

# HFC Hydraulic Dock Leveler

## Product Specifications



### DESIGN HIGHLIGHTS

- Patented SafeTFrame™ design
- Exclusive HYDRA MAX® powered-in/powered-out lip extension
- Regenerative hydraulics
- Yieldable hydraulic lip
- Steel NEMA 12 push-button control panel (interlock capable)
- Hydraulic velocity fuse safety stop
- CLEAN FRAME® design
- Full operating range toe guards
- Below-dock endloading capability
- 16" lip standard (406 mm)
- Grease fittings
- Integral maintenance strut & lip support latch
- Heavy-duty B410-14F dock bumpers
- Automatic return-to-dock
- Reduced lip crown/extended lip chamfer
- Independent hydraulic lip control (quick cycle)
- Mushroom-style stop button
- Neoprene or brush weatherseal

### AVAILABLE OPTIONS

- |  |   |
|--|---|
| <input type="checkbox"/> ENERGY GUARD® perimeter weatherseal system                    | <input type="checkbox"/> 24" pit conversion (610 mm)  |
| <input type="checkbox"/> 18" lip (457 mm)  | <input type="checkbox"/> Lip taper _____ (specify)  |
| <input type="checkbox"/> 20" lip (508 mm)  | <input type="checkbox"/> High lip crown   |
| <input type="checkbox"/> Dock-Guard™ barrier lip (40k-50k lb only)                     | <input type="checkbox"/> Box option: For installation without pre-formed concrete pits, dock leveler supplied with integral pre-formed steel box for pour-in-place construction. Leveler shall be in an enclosed steel box structure complete with its own six-piece, welded structural curb angles and concrete anchors. The leveler is to be concreted in place as the floor is poured. |
| <input type="checkbox"/> Spray foam insulated deck                                     | <input type="checkbox"/> Other _____  |
| <input type="checkbox"/> Galvanized finish (deck, lip & subframe only) (40k and above) |   |
| <input type="checkbox"/> Special paint color   |   |

### AVAILABLE ACCESSORIES

- |  |   |
|--|---|
| <input type="checkbox"/> SL series restraint _____           | <input type="checkbox"/> Universal Truck-Chock® wheel restraint                     |
| <input type="checkbox"/> SLP recessed restraint              | <input type="checkbox"/> ALS light communication system                             |
| <input type="checkbox"/> Manual SAFETY-CHOCK wheel restraint | <input type="checkbox"/> MLS light communication system                             |
| <input type="checkbox"/> SAFETY-CHOCK® wheel restraint       | <input type="checkbox"/> Digital master or combination control panel with HMI _____ |
| <input type="checkbox"/> VERSACHOCK wheel restraint          |   |

### BUMPER OPTIONS

- |   |                                    |                                      |
|---|------------------------------------|--------------------------------------|
| <input type="checkbox"/> B410-14              | <input type="checkbox"/> VB420-11F | <input type="checkbox"/> B610-14     |
| <input type="checkbox"/> VB420-11 steel faced | <input type="checkbox"/> B610-14F  | <input type="checkbox"/> Other _____ |

### CAPACITY

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> 30K lb (13.6 Kg) | <input type="checkbox"/> 35K lb (15.8 Kg) | <input type="checkbox"/> 40K lb (18 Kg) |
| <input type="checkbox"/> 45K lb (20.4 Kg) | <input type="checkbox"/> 50K lb (22.7 Kg) |   |

