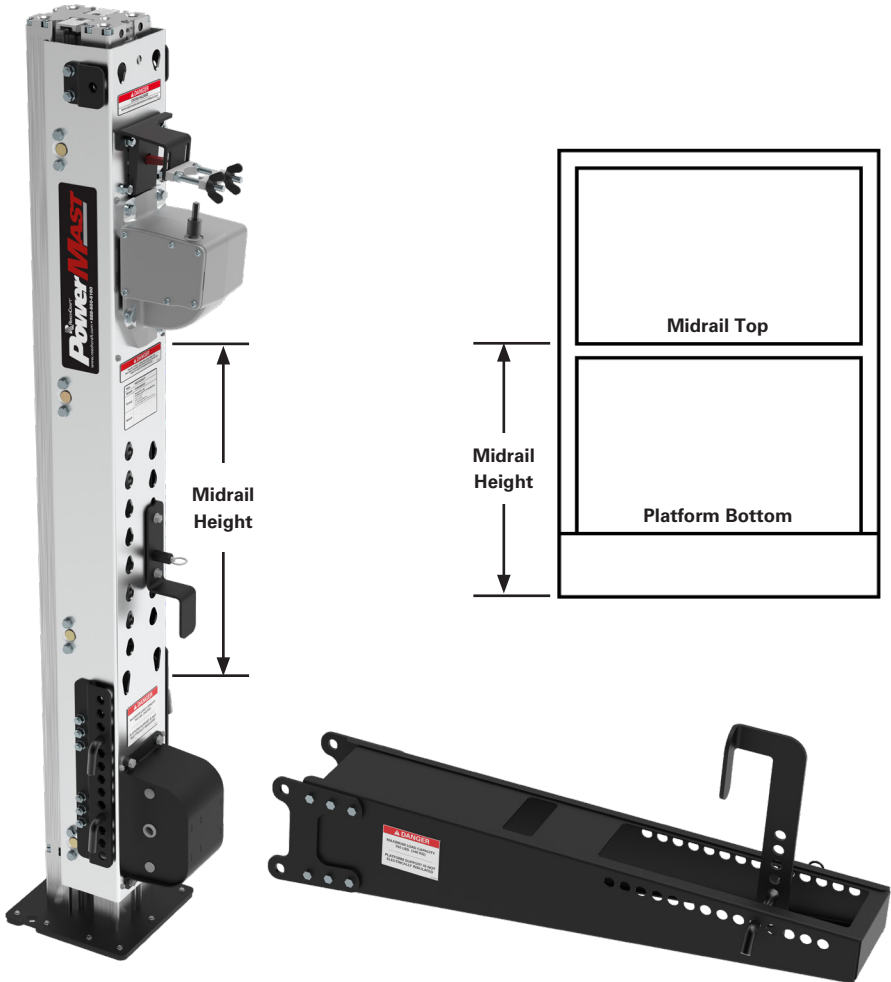
- To assemble the platform support, rotate the pins up and remove. (See Figure 3.3)

**Figure 3.3** - Assembling the Platform Support



- Measure from the platform bottom to the midrail top. Position the platform support so the midrail top is just below the gearbox and install the pins. (See Figure 3.4)

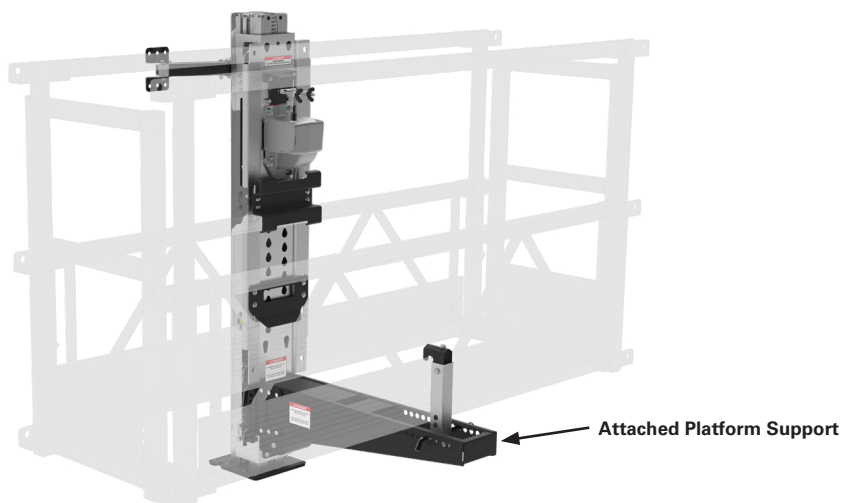
**Figure 3.4 - Positioning the Platform Support**



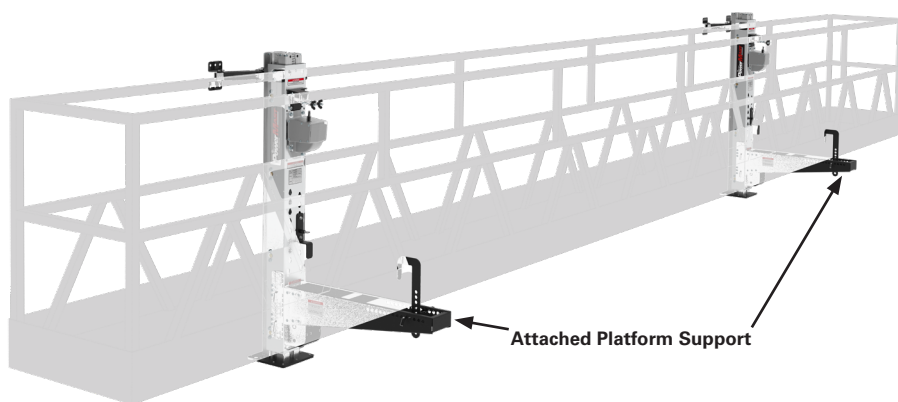
## ERECTING THE SYSTEM

- Attach the platform to the platform support(s). (See Figures 3.5 and 3.6)

