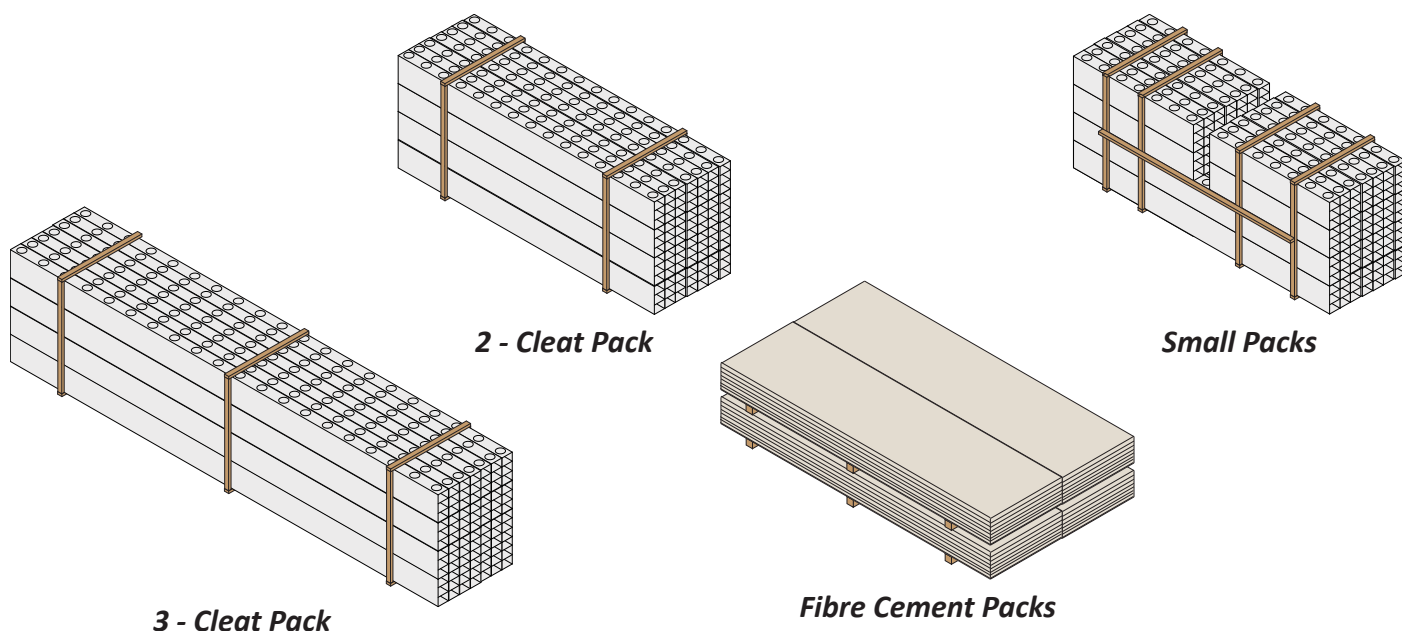


### This Guideline:

- Is for AFS and applies to packs of AFS Rediwall Panels packaged with cleating to a standard that will hold against the load restraint forces to which they are exposed, transported by road in Australia.
- Is the loader and driver guide to certification E00810-LRC1 to meet the loading performance standards listed in Schedule 7 of the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation* (22 February 2021).

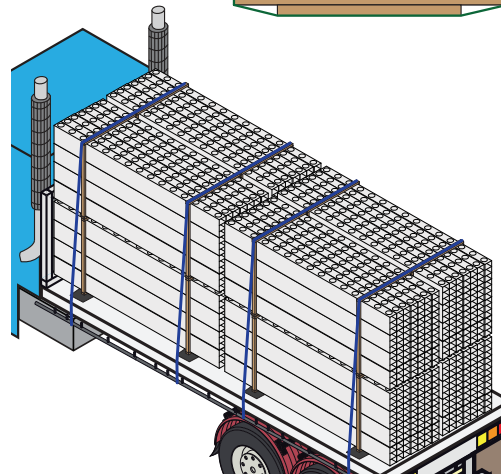
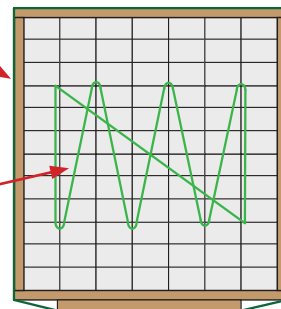