### PROJECT INFORMATION

JOB NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

GENERAL CONTRACTOR \_\_\_\_\_

DISTRIBUTOR \_\_\_\_\_

MODEL \_\_\_\_\_ QUANTITY \_\_\_\_\_

VOLTAGE/PHASE \_\_\_\_\_

### CERTIFIED FOR CONSTRUCTION

BY \_\_\_\_\_ DATE \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

1. **General:** "HFC" series hinged lip dock leveler with hydraulic operated platform and hydraulic lip extension and retraction. Unit conforms to ANSI MH14.1-1987 requirements. Unit to be manufactured by Serco.
2. **Construction, Platform Assembly:** Platform constructed of high tensile steel safety tread deck plate supported by high tensile steel beams fully welded to front header. "L" beam construction for 30K-35K lb (13K-16K Kg), split box beam construction for 40K-50K lb (18K-22K Kg) capacity units. Deck to be ¼" (6 mm) thick on 30K-45K lb (13K-20K Kg) capacities and ⅝" (10 mm) thick on 50K lb (22K Kg).
3. **Lip Assembly:** Lip to be 16" (406 mm) high tensile steel safety tread lip plate with beveled leading edge. The lip thickness is ⅝" (16 mm) thick on 30K-45K lb (13K-20K Kg) capacity units, and ¾" (19 mm) thick on 50K lb (22K Kg) capacity units. 7' (2.13 m) wide lip tapers to 6'-6" (2.01 m) at leading edge (6'-0" (1.83 m) taper optional). Lip hinge to have full width structural front header and heavy wall tubing with a minimum of ⅝" (406 mm) wall thickness on 30K-35K lb (13K-16K Kg) and ½" (12 mm) wall thickness on 40K-50K lb (18K-22K Kg) capacity units. Hinge tubes to have gussets on 35K, 45K & 50K lb (16K, 20K & 22K Kg) capacity units. Lip hinge shaft to be a minimum of 1" (25 mm) solid steel on 30K-35K lb (13K-16K Kg), 1 ¼" (31 mm) on 40K-50K lb (18K-22K Kg) capacity units.
4. **Lip Extension:** Patented HYDRA MAX® lip extension mechanism utilizes a double acting cylinder to provide smooth powered lip activation. Lip is powered in both directions for easier operation, less maintenance and greater control.
5. **Rear Subframe & Hinge:** Rear structural frame consists of a welded structure constructed from 4 structural angle vertical members connecting two horizontal members. The upper rear angle has longitudinal support gussets & additional deck supports to promote structural stiffness. The hinge system consists of four ½" (13 mm) thick lugs allowing 4" (100 mm) of side to side deck twist.
6. **Power Unit:** Power unit is an electric hydraulic pump and valve assembly (can be remote mounted).
7. **SafeTFrame™:** Adjustable shim system consisting of four independently operated leveling feet capable of 1 ½ inches (37.5 mm) of vertical adjustment each. System eliminates the need for installer to place and weld steel shim stock under the vertical uprights providing more consistent installation thus preventing a gap or (bump) between the rear transition angle and curb angle.
8. **Electrical:** Motor is 1 h.p., NEMA Standard T.E.N.V./56C frame. Standard motor voltages available are 120/208/240 volt single phase or 208/240V/480V and 575V three-phase. RPM: 3450. Electrical system has built in motor overload protection as standard. Power unit is mounted to unit subframe (elevated off pit floor) and pre-wired to an integral junction box.
9. **Hydraulic:** Main cylinder has a minimum of 3 ½" (88 mm) diameter bore. Lip cylinder has a minimum of 2 ½" (63 mm) diameter bore. All weather hydraulic fluid to have viscosity of 15 cSt at 40°C (100° F).
10. **Control Panel:** Steel interlock capable control panel with motor starter, thermal overload, control circuit breaker with reset capability control panel. UL listed. Can be interlocked with other dock equipment.
11. **Product Finish:** Enamel gray finish.
12. **"Nite-Lock":** Permanent "Nite-Lock" to prevent unauthorized entry beneath locked overhead door is standard.
13. **Structural Center Deck Support:** Standard center beam support (5" (127 mm) structural channel) to reinforce leveler for 3-wheel lift truck traffic on 40K-50K lb (18K-22K Kg) capacities.
14. **Toe Guard Protection:** Full operating range toe guard protection is provided on the sides of the leveler. Yellow OSHA required markings IAW ANSI Z535.1 provided on the sides of the dock leveler.
