VSH SERIES
DOCK SEALS
ALL MODELS

TUFSTEEL® GALVANIZED STEEL FRAMING
INSTALLATION INSTRUCTIONS

FORM NO:  4F-VSH-4/15
PART NO:  T31634

Do not install this product unless you read and understand the Warnings and Installation Instructions contained in this manual. Failure to do so could result in serious injury or death.
Kelley VSH dock seals are custom built for each application. Installation procedures are the same for all VSH dock seals regardless of size. Installation requires two people and a forklift truck or similar device to lift and position the pads.

**WARNING**

*Improper installation of anchoring devices or installation into aged or unsound concrete or other faulty or inadequate building wall construction could result in serious injury or death, as well as premature product wear, product failure, or property damage.*

*Inadequate lifting equipment or unsafe practices can cause a load to fall unexpectedly. Make sure lifting devices are in good condition and have a rated capacity of at least 500 lbs. at the lifting angle that they are being used. Never allow anyone to stand on or near the dock seal component when it is lifted or placed. Failure to follow this warning can allow the dock seal to fall, tip or swing into people causing serious injury or death. Safety standards as described in this installation manual must be followed at all times. If you have any questions contact your supervisor or your local Kelley distributor for assistance.*

Assembly of components should be performed in such a way so as to maintain cleanliness of equipment before final installation. Lifting equipment to be determined by installer (man lift and forklift or boom lift are typical). Wear safety glasses, gloves, hard hats, safety shoes and all necessary protective clothing.

---

**WARRANTY**

4Front Entrematic, expressly warrants that this Dock Seal or Shelter will be free from defects in materials and workmanship under normal use for a period of one (1) year from the earlier of 1) 60 days after date of shipment by 4Front Entrematic, or 2) the date of installation of the Dock Seal or Shelter by the original purchaser, provided the product is properly applied and installed. In the event this Dock Seal or Shelter proves defective in material or workmanship, 4Front Entrematic will, at its option:

1. Replace the Dock Seal or Shelter or the defective portion thereof without charge to the purchaser; or
2. Alter or repair the Dock Seal or Shelter, on site or elsewhere, without charge to the purchaser.

The warranty stated in the preceding paragraph is the sole and exclusive warranty for this product AND IS IN LIEU OF ALL OTHER GUARANTEES AND WARRANTIES, EXPRESS OR IMPLIED. This warranty does not cover any failure caused by improper installation or application, abuse, or negligence. Parts requiring replacement due to damage resulting from vehicle impact, abuse or improper installation are not covered by this warranty. Seller assumes no responsibility or liability for (1) consequential damages of any kind which result from the use or misuse of the Dock Seal or Shelter, (2) damage or failure resulting from the use of unauthorized replacement parts or modification of the Dock Seal or Shelter; (3) damage resulting from the misuse of the Dock Seal or Shelter. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, AND THERE IS NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE

AquaShield, Dock Stufr, Flexframe, Foamside, Kelley, TS-55, Tufseal, Tufsteel, Wearmaster, and WeatherAll are registered trademarks of 4Front Entrematic.
# STANDARD PARTS LIST PER DOCK DOOR

<table>
<thead>
<tr>
<th>(1) LEFT &amp; (1) RIGHT SIDE PAD</th>
<th>(1) HOOD</th>
<th>(1) 2x4</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image of side pad]</td>
<td>![Image of hood]</td>
<td>![Image of 2x4]</td>
</tr>
<tr>
<td><strong>TOP SUPPORT FILLER PAD</strong></td>
<td></td>
<td><strong>2x4 LENGTH = UNIT WIDTH</strong></td>
</tr>
<tr>
<td>![Image of filler pad]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(1) LEFT &amp; (1) RIGHT FILLER PAD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>![Image of filler pad]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P/N T31163</strong></td>
<td><strong>P/N T74002-40</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(8) SCREWS W/ WASHER</strong></td>
<td></td>
<td><strong>(12) WOOD SCREW FOR OPTIONAL BLOCK-OUT BRKT</strong></td>
</tr>
<tr>
<td>![Image of screws]</td>
<td></td>
<td>![Image of wood screw]</td>
</tr>
<tr>
<td><strong>P/N T31224</strong></td>
<td><strong>P/N T70009-12</strong></td>
<td></td>
</tr>
</tbody>
</table>

## MOUNTING BRACKETS

(BRACKETS & QUANTITY VARY BASED ON APPLICATION)

<table>
<thead>
<tr>
<th>1-1/2&quot; OFFSET</th>
<th>ANGLE BRACKET</th>
<th>FLAT BRACKET</th>
<th>BLOCK-OUT BRACKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image of 1-1/2&quot; offset bracket]</td>
<td>![Image of angle bracket]</td>
<td>![Image of flat bracket]</td>
<td>![Image of block-out bracket]</td>
</tr>
<tr>
<td><strong>P/N T31149</strong></td>
<td><strong>P/N T31104</strong></td>
<td><strong>P/N T31103</strong></td>
<td><strong>P/N T31179</strong></td>
</tr>
</tbody>
</table>

## PULL ROPE HARDWARE (OPTIONAL)

<table>
<thead>
<tr>
<th>(4) EYE SCREW</th>
<th>(1) S-HOOK</th>
<th>(1) STEEL O-RING</th>
<th>(1) ROPE - 63' LONG</th>
<th>(2) TEK SCREW</th>
<th>(1) 6&quot; CLEAT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P/N T71001</strong></td>
<td><strong>P/N T31267</strong></td>
<td><strong>P/N T31287</strong></td>
<td><strong>P/N T31288</strong></td>
<td><strong>P/N T70001</strong></td>
<td><strong>P/N T78006</strong></td>
</tr>
</tbody>
</table>