### Load Restraint Combination Summary

This guideline requires a combination of all the restraint methods below:

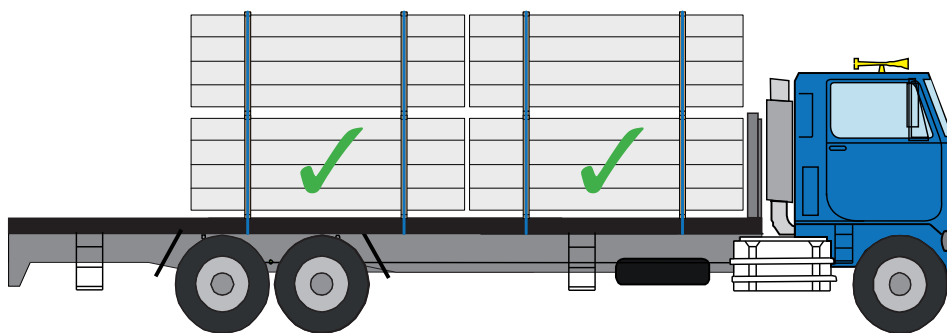
- Blocking packs to a headboard or to other blocked product is preferred, but may be required for heavier packs.
- See Section 4 - Maximum Pack Mass by Load Configuration, on page 5.
- Stacking of packs is always cleat to cleat, making sure that top and bottom cleats are carefully and centrally aligned.
- 50mm tie-down lashings are to be applied over each line of cleats.
- The lashings must be fully tensioned to minimum 300 kg.f
- Base layer cleats to be placed on industrial rubber, unless the cleat is rebated.

**Cleating nailed and strapped around pack. Laced strapping to prevent spearing All to AFS procedures.**



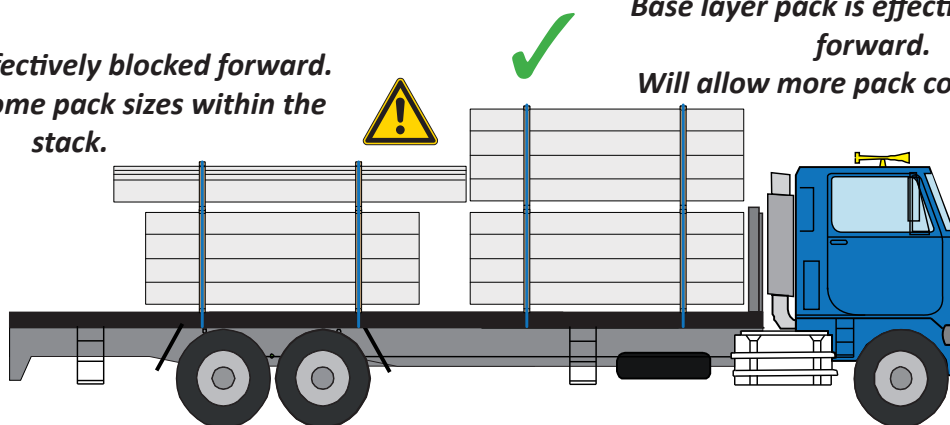
### 1. Blocking Forward

- ✓ Blocking forward to a headboard is **preferred** but optional in some combinations.
- ✓ Blocking forward to headboard is required for some load combinations including heavier packs.
- ✓ See Section 4 - Maximum Pack Mass by Load Configuration, on page 5.
- ✓ To effectively block the stack, the base pack in the stack must be blocked forward,  
OR;
- ✓ The top pack must be blocked forward, through to the headboard, AND;
- ✓ The top pack must weigh at least 25% of the base pack below it.

