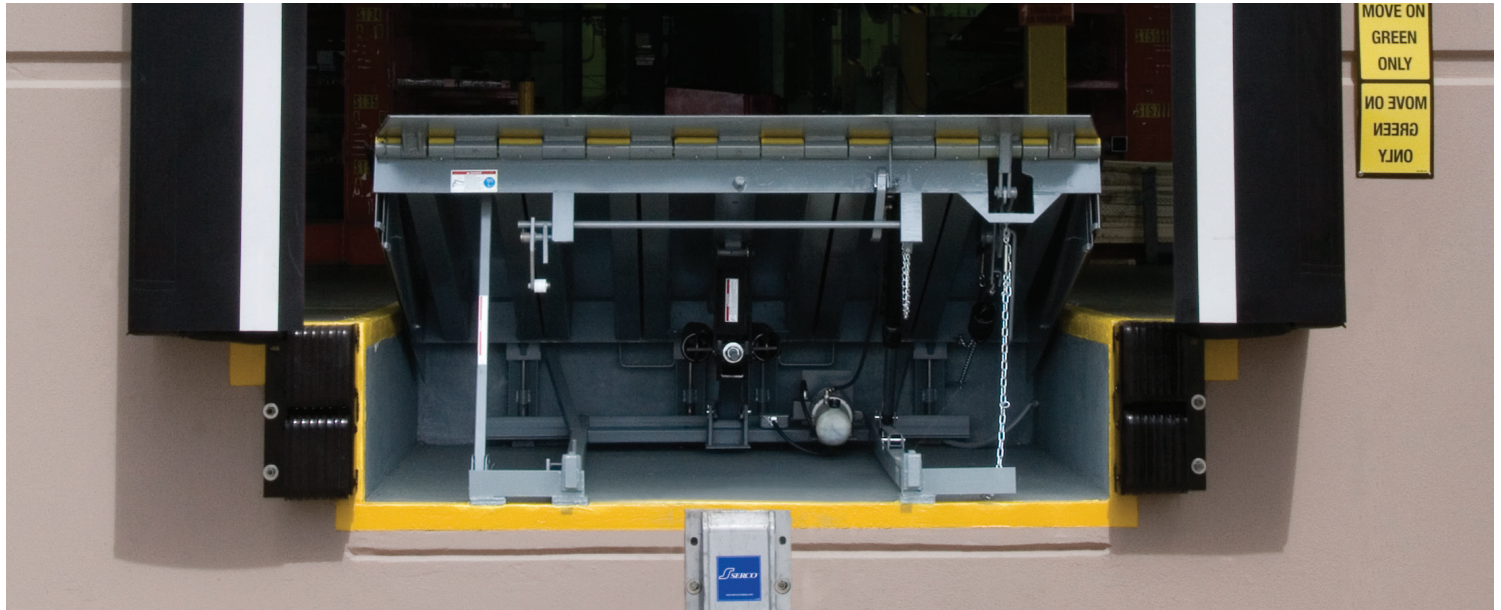


# PAL Power-Assisted Dock Leveler

## Product Specifications



### DESIGN HIGHLIGHTS

- Exclusive SafeTFrame™ design
- Manual override/power outage capability (activation tool & mounting bracket included)
- Structural steel safety legs with patented Reflex™ anti-stump-out system
- Exclusive HYDRA CAM™ plus automatic lip extension
- High tensile steel lip, deck & beams
- Non-metallic push-button control panel (non-interlock capable)
- 120V single phase operation only
- 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
- Reduced Lip Crown/Extended Lip Chamfer

### AVAILABLE OPTIONS

- |   |   |
|---|---|
| <input type="checkbox"/> Factory installed brush weatherseal                                    | <input type="checkbox"/> Spray foam insulated deck  |
| <input type="checkbox"/> Factory installed neoprene weatherseal                                 | <input type="checkbox"/> Lip taper _____ (specify)  |
| <input type="checkbox"/> ENERGY GUARD® perimeter weatherseal system                             | <input type="checkbox"/> Special paint color  |
| <input type="checkbox"/> 18" lip (457 mm)   | <input type="checkbox"/> High lip crown   |
| <input type="checkbox"/> 20" lip (508 mm)   | <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"/> Steel NEMA 12 control panel (interlock cable) with mushroom-style stop | <input type="checkbox"/> Other _____  |
| <input type="checkbox"/> Dock-Guard™ barrier lip (40K-50K lb only)                              |   |
| <input type="checkbox"/> 24" pit conversion (610 mm)  |   |
| <input type="checkbox"/> Galvanized finish (deck, lip & subframe only) (40K and above)          |   |

