

VSL Vertical

DOCK LEVELER SPECIFICATIONS

35K 50K LB. CAPACITY RATINGS



Standard NEMA 12 Control Panel, Includes:

- Raise & Lower Button
- Lip In & Lip Out Button
- Mushroom-style Emergency Stop
- Amber & Green Illuminated Operation Indicator Lights
- Interlock with Other Dock Equipment for Added Safety

Design Highlights

- Leveler Powered Down to Working Range via Constant Pressure Push-button
- Dual Acting Lip Powered Both Directions
- Steel NEMA 12 Control Panel (Interlock Capable) with Raise, Lower, Lip In, Lip Out, Mushroom-style Stop, Amber & Green Illuminated Operation Indicator Lights
- Remote-mounted Power Unit with Mounting Bracket & 20' Hydraulic Hose
- Patented Hinged Bottom Draft Pad
- Terminals for Interlocking Door or Restraint
- Rear Embed Mounting Channel With 5 Factory-Welded Hinges
- 4" High Runoff Guards
- Structural Channel Deck Beams
- Integral Maintenance Locking Bar with Lock-out/Tag-out Capability
- Two VB420-11FF Bumpers with Riser Brackets

Available Options

- 18" Lip
- 20" Lip
- Additional Hose Length Over 20' Standard Length For Remote Mount Power Unit (Includes all 3 pieces)(Survey required)
- Lip Taper _____ (specify)
- Arc Lip Taper
- Lip Keepers
- Hot Dip Galvanized Rear Embed
- Hot Dip Galvanized Deck, Lip & Embed
- Door Opened / Closed Switches
- Deck Mount Power Unit
- Higher Capacity _____ (specify)
- Other _____

Accessories

- PitBull® SAFETY-LOC® Restraint _____
- SLP Recessed Restraint
- SAFETY-CHOCK® Wheel Restraint
- ALS Light Communication System
- MLS Light Communication System
- Master Control Panel™
- TKO Impactable Doors _____
- APS Guard Rail & Accessories

Bumper Options

- VB420-11 Steel Faced with Riser Brackets
- VB620-11 Steel Faced with Riser Brackets

Capacity

- 35K 40K 45K 50K

Project Information

Job Name _____

Address _____

General Contractor _____

Distributor _____

Model _____ Quantity _____ Voltage/Phase _____

Certified For Construction

By _____

Company _____

Address _____

Date _____



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1. General: "VSL" Series hinged lip vertical storing dock leveler with hydraulic operated platform and hydraulic 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 channel beam design construction. Structural members fully welded to front header. Deck to be ¼" thick.

3. Lip Assembly: Lip to be 16" high tensile steel safety tread lip plate with beveled leading edge. Lip to be ⅝" thick on all capacities. 7' wide lip tapers to 6'-6" at leading edge (6'-0" taper optional). Lip hinge to have full width structural front header and heavy wall tubing with a minimum of ⅝" wall thickness on 35K and ½" wall thickness on 40K-45K capacity units. Hinge tubes to have gussets on 35K & 45K capacity units. Lip hinge shaft is to be a minimum of 1" solid steel on 35K and 1-¼" on 40K-45K capacity units.

4. Rear Subframe & Hinge: Rear frame to be a minimum of 50K rated capacity and shall include five 1" diameter rear hinge pins. Shelf height is 12" for VSL500 and VSL600, 15" for VSL800.

5. Subframe: Rear frame assembly eliminates horizontal structural members enabling full access to pit floor for easy clean out and maintenance.

6. Power Unit: Power unit is an electric/hydraulic motor pump and valve assembly.

7. Product Finish: Primed followed by an enamel gray paint finish.

8. Electrical: Motor is 1 h.p., NEMA Standard T.E.N.V./56C frame. Standard motor voltages available are 120/208/240V single phase or 208/240V/480V and 575V three phase. RPM: 3450. Control panel has built-in motor overload protection as standard. Remote solenoid valves and power pack supplied with standard wall mount bracket.

9. Hydraulic: Main cylinder minimum 3-½" diameter bore. Lip cylinder to be a minimum of 2-½" diameter bore. All weather hydraulic fluid with viscosity of 15 cSt at 40°C (100° F).

10. Control Panel: NEMA 12, thermal overload, UL approved. Mushroom-style STOP button. Independent controls for raise, lip extend and lip retract. Amber and green pilot lights indicate power and safe operation respectively.

11. Safety Stop System: Hydraulic velocity fuse safety stop will arrest platform from free fall if truck pulls out while load is on platform. Velocity fuse safety system is reusable and non-adjustable.

12. Mushroom-style Stop Button: Stops the leveler instantly when depressed at any time to enhance safety. The "EMERGENCY 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 "EMERGENCY STOP" button to maintain the leveler in a stop position.

13. Quick Cycle Lip: Properly sized cylinders and the "LIP EXTEND/LIP RETRACT" buttons reduce cycle time by not having to fully raise the leveler to extend or retract the lip during endloading.

14. Below-dock Control (Endloading): Push-button control feature retracts lip from any deck position including stored, to handle end loads.

15. Out of Level Compensation: Leveler platform on all capacities is designed to compensate for canted truck beds up to 4", and the rear of the deck remains flush with the pit to eliminate pinch points.

16. Float Compensation: Allows for vertical carrier deflection when lip is in contact with truck bed.

17. Hinged Bottom Pad: Patented hinged bottom pad attaches to leveler deck for added environmental control.

18. Operation: Serco's Vertical Storing Leveler will be supplied with a rear subframe assembly, a platform and lip assembly, an electrical power-pack assembly including motor and pump, hydraulic cylinders, hosing and valving. Platform and lip to be operated by independent hydraulic cylinders controlled by a remote push-button station. To operate leveler dock attendant pulls the "EMERGENCY STOP" button (amber light indicates power on) on control panel. Attendant presses and holds the "LOWER" button to lower leveler on to truck bed. Audible alarm will sound anytime leveler is stopped between stored position and operating range. Above operating range, while motor is running, releasing the "LOWER" button will stop all leveler motion. Pressing the "EMERGENCY STOP" button at any time will immediately stop all movement. When leveler lowers to working range, (approximately 18" above dock level) the motor will stop and the platform will automatically float down to rest on the truck bed and float with truck movement. The green light will illuminate to indicate the leveler has reached the operating position. If truck departs when lip is extended, leveler descends under hydraulic control and lip falls to pendant position. Pressing the "LIP EXTEND/LIP RETRACT" button will extend or retract the lip at any point in the leveler cycle. Standard below-dock level operation allows for below-dock endloading with push-button control. To restore dock leveler, dock attendant presses the "RAISE" button and the platform raises. Dock attendant presses the "EMERGENCY STOP" button on control panel to remove electrical power from the dock leveler (amber light off). Working range to be 6" above-dock and 6" below-dock. The lip extends a minimum of 11" beyond the face of a 4" bumper.

19. Installation: Unit shipped partially assembled. Rear subframe assembly supplied by Serco to be embedded in concrete by others. Unit to be assembled at site by mounting platform to hinge channel assembly and installing hydraulic power unit. Control panel furnished with unit to be electrically interconnected by others.

20. 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.

21. Dock Bumpers: Unit to include 2 model VB420-11FF (4" Thick x 14" W x 10" H) bumpers with riser brackets and load distributing back plate.

NOMINAL DIMENSIONS

MODEL	WIDTH	LENGTH
VSL500	6'	5'
VSL5700	7'	5'
VSL600	6'	6'
VSL6700	7"	6'
VSL800	6'	8'
VSL8700	7	8'

