

Selecting the Loading Dock Configuration

Security, traffic control, safety, worker comfort, space availability, and climate help determine which dock configuration you need. Based on the relationship of the building and the trailer, the two most common dock configurations are the inside/outside dock and the open dock

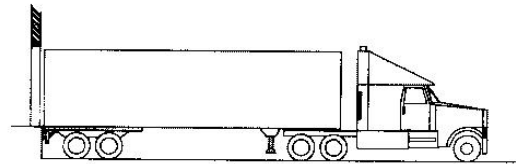


Fig. 11

Inside / Outside Dock

This design places the loading platform inside the building, while the trailer remains outside (Fig. 11). With the proper door seals or shelter, the design offers excellent weather protection and security. A common variation of the inside/outside dock is the refrigerated dock

The inside/outside dock design requires that you set back the building wall from the edge of the dock (Fig. 12). This is the case particularly for docks with recessed parking areas. The setback is needed to :

- ? Protect the wall from being hit by trucks
- ? Protect building projections, such as overhangs or signs
- ? Facilitate the installation of door seals
- ? Minimize the risk of injury

Allow at least a 20cm clearance between the rear of the truck and the building wall, measured at a height of 2.0 m above the dock platform. Also allow at least 15 cm of clearance between the top of the trailer and the building wall (Fig. 12).

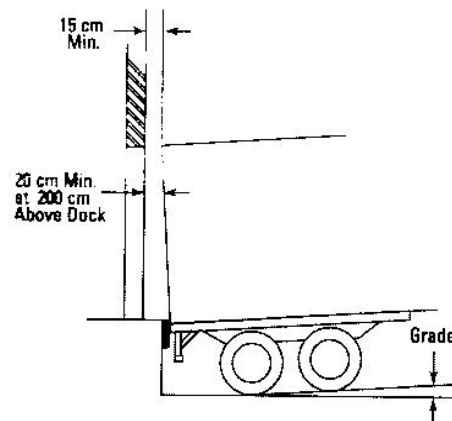


Fig. 12

For **refrigerated docks** include a vestibule between the loading platform and the refrigerated area. The vestibule creates an air lock between the outside and the refrigerated area (Fig. 13). The air lock minimizes the inflow of warm air and humidity. A well designed refrigerated dock reduces refrigeration power consumption by 50% or more and it reduces refrigerant coil defrosting by as much as 96%, compared to an open loading dock.

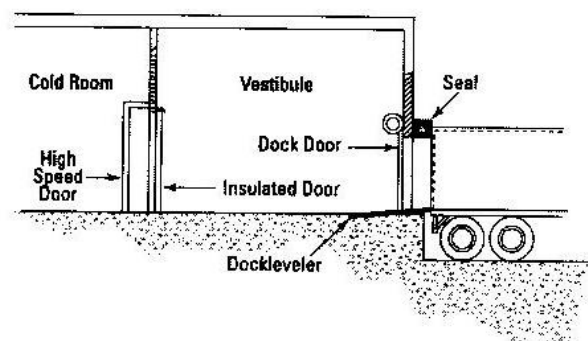


Fig. 13

Open Dock

This design places both the loading platform and the trailer outside the building (Fig. 14). Open docks are commonly used for general warehousing in temperate and warm climates; you can protect the open dock somewhat by adding a canopy over the platform and sliding curtains around the dock perimeter (Fig. 15).

The open dock requires sufficient forklift maneuvering space between building wall and docklevellers. Also, you must add concrete posts and safety chains, or other barriers, to reduce the risk of forklifts driving off the dock (Fig. 16).

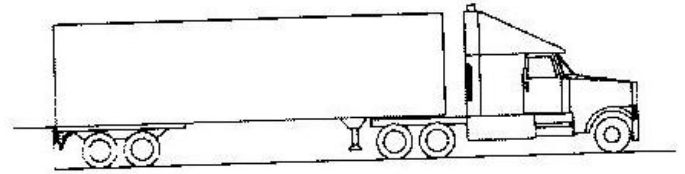


Fig. 14

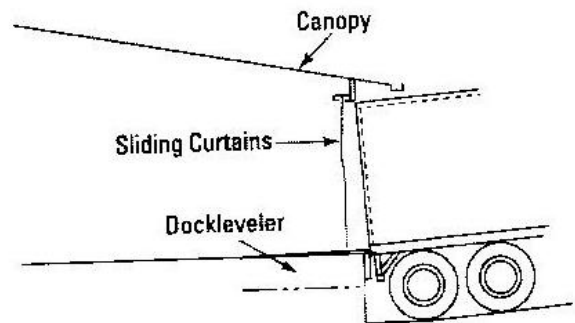


Fig. 15

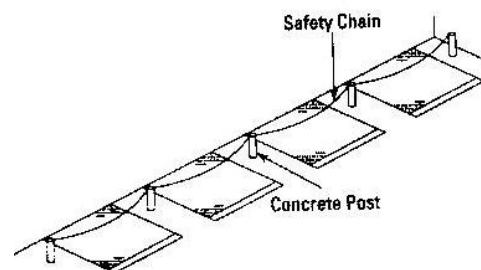


Fig. 16

ADDITIONAL DOCK CONFIGURATIONS

Building and property limitations sometime require the use of still other loading dock configurations

Saw-Tooth Dock

If there is insufficient space available between the dock and the nearest obstruction to truck flow, a saw tooth layout (Fig. 17) can solve the problem. This design lessens the apron space required to move the trucks into and away from the loading area.

The table below shows the required apron space as dependent on trailer centre distance and angle of saw tooth.

Center Dist., m	Saw-tooth angle, degrees			
	15	30	45	60
3.50	33.4	28.9	23.2	16.7
3.75	32.9	28.4	22.8	16.4
4.00	32.4	27.9	22.4	16.1
4.25	31.9	27.5	22.0	15.9
4.50	31.5	27.1	21.7	15.6
4.75	31.0	26.7	21.3	15.4
5.00	30.6	26.3	21.0	15.2
5.25	30.2	25.9	20.7	15.0
5.50	29.8	25.6	20.5	14.8
5.75	29.4	25.3	20.2	14.6

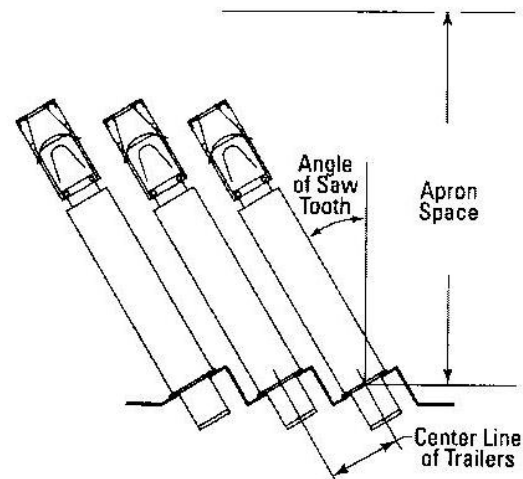


Fig. 17

The table is based on a 40 foot container rig, with the tractor attached during loading. If larger trucks will use the dock, increase apron space proportionately. If tractors will be disconnected when the container is parked, decrease the required apron space shown in the table by 7.3, 6.7, 5.6 and 4.2 meters for 15, 30, 45 and 60 degrees respectively.