15. **Integral Maintenance Strut & Lip Support Latch:** A permanently mounted, hinged, lockout capable maintenance strut and lip support latch are provided to support the lip and leveler during routine maintenance and pit cleaning.
16. **CLEAN FRAME®:** Unique design allows access for easy pit clean out and routine maintenance.
17. **Mushroom-style Stop Button:** Stops the leveler instantly when depressed at any time to enhance safety. The "STOP" button is a maintained contact type which activates a solenoid on the leveler hydraulic system. The dock attendant does not have to continuously hold the "STOP" button to maintain the leveler in a stop position.
18. **Quick Cycle Lip Extend:** Properly sized cylinders and the "LIP EXTEND" button ensure quickest leveler cycle time by not having to fully raise the leveler before extending the lip onto the truck bed.
19. **Automatic Return-to-Dock:** Solid state proximity switch senses when lip loses contact with trailer and automatically retracts lip and restores leveler to dock level.
20. **Below-dock Control (Endloading):** Push-button control extends lip beyond lip supports to facilitate below-dock endloading.
21. **Out of Level Compensation:** Leveler platform on all capacities is designed to compensate for canted truck beds up to 4" (100 mm), and the rear of the deck remains flush with the pit to eliminate pinch points.
22. **Float Compensation:** Allows for vertical carrier deflection when lip is in contact with truck bed.
23. **Operation:** Serco's "HFC" Hydraulic Dock Leveler shall be supplied completely assembled with platform, lip, power unit, including motor, pump and valve assembly. "HFC" Dock Leveler to have complete hydraulic control of all functions. Platform and lip to be operated by independent hydraulic cylinders controlled by a remote push-button station. To operate dock leveler, dock attendant presses the "RAISE" button, platform raises and lip extends hydraulically. When button is released, platform descends until lip is supported by the truck bed and floats with truck movement. To restore dock leveler, dock attendant presses the "RAISE" button and lip retracts as platform raises. If truck departs when lip is extended, leveler descends under hydraulic control and automatically restores to dock level support position. Pressing the "LIP EXTEND" button will extend the lip at any point in the leveler cycle. Pressing the mushroom-style the "STOP" button allows the attendant to stop the leveler immediately when necessary. Pulling out the "STOP" button allows the leveler to operate again. Standard below-dock level operation allows for below-dock endloading with push-button control. Working range to be 12" (305 mm) above-dock and 12" (305 mm) below-dock for 6' (1.83 m), 8' (2.44 m), and 10' (3.05 m) long units and 15" (381 mm) above-dock and 12" (305 mm) below-dock for 12' (3.66 m) long units. The lip extends a minimum of 11" (279 mm) beyond the face of a 4" (100 mm) bumper.
24. **Installation:** Unit shipped completely assembled and ready for installation in pre-formed concrete pit. Pit depth is 20" (508 mm) for 6' (1.83 m) and 8' (2.44 m) long units, 24" (610 mm) for 10' (3.05 m) and 12' (3.66 m) long units. Pit construction to be in accordance with certified Serco pit detail drawings. Contact Serco for current cost and nearest distributor.
25. **Limited Warranty:** Limited parts & labor warranty on all components under normal use for a 1-year "Base Warranty Period" beginning on the completion of installation or the sixtieth (60th) day after shipment, whichever is earlier. Additional limited 4-year parts only warranty on hydraulic power unit and cylinders. Limited prorated 10-year structural warranty available upon engineering approval of written application
26. **Bumpers:** Unit to include two model B410-14F (4" Thick x 14" W x 10" H) (100 mm x 356 mm x 254 mm) heavy-duty bumpers.

NOMINAL DIMENSIONS		
MODEL	LEVELER WIDTH	LEVELER LENGTH
HFC600	6' (1.83 m)	6' (1.83 m)
HFC66.500	6'6" (2.01 m)	6' (1.83 m)
HFC6700	7' (2.13 m)	6' (1.83 m)
HFC800	6' (1.83 m)	8' (2.44 m)
HFC86.500	6'6" (2.01 m)	8' (2.44 m)
HFC8700	7' (2.13 m)	8' (2.44 m)
HFC1000	6' (1.83 m)	10' (3.05 m)
HFC106.500	6'6" (2.01 m)	10' (3.05 m)
HFC10700	7' (2.13 m)	10' (3.05 m)
HFC1200	6' (1.83 m)	12' (3.66 m)
HFC126.500	6'6" (2.01 m)	12' (3.66 m)
HFC12700	7' (2.13 m)	12' (3.66 m)