

RHV-4100 Vertical Storing Hydraulic Dock Levelers

Engineered for safety, security, environmental control and the smoothest transition in the industry

Help Reduce Chronic Injuries

The Smooth Transition Dok System® helps minimize Whole Body Vibration (AKA “Dock Shock”) by up to 16%², increasing productivity through reduced chronic tibial injury and absenteeism.

- » Constant radius rear hinge reduces the gap at the back of the leveler to a constant 1/3” space between the leveler deck and rear weldment; no matter the leveler position.
- » Two-point crown control reinforces the front hinge and reduces the crown at the transition from leveler deck to leveler lip.
- » Extended lip chamfer reduces the impact felt when transitioning from the leveler lip to the trailer bed.
- » Reduce “Dock Shock” by 50% with the Smooth Transition Dok System and modern forklift design.²

Enhance Safety During Maintenance

Vertical storage positioning helps to increase the efficiency and safety of routine maintenance. A technician can easily service the leveler without the need to crawl into a pit.

- » Optional Safe-T-Pit™ disables leveler operation when movement is detected in the pit for an additional layer of pedestrian safety.
- » Vertical storing removes the need for traditional maintenance struts, while the clean frame design allows for quick and easy pit cleaning or full wash-down capability.



Secure Loading & Unloading Operations

Rite-Hite structural design allows the leveler to maintain constant contact with a trailer, helping to remove any unexpected obstacles.

- » Air ride suspensions and uneven loads can cause an unsafe separation between trailer floor and leveler lip. The L-Beam stringer (with two extra beams compared with competitors) increases deck strength and allows the leveler to flex up to 4” under its own weight, empowering the lift operator to drive with the confidence that they will not endure jarring impacts caused by a hazardous gap; especially when exiting.
- » Mechanical counterbalance valve allows leveler to float when positioned in the trailer.

360 Degree Protection

Rite-Hite’s drive-thru design is constructed to help maintain cold chain integrity, environmental control, safety and security; ideal for food or cold storage.

- » Trailer doors open inside the loading dock instead of on the drive approach. This means security seals are always removed and placed from inside the facility; improving cold chain integrity and enhancing the security of products and processes.
- » Overhead doors close all the way to the pit floor. When paired with a VHLS under-leveler or PitMaster V seal system, the loading dock will have complete 4-sided contaminant protection; blocking white light.
- » Constant-contact controls allow the operator to extend lip or stop platform and lip at any time during leveler travel – keeping the operator safely at the control panel at all times.

Achieve Lower Lifetime Ownership Costs

Unique structural engineering stands firm under extreme warehouse demands to lower repair and maintenance costs, while increasing product lifespan.

- » The formed front header (connection between deck and leveler lip) completes the four-sided rectangular box construction and includes interlocking and welded stringers to create a stronger bond, increase overall strength and help limit lifetime maintenance downtime issues.
- » The leveler over-center tilt-back storage reduces pressure on the hydraulic system to help prolong equipment life.
- » Certified to exceed ANSI MH30.1 performance testing standards.

Industry Leading Warranty

Rite-Hite warranties are based on material handling gross weights and frequency of use. Consult your Rite-Hite Representative to discuss qualifications through the Dock Leveler Investment Guide (DLIG).

- » 10-Year non-prorated warranty (based on DLIG).
- » Up to 20-Year limited money-back warranty (based on DLIG).



Two-point crown control

PitMaster™ V Seal

Constant radius rear hinge

Specifications

General Description

The RHV-4100 Vertical Storing Dock Leveler offers safety and reliability the industry expects from Rite-Hite. It is engineered for security and environmental control with a Smooth Transition Dok System® that is proven to reduce whole body vibration¹, helping prevent injuries, and maximize safety and productivity while minimizing forklift and product damage for heavy loads.

Leveler Deck

Smooth Transition Dok System includes: constant radius rear hinge to reduce bumps and gaps at rear of leveler, two-point crown control to evenly distribute weight load and extend the life of the front hinge, optimized lip chamfer to improve smoothness by 20%, 8" (203mm) deck beam spacing to support use of 3-wheel and 4-wheel forklifts, and 4" (101mm) Self-Flex Deck does not require the weight of the forklift to accommodate unbalanced/unlevel trailer beds as the forklift travels in to and out of the trailer in service.

