



CALCULATING LATERAL FORCE FOR PUSHBACK RACK

How to calculate the “push force” for your pushback system

Steel King Pushback is designed with a 5/16” per foot slope.

This equates to 3% of the pallet loaded weight.

Pallet Weight	Push Force			
	2 Deep	3 Deep	4 Deep	5 Deep
500 lbs.	15 lbs.	30 lbs.	45 lbs.	60 lbs.
1,000 lbs.	30 lbs.	60 lbs.	90 lbs.	120 lbs.
1,500 lbs.	45 lbs.	90 lbs.	135 lbs.	180 lbs.
2,000 lbs.	60 lbs.	120 lbs.	180 lbs.	240 lbs.
2,500 lbs.	75 lbs.	150 lbs.	225 lbs.	300 lbs.
3,000 lbs.	90 lbs.	180 lbs.	270 lbs.	360 lbs.

Example Calculation

Lateral (Push) Force for a 5-deep pushback with 2,500 lbs. pallets

$3\% \times 2,500 \text{ lbs.} = 75 \text{ lbs. per pallet}$

$75 \text{ lbs.} \times 4 \text{ pallets} = 300 \text{ lbs.}$

NOTE: Forklift pallet not required in calculation

