**Foundation Details**

**Plan View**  
Single base enclosure

**Elevation**  
Concrete footing

**Mast Base**  
Section A-A

**GENERAL NOTES**

1. Foundation: 15'3" x 9'2" x 1'2" with 3,625 psi concrete at 28 days.

2. Rebar: #5 ASTM A615–60. Top mat: 10" o.c. each way. Bottom mat: 10" o.c. width way and 7" o.c. length way.  
   (See details in operations manual.)

3. Foundation based on 490-foot mast height. For greater heights, contact Morrow engineering department.

4. Foundation designed for minimum soil bearing of 1,000 psf.


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 Morrow engineering.

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 Morrow 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 Morrow upon request. Drill hole = 13/16" dia. at centerline.

10. This datasheet contains information for “typical” FC 6800-12 HS installation. Contact Morrow for additional information.

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

Mast section to base frame connection bolt (4)

Steel plate washer [See General Note 9]

Mast anchor high tensile spin lock bolt (4) by contractor [See General Note 8]

See “Plan View/Concrete footing” for spacing

Holes drilled in slab for mast anchor high tensile spin lock bolts (4) [See General Note 8]

Hydraulic buffer assembly

Base frame

Structure side

Reinforced concrete foundation [See General Notes 1, 2, 3, 4 and 5]

Rebar mats (2) [See General Note 2]

Note: Distance from building face to center of mast depends on the type of mast tie installed. Alternate anchoring methods available. Refer to Manual or contact Morrow Equipment 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
Bottom attachment type

Slab Bracket
Typical – Isometric views

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**

Face mounted – Side view

Wall attachment type

**Mast Tie Assembly**

Plan view

**Note:** 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.

**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

**NOTE:** Maximum overhang varies. Consult hoist manual or Morrow for information.

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

**Mast S3A Tie**
Attachment points/types

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°. Additional 3" is gained in length (L) for wall mounting.

**Mast S1A Tie**
Attachment points/types

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°. Angles greater than 8° will cause interference with tie-in and car. Tie length adjustments are in 2" (50mm) increments. An additional 3" is gained in length (L) for wall mounting.

**NOTE:** Tie clamps must be located as close to mast frame as possible.

**NOTE:** Car with optional side door installed 10'-6" x 6'-7"

**NOTE:** Commercial, state and local standards or codes may apply.

Car with optional side door installed 10'-6" x 6'-7"

Power cable guide *

Landing (typ.)
Gate and threshold by contractor

Power cable guide *

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

Other configurations are possible.
Tie Details (S1A System)

S1A Tie-in Bracket
Typical – Slab mount position

S1A Mast Tie Connection

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

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 ......................6,835 lbs
- Car inside dimensions \(\text{approx.}\) ...........................................\(12'-9" \times 4'-11" \times 7'-6 1/2"
- Door opening ...........................................\(6'-6 3/4" \times 4'-10 3/4"
- Mast section length ......................\(4'-11 3/8"
- Speed .........................................0 - 328 fpm
- Motors (VFD) ...............................3 x 30 hp
- Power requirement \(^1\) .....................480 Volt - 3 phase - 60 Hz

\(^1\) 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.

### WEIGHTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base enclosure (without car or motor)</td>
<td>2,340 lbs</td>
</tr>
<tr>
<td>Base enclosure (with car &amp; motor)</td>
<td>8,600 lbs</td>
</tr>
<tr>
<td>Motorpack (3 x 30 hp) (with panel)</td>
<td>2,650 lbs</td>
</tr>
<tr>
<td>Hoist car (without motorpack)</td>
<td>3,610 lbs ea.</td>
</tr>
<tr>
<td>Mast section (single rack)</td>
<td>254 lbs ea.</td>
</tr>
<tr>
<td>Mast section (double rack)</td>
<td>298 lbs ea.</td>
</tr>
</tbody>
</table>

### 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.
- Hydraulic buffers.
- NO counterweights required.

### KEY FEATURES

- Hi-speed capability provides increased productivity delivering personnel and material more quickly.
- 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.
- ALC-II collective control system internal fault diagnostics system.
- A3 remote diagnostics system offers advantage of continuous and prompt service support.

### IMPORTANT:

Refer to manufacturer’s manual before installing, operating, servicing, repairing, jumping or dismantling hoist. This datasheet contains general information for a "typical" FC 6800-12 HS (650 FC-S 31/39) Hi-Speed single car installation. For dimensions, reaction forces, mast tie locations, alternate configurations and special applications, contact Morrow Equipment.

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.