As an example, if the centre distance between the dock positions is 4.25 m, and the angle of the saw tooth is 45 degrees, the required apron space is 16.4 m.

Pier Dock

When the building lacks enough wall space for the required dock positions, or if the building and process layout do not permit placing dock positions along the building perimeter, you can design a loading dock pier (Fig. 18).

Free Standing Dock

When there is limited space inside the building for a loading platform, you can add a free standing dock structure to the outside of the building (Fig. 19).

CALCULATING THE NUMBER OF DOCK POSITIONS

To calculate the number of dock positions a facility needs you need to know the number of trucks that will be served, the average time required for loading or unloading each truck, and the timing of truck arrivals and departures.

For operations with seasonal processes, provide enough dock positions to handle peak periods – whether they are on a daily, weekly, monthly, or yearly cycle. When laying out dock positions, also consider providing one dock position for trash disposal.

Sometimes it is not practical to provide enough dock positions to handle peak truck traffic. In such cases, provide a truck waiting area. Truck waiting times and waiting areas can be traded off against the cost of more dock positions. When truck arrivals are numerous, fewer dock positions will mean longer waiting times and larger waiting areas.

You can estimate the number of dock positions you need for a certain truck volume by multiplying the number of trucks per hour times the turnaround time, in hours, for each truck to park, load and leave.

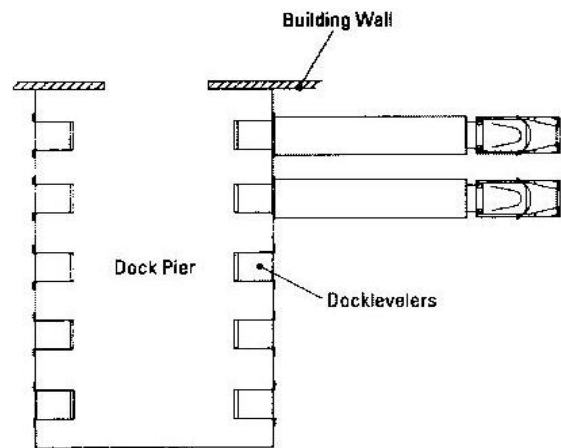


Fig. 18

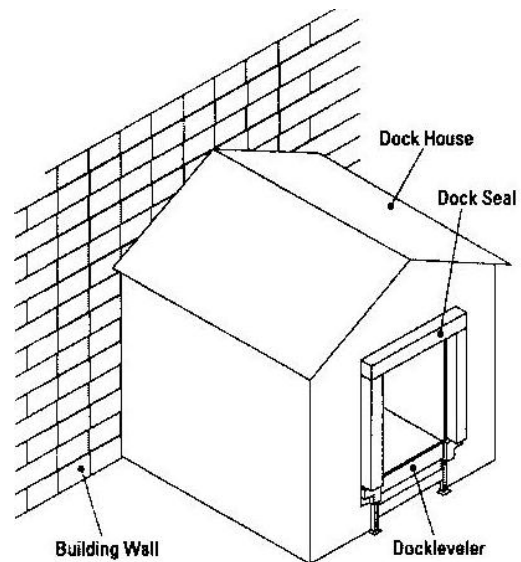


Fig. 19

For example: if 20 trucks arrive each 8 hour day (20/8 = 2.5 trucks per hour.) and loading takes 50 minutes (50 / 60 = 0.833 hrs), then the number of dock positions you need are 2.5 X 0.833 = 2.08 dock positions. In this case, provide three positions. If, in this example, all of the trucks were to arrive in the morning (4 hrs), you would need 4.17, or 5, positions.

DESIGNING THE LOADING DOCK

To design efficient loading docks for a facility you need to review the types and numbers of trucks that will use the docks, the dimensions of the loading docks and their doors, and the characteristics of the facility processes. You must then address the dock height, the loading bay width, the dock door size and dimensions and layout of the building interior adjacent to the dock.

TRUCK SIZES AND WEIGHTS

To begin with, determine the types and physical features of the trucks that will use the docks. Truck characteristics affect many design parameters. As a minimum, list each truck's:

- ? Overall length
- ? Truck or trailer bed height
- ? Overall height
- ? Overall width

Fig. 20 shows common truck and trailer designs and their associated dimensions. However, trailer and bed heights can vary by as much as 15 cm from their loaded to unloaded conditions. Air suspension systems will also affect these dimensions. Use Fig. 20 for preliminary design. Base your final design decisions on actual truck dimension surveys

Type of vehicle	Truck dimensions, m			
	Overall length, L	Bed height, BH	Overall height, H	Overall width, W
Container	16.8-21.3	1.4-1.6	3.7-4.3	2.4
Semi-trailer city	9.1-10.7	1.1-1.2	3.4-4.0	2.4
Straight truck	4.6-10.7	0.9-1.2	3.4-3.7	2.1-2.5
Refrigerated	12.2-16.8	1.3-1.5	3.7-4.3	2.4-2.6
Flatbed	16.8-21.3	1.2-1.5	-	2.4-2.7
Semi-trailer, road	16.8-21.4	1.2-1.3	3.7-4.3	2.4-2.8

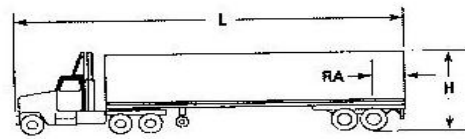


Fig 20a, Container Truck

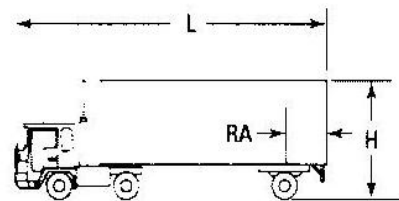


Fig. 20b, Semi-Trailer, City

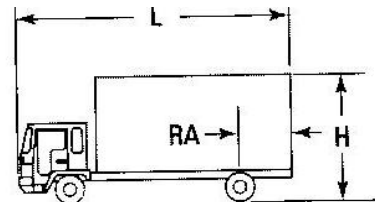


Fig 20c, Straight Truck

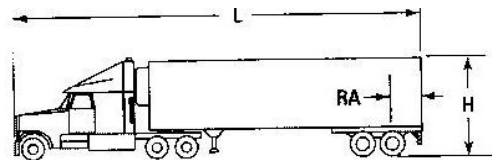


Fig. 20d, Refrigerated Truck

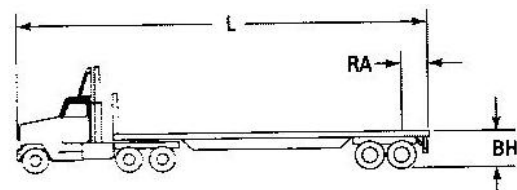


Fig. 20e, Semi-Trailer, Road

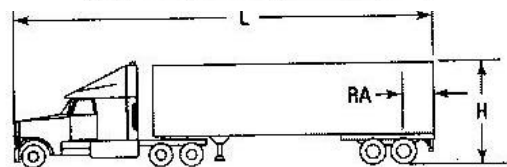


Fig. 20f, Flatbed Truck

UNDER RIDE PROTECTION BARS

Trucks often have an under ride protection bar, called the ICC bar in the US, mounted at the rear of the trailer (Fig. 21). Because of the accessibility and strength of this bumper bar, you can specify loading dock truck restraint devices that will engage the ICC bar to prevent the truck from being accidentally driven away during loading or unloading