**Figure 3.5 - Attaching the Platform to the Supports - Single Mast**

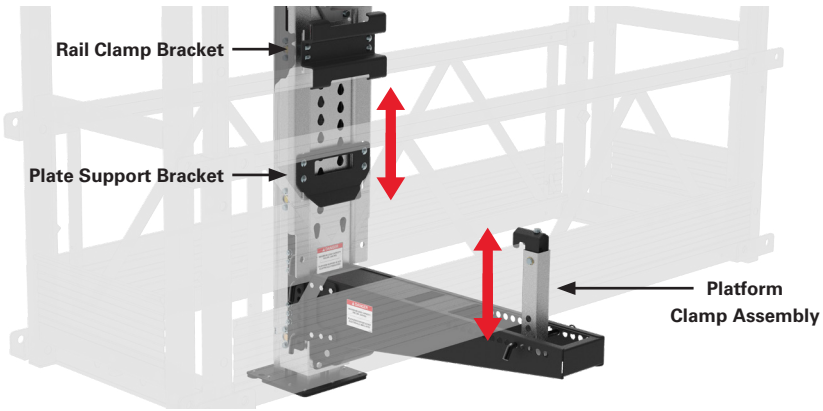


**Figure 3.6 - Attaching the Platform to the Supports - Twin Mast**

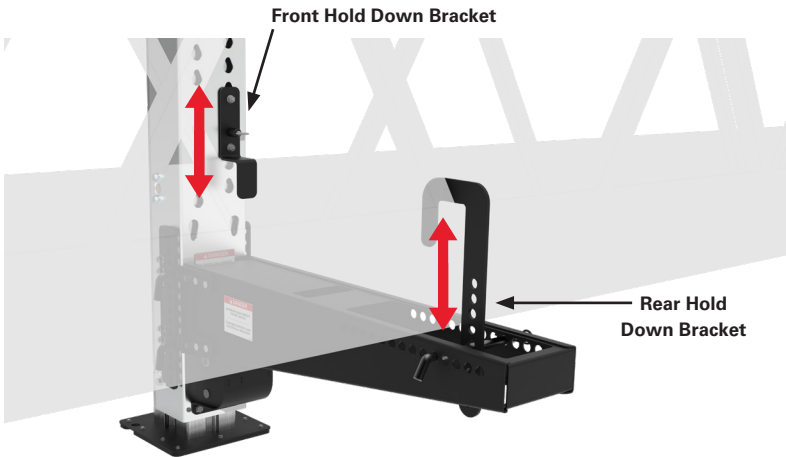


- Secure the platform with the hold down brackets. (See Figure 3.7)

**Figure 3.7 - Securing the Platform - Single Mast**



**Figure 3.8 - Securing the Platform - Twin Mast**



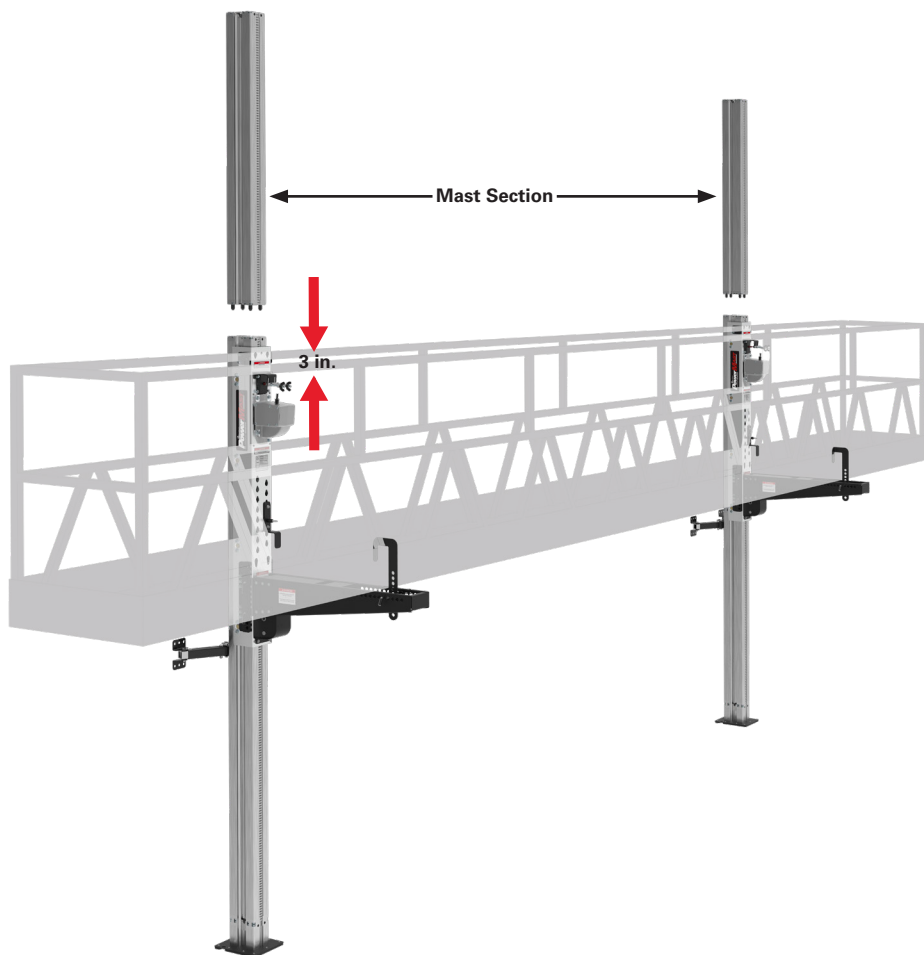
**Important:** Assemble so the platform moves side to side up to two inches to allow for a temporary 10-degree angle for emergency one-operator descent. Be sure the platform only moves slightly side to side, but does not lift off the platform support in a way that creates an unstable platform, especially while walking on a cantilevered section of the platform.

## ERECTING THE SYSTEM

- Add height by raising the platform approximately 3 inches (76.2 mm) below the top of the mast. Connect the masts. (See Figures 2.4 and 3.9)

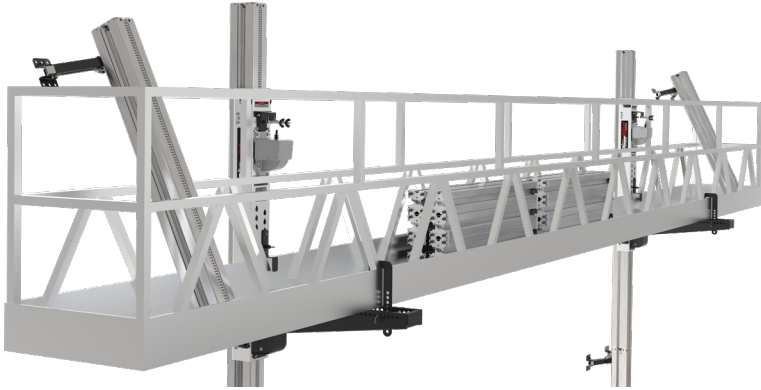
**Note:** Refer to Section 4.0 for power system installation.

