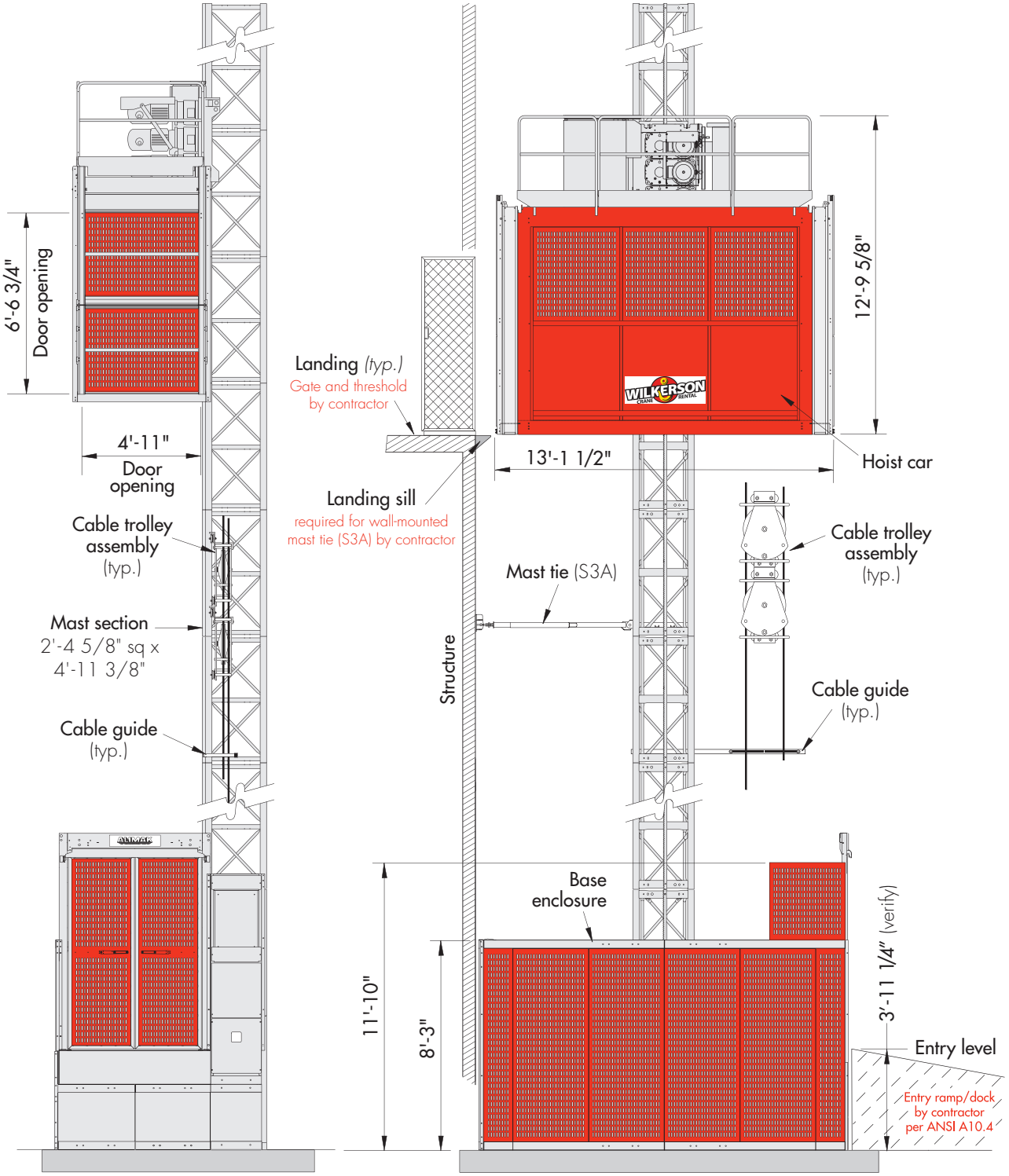
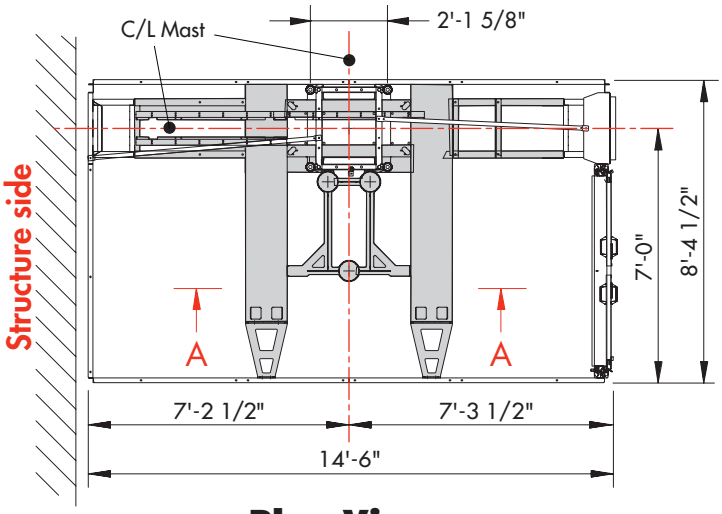
Alimak FC 7100-12