Leveler Length (ft.): 5 6 8 Enter Below

Leveler Width (ft.): 6 6.5 7

Pit Length: _____ **Pit Depth Rear:** _____

Leveler Lip

Standard Lip Length (in.): 16 18 20

Lip keepers

Extended Lip Chamfer

Lip Crown:

2 Pt Increased Crown Control

2 Pt Reduced Crown Control 2 Pt Crown Control (STD)

Lip Taper (in.): TPR2 TPR3 TPR4 TPR5 TPR5.5

Notch2 Notch3 Notch4 Notch5 Notch5.5

Leveler Capacity

Rite-Hite levelers are certified to exceed ANSI MH30.1 dock leveler performance testing standards.

Leveler capacity by application: C D F G

Optional MH14.1-1978 decals: MH14.1-1978 37,000 (C)

MH14.1-1978 46,000 (D) MH14.1-1978 59,000 (F)

MH14.1-1978 66,000 (G)

Standard Leveler Features

Two bumpers: Other (Supplied Locally) RH410-10P1

RHV420-11P1 RHV420-11SFP1 RH612-14P1

RHV620-11P1 RHV620-11SFP1

RIG Bumper w/integral lip keeper (No bumper brackets)

Optional Bumper Bracket Supplied By: Other RHPC

Weatherseal: NB-1 (Factory Installed, Brush) NB-1 Kit (Field, Brush) PT-2 Kit (Field, Rubber) PT-2 (Factory, Rubber)

Drive-Thru Operation

1. After dock door and trailer doors are opened inside the facility, push and hold "Lower" button to position vertical leveler into trailer bed.
2. Release the "Lower" button when leveler is in position.
3. To store the dock leveler, press and hold the "Raise" button until leveler is back in the vertical stored position.
4. After trailer doors have been closed and locked, push "Close" button to close loading dock door.

Standard Operation

1. Push and hold "Lower" button to position vertical leveler into trailer bed.
2. Release the "Lower" button when leveler is in position.
3. To store the dock leveler, press and hold the "Raise" button until leveler is back in the vertical stored position.

Hydraulics

The hydraulic pump, manifold & oil reservoir are contained in an integral assembly. Hoses routed on the platform, away from debris. All fittings are JIC flange or "O" ring flange. Biodegradable hydraulic fluid or MIL-5606 Oil-based hydraulic fluid options available. The platform is raised by an inverted 4" Diameter Main Cylinder, 2-1/2" Diameter Lip Cylinder, 1 HP Power Unit. Non-adjustable hydraulic velocity fuse limits platform free fall to 3" (76mm).

Combination Power Unit: STR-4200 VBR-600

Remote Power Unit

Electrical/Controls

All controls are mounted in an interlock capable, NEMA 4X, gasketed control panel and enclosure assembly.

Ship Controls w/ Leveler: CB Shipping Separately

Special CB Ordered Dok- Commander® CB Ordered

» **Informational signs/decals languages:**

French Canadian English (Standard)

Portuguese Spanish

All electrical components, connections and wiring are UL listed or recognized. The leveler requires a power source of: 110-120/1/60 208-240/1/50 (Int'l NO Euro) 208-240/1/60 208-240/3/60 380-415/3/50 (Int'l NO Euro) 575/3/60 440-480/3/60

TL(OHD Open/Raise Leveler):

ITL (OHD Oprtr to Oprt Leveler) Switch by Others

ITL (OHD Open to Oprt Leveler) Photoeye by RH®

ITL (OHD Open to Oprt Leveler) RH® Limit Switch

Maintenance Features

Access Brace: No Both LEFT and RIGHT side

Left Side Facing Dock Right Side Facing Dock

Maintenance Pendant Receptacle

Safety Features

Safe-T-Pit Runoff Guards

Standard Warranty

Five-year parts and one-year labor warranty. All warranties subject to standard limitations on liability. 12-Month Limited Money-Back Guarantee of Customer Satisfaction*. Up to 20-Year Money-Back Warranty based on the Dock Leveler Investment Guide (DLIG).