**Figure 3.9** - Connecting the Masts



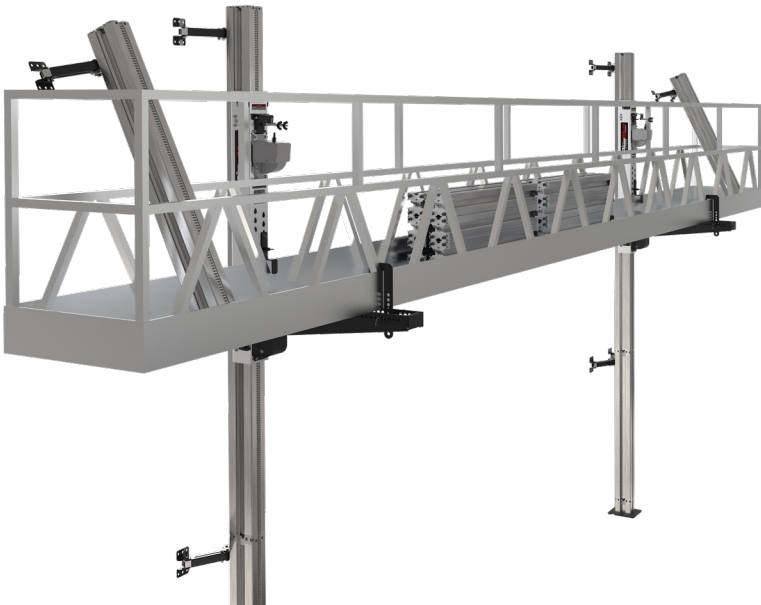
- Fasten the ties to the mast in the platform before stacking. (See Figure 3.10)

**Figure 3.10** - Fastening the Ties



- Stack the masts and raise up to the untied ties. (See Figure 3.11)

**Figure 3.11** - Stacking the Masts

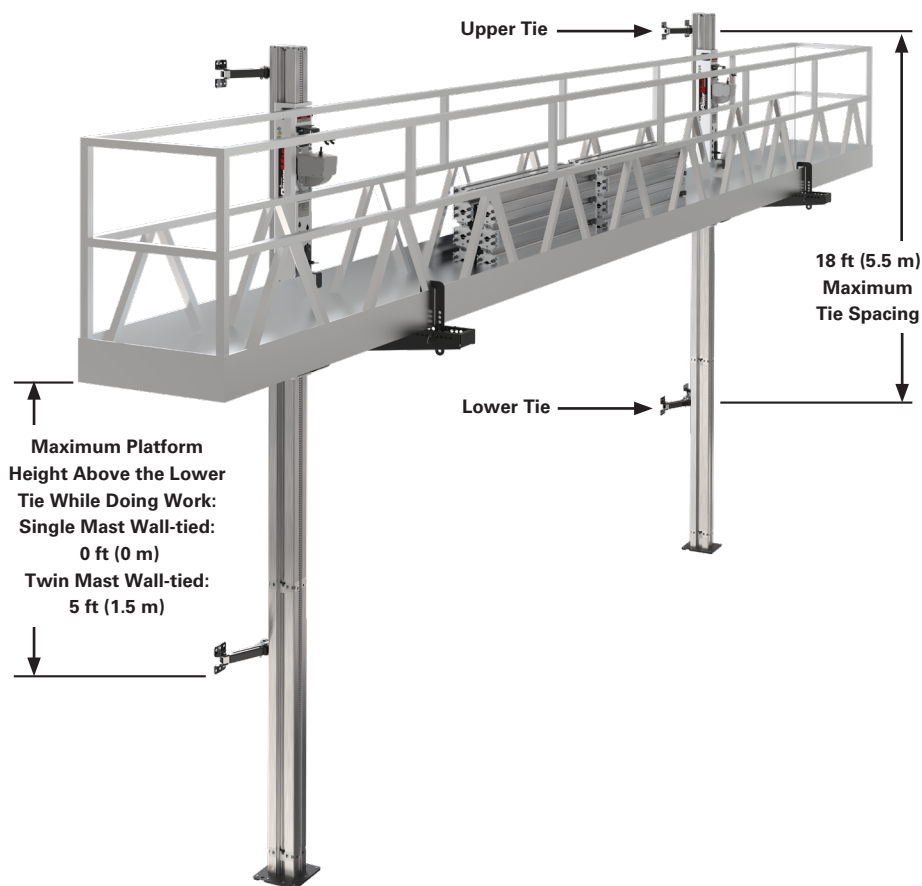


## ERECTING THE SYSTEM

- Anchor the upper tie a maximum distance of 18 feet (5.5 m) from the lower tie. (See Figure 3.12)
- When possible, it is recommended to tie at the top of the highest mast to increase platform rigidity.

**Important:** For a single mast wall-tied system configuration, you shall not do work above a tie. For a twin mast wall-tied system configuration, it is allowable to work while the platform is a maximum of 5 feet (1.5 m) above the lower tie.

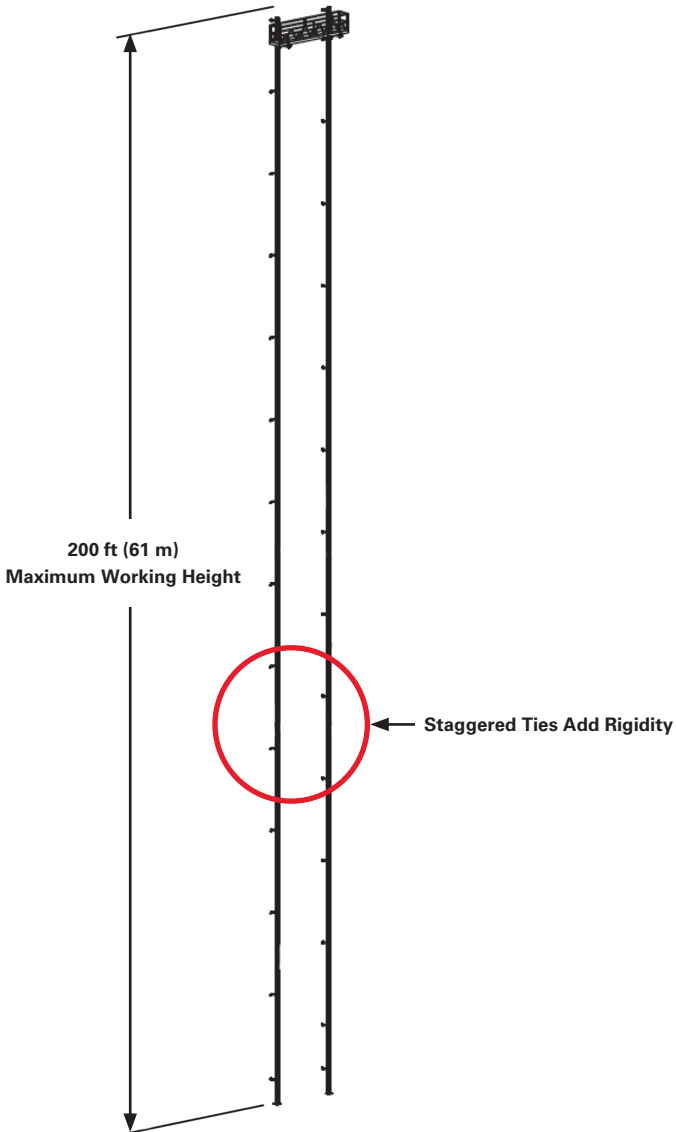
**Figure 3.12** - Anchoring the Upper Tie