Model 650 FC 32/39 Single Car Construction Hoist

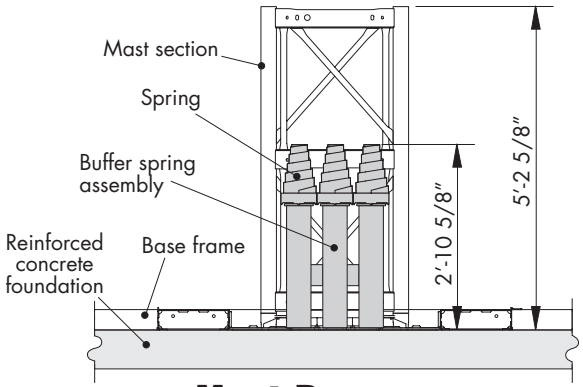


Foundation Details

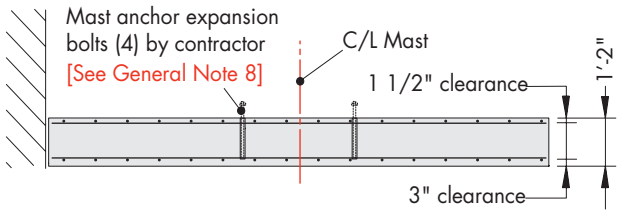


Plan View
Base enclosure

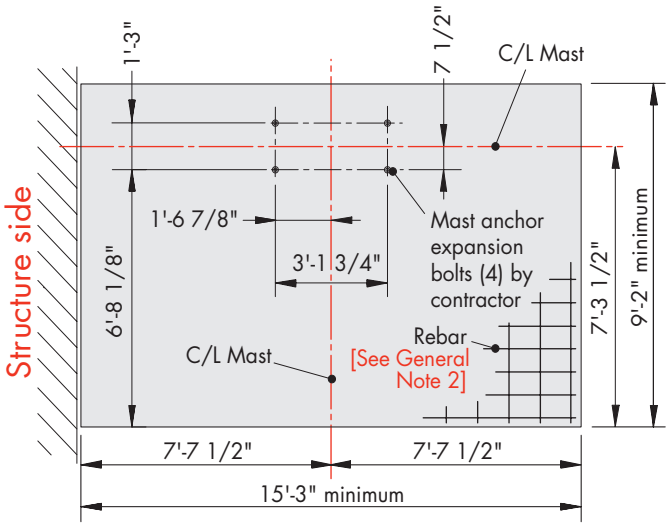
IMPORTANT: Verify that the use of a slab foundation conforms to all applicable federal, state and local standards and codes PRIOR to foundation installation.