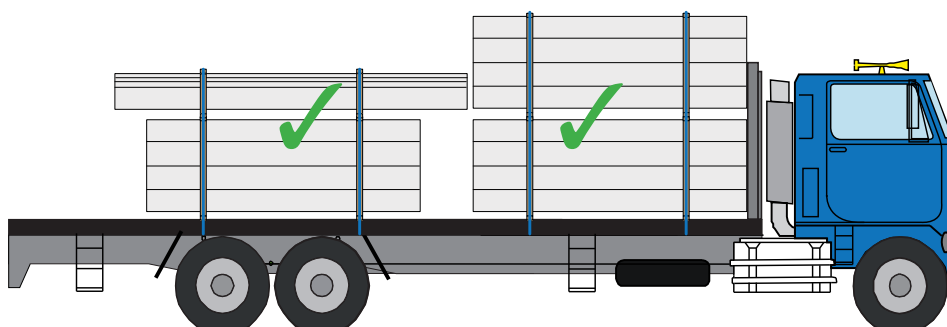


*Base layer of both stacks are effectively blocked.  
Will allow more pack combinations.*

*Stack is not effectively blocked forward.  
Will restrict some pack sizes within the stack.*



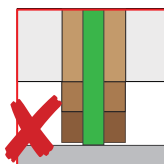
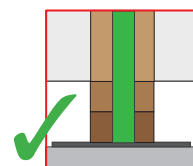
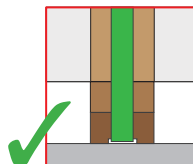
*Base layer pack is effectively blocked forward.  
Will allow more pack combinations.*



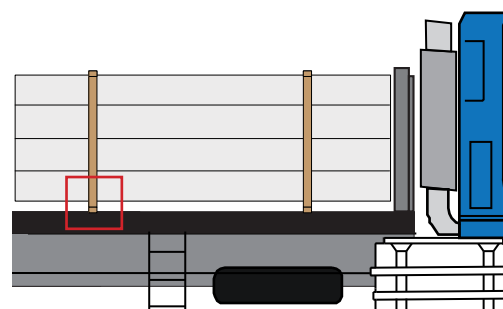
*Headboard extends higher,  
to height of the rear stack  
top layer.  
This effectively blocks to  
whole rear stack IF the upper  
pack is no less than 25% of  
the weight of the base pack.*

## 2. Stacking the load

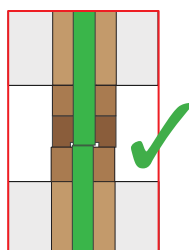
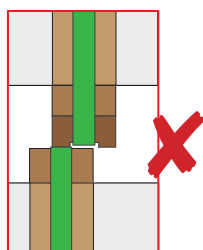
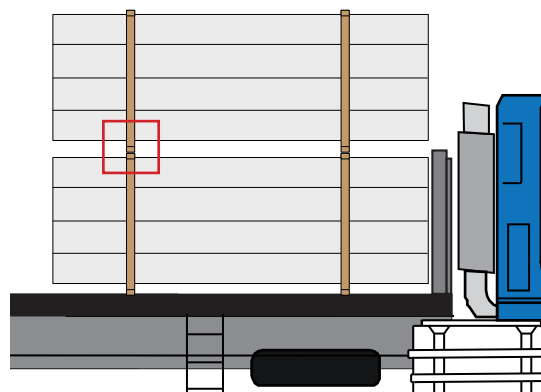
- ✓ Ensure there is a friction-improvement layer (rubber) below the base pack cleats if there is no rebate for the packaging strap. (Not required between the top and base packs.)
- ✓ Stack cleat to cleat carefully and accurately.
- ✓ Align the top and bottom layer cleats to  $\pm 5\text{mm}$  at outside corners, and  $\pm 10\text{mm}$  inside.
- ✓ Tap cleats until they align, where necessary.
- ✗ Cleats only partially aligned are a high risk.