- Masts can be joined together to reach the maximum platform height of 194 feet (59.1 m) or working height of 200 feet (61 m). Where possible, it is preferred to stagger the ties to increase platform rigidity. (See Figure 3.13)

**Figure 3.13** - Staggering the Ties for Maximum Working Height



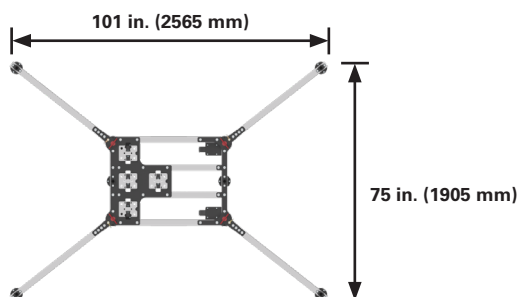
## 3.1 Erecting the Freestanding System

### Setting the Outriggers

- Adjust the position of the outriggers to create the footprint shown in Figure 3.14.

**Important:** This is the normal position the outriggers should be in to achieve the full ratings of the system. Consult your local dealer or ReechCraft customer service for information on alternative configurations.

Figure 3.14 - Outrigger Footprint

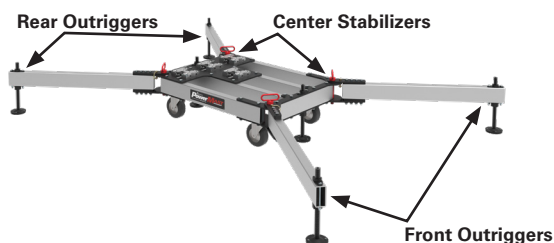


### Leveling the Base

- Using a four-foot level, adjust the stabilizers on the outriggers until the base is level front to back and side to side. (See Figure 3.14)
- With the base level, lower the two center stabilizers so they rest on the ground. (See Figure 3.15)

**Important:** The main base is designed to carry the majority of the machine weight and duty loads. The outriggers are designed to stabilize tipping loads. It may be necessary to adjust the stabilizers slightly after full setup to add more preloading on the stabilizers.

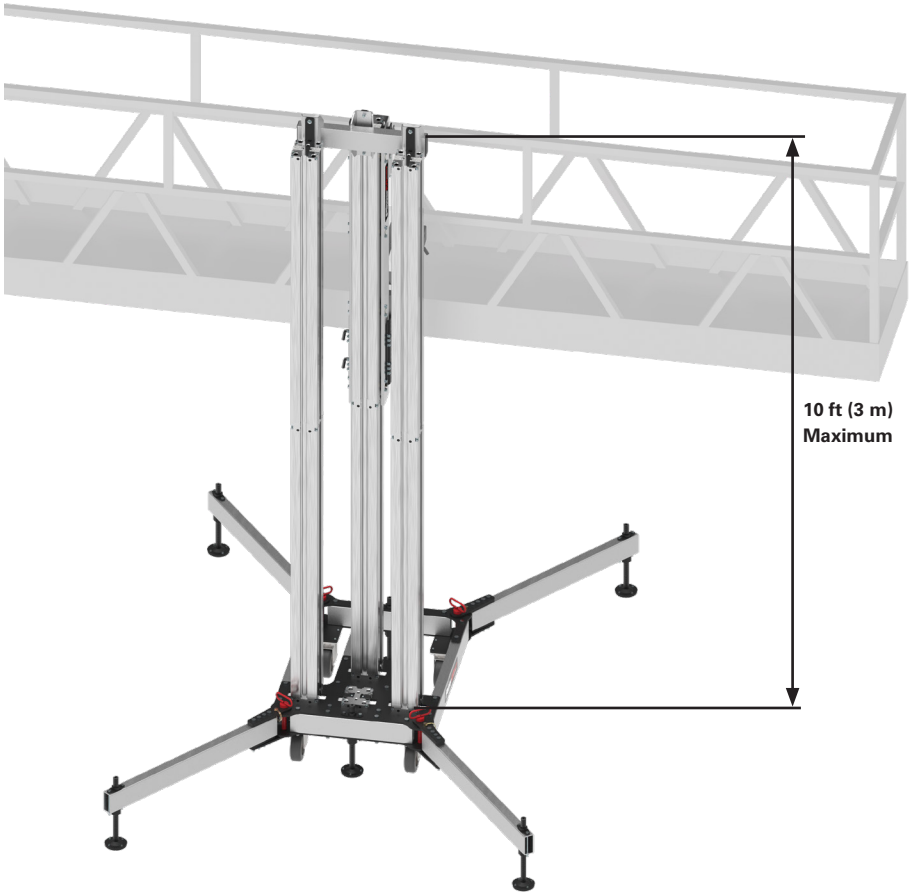
Figure 3.15 - Leveling the Base



- Space the ties every 10 feet (3 m) (or less). (See Figure 3.16)

**Important:** Do not elevate more than 5 feet (1.5 m) above the tie directly below the platform.

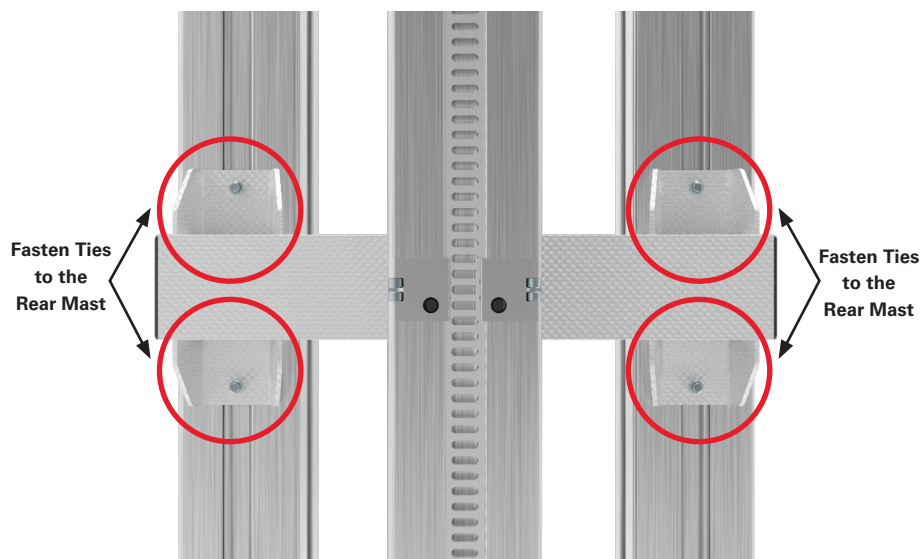
**Figure 3.16** - Spacing the Ties



## Securing the Tri-mast Tie

- Fasten the tri-mast tie to both rear masts by securing the hex nuts. Secure all four nuts. (See Figure 3.17)