Mast Base
Section A-A



Elevation View
Concrete footing

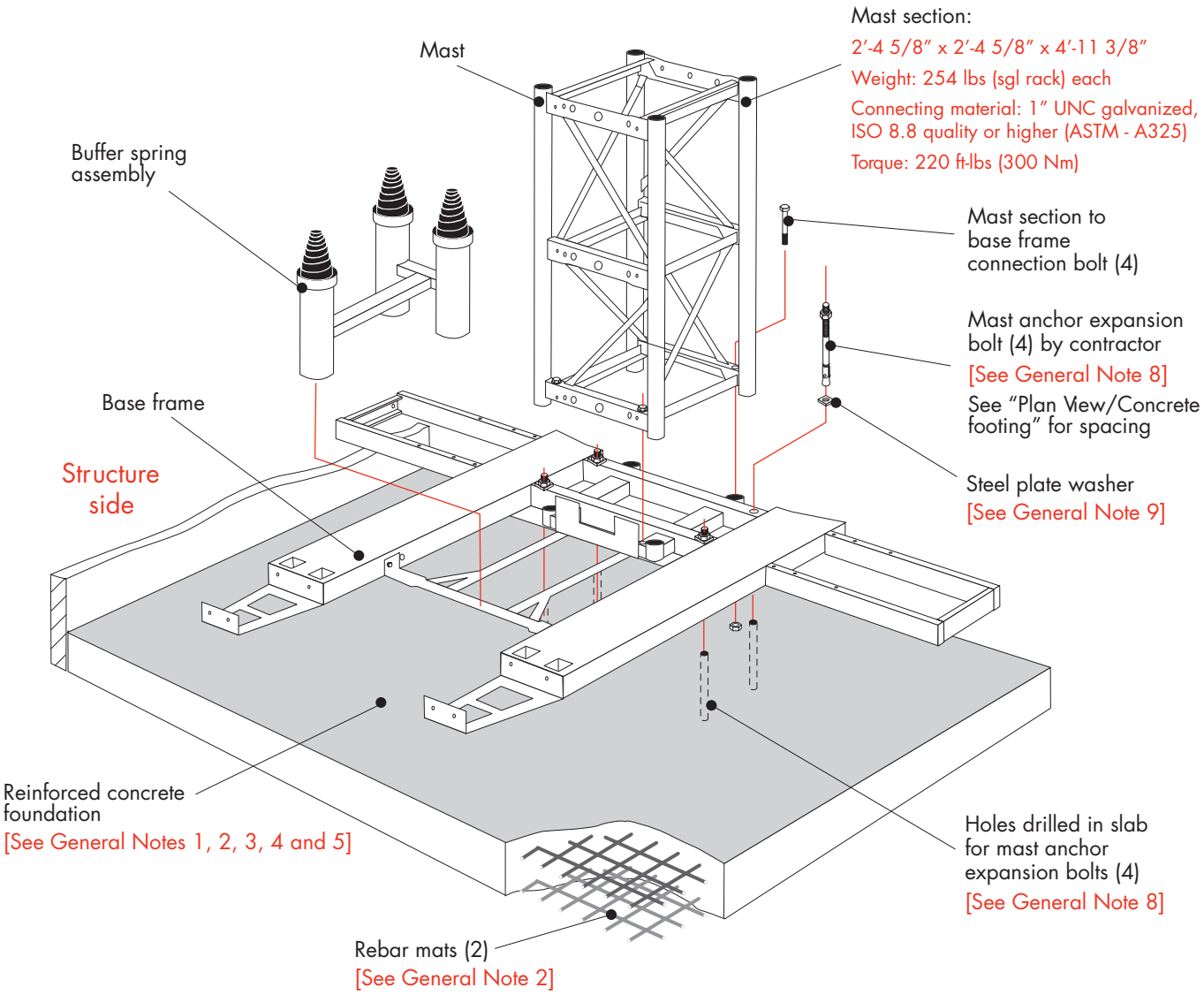


Plan View
Concrete footing

GENERAL NOTES

1. Foundation: 15'-3" x 9'-2" x 1'-2" with 3,625 psi concrete at 28 days.
2. Rebar: Top mat - #5 ASTM A615-60 10" o.c. each way; and Bottom mat - #5 ASTM A615-60 10" o.c. (width way) and #5 ASTM A615-60 7" o.c. (length way). [See manual.]
3. Foundation based on 490-foot mast height. For greater heights, contact Wilkerson Crane Rental.
4. Foundation designed for minimum soil bearing of 1,000 psf.
5. Alternative pit foundation available. Contact Wilkerson for information.
6. Refer to the manufacturer's manual before installing, operating, servicing, repairing, jumping or dismantling hoist.
7. For specific information including dimensions, forces or alternative configurations, contact Wilkerson Crane Rental.
8. 3/4" x 17" Williams™ High Tensile Spin-Lock Anchor Bolt and nut assembly. (R1S06C14 Head assembly with ASTM A109/C1045 bolt and nut) or approved equivalent. Bolt by contractor. Install according to bolt manufacturer's requirements. Drill holes 1 3/4-in diameter allowing for 11" embedment. Bolt is also available through Wilkerson upon request. R1S-type anchor bolts not intended for use at extreme cold temperatures.
9. 1/2" x 3" x 3" sq. washer ASTM A36 steel plate by contractor. Washer also available from Wilkerson upon request. Drill hole = 13/16" dia. at centerline.
10. This datasheet contains information for "typical" FC 7100-12 installation, i.e., configured for car on lefthand side of mast (when viewing hoist from side opposite structure). Contact Wilkerson for additional information.

Foundation Details

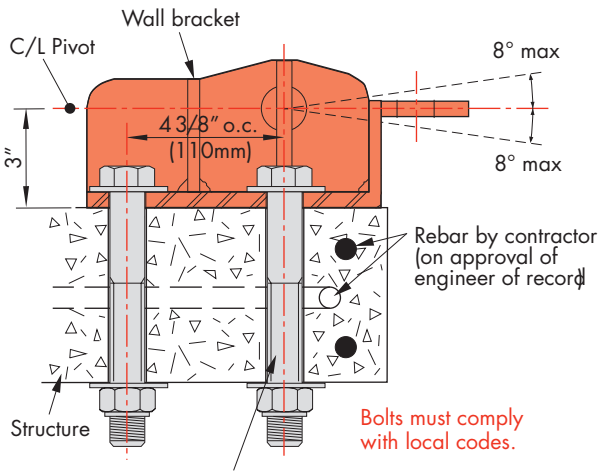


Foundation View
Footing – Typical

Note: Distance from building face to center of mast depends on the type of mast tie installed. Alternate anchoring methods available. Refer to Manual for information.