Dock Leveler Investment Guide (DLIG)

Dock Leveler Investment Guide (DLIG)

Max. Gross Load (1,000 lbs.): 5 7.5 10 12.5 15 17.5 20

Trucks/Day: 0-8 9-16 17-24

Specialty Leveler Features

LGV / AGV Application

Abrasive Ramp Surface

Smooth Deck Lip

Cold Storage / Corrosive Applications

Stainless Steel Hinge Pins Zinc metalized finish

Insulation Options: Foam (Deck) Foam (Deck & Stringers)** Thermal Paint Barrier (**DLIG not avail. w/ foam options)

Client Info

Company Name _____

Date _____



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(1) "DOCK SHOCK: The Impact of Whole-Body Vibration on an Aging Workforce" (November 2013)

(2) Lavender, Ph.D., S., & Mehta, M.S., J. (2012). Ergonomic evaluation of new dock levelers on the tibial shock experienced by fork truck operators when loading and unloading trailer. Unpublished raw data, Institute for Ergonomics, Ohio State University, Columbus, OH

Vertical Leveler Supplement

Typical Trailer Bed Height: _____

Trailer Bed Height Minimum: _____

Trailer Bed Height Maximum: _____

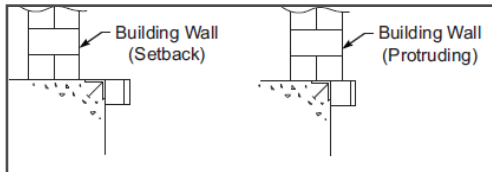
3 Wheeled Fork Trucks

Primary Material Handling Equipment:

- Carts/Dollies
- Electric Fork Truck
- Gas Fork Truck
- Hand Loading/Conveyors
- Other
- Electric Pallet Jack
- Manual Pallet Jack
- Not Applicable

Wall:

Amount Wall Setback/Protruding:

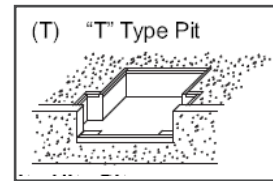
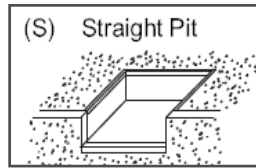
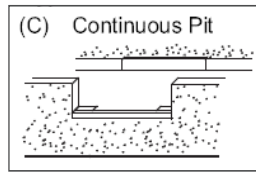


Wall Position To Dock Face:

- Flush Wall
- No Wall (Open Dock)
- Protruding Wall
- Setback Wall

Pit:

Pit Type (choose one):



Rite-Hite Pit:

- New Construction
- Replacement Competitive
- Replacement Rite-Hite (HDVHL)
- Replacement Rite-Hite (RHV4000)

Note: Enter existing embedded rear curb steel size below.

Dimension X (Horizontal): _____

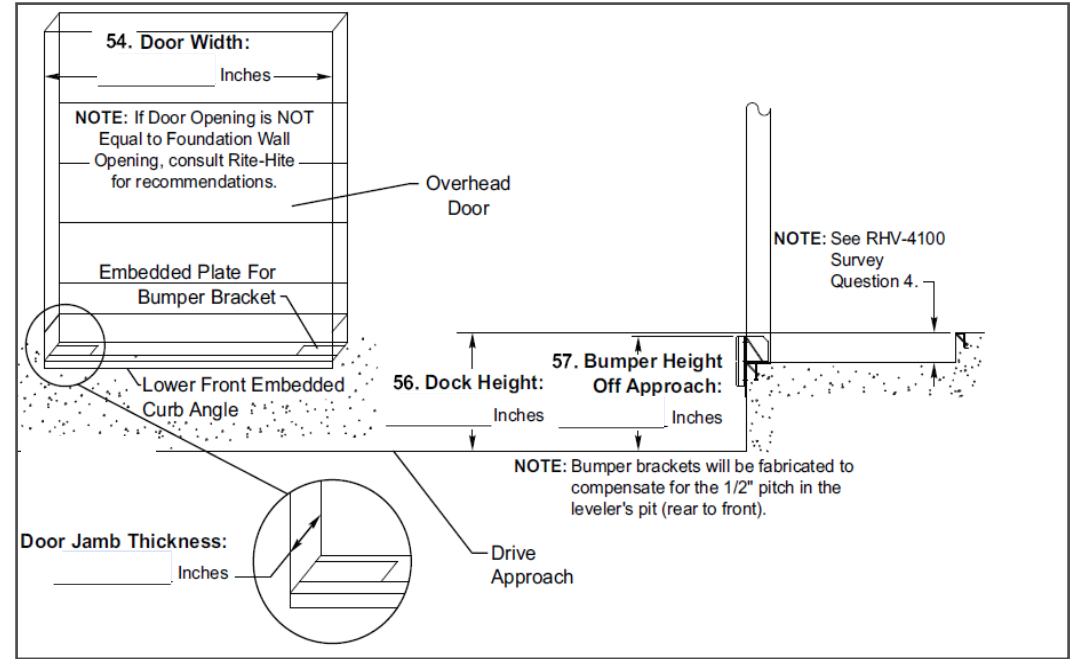
Dimension Y (Vertical): _____

RHV4000 Pit Upgrade Plate W/HDWE:

- Less
- Supplied Locally
- RHV4000 Pit Upgrade W/HDWE

Specialty Dock Floor

**Note: If "Shrink Compensated Building Floor", contact Rite-Hite prior to quotation.



Bumper:

Bumper Overall Height: _____

**Note: Complete this section only if bumpers are supplied locally.

Bumper Overall Width: _____

**Note: Complete this section only if bumpers are supplied locally.

Bumper Projection: _____

Dock Face / Bumper Mounting Surface:

- Brick / Cinderblock / Precast
- Concrete Solid (6" Min. Thick)
- Not Applicable
- Other

Drive-Thru Application

Auxiliary RIG Bumper Qty 1:

**Note: Required for Drive through Applications with bumper brackets only.

- RHV420-11 SF
- RHV520-11 SF
- RHV620-11 SF
- Supplied Locally
- No

Vertical Leveler Supplement

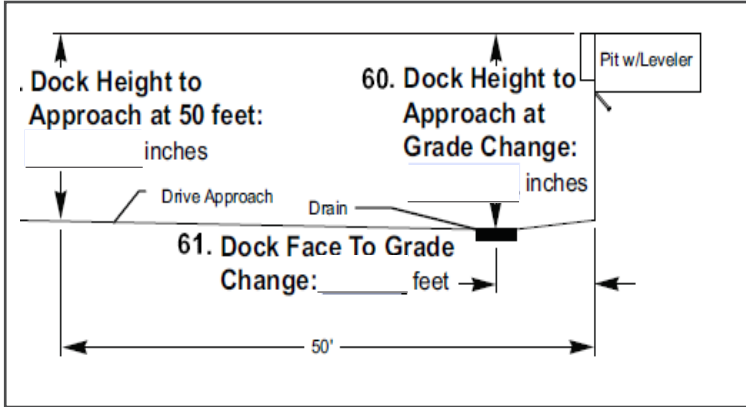
(Approach Type and Approach Dimensions)

Approach Type (Choose One):

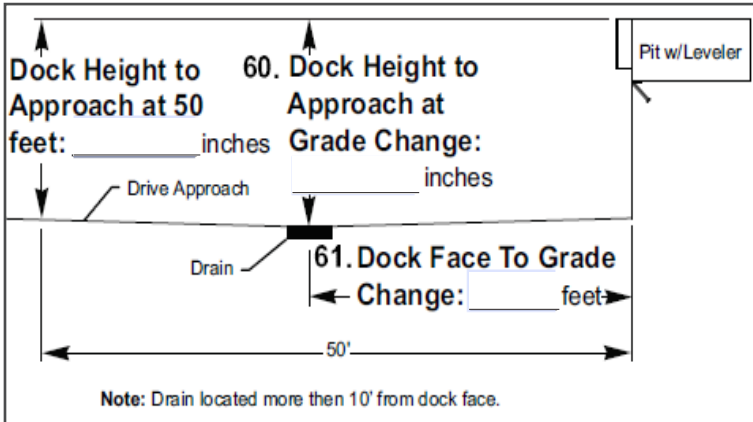
Other

**Provide Sketch and Contact RHPC Applications prior to quoting

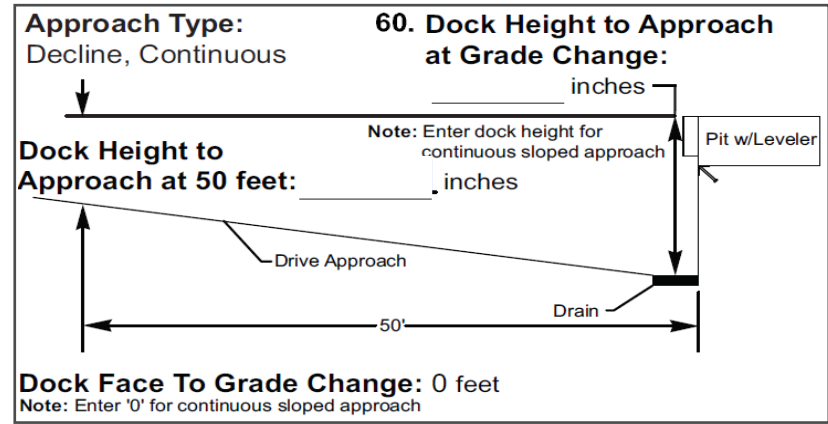
Decline, Compound (Near)