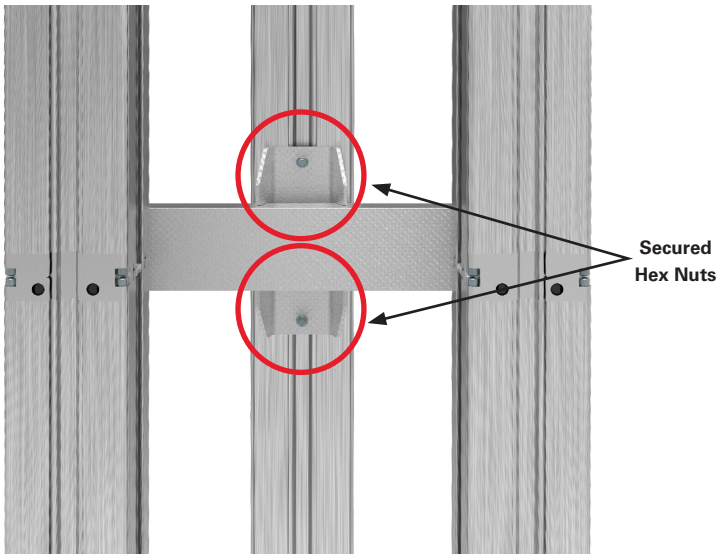
**Figure 3.17** - Securing the Tri-mast Tie



- Finish the freestanding system installation by securing the hex nuts to the front mast. (See Figure 3.18)

**Note:** It is recommended to use a bar clamp or ratchet strap to pull the middle mast to the tie so both hands can be used to align and tighten the connection hardware.

**Figure 3.18** - Hex Nuts on the Front Mast



**Important:** Be sure all six fasteners are securely fastened before proceeding to erect more masts. Use a level to ensure your masts keep straight and vertical during the assembly.

## Finish Erecting the Freestanding System

- Continue to place ties every 10 feet (3 m) until reaching a desired mast height.
- Complete the installation by placing a tie at the top of the mast tower.  
(See Figure 3.19)

**Note:** See Figure 3.13 for maximum platform heights.

**Figure 3.19** - Erecting the Freestanding System



**Important:** Be sure to have a tie at the top of the freestanding system to ensure stability. Always keep an evenly distributed load on the platform while erecting. An unbalanced load could result in a curved tower installation.

# SECTION 4

## POWER SYSTEM INSTALLATION

### 4.0 Power System Installation

Installation of the electrical system should only be carried out by a competent person. Incorrectly installing electrical components on the system could lead to personal injury or death. Examine the worksite completely, locating any hazards or conditions such as standing water, sharp objects, high traffic areas, etc.

Before installing any electrical cords, be sure all equipment has been thoroughly examined for proper function and that no cuts, breaks, or damage of any kind exists with the electrical supply cords or the electrical cords on the drills. If any electrical lines are damaged or have excessive wear, discard immediately and use new equipment.

The PowerMast system should only be used with electrical power drills that have been tested and recommended for use by ReechCraft or your local dealer. (See Table 4.0)

**Table 4.0** - Drill and Electrical Cord Specifications

DESCRIPTION	SPECIFICATION
No Load Speed (High Speed for 1/2 Rated Load)	0-1500 RPM (0-3000 RPM)
Output Power	600-700 W (8.5 Amps Minimum)
Input Power	850-1050 W (7.5-9.5 Amps)
Maximum Operating Speed (at 1/2 Rated Load)	0-950 RPM (0-1270 RPM)
Maximum Drill Size	1/2 in. (13 mm)
Collar Size	1.68-1.75 in. (42.5-44.5 mm)
Chuck Type	Keyed Only (Keyless for Setup Only)
Electrical Cord Minimum Rating	0-50 ft (0-15.24 m): Use 12-gauge cords 50-100 ft (15.24-30.48 m): Use 10-gauge cords

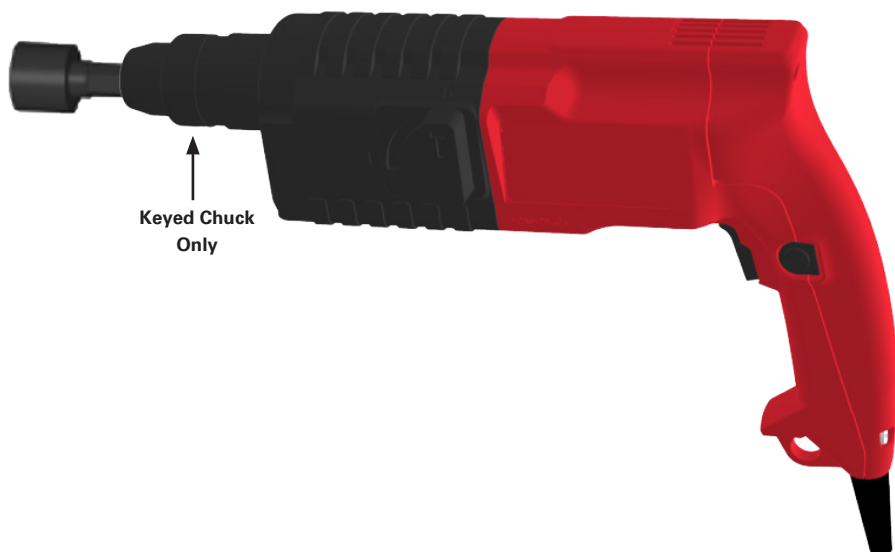
## 4.1 Driver Installation

- Assemble the supplied 3/8-inch (9.5 mm) driver to the drill.

**Important:** Only use the driver supplied with the system or an equivalent. Do not use a driver with an integrated magnet as it will not have the correct engagement on the gearbox input shaft.

- Be sure the flats of the driver are seated properly in the chuck jaws and that there is adequate engagement of the driver to the drill. Secure the driver to the drill by tightening the chuck with the chuck key. Keyless chucks are not permitted. (See Figure 4.0)

Figure 4.0 - Driver Installation





## 4.2 Drill Installation

- Check to be sure the chuck key is removed from the drill chuck before turning on the tool.
- Place the drill with the driver into the drill bracket, align the driver to the gearbox input shaft, and press lightly downward until the driver fully sits on the input shaft. (See Figure 4.1)

**Important:** The drill with driver must be able to insert freely through the drill bracket and onto the input shaft. Remove any obstructions and make necessary adjustments so the drill can be inserted freely.