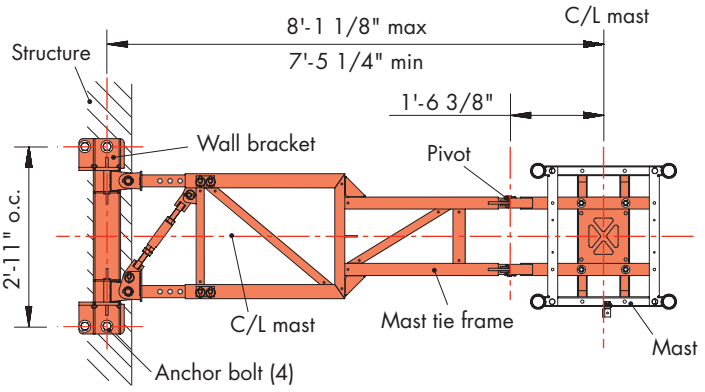
Note: Hoist cars are equipped with doors at each end. An optional side door with a 10'-6" x 6'-7" opening is available.

Tie Details (S3A System) • slab mounted



Mast Tie Connection

Slab-mounted – Side view

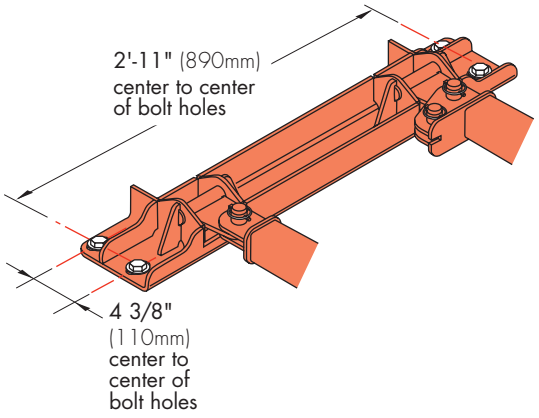


S3A Mast Tie Assembly

Slab-mount – Plan view

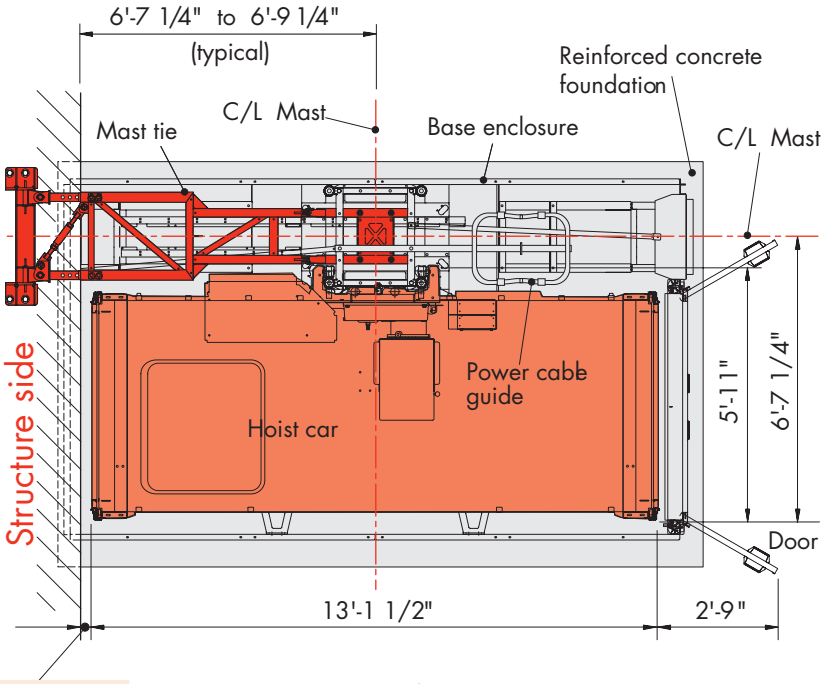
Note: S3A System mast tie assemblies may be installed between ±8° from the horizontal.

Important: An additional 3" in mast tie length is added when using a wall-mounted tie connection.