SETTING THE DOCK HEIGHT

The dock height is the most important parameter of the facility's loading docks. Dock height must match the expected truck traffic. When deciding the height, strive for the least possible height difference between the dock and the trailer bed. While the dockleveller bridges some height difference, do not design a dock with too great an incline. A steep incline interferes with the under-clearance of the forklifts. And, as the incline gets steeper, the structural and maintenance demands on the ramp and forklifts increases.

To determine the dock height, first review the bed heights of the trucks using the dock. Then, select a height that is at the midpoint of this range. As a general guideline, most trucks will require a dock height of between 120 and 140 cm.

This table lists dock heights that create level dock designs for various trucks.

Truck type	Dock height
Container	135 cm
Semi trailer	120 cm
Straight truck	110 cm
Refrigerated	130 cm
Flat bed	130 cm

Note : truck beds at a receiving dock will rise during unloading and truck beds at a shipping dock will lower during loading

If the parking area in front of the dock is recessed, lower the dock height (Fig. 22). In extreme situations, the recessed driveway can lower the truck bed height by 25cm

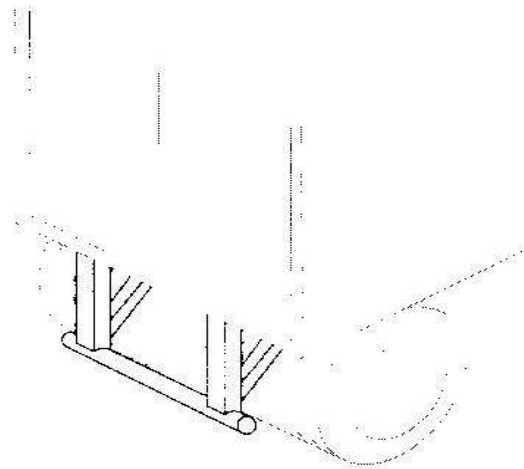
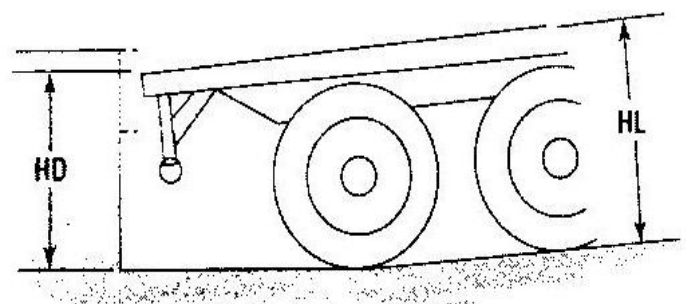


Fig. 21



HL = Bed height when level

HD = Bed height at dock

Fig. 22

If you anticipate trucks with extremely high or low bed heights, provide separate positions with special driveways and equipment for them. A typical solution for this includes and elevating docks (Fig. 23).

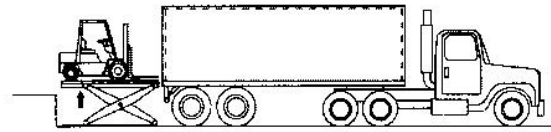


Fig. 23

On open docks it is often necessary to open the trailer doors after the trailer is parked. For this situation select a dock height that is low enough to allow the door clamp hooks to clear the dock as they are opened (Fig. 24). A typical dock height for these circumstances is 130 cm. If the parking area in front of the dock is recessed, the dock height will have to be lowered further since the doors swing down slightly as they are opened. As a general guide, lower the dock by 1 cm for each one percent of recessed parking area grade

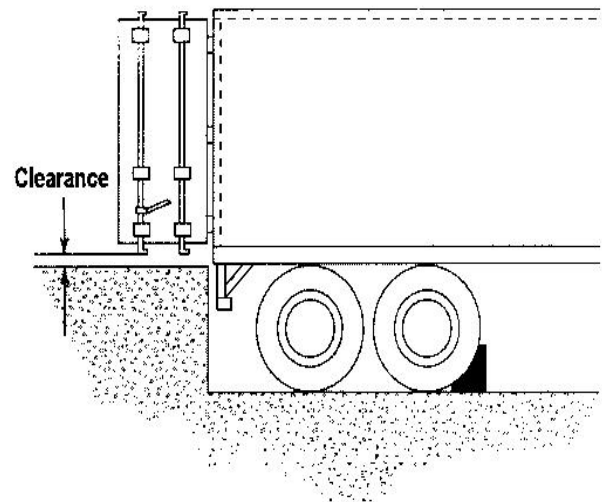


Fig. 24

Setting the loading bay widths

A modern trailer is 2.4 – 2.6 m Wide. Make each truck bay at least 3.5 m wide to provide sufficient space to back trailers squarely to the dock. To reduce congestion inside and outside the dock, 4 m wide bays are a better design. If it will be required to open or close swinging trailer doors at the dock, make the centre distance at least 4 m (Fig. 25).

Determining Door Sizes

Determine the door sizes together with selecting the system that will seal the trailer to the building. In temperature controlled docks, doors are also energy loss areas, so keep them as small as possible without interfering with loading operations.

Common door widths are 2.4 m. Common door heights are 2.4, 2.7 or 3m. If clear access to the full width and height of a full size trailer is required, extend the dock door the full height of the trailer (3.9 to 4.2m) above the driveway. Also size the doors 2.6 – 2.7 m Wide to allow for off – centre trailer parking.

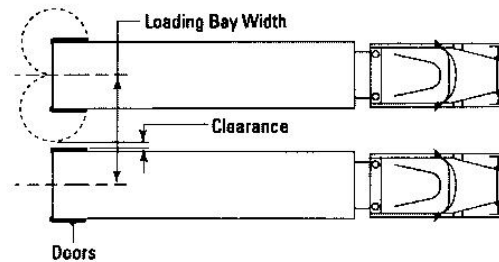


Fig. 25

Doors narrower than 2.4 m are usually required for refrigerated operations to permit seals that allow effective environmental control.