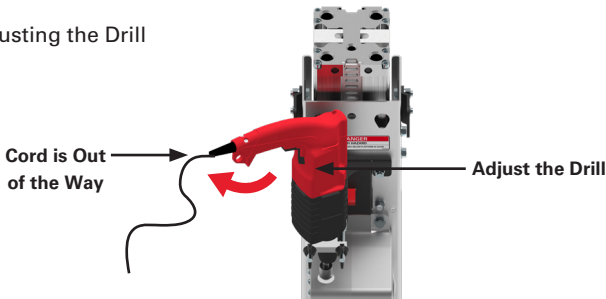
Figure 4.1 - Drill Installation



- The drill bracket is designed to hold the drill on the gearbox input shaft and also keep the drill body from rotating during operation. Be sure the drill bracket is secure and functioning properly before proceeding. Adjust the clasp vertically to fit the drill collar. Adjust the drill so the cord is out of the way (see Figure 4.2) and tighten the drill bracket wing nuts.

**Important:** Periodically check and adjust the wing nuts to ensure a secure fit.

Figure 4.2 - Adjusting the Drill

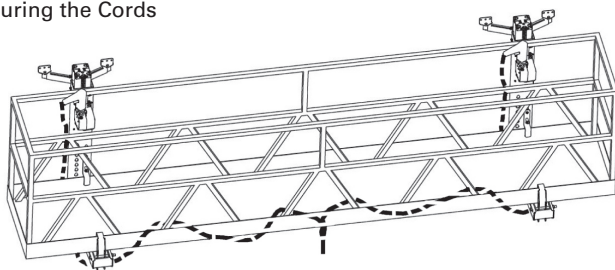


## 4.3 Power Cord Installation

The following steps are to be repeated for each mast:

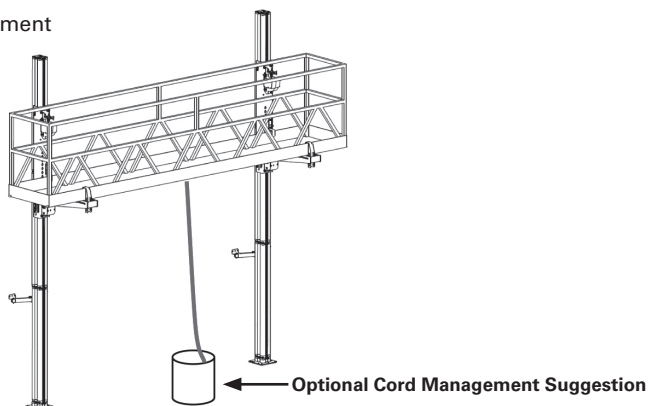
- Be sure that the electrical power cords are disconnected from the power source before attempting to connect the drills to the cords. Be sure the drill triggers are in the OFF position. Using appropriately sized electrical cords (see Table 4.0), connect the drills together into one circuit. Be sure to properly manage the cords by securing them to the platform system (see Figure 4.3). Eliminate any conditions which would allow the electrical cords to catch on clothing, tools, materials, or any other obstruction.

**Figure 4.3 - Securing the Cords**



- Ensure that the cords are fastened together and the joints will not disconnect during operation. Ensure there is sufficient cord length for the full height of travel and that the electrical cords will hang vertically down to the ground, without interfering with the PowerMast system, climbing units, or work platform. Protect all cords from any sharp edges or locations that could cause wear or damage to the cords. (See Figure 4.4)

**Figure 4.4 - Cord Management**



- In a preferred configuration, the drills can be connected into the power supply by way of an in-line power strip with a circuit-protected switch. This configuration enables one lead to hang down to the ground circuit, making cord management easier. (See Figure 4.5)

**Figure 4.5 - Power Cord Installation**



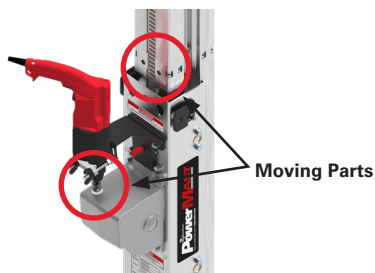
# SECTION 5

## OPERATING THE SYSTEM

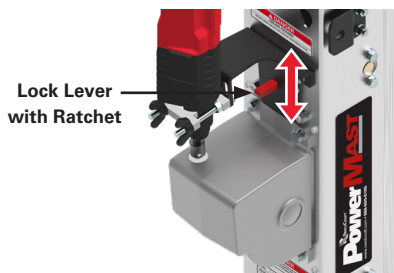
### 5.0 Operating the Work Platform

- Operation should only be carried out by a competent person in compliance with all local, state, and federal requirements. Be sure you are wearing the appropriate personal protective equipment (PPE) while operating the system.
- Load any necessary equipment, tools, and materials securely onto the system. Be sure to keep walkways free of obstructions.
- Re-examine the entire work environment above and below the platform to ensure there are no obstructions or personnel in the way of operation.
- While lifting the platform, always keep hands free from any moving parts. (See Figure 5.0)
- Lift the platform by placing the drill in the forward (clockwise) position and pulling the trigger. Release the trigger to stop.
- Always allow the lock lever to ratchet while lifting the work platform. (See Figure 5.1)

**Figure 5.0 - Moving Parts**

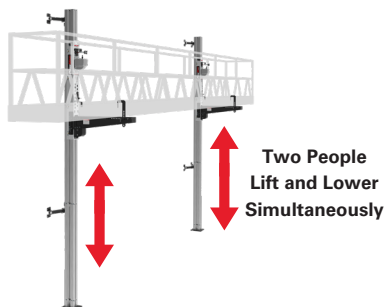


**Figure 5.1 - Lock Lever with Ratchet**



- Two people are preferred to operate a twin mast system. Always keep the platform level while working on the platform. If only one person is on the platform, it is allowable to adjust the platform up to 10 degrees to reposition the platform to a different height. (See Figure 5.2)

**Figure 5.2 - Operating the Work Platform**



- To lower the work platform, reverse the drill to the counterclockwise direction, lift up on the lock lever with the other hand, then pull the trigger on the drill while holding the lock lever.

**Note:** On occasion, the lock lever may be engaged into the track and will need to be released before going down. Lift the system up slightly until lock lever is released, then proceed with lowering.

**Important:** While lowering the platform, it is best to come to a complete stop by releasing the drill trigger first, coasting to a stop, and then dropping the lever. In the unlikely event that the system becomes unstable during lowering, drop the lock lever immediately. (See Figure 5.3)

**Figure 5.3** - Lowering and Stopping



# SECTION 6

## TRANSPORT + STORAGE

### 6.0 Transport + Storage

#### Transport

Be sure that all system components are secured properly for transport.

**Note:** *Transporting the system can cause vibrations that are unique from normal assembly, erection, and operation. Avoid methods that place excessive forces or any undue stress on the system. It is recommended to use a full enclosure for transport if possible.*

#### Storage

The PowerMast system was designed for rugged outdoor use and it is suited to be stored outdoors. However, storing the system indoors is advised to maximize the life span of your investment. Keep the system component inventory organized and labeled with a physical record of component inspection and maintenance. Avoid storing equipment near standing water, ice, electrical lines, furnaces, or any other potential hazards.