Tie-in Bracket

Typical – Slab mount position

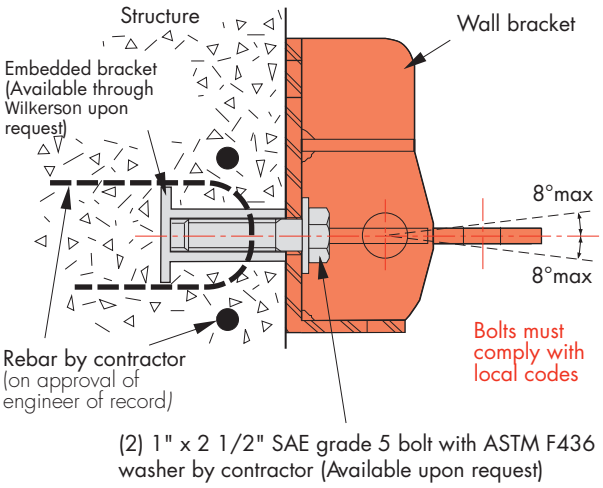


Plan View

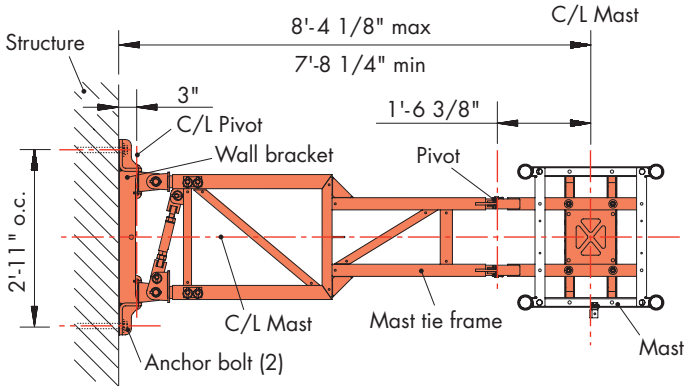
Slab-mounted mast tie

IMPORTANT: ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

Tie Details (S3A System) • wall mounted



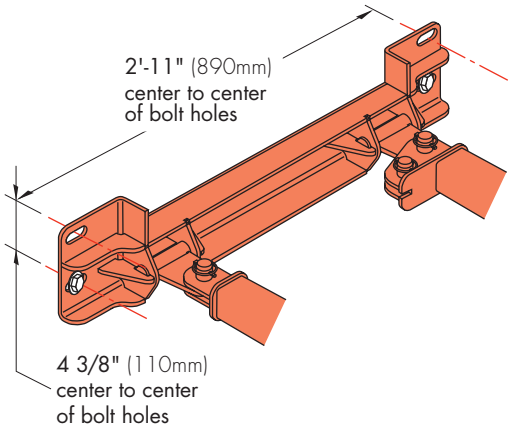
Mast Tie Connection
Wall-mount – Side view



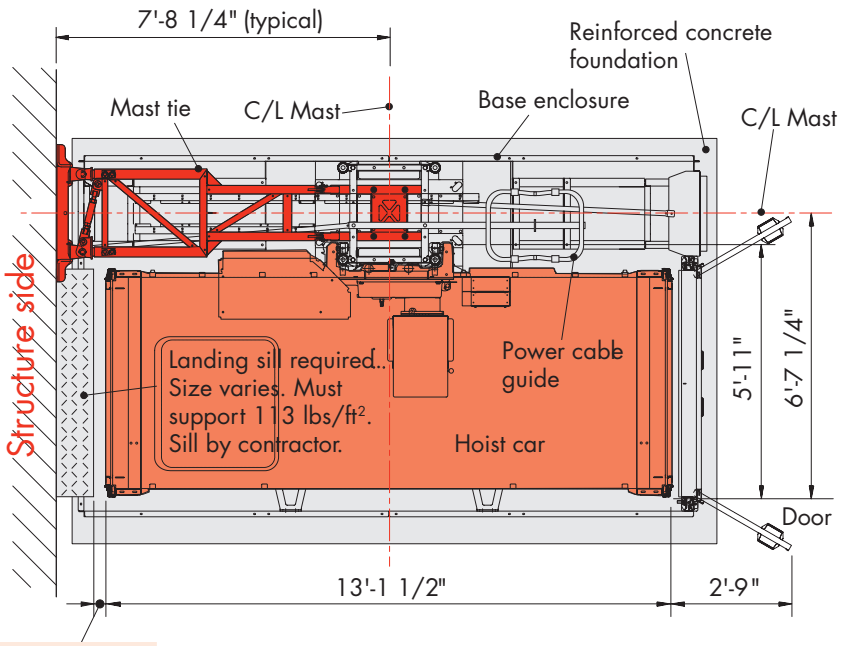
S3A Mast Tie Assembly
Plan view

Note: S3A System mast tie assemblies may be installed between ±8° from the horizontal.

Important: A reduction of 3" in mast tie length is made when using a slab-mounted tie connection.