Designing the Dock Interior

Provide a clear traffic aisle, at least 4.5 m Wide, behind the loading ramps. This aisle will improve visibility, permit forklifts to maneuver behind the trailers, and allow two-way forklift traffic parallel to the dock face. Aisles of this width or greater also allow forklift drivers to drive straight onto the docklevellers, reducing stress on the equipment and improving safety (Fig. 26).

Design restrictions that hinder forklift drivers from traveling parallel to the dock face across the docklevellers (Fig. 27). Crossing traffic behind the trailers creates an extreme hazard to forklift drivers backing out of their trailers.

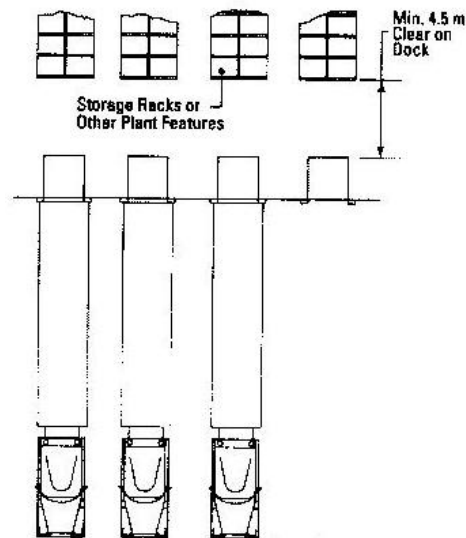


Fig. 26

Selecting Docklevellers

A dockleveller bridges the gap and height difference between the dock and the trailer. It also compensates for the up and down float of the trailer bed during loading. A dockleveller includes a ramp (hinged along its rear edge) and a lip (hinged at the front of the ramp). When not in use, the dockleveller is stored in its neutral position, flush with the loading platform floor. To use a dockleveller, the operator raises the ramp and the lip swings out. With the lip extended, the operator lowers the ramp until the lip rests on the truck

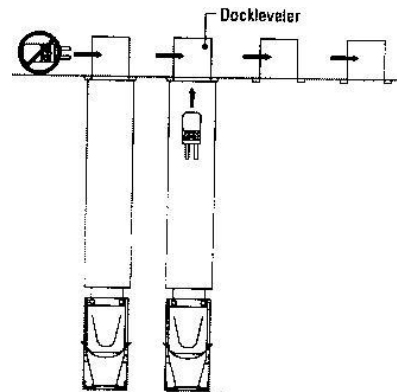


Fig. 27

Comparing the Dockleveller Types

The two main common types of dockleveller are :

- ? A recessed type, installed in a pit formed in the loading platform (Fig. 28).
- ? An edge-of-dock type, installed on the curb of the loading platform (Fig. 29)

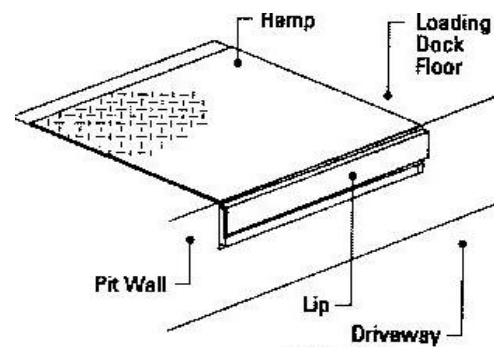


Fig. 28

Recessed Docklevellers

The recessed dockleveller is the most common type and has the greater operating range above and below dock. It also has the greater load range and longer lift expectancy. It is available in ramp lengths of 1.8 m to 3.6.

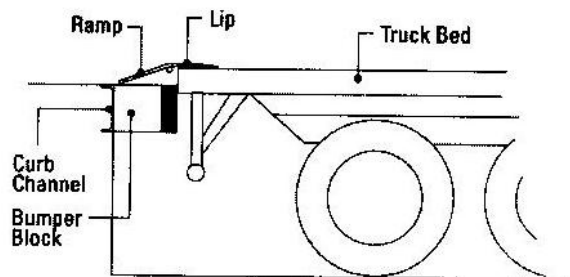


Fig. 29

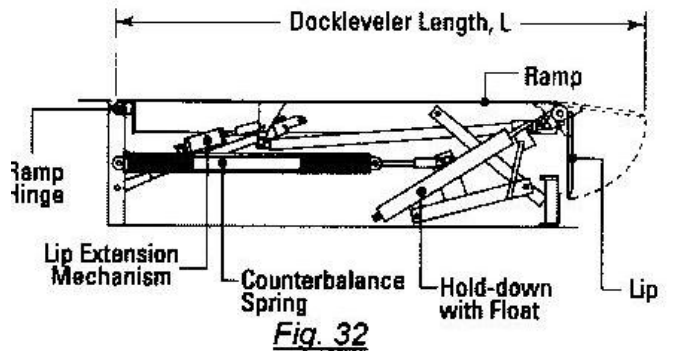
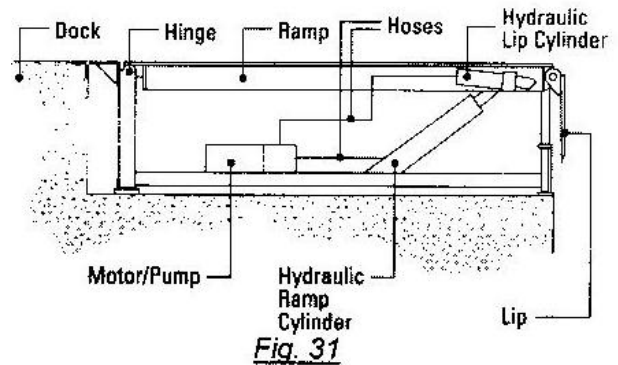
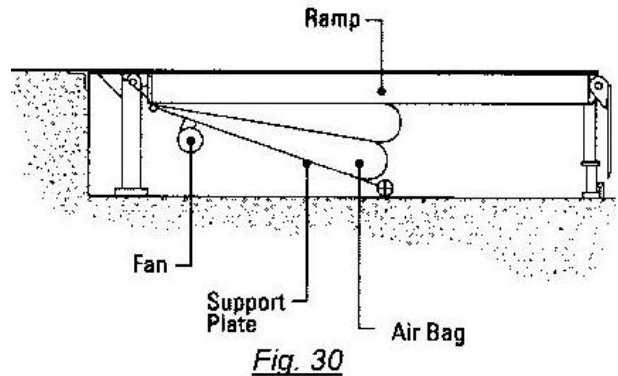
Recessed docklevellers are available in powered, push button operation or spring-loaded mechanical operation powered push button models are easier to operate

Powered push-button docklevellers are activated by either an air or hydraulic system. The low pressure air operated system (Fig 30) has a very simple design: an air bag connected to a fan lifts the ramp then extends the lip onto the truck bed. The design is very reliable and requires only minimal maintenance.

Push button hydraulic docklevellers (Fig. 31) are powered by a hydraulic system that raises the ramp. They are very reliable but require more maintenance than air powered designs because of their more complicated components, fluid circuits and electrical circuits.