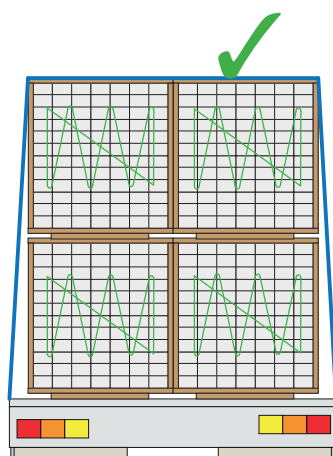
**Rebated base cleat or rubber under cleat**



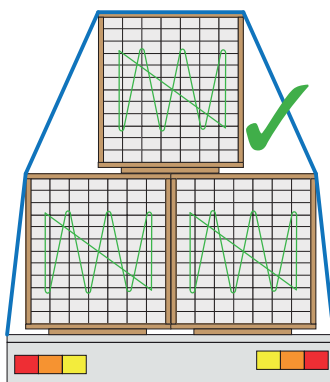
**Cleats and Lashings aligned Vertically**



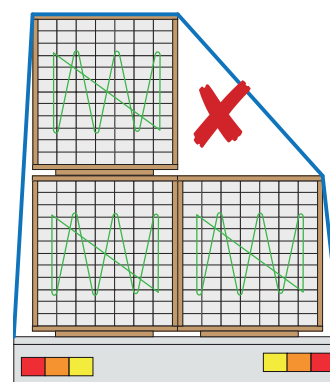
- ✓ Stack the load centrally down the vehicle.
- ✗ Do not stack to one side.



**Maximum 2 high stacks**



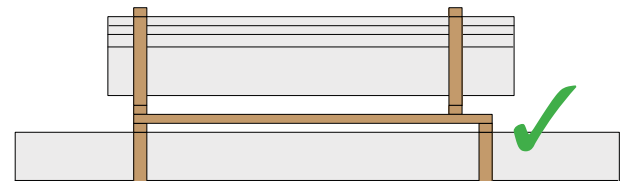
**Even Load Distribution**



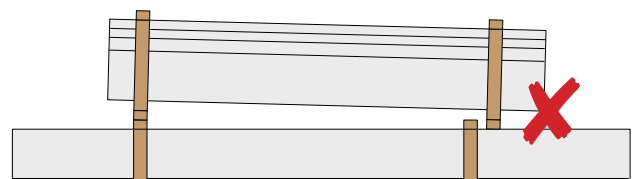
**Uneven Load Distribution**

### 3. Part / Small Pack Stacking

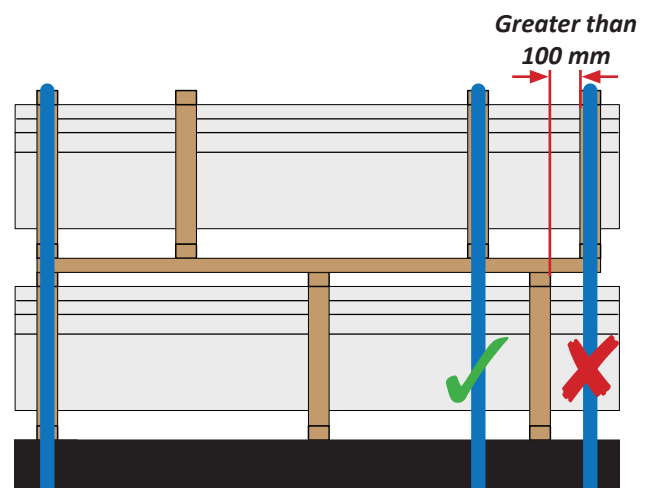
- ✓ Load small packs on top of full packs.
- ✓ Load bridging timber along the packs when the cleats do not align.
- ✓ Bridging timber must be positioned at the end of the cleats, minimising the gap to the edge.
- ✓ Stack cleat to cleat, where possible.
- ✓ One cleat must be aligned to the lower pack cleat.
- ✓ Tap cleats until they align, where necessary.
- ✓ Align lashings over the end cleats, where possible.
- ✗ Do not position lashing over the end cleat if the overhang of the end cleat is more than 100 mm.
- ✓ Align the lashing (of the offset side) over the cleat closest to the lower cleat.