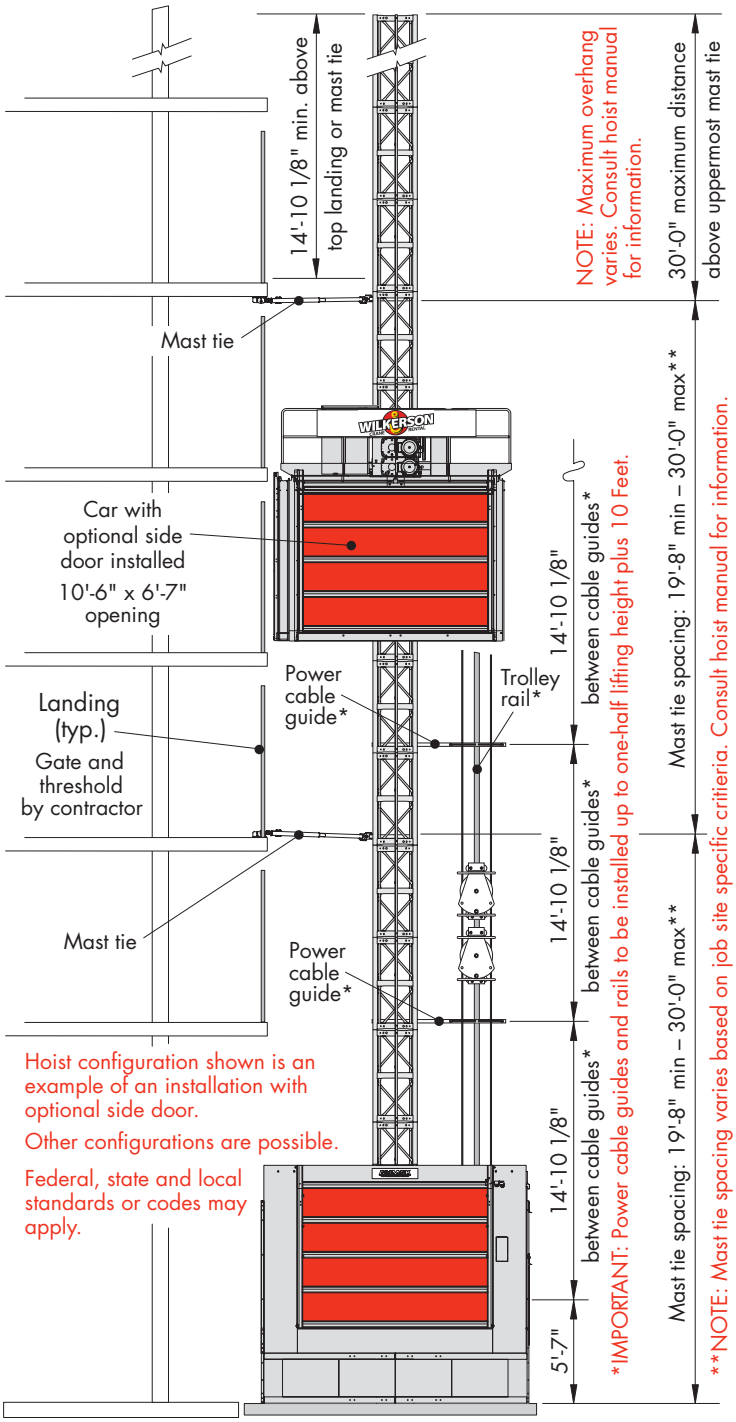
Tie-in Bracket
Typical – Wall mount position



Plan View
Wall-mounted mast tie

IMPORTANT: ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

Tie-in Details



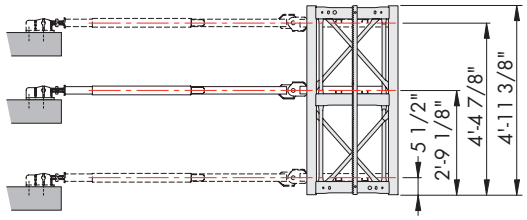
Hoist configuration shown is an example of an installation with optional side door.

Other configurations are possible.

Federal, state and local standards or codes may apply.

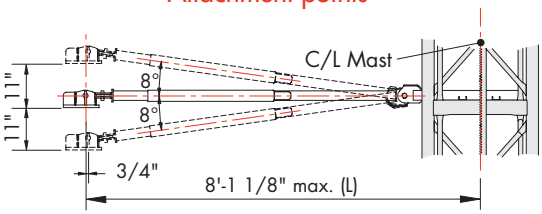
NOTE: Engineer of record to verify that slab/wall is adequate for anchor forces

Maximum mast tie spacing is based on ANSI A10.4.