# SECTION 7

## INSPECTION + MAINTENANCE

### 7.0 Inspection + Maintenance

Proper and timely maintenance will help ensure the PowerMast system performs safely, efficiently, and without trouble. Follow these guidelines for inspection and maintenance. Included on the following pages are logs for daily, weekly, and annual inspection and maintenance.

DAILY INSPECTION AND MAINTENANCE LOG (1 OF 2)	
Competent Person (Print)	
Date of Inspection	
Company Name	
Jobsite	
Signature of Competent Person	
Comments	

## DAILY INSPECTION AND MAINTENANCE LOG (2 OF 2)

Component	OK	Inspection/Action
Gearbox		Inspect the input shaft for wear or damage. If the hex is rounded or damaged in any way, replace immediately.
Lock Lever		Inspect the lock lever for any damage or excessive wear. Ensure the torsion spring returns the lock lever to the rest position freely and quickly. Inspect to make sure that the bolts are tight and securing the lock lever assembly to the climbing unit. While raising the climbing unit, listen for an audible ratcheting pattern. Pattern should be uniform both in volume and frequency.
Overspeed Brake		Ensure the overspeed brake is securely fastened to the climbing unit with the bolts.
Drill Bracket		Inspect the drill bracket for any damage or misshapen parts. Check that the bolts are securely fastening the drill bracket to the climbing unit. Fasten the drill to the gearbox using the drill bracket. Be sure the drill assembly with the nut driver freely moves on to the hex input shaft of the gearbox and engages fully. Secure the drill to the drill bracket by tightening the wing nut.
Platform Support		Inspect all platform supports for any loose connections or damaged components. Ensure the supports are connected securely to the climbing unit, inspecting the bolt connections and locking pins that secure them to the climbing unit. Be sure all hardware used for adjustment is present and functioning properly.
Masts		Inspect the mast for damage and straightness. Discard and replace as necessary. Check for any missing screws on the track and replace. Be sure all hardware is present, secure, and fastens properly. Inspect the top stop of the mast to ensure it functions properly.
Ties		Inspect the entire tie for any loose connections or misshapen, broken, or damaged parts. Discard and replace parts as necessary.
Work Platform		Ensure that the guardrails are in place and functioning properly.
Drills		Check the cords and the nut driver. Be sure that the nut driver is securely fastened. Discard or repair any damaged electrical cords.
Cords/Power Strip		Check for any damage. Discard or repair immediately.



WEEKLY INSPECTION AND MAINTENANCE LOG (1 OF 2)	
Competent Person (Print)	
Date of Inspection	
Company Name	
Jobsite	
Signature of Competent Person	
Comments	

## WEEKLY INSPECTION AND MAINTENANCE LOG (2 OF 2)

Component	OK	Inspection/Action
Scheduled Maintenance		Be sure that all daily inspections and maintenance have been completed.
Gearbox		Inspect how the gearbox is mounted to the climbing unit. Make sure the bolts are secure. Inspect the casting of the gearbox for any damage or leaks. Replace the gearbox or call your local dealer or ReechCraft for replacement parts.
Lock Lever		While holding the lock lever up, lower the climbing unit. Be sure that the lock lever can be held in the up position. While standing next to the erected mast assembly and climbing unit, lower the climbing unit and drop the lock lever, continuing to clutch the gearbox for three seconds. Ensure the lock lever fully engages the track and stops the climbing unit.
Overspeed Brake		Inspect the welds and drive gear for any breakage or excessive wear. Call your local dealer or ReechCraft for questions on service parts.
Drill Bracket		While standing beside the climbing unit, lower the climbing unit, allowing the cam lever lock to fully engage the track and clutch out the gearbox for three seconds. When functioning properly, the drill bracket will place a small downward pressure on the drill assembly and will prevent the drill from rotating against the torque created by the gearbox clutch.
Masts		Inspect the gear track for any excessive wear or broken, misshapen, or missing rungs. Lug width should be at 95% of the new. Discard the track and replace with a new mast if necessary. Check for any missing screws on the track and replace. Be sure all hardware is present, secure, and fastens properly. Inspect the top stop of the mast to ensure it functions properly.
Couplers		Inspect the couplers for any bends, punctures, or any other damage to the tube. Inspect the rivet nuts to ensure proper thread engagement with the bolt. The rivet nut should not rotate in the hole. Discard and replace as necessary.
Wall-tied Base		Inspect the wall-tied base for damage and make sure the rubber is properly attached and in good condition. The locking pin must be present and working properly.
Ties		Inspect the entire tie for any loose connections or misshapen, broken, or damaged parts. Discard and replace parts as necessary.

ANNUAL INSPECTION AND MAINTENANCE LOG (1 OF 2)	
Competent Person (Print)	
Date of Inspection	
Company Name	
Jobsite	
Signature of Competent Person	
Comments	

## ANNUAL INSPECTION AND MAINTENANCE LOG (2 OF 2)

Component	OK	Inspection/Action
Scheduled Maintenance		Be sure that all daily and weekly inspections and maintenance have been completed.
Gearbox		Completely remove the gearbox from the climbing unit. Check over the entire gearbox for excessive wear, oil leaks, or any damage. Check to ensure the input shaft and output gears are not sloppy around the bearings. Call your local dealer or ReechCraft for replacement parts. Inspect the drive gear for wear. If the gear tooth profile is not symmetrical on one or more teeth, or there is any damage to the gear, discard and replace immediately. Verify the clutch force of the gearbox. Be sure that all bearings, guides, and gearbox gears are functioning properly. Erect a single mast assembly with the climbing unit next to a structure. Taking all necessary safety precautions and with the climbing unit less than 1.6 ft (0.5 m) off the ground, load 1000 lbs (454 kg) and secure to the unit (no work platforms, etc.). Make sure the PowerMast can lift approximately 1000 lbs (454 kg) without stalling. If not, call your local dealer or contact ReechCraft for recommendations or service parts.
Overspeed Brake		Remove the overspeed brake from the climbing unit to allow for complete inspection. Thoroughly inspect the inside and outside of the assembly for any missing, damaged, worn, or otherwise deficient parts. Be sure all bolt and pin connections are secure. Rotate the locking pawls back and forth to ensure they move freely and that the springs are functioning properly. While holding the assembly, move the drive gear back and forth at different speeds. In one direction, the assembly should continue to ratchet without engaging the locking pawls. In the other direction, when you rapidly rotate the drive gear, one of the two pawls should engage the cam lever lock follower, stopping the drive gear.
Caster Wheels		Apply grease to grease zerks.