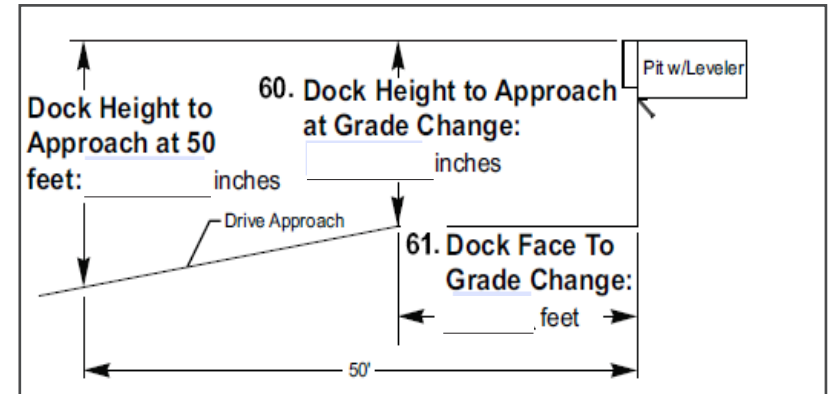
Decline, Compound (Far)



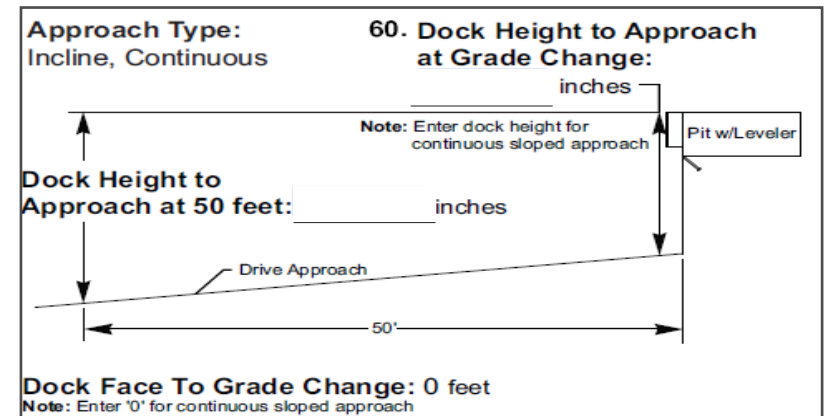
Decline, Continuous



Incline, Compound



Incline, Continuous



Vertical Leveler Supplement

1. Leveler Size:

Minimum 8' long (Nominal) levelers, recommended.

Note: if an 87" pit length is an issue, Rite-Hite applications.

2. Door Size:

Minimum over head door size for this application is 10' W x 11' H (for 12" pit).

Note: The actual door height will be 10'0" high plus the depth of the pit.

3. Dock Height:

Dock height shall not exceed 48" with a 12" deep pit. If the dock height is greater than 48" and less than or equal to 51", the rear pit depth must be 15".

Note: If the dock height is greater than 51", contact Rite-Hite applications.

4. Approach:

A slightly inclined approach is recommended.

Note: If declined approach, contact Rite-Hite prior to quotation.

5. Pit Design:

This application will only work with the continuous pit construction.

Note: 78" minimum required from centerline of leveler to end pit sidewall.

6. Dock Bumpers:

Two (2) RIG bumper with integral lip keepers required. Minimum 5" projection steel faced bumper position per Rite-Hite supplied drawings to protect the Dok-Lok.

Note: Bumper brackets are not required, but optional.

7. Controls:

Dok-Commander mounted control box must be located at rear of pit. This placement is necessary to allow access and visibility to the control box when the trailer doors are swung open.

8. Shelters:

Frommelt recommends Eclipse (620NH) with bottom fiber pads. (Contact Frommelt Applications)

