

# **Beacon Door Seal**

**“Projection” & Dock Bumper**

**“Stand-Out Distance” Planner**



Beacon Industries

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# Door-Seal "Projection" & Dock Bumper "Stand-Out Distance" Planner

Loading docks - the beginning and the end of the material handling cycle - are among the busiest and most important areas of plants, retail outlets and warehousing facilities. Subjected to heavy, continuous traffic, they are vital to the smooth and efficient flow of raw materials and finished goods. Careful planning and design of loading docks, along with proper selec-

tion of equipment, can result in improved working conditions, as well as increased safety and fuel efficiency. While numerous factors contribute to their successful planning, this bulletin focuses on the important aspect of dock bumper "stand-out distance" (distance between truck bed and dock) and door seal pad projection.

This easy-to-use chart will assist in determining required thicknesses of laminated rubber dock bumpers for docking facilities with or without door seals.

## CHART LEGEND

- A** Minimum standard distance at top with bumper - 2"
- B** Minimum standard distance at top with bumper and door seal - 6"

 Percentage of grade



Rise of Driveway	DRIVEWAY LENGTH													
	10FT.		20 FT.		30 FT.		40 FT.		50 FT.		60 FT.		70 FT.	
	A 2"	B 6"	A 2"	B 6"	A 2"	B 6"	A 2"	B 6"	A 2"	B 6"	A 2"	B 6"	A 2"	B 6"
1'0"	10%	10%	5%	5%	3.33%	3.33%	2.5%	2.5%	2%	2%	1.60%	1.60%	1.4%	1.4%
*	13.34	17.34	7.69	11.69	5.80	9.80	4.84	8.84	4.29	8.29	3.89	7.89	3.76	7.76
1'6"	15%	15%	7.5%	7.5%	5%	5%	3.75%	3.75%	3%	3%	2.5%	2.5%	2.14%	2.14%
*	18.91	22.91	10.52	14.53	7.69	11.69	6.28	10.28	5.42	9.42	4.84	8.84	4.45	8.45
2'0"			10%	10%	6.66%	6.66%	5%	5%	4%	4%	3.33%	3.33%	2.85%	2.85%
*			13.34	17.34	9.58	13.58	7.69	11.69	6.56	10.56	5.80	9.80	5.26	9.26
2'6"			12.5%	12.5%	8.33%	8.33%	6.25%	6.25%	5%	5%	4.16%	4.16%	3.5%	3.5%
*			16.15	20.15	11.46	15.46	9.12	13.12	7.69	11.69	6.75	10.75	6.08	10.08
3'0"					10%	10%	7.5%	7.5%	6%	6%	5%	5%	4.29%	4.29%
*					13.34	17.34	10.53	14.53	8.82	12.82	7.69	11.69	6.87	10.87
3'6"					11.67%	11.67%	8.75%	8.75%	7%	7%	5.83%	5.83%	5%	5%
*					15.20	19.20	11.94	15.94	9.95	13.95	8.64	12.64	7.69	11.69
4'0"							10%	10%	8%	8%	6.66%	6.66%	5.71%	5.71%
*							13.34	17.34	11.08	15.08	9.58	13.58	8.50	12.50

\*Stand-out distance in inches

## GUIDELINES

- When specifying a dock bumper with a seal or shelter, the thickness of the bumper should permit a minimum space of 6" between the building and the top of the truck.
- When specifying a dock bumper without a seal, the thickness of the bumper should permit a minimum space of 2" between the building and the top of the truck.
- A dock bumper of correct thickness should cause a door seal to be compressed a minimum of 4" and a maximum of 6".

## INSTRUCTIONS

1. Measure length of driveway.
2. Determine rise of driveway.
3. Locate length and rise dimensions on chart.
4. On chart locate correct bumper and stand-out distance **A** without seal or **B** with seal.

5. Then select dock bumper at one thickness greater than chart calculation:

**Example:** If the driveway length measures 30 ft. with a 1 ft. rise, and dock doors are equipped with seals, the bumper stand-out distance would be 9.80", and a 10-1/2" dock bumper would be used. (Standard dock bumper thicknesses are 4-1/2", 6", 9", 10-1/2", 12".) For thicker units, contact factory.