Mechanical, spring loaded docklevellers (Fig. 32) are upwardly biased with a spring and linkage system and are held down by a releasable ratchet mechanism. The worker then walks out on the ramp to force it down onto the truck bed. Once on the truck bed, the ratchet mechanism re-engages to prevent the ramp from rising again. Mechanical docklevellers require regular maintenance and adjustments for reliable operation.

Depending on ramp length, recessed docklevellers can serve trailers as much as 45 cm above and below the dock. A common range is 30 cm above and 25 cm below dock height. They are available in capacities up to 40 tons



Edge-of-Dock Docklevellers

The Edge-of-Dock (EOD) dockleveller is a low cost alternative. It is suited for small range of applications where there is little variation in truck bed height and where pallet truck under-clearance is not an issue (Fig. 33). Because of its short ramp, the EOD is restricted to a narrow service range of 12.5 cm above or below the dock

The EOD dockleveller is available in manual or push button operated designs. Manual models are lifted manually, assisted by counterbalancing springs. Push button operated models work much like push button operated recessed docklevellers

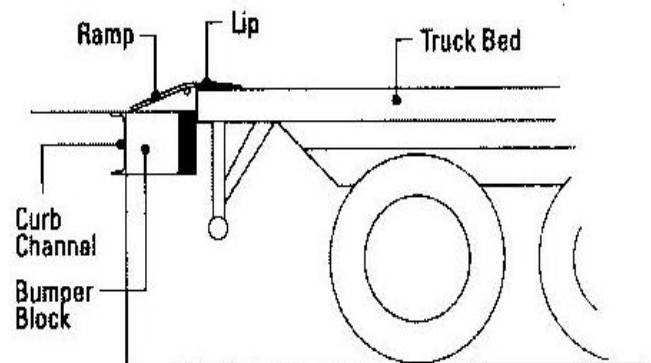


Fig. 33

Specifying the Right Dockleveller

Because of its wider range of operation, the recessed model dockleveller is always the best choice to accommodate a wide range of trailer bed heights. You should specify the EOD dockleveller only if the facility operates within the narrow applications suitable for the EOD.

Docklevellers have long lives. Because they contribute significantly to facility efficiency, it is very important to accurately specify each of the following dockleveller characteristics :

- ? Length
- ? Width
- ? Lip projection
- ? Load capacity
- ? Activation system
- ? Environmental capability

Length

The length of the dockleveller significantly determines the dockleveller slope. This slope has to be less than the maximum grade capability of the loading equipment. The required length of the dockleveller is based on the maximum height differential between the loading platform and the expected truck beds.

To choose the right dockleveller length, see table below. For powered equipment these figures represent the maximum grade capability when the equipment is loaded to it's maximum capacity

Height difference between truck bed and dock, cm	loading equipment			
	hand pallet truck	Battery powered pallet truck	Battery powered forklift	International Combustion engine forklift
5	180	68	68	68
10	360	180	75	68
15	N/A	240	180	75
20	N/A	300	180	180
25	N/A	360	240	180
30	N/A	N/A	300	240
35	N/A	N/A	360	300
40	N/A	N/A	N/A	300
45	N/A	N/A	N/A	360

For height differentials or loading equipment not shown in the figures, determine the minimum dockleveller length by dividing the height differential from truck to dock by the equipments maximum grade capability.

For forklifts and pallet trucks to move freely and safely over a dockleveller, they must have sufficient ground clearance. See Fig. 34 and Fig. 35.

Checking clearances is especially important when pallet jacks will be used on EOD docklevellers (Fig. 36). Clearance is, in general, less of a concern when pallet jacks are used on recessed levelers. If ground clearance is a concern, consult with the equipment supplier.

Width

Docklevellers are available in 1.8, 1.95 and 2.1 m widths. The most common width is 1.8 m. It suits most facilities with palletized containers.

Lip projection

The dockleveller lip must extend sufficiently into the truck to provide firm support. The lip must provide at least 10 cm of support, as shown in Fig. 37.

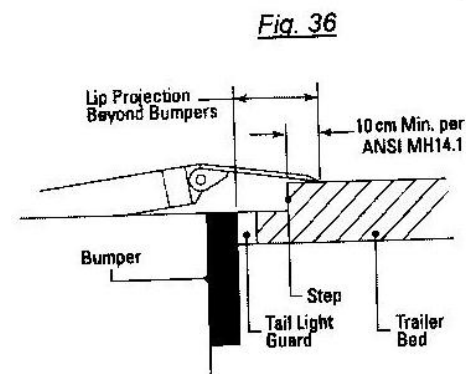
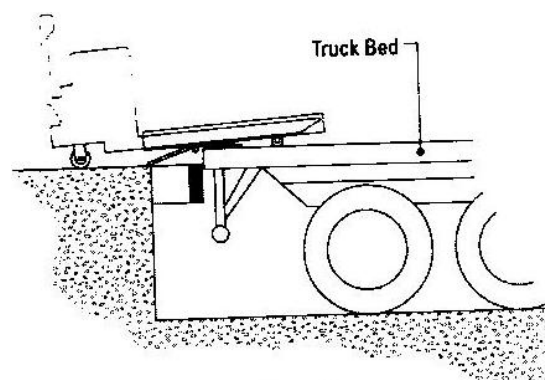
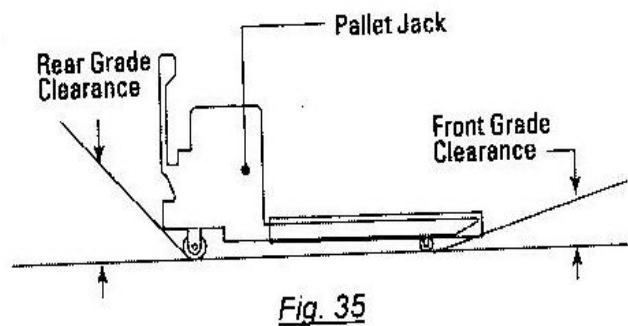
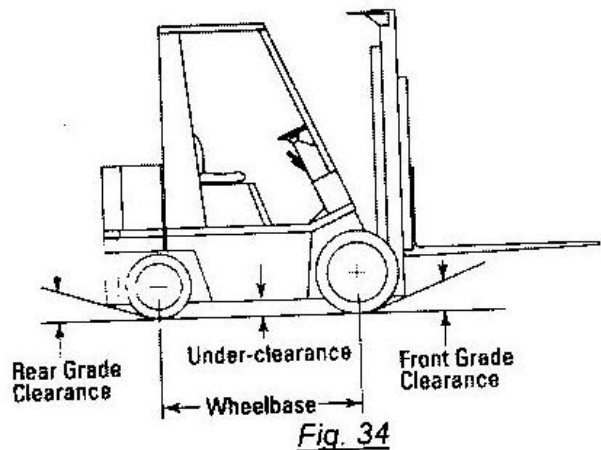


Fig. 37

Under most circumstances adequate support is provided by a standard lip, which projects 30 cm in front of the dock bumpers. Specify longer lips to accommodate the special rear step and rear door configurations on some trailers. The step of refrigerated trailers may require 35 cm or longer lip projection

Load Capacity

Choosing the right load capacity for a dockleveller can greatly extend the docklevellers lift. The docklevellers load capacity is dependant upon the gross vehicle weight (GVW) of the forklift using the dockleveller.