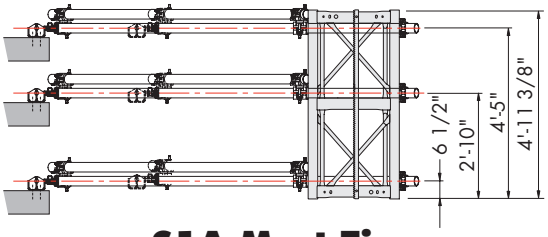
S3A Mast Tie

Attachment points



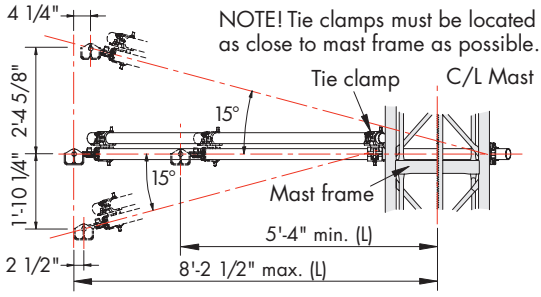
Inclination details

Mast tie lengths are from 7'-5 1/4" minimum to 8'-1 1/8" maximum when angle of inclination is 0° (horizontal). Mast tie inclination 0° to ±8°. Tie length adjustments are in 2" (50mm) increments. An additional 3" is gained in length (L) for wall mounting.



S1A Mast Tie

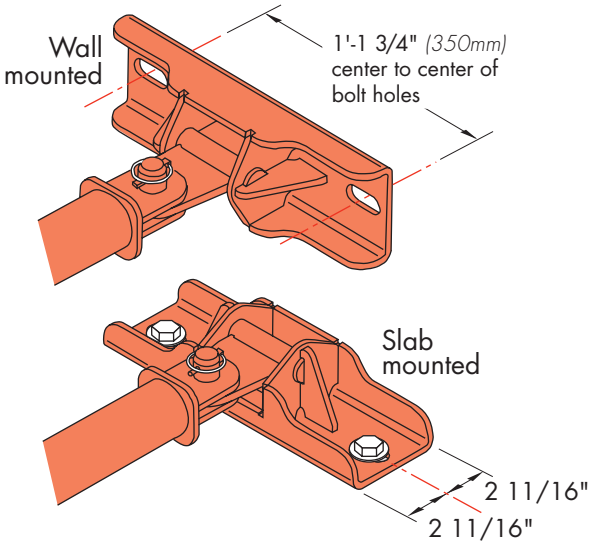
Attachment points



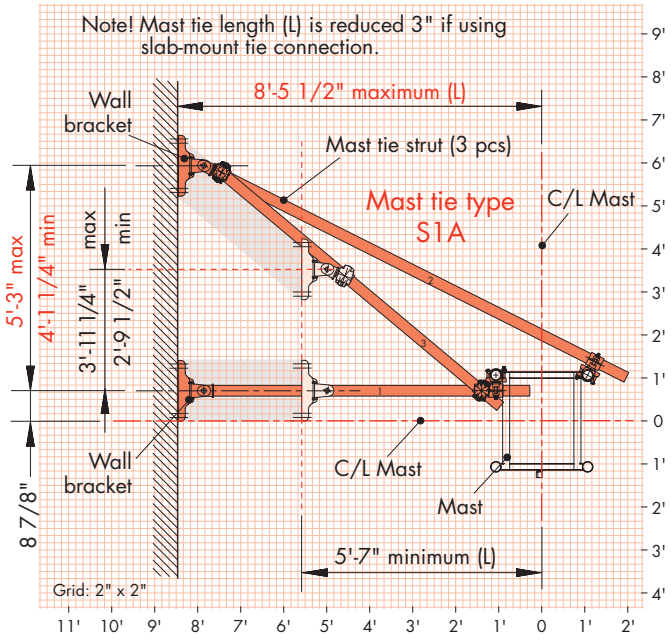
Inclination details

Mast tie lengths are from 5'-4" minimum to 8'-2 1/2" maximum when angle of inclination is 0° (horizontal). Mast tie inclination 0° to ±15°. An additional 3" is gained in length (L) for wall mounting.

Tie Details (S1A System)

