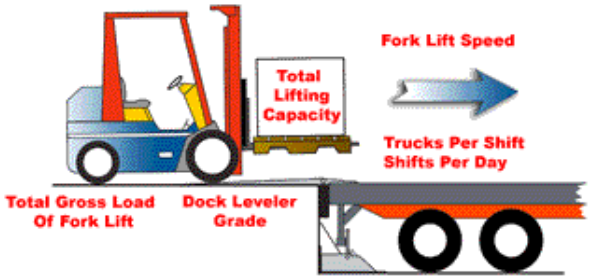
Some factors that should be considered when selecting a Dock Leveler:

1. Capacity
Gross total weight of loads and handling equipment should be determined in the selection of dock leveler capacity. In order to provide a proper margin of safety, consideration should also be given to the moving impact made by the gross load when travelling across the dock leveler. The number of shifts and subsequent duty cycles during which the dock leveler will be used is another important consideration in choosing a dock leveler. Contact your local Blue Giant Representative to discuss the dock leveler capacity required for your application.



2. Frequency of operation
High use areas or multiple shift operations where dock levelers are used continually may warrant consideration of heavier duty units, or hydraulic operation to reduce total life-time costs.

3. Dock heights
Dock height will determine the grade percentage from dock to vehicle. The general selection criterion is the maximum grade percentage from dock to vehicle: when using electric powered handling equipment it is 10%, and for gas or diesel powered equipment 15%. Exceeding these grade percentages may result in equipment “hang up”, damage to handling equipment and load spillage.

4. Type of vehicle being serviced, and grade at dock area
Grade of dock areas in conjunction with types of vehicles being serviced should be considered. An inclined dock may necessitate a projected dock area to prevent damage to building walls from oncoming vehicles. Specialized vehicles such as refrigerated trailers may require longer dock leveler lips, as may trucks with extended tailgates. Refer to page 3 – sloped driveway program.

5. Pour-in versus Pit-installed
A pour-in dock leveler eliminates the need for pit forming. However, a pour-in has to be installed when the slab is poured, many months before it is actually required. This means the dock leveler is paid for before it is needed, and it is subject to potential pre-use damage. A pit installed dock leveler is installed into a previously constructed pit at the later stages of building construction. The best features of both styles can be obtained by using Blue Giant kits during installation. A pit kit is a set of pre-fabricated steel panels that are bolted on site to yield a true, square pit for less money than wood frames.

6. Prevent dock accidents
Blue Giant manufactures a range of vehicle restraints to reduce the hazards of unscheduled truck departure. We also offer hydraulic door and dock guard protection for when the overhead door is open and no truck is present.

7. Future requirements
If it is anticipated that dock use or load capacity will increase or vary in the future, certain features may be more economically viable to install initially:

- Heavier capacity units
- Longer dock leveler lips
- Hydraulic versus mechanical operation
- Vehicle restraint systems

Operating grades at various height differences

Outside of standard dock leveler operating range - consult factory.

MAXIMUM HEIGHT DIFFERENTIAL (DOCK TO TRUCK BED)		in	2	4	6	8	10	12	14	16	18	20
		mm	51	102	152	203	254	305	356	406	457	508
NOMINAL MODEL SIZES	6’ length: 5’ x 6’, 6’ x 6’, 6’6” x 6’, 7’ x 6’		2.6%	5.3%	8.0%	10.7%	13.3%	16.0%	18.7%	21.3%	24.0%	26.7%
	8’ length: 6’ x 8’, 6’6” x 8’, 7’ x 8’		2.0%	4.0%	6.1%	8.1%	10.1%	12.1%	14.1%	16.2%	18.2%	20.2%
	10’ length: 6’ x 10’, 6’6” x 10’, 7’ x 10’		1.6%	3.3%	4.9%	6.5%	8.1%	9.8%	11.4%	13.0%	14.6%	16.3%
	12’ length: 6’ x 12’, 6’6” x 12’, 7’ x 12’		1.4%	2.7%	4.1%	5.4%	6.8%	8.2%	9.5%	10.9%	12.2%	13.6%

Maximum recommended grades: Hand Pallet Truck (3%) Electric Pallet Truck (7%) Electric Lift Trucks (10%)
Gasoline Trucks (15%) Unusable

Dock Area Considerations

application survey

FACTORS TO CONSIDER WHEN SELECTING DOCK LEVELERS:

CAPACITY: Gross total weight of load and handling equipment

FREQUENCY: How many shifts and trucks per day

DOCK HEIGHT: Determine grade percentage of ramp and length of dock required

General Rules:

- Use a 2.5 safety factor to determine recommended dock leveler capacity x 2.5 under ideal conditions.
- Ideal Conditions = Single shift, up to 8 trucks serviced per shift, operating grade of dock not to exceed 7%, forklift speed does not exceed 5mph.
- The safety factor can increase to 4 to 5 times the total capacity under other conditions e.g. multiple shifts, dock leveler grade exceeds 7% and size and type of lift truck e.g. three wheeler, solid tires, trucks with clamps.
- Recommended hydraulic operation to reduce total life time costs.
- Recommend pit projection to protect the building wall from top of trailer hitting wall during back in. Pit projection should be increased a minimum of 1" for every 1% grade on a decline approach driveway of 4% of grade or higher.