The GVW includes the weight of the forklift plus the weight of the maximum anticipated load. For electric forklifts the GVW also must include the weight of the battery.

As a guideline, the empty weight of propane and gasoline powered forklifts is within the range of 170 – 210% of its load capacity. Electric forklifts weigh about 500 -800 kg more because of the batteries.

To determine the docklevellers load capacity, first determine the forklifts Gross Vehicle Weight (GVW). The minimum required dockleveller load capacity is the forklifts GVW multiplied by 1.5. However, if one of the following conditions exists, multiply the GVW by 2.55.

Conditions affecting load capacity :

- ? More than eight trucks per day will be served at the dock position
- ? Forklifts will drive onto the dockleveller at an angle other than straight ahead.
- ? Three wheeled forklifts will be used.
- ? The expected forklift speeds will exceed 6 km/h
- ? The forklifts will be outfitted with front end attachments or fork side shifters

Activation System

For ergonomic and safety reasons, the trend in dockleveller operating systems is toward push button operation. Manual and spring counterbalance activation should be selected only when no power is available at the loading platform. Because they require less maintenance and repair, push button operated units cost less in the long run.

Environmental capability

On inside/outside docks at temperature controlled facilities specify perimeter weather seals for the dockleveller. These seals keep outside air from infiltrating the truck parking area.

For refrigerated facilities, also specify that the underside of the dockleveller ramp is insulated. Condensation that forms on the underside of the ramp causes corrosion and premature structural problems. This insulation helps prevent the warmer outside air from reaching the underside of the ramp and condensing there. It also minimizes the loss of refrigerated air from inside the facility.

Specifying the elevation dock.

Hydraulic elevation docks allow forklifts to enter trucks with bed heights outside the operating range of docklevellers. They can be used for lowering forklifts from the loading dock down to the ground. Elevating docks are made in the scissors lift design, with lips added to allow transfer of forklift to the dock and to the truck (Fig. 38). With elevating docks, it is also possible to load from the ground (Fig 39).

A table 1.8 m wide, 2.4 m long and with a 2.5 tons capacity is the most common. For applications where rider forklifts will be used, a 1.8 m Wide X 3.0 m long table with 6 tons capacity is common.

Elevating docks are rated for maximum Gross Vehicle Weight (GVW). The capacity is the weight that can be supported and lifted by the hydraulic system. Standard docks are available in capacities up to 10 tons. Common vertical travel is 1.8m.

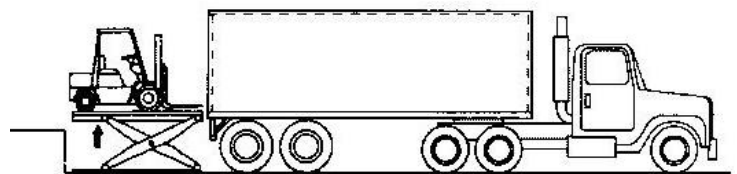


Fig. 38

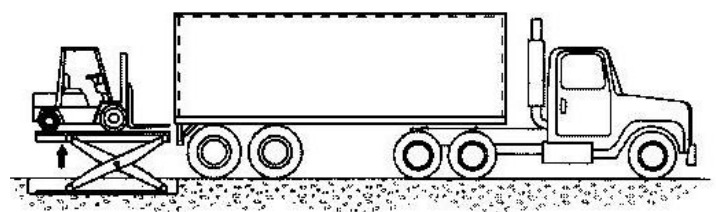


Fig. 39

Selecting Bumpers

Bumpers protect the building and the truck from impact damage when the truck is docking (Fig. 40). Bumpers can reduce the impact of a backing truck by 90 – 95%. They also provide protection during the loading operation when the truck rocks or floats up and down while it is pressed against the building. Finally, bumpers limit how close the truck is parked to the dock and thus affect dockleveller lip and seal and shelter projections

Since they absorb large impacts, mount bumpers firmly to the dock. Bumpers are available in molded or laminated rubber. The standard bumper thickness is 10 cm, but laminated bumpers are also available in 15 cm thickness. The 10 cm bumper is preferred, since it reduces the gap between the trailer floor and the face of the dock. A smaller space reduces the risk of workers placing their feet or equipment in the gap.

Selecting Seals and Shelters

Seals and shelters close the space between the trailer and the building (Fig. 41). They help maintain a controlled atmosphere on the dock and to protect the cargo. Seals and shelters also improve productivity, energy efficiency, safety and security.

There are two types of sealing systems: seals and shelters. Seals are made of foam covered with an industrial fabric and attached to a back plate (Fig. 42). They are mounted around the loading door and seal against the back of the truck. Shelters have a rigid frame, mounted to the building wall around the loading door. The frame is equipped with curtains that project inward and seal against the outside walls of the truck at the rear (Fig. 43, Next page). Since trailers sway about during loading and unloading, both seal types use abrasion resistant industrial fabrics on their sealing surfaces.