6. Dock-Seal Projection - See other side

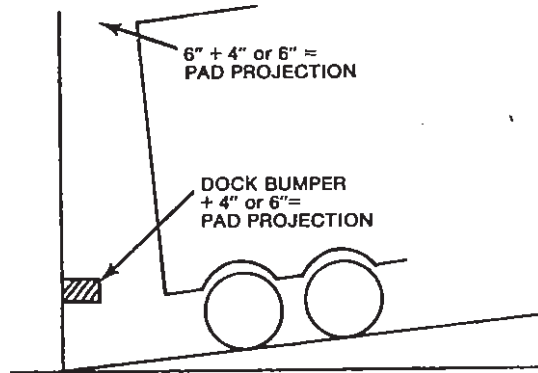
## IMPORTANT

Variations or lack of uniformity in rises and slopes affect the accuracy of calculations. Take into account all variables before finalizing stand-out dimensions. Chalfant cannot be held responsible for resulting inaccuracies.

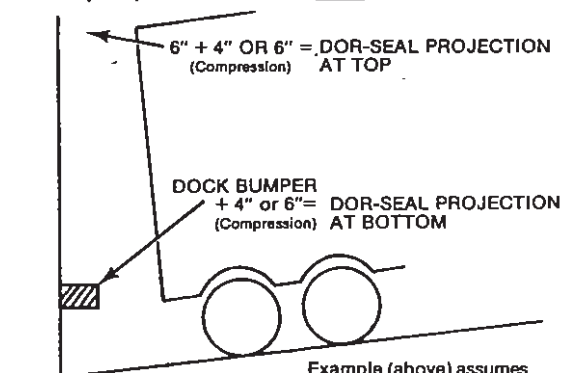
## DOCK-SEAL PROJECTION

To determine the correct dock seal projection:

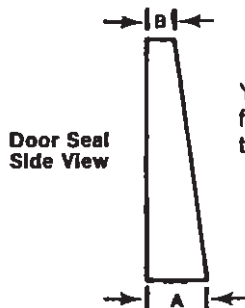
- A. Take your dock bumper projection and add either 4" or 6" to that figure. This will provide the proper pad projection for the BOTTOM of the door seal.



- B. Take your distance between the top of the trailer and building face distance (B). Add 4" or 6" to obtain the correct pad protection at the TOP of the door seal.



Example (above) assumes that the building wall is straight — not set back.



Your pad will be tapered from \_\_\_\_\_ at bottom to \_\_\_\_\_ at top.

NOTE: Proper pad compression is minimum 4" to maximum 6"

## Bumpers

For maximum protection to dock, truck and cargo, specify Beacon laminated rubber dock Bumpers. Properly sized and installed, these dock bumpers provide unsurpassed protection and absorb over 80% of the truck's impact.

## Wheel Chocks

Since OSHA requires wheel chocks for docked trucks or trailers, specify Beacon laminated rubber wheel chocks for maximum traction between truck wheels and pavement.

## Dock Lights

Specific lighting guidelines have been established for loading dock areas, and dock lights with adjustable swivel arm are recommended for most applications.

## Save Energy with Beacon

Loading docks should be equipped with either door seals or dock shelters to cut energy costs. The choice is determined by the size of the door and the individual loading requirements. This locks in heated or cooled air while keeping out dirt and inclement weather. To save energy, closing the critical gap between the building and truck is a must. Contact Beacon or your local Beacon dealer today for fast, efficient help.

## Location

Proper location of docking facilities assures sufficient maneuvering area for vehicles. When possible, design the approach so trucks are docked on as level a surface as possible. Try to avoid pits and ramps.

### Serving your Needs For:

- Door Seals • Dock Shelters
- Rail Shelters • Traffic Doors
- Strip Doors • Air Curtains
- Roll-Up Doors • Dock Levelers

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## NOTES