MATERIALS HANDLING EQUIPMENT AND CAPACITY CONCERNS:

Manual pallet trucks		Electric pallet truck or forklift		Gas or propane forklift	
Maximum total amount of gross load in lbs.		Weight of forklift in lbs.		Maximum capacity in lbs.	
3 wheel or 4 wheel trucks		Solid or pneumatic forklift tires		Forklift axle width	
Cargo/load transported		Number of shifts per day		Number of deliveries or trucks per day	

TYPICAL TRUCK BED HEIGHTS:

Container	Refrigerator	City delivery	Straight semi	High cube	Low boys	Flatbeds
55" - 62"	50" - 60"	45" - 48"	48" - 52"	35" - 43"	19" - 25"	47" - 52"

End loading situations	Y N	Refrigerator trucks	Y N	Trucks with rear steps	Y N

DOCK AND TRAILER HEIGHT:

Dock height in inches		Min. trailer bed height (ground to top of truck bed) in inches		Max. trailer bed height (ground to top of truck bed) in inches	

MAXIMUM RECOMMENDED GRADE FOR HANDLING EQUIPMENT:

Manual pallet truck 3%	Electric pallet truck 7%	Electric forklifts 10%	Gasoline fork trucks 15%

DRIVEWAY APPROACH: (Approach grade relates to the slope of the driveway to the building wall)

Level	Y N	Decline approach towards dock	Y N	Incline approach away from dock	Y N	% Grade (see formula next page)
Laminated bumpers and size (W" x H" x D")		Molded rubber bumpers and size (W" x H" x D")		Drive approach material (asphalt, concrete, etc.)		

SUBMITTED BY:_____ DATE:_____

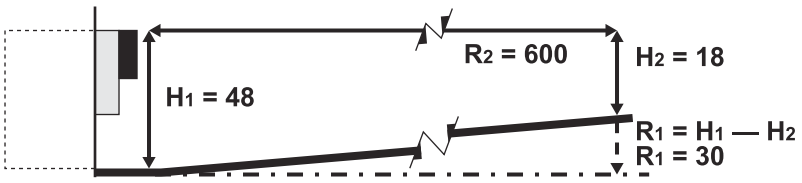
COMPANY:_____ CITY:_____ STATE:_____

PROJECT:_____

SLOPED DRIVEWAY APPROACH GRADE FORMULA: % of GRADE = RISE (R) divided by RUN (R)

- Rise is the difference in elevation between the dock and point in front of dock, e.g. 45' to 50'
- Run is the actual distance on the driveway that the rise is measured e.g. 45' to 50' to match the average 'over-the-road' trailer length
- To determine this on site, use a 55' string line. Secure line to the top of lip spool of dock leveler when in the cross-traffic position or loading dock floor. Walk out 50' and measure vertical drop to grade. Use a line level for accurate height level.

Dock area with projected pit and decline driveway.



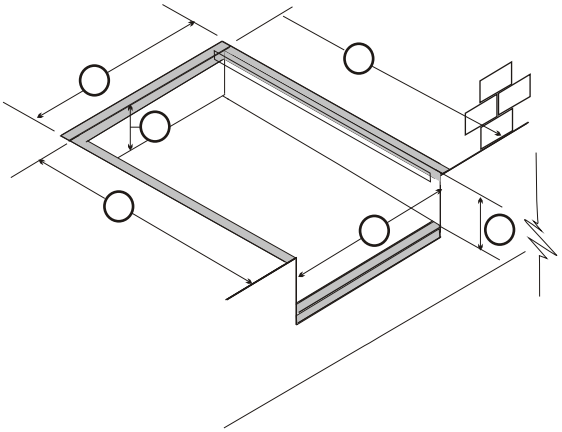
Percent of grade = 30/600
= 5%

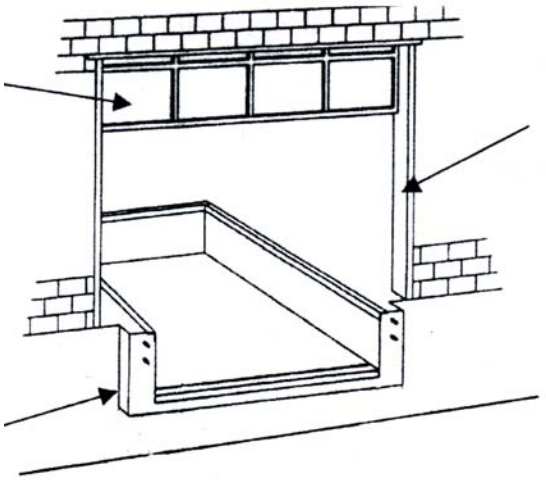
DOCK DESIGN CONDITIONS: (important – must be completed when quoting XDS Series for existing installations)