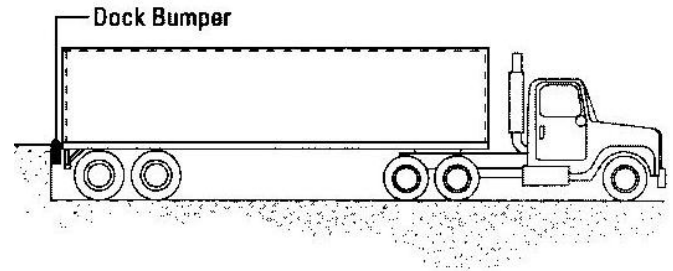


Fig. 40

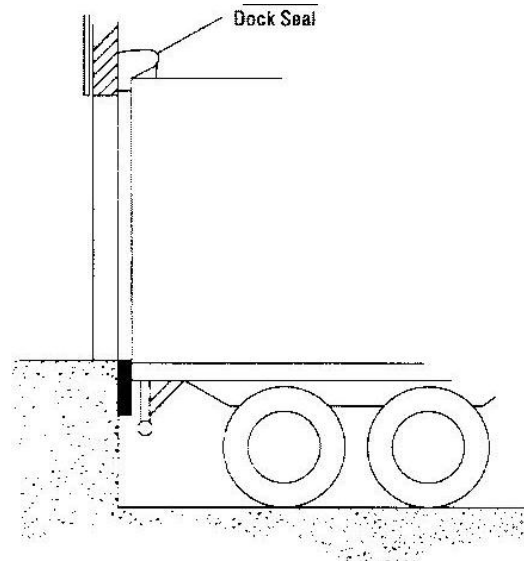


Fig. 41

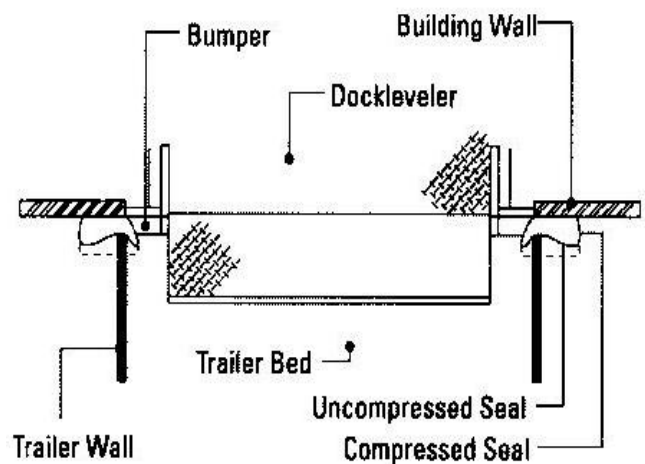


Fig. 42

When selecting a sealing system review the truck types that will be using the facility, the driveway slope, the dock height, the bumper projection from the building wall, the building wall construction and the door dimensions

Compression Foam Dock Seals

Compared to shelters, compression seals are more effective in sealing the space between the truck and the dock and they cost less. On the other hand, they accommodate a narrower range of truck sizes, and in some instances may interfere with pallet movement into the trailer. For example, this seal does not work well with trucks that have rear loading platforms (Fig. 44). Finally, do not use them when the dock loading door is more than 2.8m Wide or 3.0 m High

To serve most trucks, maintain a 2.2 – 2.3 m wide front opening between the dock pads (Fig. 45). Specify beveled side pads (Fig. 46, next page), when the loading door is wider than 2.3 m.

Place head pads with their bottom edges at least 8 cm below the top of the truck (Fig. 47). Adjustable height head pads are available and can be moved up and down on tracks. For tall dock doorways and a wide range of trailer heights, replace the head pad with a fixed head curtain to create a hood style seal (Fig. 48).

When specifying compression foam dock seals, also follow these application guidelines :

- ? The seal's compressive force on the building wall is about 120 kg per meter of pad length. A beveled seal reduces this force one half
- ? Allow for minimum of 10 cm from the building wall to the face of the dock bumper to accommodate the compressed thickness of the seal.
- ? The pad should project 15 cm in front of the bumper. The maximum projection is 20 cm and minimum is 10 cm.
- ? When the driveway is recessed and the driveway slope is more than 2% specify a tapered seal (Fig. 49). For each 1% of driveway grade taper the seal so its thickness at the top is 2.5 cm less than it is at the bottom