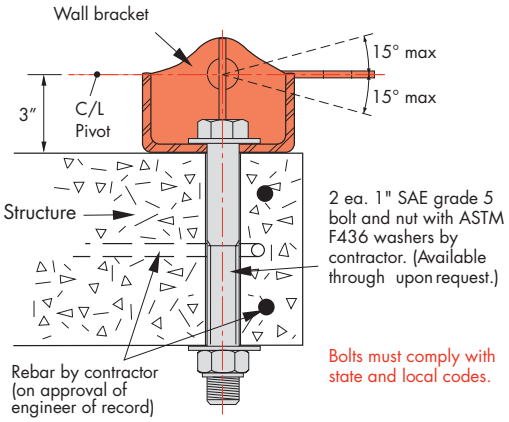


S1A Mast Tie Connection

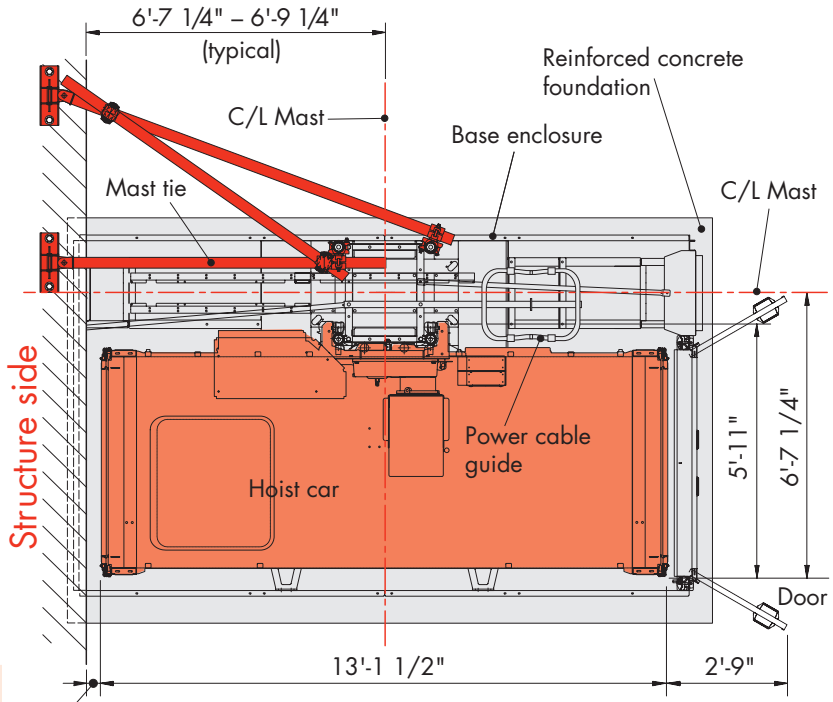


S1A Mast Tie Assembly
Plan view
[See General Note 7]

Note: S1A system mast tie assemblies may be installed between ±15° from the horizontal.



S1A Tie-in Bracket
Typical – Slab mount position



Plan View
Slab-mounted mast tie (S1A)

IMPORTANT: ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

SPECIFICATIONS

GENERAL

Max. load capacity .....7,100 lbs
Number of passengers 29
Car inside dimensions (approx.) ....12'-9" x 4'-11" x 7'-6 1/2"
Door opening .....6'-6 3/4" x 4'-10 3/4"
Mast section length.....4'-11 3/8"
Speed .....Up to 175 fpm
Motors (VFD).....3 x 14.7 hp
Power requirement [1].....480 Volt - 3 phase - 60 Hz

Max. height on standard masts .....660'
Max. freestanding mast height [2].....30'-0"
Maximum mast overhang [3].....30'-0"
Maximum mast tie spacing [3].....30'-0"
Minimum mast tie spacing .....19'-8"
Power supply fuses.....100 Amps
Starting current.....91 Amps
Power consumption .....66 kVA

[1] 480 V phase–phase, 277 V each phase to ground with 120° phase shift between phases. 3-phase, 60 Hz power supply plus ground wire. Do not use Open-Delta supply .
[2] Requires use of an embedded foundation frame in lieu of mast anchor expansion bolts. See operation manual or contact Wilkerson Crane Rental for specific information.
[3] Overhang and mast tie spacing figures vary. See operation manual or contact Wilkerson Crane Rental for specific information.

WEIGHTS

Base enclosure (without car).....2,358 lbs
Base enclosure (with car).....7,605 lbs
Motorpack (3 x 14.7 hp).....1,965 lbs

Hoist car (without motorpack).....3,282 lbs
Mast section (single rack) .....254 lbs

SAFETY FEATURES

- Electronic and mechanical door interlocks on hoist car and base enclosure doors.
- Automatic stop and final limit switches limit hoist car travel when reaching end positions.
- Main "ON/OFF" switch lockable to prevent unauthorized operation.
- Spring buffers.
- NO counterweights required.

KEY FEATURES

- Equipped with highly efficient variable frequency drives for smooth, economical and dependable operation.
- Mast sections can be added without special equipment.
- Modular design facilitates ease of transport, erection and dismantlement.
- Recessed stainless steel control panel.
- Internal fault diagnosis system.

IMPORTANT: Refer to manufacturer's manual before installing, operating, servicing, repairing, jumping or dismantling hoist. This datasheet contains general information for a "typical" Alimak FC 7100-12 (650 FC 32/39 II) single car installation. For dimensions, reaction forces, mast tie locations, alternate configurations and special applications, contact Wilkerson Crane Rental.

Specifications and equipment shown are subject to modification without prior notification.

This product and its components must be used in a safe manner, in conformity with manufacturer's specifications and in compliance with all applicable standards, codes, regulations, etc.