# SECTION 8

## WARRANTY

### ReechCraft, Inc. North American End-User Limited Warranties

Thank you for purchasing a ReechCraft product. Please read the following warranty for details about ReechCraft's limited manufacturer's warranty (the "end-user warranty").

By using the products (as defined below), you agree to the following provisions, which contain limitations on warranties and liabilities and on your remedies.

All new ReechCraft equipment with serial numbers and date-coded gearboxes (the "product") must be registered at **warranty.reechcraft.com** to activate the product's end-user warranty.

ReechCraft, Inc.'s ("ReechCraft") end-user warranty applies to new product only that is manufactured after September 1, 2018. The end-user warranty is solely for the benefit of the original end user who purchases the product from an authorized reseller of ReechCraft product (the "end user") and is a "manufacturer's" warranty provided directly by ReechCraft to the end user, effective on the end user's original date of purchase. For purposes of this end-user warranty, an authorized reseller of ReechCraft product shall be referred to herein as "reseller." In the event a reseller leases product to a customer of the reseller with or without consideration, the end-user warranty shall apply to the reseller only and NOT to a lessee of the product.

ReechCraft warrants all products for a period of 12 months and all other components and accessories for a period of 90 days from the end user's original date of purchase (the "warranty period"). The end-user warranty is non-transferable by the end user and only applies to product manufactured after September 1, 2018.

During the warranty period, ReechCraft warrants products to be free from defects in materials and workmanship. ReechCraft's obligation and liability on any products that ReechCraft has determined to have been defective in materials or workmanship shall be limited to the repair or replacement of the product, at the sole option of ReechCraft. Such replacement parts shall be provided at no cost to the end user. Replacement parts and components provided under this end-user warranty will continue to be covered until the end of the warranty period. Replacement parts and components purchased by the end user from ReechCraft or a reseller beyond the expiration of the warranty period will carry its own 90-day end-user warranty.

All products purchased by the end user must be registered at **warranty.reechcraft.com** within 60 days of the end user's purchase for the end-user warranty to be activated. In the event an end user fails to register the product within the 60-day period, this end-user warranty will not apply. ReechCraft reserves the right to request maintenance records of defective parts prior to settling any warranty claim, as well as to deny such claim if maintenance records are not available or not compliant with the product's maintenance schedules. All warranty claims must be submitted in writing as outlined in the claims procedure section, which can be obtained at **reechcraft.com/warrantyclaim** or by calling **1-888-600-6160**.

## What The End-User Warranty Does Not Cover:

This end-user warranty does not cover any product (a) for which you are not the original purchaser; (b) that is repaired after the warranty period has expired; (c) manufactured before September 1, 2018; (d) normal wear and tear; (e) that has been installed other than per the product's instruction guidelines; (f) that has been improperly maintained or maintained, altered, modified, or repaired by someone other than ReechCraft or a ReechCraft authorized service center; (g) on which the serial number has been altered, removed, or rendered illegible; (h) that has been physically damaged, other than by ReechCraft or a ReechCraft reseller; (i) accidents, failure to follow instructions, use outside the scope of any other provided documentation (e.g., warning or instruction labels, owner's manual, installation instructions, etc.), misuse, abuse, neglect, fire, flood, or acts of God; or (j) any warranties provided by the reseller of the product.

Misuse may include, but is not limited to, damage to product by vehicles, tools, people, animals; the use of products beyond rated capacity; and using a product in any matter contrary to the warning or instruction labels on the product and the product's owner's manual. Manuals can be obtained by contacting ReechCraft at **1-888-600-6160** or at **reechcraft.com**.

This end-user warranty does not cover any labor (including repair labor), travel time or mileage for pickup and delivery, shipping or freight costs, or lost income for down time. Additionally, this end-user warranty does not cover any duties, taxes, or environmental fees, including but not limited to, the disposal or handling of materials.

Parts purchased or sourced by suppliers other than ReechCraft or a ReechCraft reseller are not covered under this end-user warranty. Under no circumstances will ReechCraft be responsible for any expense in connection with any repairs using unauthorized parts or in connection with any repairs made by anyone other than a reseller of the product or other ReechCraft authorized service station, unless such repairs have been specified in writing from ReechCraft.

**THIS END-USER LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES. THIS END-USER WARRANTY IS THE SOLE AND EXCLUSIVE REMEDY OF THE END USER, WHICH IS THE REPAIR OR REPLACEMENT OF PARTS TO THE AFFECTED PRODUCT. TO THE EXTENT PERMITTED BY APPLICABLE LAW, REECHCRAFT EXPRESSLY DISCLAIMS ALL WARRANTIES, REPRESENTATIONS, OR CONDITIONS OF ANY KIND, EXCEPT AS EXPRESSLY STATED HEREIN. REECHCRAFT DISCLAIMS ALL WARRANTIES OR GUARANTEES, ORAL OR WRITTEN, EXPRESS OR IMPLIED (FROM ANY COURSE OF DEALING OR USAGE OF TRADE), INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF NON-INFRINGEMENT, WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.**

**THIS END-USER LIMITED WARRANTY MAY NOT BE MODIFIED, EXTENDED, OR ENLARGED BY ANY REPRESENTATIVE OF REECHCRAFT OR INTERMEDIATE SALES ASSOCIATE, RESELLER OF REECHCRAFT PRODUCT, OR AGENT.**

**IN NO EVENT SHALL REECHCRAFT, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR**

**REVENUE, THE COST OF RENTAL OR REPLACEMENT EQUIPMENT, DOWNTIME, DAMAGE TO PROPERTY AND THIRD-PARTY CLAIMS, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSSES OF ANY KIND, WHETHER BASED ON CONTRACT, TORT (INCLUDING THEORIES OF NEGLIGENCE, RECKLESSNESS, STRICT LIABILITY, OR DEFECTIVE PRODUCT LIABILITY), OR ANY LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE, ARISING OUT OF THE END USER'S USE OR INABILITY TO USE THE PRODUCT.**

**ANY REPAIR OF THE PRODUCT UNDERTAKEN WITHOUT PRIOR WRITTEN AUTHORIZATION FROM REECHCRAFT WILL VOID THIS WARRANTY.**

These warranties give the end user specific legal rights. As the end user, you may also have other rights which may vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to every end user.

All claims or disputes arising under or in connection with this end-user warranty shall be governed under the laws of the State of North Dakota and the laws of the United States (without giving effect to principles of conflicts of laws). The location of any dispute shall be Fargo, North Dakota. Any provision of this end-user warranty which is, or is deemed to be, unenforceable in any jurisdiction shall be severable from this end-user warranty in that jurisdiction, without in any way invalidating the remaining provisions of this end-user warranty, and any such unenforceability in that jurisdiction shall not make that provision unenforceable in any other jurisdiction.



**ReechCraft®, Inc.**

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Fargo, ND 58102

**888.600.6160**

[reechcraft.com/powermast](http://reechcraft.com/powermast)