### 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"/> B610-11F    |
| <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:** "PAL" series hinged lip dock leveler with power-assisted operated platform and automatic mechanical lip extension and retraction. Conforms to ANSI MH14.1-1987 performance 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 (13.6-15.8 Kg), split box beam construction for 40K-50K lb (18-22.7 Kg) capacity units. Deck to be ¼" (6 mm) thick on 30K-45K lb (13.6-20.4 Kg) capacities, ⅜" (10 mm) on 50K lb (22.7 Kg) capacity.
3. **Lip Assembly:** Lip to be 16" (406 mm) high tensile steel safety tread lip plate with beveled leading edge. Lip to be ⅝" (16 mm) thick on 30K-45K lb (13.6-20.4 Kg) capacity units, and ¾" (19 mm) thick on 50K lb (22.7 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" (8 mm) wall thickness on 30K-35K lb (13.6-15.8 Kg) and ½" (12.5 mm) wall thickness on 40K-50K lb (18-22.7 Kg) lb capacity units. Hinge tubes to have gussets on 35K, 45K & 50K lb (15.8, 20.4 & 22.7 Kg) capacity units. Lip hinge shaft to be a minimum of 1" (25 mm) solid steel on 30K-35K lb (13K-16K Kg) lb and 1 ½" (31 mm) on 40K-50K lb (18-22.7 Kg) capacity units.
4. **Lip Extension:** Patented HYDRA CAM™ Plus lip assist mechanism automatically extends lip at top of raising cycle.
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. **SafeTFrame™:** Adjustable shim system consisting of four independently operated leveling feet capable of 1 ½ inches (38 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.
7. **Power Unit:** Power unit is an electric hydraulic pump and valve assembly assisting a spring counterbalance mechanism.
8. **Electrical:** The motor operates on 120V/60 Hz/1 phase power and draws 5 amps.
9. **Hydraulic:** Hydraulic cylinder has 1 ½" (38 mm) diameter rod. All weather hydraulic fluid with viscosity of 15 cSt at 40°C (100°F).
10. **Control Panel:** Non-metallic, non-interlock capable, single push-button control panel. Optional interlock capable control panel available.
11. **Product Finish:** Enamel gray finish.
12. **CLEAN FRAME®:** Unique design allows access for easy pit clean out and routine maintenance.
13. **"Nite-Lock":** Permanent "Nite-Lock" to prevent unauthorized entry beneath locked overhead door is standard.
14. **Structural Center Deck Support:** Standard center beam support (5" (127mm) structural channel) to reinforce leveler for 3-wheel lift truck traffic on 40K-50K lb (18-22.7 Kg) capacities.
15. **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.
16. **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.
17. **Safety Legs:** Reflex™ Anti-Stump-out system with patented sensor roller that rides along a reinforced cam surface, providing free float motion to eliminate stump-out while also providing a measure of free-fall protection in the event of premature trailer separation.
18. **Below-dock Control (Endloading):** Push-button control and front mounted lanyard facilitate below-dock endloading. It is not necessary to pull chain to service below-dock trailers if the lip is fully extended.
19. **Out of Level Compensation:** Leveler tilts up to 4" (100 mm) left or right to service out of level trucks. Rear edge of ramp remains flush with the pit to eliminate pinch points.
20. **Float Compensation:** Allows for vertical carrier deflection when lip is in contact with truck bed.
21. **Operation:** Serco's "PAL" Power-Assisted Leveler shall be supplied completely assembled with platform, lip and power unit, including motor. To operate leveler, dock attendant presses "RAISE" button, platform raises and hinged lip automatically extends. When button is released, platform descends until lip is supported by the truck bed and floats with truck movement. To restore leveler, dock attendant presses "RAISE" button and lip retracts as platform raises. Standard below-dock level operation allows for below-dock endloading with push-button control and lanyard. 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. The lip extends a minimum of 11" (279 mm) beyond the face of a 4" (100 mm) bumper. Unit can be still be operated in the event of a power outage using manual lifting handle. Consult owner's manual for complete operating instructions.
22. **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) long units. Pit construction to be in accordance with certified Serco pit detail drawings. Contact Serco for current cost and nearest distributor.
23. **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 4-year parts & labor warranty on lifting system (hydraulic power unit, cylinder, & main springs). Limited prorated 10-year structural warranty available upon engineering approval of written application.
24. **Bumpers:** Unit to include two model B410-14F (4" (100 mm) Thick x 14" (356 mm) W x 10" (254 mm) H) heavy-duty bumpers.

NOMINAL DIMENSIONS		
MODEL	LEVELER WIDTH	LEVELER LENGTH
PAL600	6' (1.83 m)	6' (1.83 m)
PAL66.500	6'6" (2.01 m)	6' (1.83 m)
PAL6700	7' (2.13 m)	6' (1.83 m)
PAL800	6' (1.83 m)	8' (2.44 m)
PAL86.500	6'6" (2.01 m)	8' (2.44 m)
PAL8700	7' (2.13 m)	8' (2.44 m)
PAL1000	6' (1.83 m)	10' (3.05 m)
PAL106.500	6'6" (2.01 m)	10' (3.05 m)
PAL10700	7' (2.13 m)	10' (3.05 m)



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