## SUPPLIED BY OTHERS

<table>
<thead>
<tr>
<th>CAULK GUN</th>
<th>SILICONE CAULK</th>
<th>WALL ANCHOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image of caulk gun]</td>
<td>![Image of silicone caulk]</td>
<td>![Image of wall anchor]</td>
</tr>
</tbody>
</table>
**DOCK SEAL SIDE PAD MOUNTING BRACKETS**

### 1-1/2" OFFSET BRACKET
- **1-1/2" OFFSET**
- WELD OR FASTEN (BY OTHERS)
- TEK SCREWS
- V SIDE PAD
- H OLES FOR TEK SCREW, TYP.
- 3/4"Ø HOLE FOR ANCHOR

### ANGLE BRACKET
- ANGLE BRACKET
- TEK SCREWS
- MOUNTING ANCHOR (BY OTHERS)
- V SIDE PAD
- H OLES FOR TEK SCREW, TYP.
- 3/4"Ø HOLE FOR ANCHOR

### FLAT BRACKET
- FLAT BRACKET
- WELD OR FASTEN (BY OTHERS)
- TEK SCREWS
- V SIDE PAD
- 3/4"Ø HOLE FOR ANCHOR
- H OLES FOR TEK SCREWS, TYP.

### BLOCK-OUT BRACKET
- BLOCK-OUT
- BLOCK-OUT BRACKET
- WOOD SCREWS
- TEK SCREWS
- V SIDE PAD
- H OLES FOR TEK/WOOD SCREW, TYP.

**SUGGESTED MOUNTING METHODS:**

1) **CONCRETE, BRICK, & PRECAST:** USE 1/2" OR 3/8" x 3" EXPANSION ANCHORS. USE THROUGH-BOLT FASTENING IF ANCHORS WILL NOT HOLD, 3/8" THREADED ROD IS RECOMMENDED.

2) **METAL SKIN BUILDING:** THROUGH-BOLT FASTENING REQUIRED. USE STEEL OR WOOD BACK-UP PLATE TO SUPPORT BOLTS, OR ANCHOR THROUGH EXISTING BUILDING HORIZONTAL & VERTICAL STRUCTURAL MEMBERS.
1. Determine centerline of door opening & mark location on dock floor.


4. Attach three (3) sets of mounting brackets per V-side pad. Bracket style will vary. Reference dock seal side pad mounting bracket drawings.
5 MOUNT V-SIDE PADS TO WALL.

6 BOTTOM OF V-SIDE PADS ARE INSTALLED AT DOCK FLOOR LEVEL OR AT TOP OF RAISED DOCK BUMPERS. V-SIDE PADS TO BE PARALLEL TO DOOR JAMB & PERPENDICULAR TO DOCK FLOOR. (PLEATS NOT SHOWN FOR CLARITY)

7 MOUNT TOP SUPPORT FILLER PADS ON TOP OF V-SIDE PADS. OUTSIDE EDGES OF FILLER PADS TO ALIGN WITH OUTSIDE EDGE OF V-SIDE PAD. ATTACH TWO BRACKET SETS PER FILLER PAD.

8 MOUNT 2x4 TO WALL. POSITION TIGHTLY AGAINST TOP OF FILLER PADS & FLUSH WITH OUTSIDE EDGES OF SIDE PADS. ANCHOR TO WALL IN 3 LOCATIONS. IF UNIT IS PROVIDED W/ "3 POINT" PULL ROPE SYSTEM, REF. STEP A ON PAGE 8.

10. Place support pipe on top front edge of filler pads. Fabric hood shown over top, front & sides of filler & 2x4. Make sure hood is snug but not tight.

11. Fasten hood to 2x4 & outside edge of filler pads. Space fasteners approximately 6" apart.

12. Caulk between top of hood and wall. Silicone caulk recommended (by others). Ref. step D on page 8 to complete "3 point" pull rope system if required.
"3 POINT" PULL ROPE SYSTEM

A
MEASURE SPACE BETWEEN GROMMET TABS.
LOCATED INSIDE OF HOOD.

D
(SIDE VIEW)
A) TIE END OF ROPE TO GROMMET TAB
B) THREAD ROPE THROUGH O-RING
C) THREAD ROPE THROUGH EYE SCREW ON 2x4
D) THREAD ROPE THROUGH O-RING CONNECTED TO S-HOOK
E) THREAD ROPE TO 6" CLEAT, LEAVE APPROXIMATELY 12" OF ROPE BELOW CLEAT. REPEAT FOR OTHER TWO (2) ROPES. NOTE: ROPE IS SUPPLIED AS CONTINUOUS LENGTHS

B
MOUNT THREE (3) EYE SCREWS TO 2x4 AT DISTANCE "X". MOUNT ONE (1) EYE SCREW IN LINE W/ SIDE PAD BACKING & ATTACH S-HOOK TO EYE SCREW AND O-RING TO S-HOOK. CRIMP S-HOOK CLOSED. (AS SHOWN)

C
MOUNT 6" CLEAT TO BUILDING OR SIDE PAD BACKING.
*REF. STEP 9 ON PAGE 7 TO COMPLETE HOOD ATTACHMENT.

E
WITH SLACK OUT OF SYSTEM, TIE ROPES TOGETHER TO ENSURE SMOOTH OPERATION.