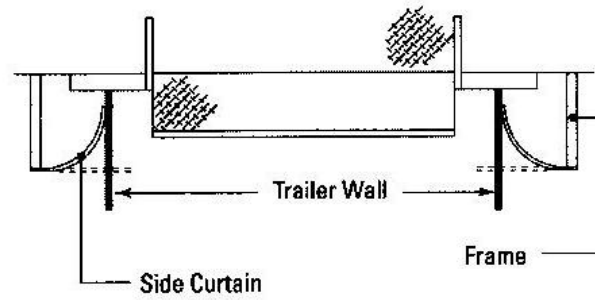


Fig. 43

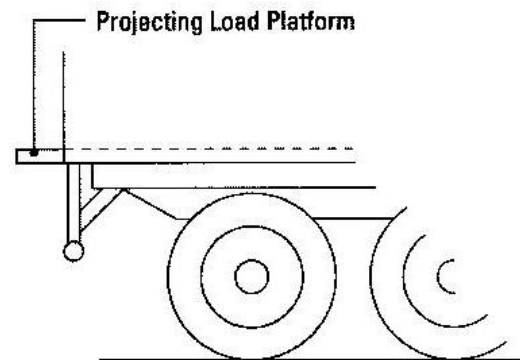


Fig. 44

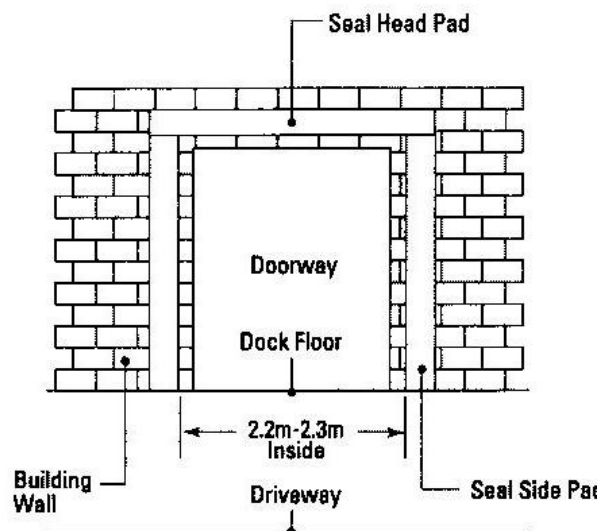


Fig. 45

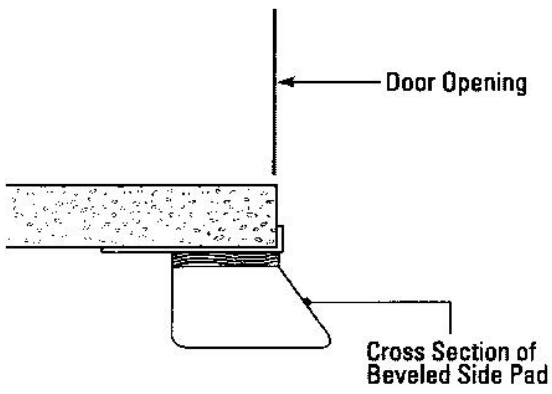


Fig. 46

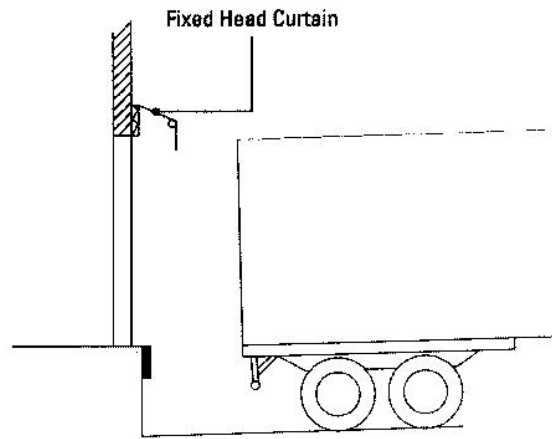


Fig. 48

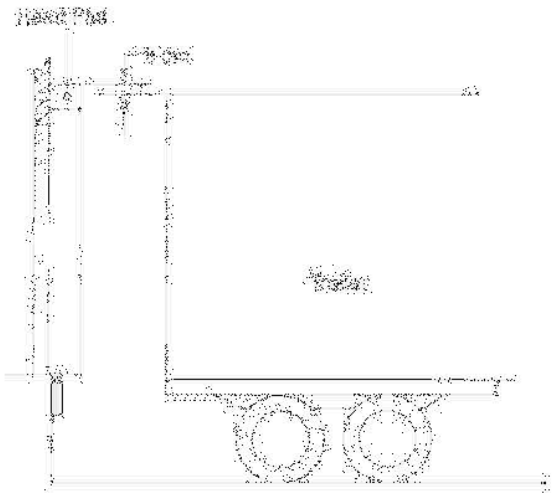


Fig. 47

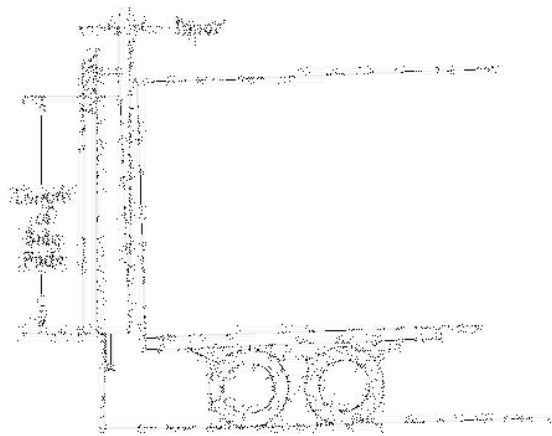


Fig. 49

Rigid Frame Truck Shelters

A rigid frame truck shelter provides full width and height access to the rear opening of trailers by it does not seal the air gap along the hinge of a trailer's swing out doors. The shelter includes a rigid frame, covered with translucent material mounted on the building wall. Curtains then project inward from this frame. As the trailer backs into the curtain opening the curtains deflect and seal against the sides of the truck.

Use shelters with loading doors larger than 2.8 wide or 3.0 m high. Also use them for trucks with extended tailgates or rear platforms

When specifying rigid frame shelters, also follow these application guidelines:

- ? The normal minimum shelter width is 3.3 m, measured across the side frames. The standard opening width of shelter is 2.1 m, measured between the insides of the side curtains. Side by side shelters can have common side frames.
- ? Set the bottom edge of the top curtain 15 cm below the height of the typical truck serving the facility (Fig. 50).
- ? Set the top of the shelter at least 45 cm above the top of the highest truck to be served
- ? Design shelters to project 30 cm to 40 cm in front of the dock bumpers (Fig. 50). For shelters wider than 3.6 m, increase the shelter projection by 1 cm over the minimum recommendation for every 2 cm of additional shelter width.
- ? Shelters have steel support brackets which protect and support the side members. Mount these brackets on the building foundation. Install the brackets flush with the dock floor and have them project 15 cm outside the shelter frames
- ? For unique applications, consider shelters with spring loaded frames and inflatable sealing members.

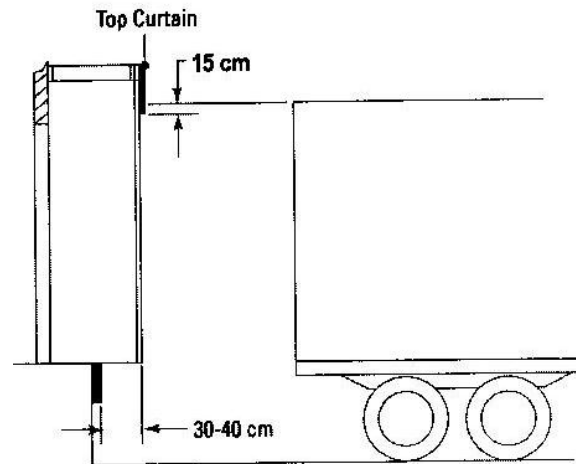


Fig. 50

Selecting Trailer Restraints

A truck must not leave the loading dock before loading is complete. Doing so can cause serious injuries to the workers and damage to the forklifts and cargo. A trailer restraint assures that the truck will remain at the loading dock.

Trailer restraints come in two designs: Autochock (Fig. 51) blocks the trailer's wheel and the STAR restraint (Fig. 52) engages the rear under ride protection bar (ICC bar) of the trailer. Since the Autochock does not rely on an under-ride protection at the rear of the trailer, its application is more universal.

Trailer restraints can also include a light system that informs the dock worker when the restraint is engaged and tells the truck driver when it is safe to dock or leave.

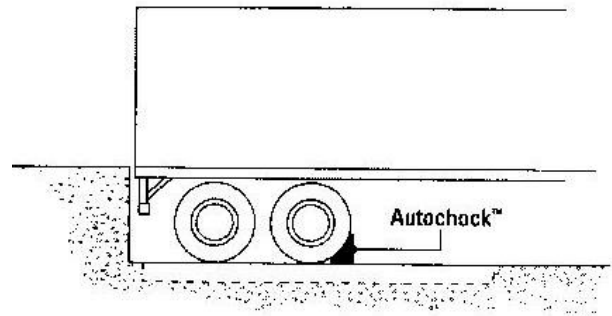


Fig. 51

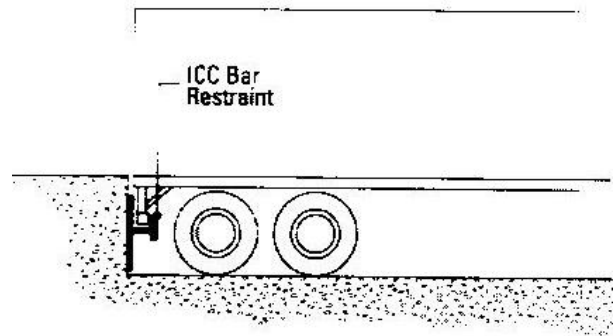


Fig. 52

Selecting Dock Doors

Inside/outside loading docks require doors at each dock position to keep the inside environment separated from the outside when there is no truck at the dock usually these doors are opened only once for each truck and kept open during loading. For this reason, manually operated overhead sectional or roller doors are the most common. Sectional doors have rollers which run inside tracks making them smoother and quieter. Also they are thicker and stronger against wind and impact as compared with roller doors; and can be insulated. If the doors ride in tracks, the tracks should be protected with concrete filled pipes.

Door widths are commonly 2.4 m and their heights are commonly 2.4, 2.7 or 3.0. Dimensions of the door are determined by the typical, the desired seal or shelter, and the plant environmental needs. If clear access to the entire trailer width and height is required, the door must extend about 4.2 m above the driveway and be at least 2.5 m wide.

To maintain effective control of refrigerated operations with foam pad seals, usually you need to use doors narrower than 2.4 m. For refrigerated facilities, also specify insulated dock doors.

Selecting Dock Lights

Most trailers have no interior lights and their lengths of 12 m, or more, make them dark and hazardous. Specify loading lights for each dock position to improve productivity and reduce worker fatigue and accidents.