Enclosed with overhead doors above	Y / N	Open platform	Y / N	Pit projection (cantilevered dock) in inches		Door seal/ shelter required	Y / N
Exterior wall thickness in inches		Overhead door thickness in inches		**Door track thickness in inches**			

DOCK LEVELER REPLACEMENT PIT DETAILS:

Pit width in inches		Pit length (front to rear) in inches		Pit depth at front in inches		Pit depth at rear in inches	
Is there embedded curb angles and what condition?		Any concrete pit obstructions, projections or variances? Explain					





ELECTRICAL REQUIREMENTS FOR POWER PACK: (Hydraulic only)

Voltage		Phase		Distance in feet of power pack installation location from dock (if remote)		Hazardous controls	Y / N

SUBMITTED BY:_____ DATE:_____

COMPANY:_____ CITY:_____ STATE:_____

PROJECT:_____

Model Specifications

mechanical & fully hydraulic dock levelers

NOMINAL MODEL SIZES		C - SERIES	U- SERIES			A - SERIES	DECK SIZE				PIT SPECIFICATIONS			
		Models	Models			Models	WIDTH		LENGTH includes 16" (406 mm) Lip		PIT WIDTH		PIT LENGTH	
ft	mm	Mechanical	Hyd / Mech	Air Cylinder	Airbag *	Hydraulic / Mechanical	in	mm	in	mm	in	mm	in	mm
5'x6'	1524 x 1829					■	60	1524	75.5	1918	62	1575	61.25	1556
6'x6'	1829 x 1829	■	■	■	■	■	72	1829	75.5	1918	74	1880	61.25	1556
6'x8'	1829 x 2438	■	■	■	■	■	72	1829	99.5	2527	74	1880	85.25	2165
6'x10'	1829 x 3048		■	■		■	72	1829	123.5	3137	74	1880	109.25	2775
6'x12'	1829 x 3658					■	72	1829	147.5	3747	74	1880	133.25	3385
6'6"x6'	1981 x 1829	■	■	■	■	■	78	1981	75.5	1918	80	2032	61.25	1556
6'6"x8'	1981 x 2438	■	■	■	■	■	78	1981	99.5	2527	80	2032	85.25	2165
6'6"x10'	1981 x 3048		■	■		■	78	1981	123.5	3137	80	2032	109.25	2775
6'6"x12'	1981 x 3658					■	78	1981	147.5	3747	80	2032	133.25	3385
7'x6'	2133 x 1829	■	■	■	■	■	83	2108	75.5	1918	85	2159	61.25	1556
7'x8'	2133 x 2438	■	■	■	■	■	83	2108	99.5	2527	85	2159	85.25	2165
7'x10'	2133 x 3048		■	■		■	83	2108	123.5	3137	85	2159	109.25	2775
7'x12'	2133 x 3658					■	83	2108	147.5	3747	85	2159	133.25	3385

For Metric conversion to mm, multiply inches by 25.4. For conversion to kg divided lb by 2.2

Architectural specifications are updated on our website at www.BlueGiant.com

STANDARD FRAME DEPTH		STANDARD PIT DEPTH	
Front	Rear	Front	Rear
19.5 in 495 mm	19 in 483 mm	20 in 508 mm	19.5 in 495 mm
***AIRBAG FRAME DEPTH**		***AIRBAG PIT DEPTH**	
Front	Rear	Front	Rear
23.5 in 597 mm	23 in 581 mm	24 in 610 mm	23.5 in 597 mm

CAPACITIES*		C Series	U Series				A Series	
lbs	kgs	Mechanical	Hyd	Mech	Air Cylinder	Airbag	Hydraulic	Mechanical
25,000	11,363	■						
30,000	13,636	■	■	■	■	■	■	■
35,000	15,909	■	■	■	■	■	■	■
40,000	18,181		■	■	■	■	■	■
45,000	20,455		■	■	■	■	■	■
50,000	22,727						■	■
60,000	27,273						■	
80,000	36,364						■	

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BLUE GIANT EQUIPMENT CORPORATION

BLUE GIANT offers a full line of Loading Dock Equipment including Dock Levelers, Vehicle Restraints, Dock Seals and Shelters and Material Handling Solutions. Concurrent with our continuing product improvement program, specifications are subject to change without notice. Please contact BLUE GIANT for latest information. Some features illustrated may be optional in certain market areas.