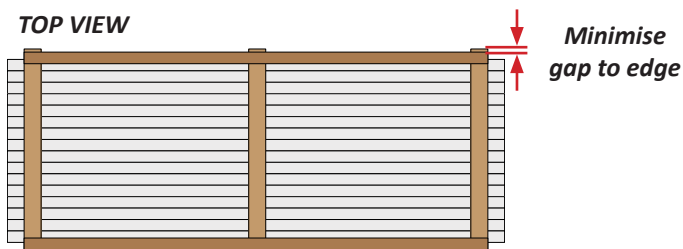
**Load bridging timber along the packs when the cleats do not align**



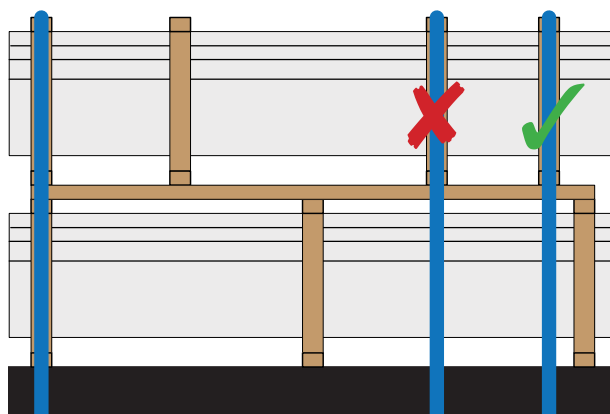
**Do not load cleats of packs directly on lower pack product**



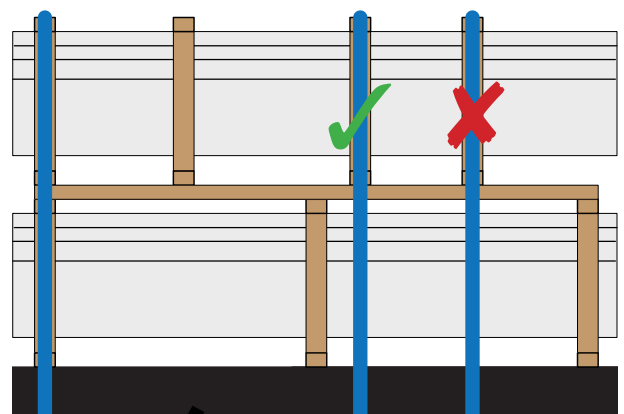
**Do not position lashing over the end cleat if the overhang of the end cleat is more than 100 mm**



**Bridging timber must be positioned at the end of the cleats**



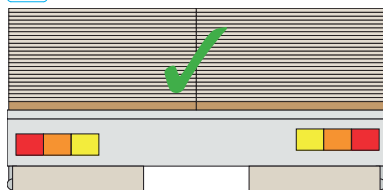
OR



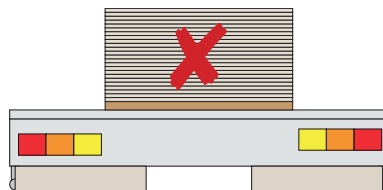
**Align the lashing (of the offset side) over the cleat closest to the lower cleat.**

### 4. Fibre Cement Boards Stacking and Load Restraint

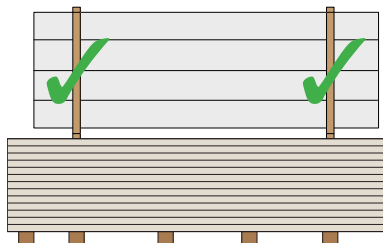
- ✓ Load fibre cement boards on the base only.
- ✓ Fibre cement boards must be loaded full width only.
- ✗ Do not load fibre cement boards single file.
- ✓ Ensure cleats from Rediwall packs align with dunnage from Fibre Cement Boards.
- ✓ Restrain the cement boards separately to the Rediwall packs.
- ✓ Minimum 2 lashings per pack.
- ✓ Restrain the cement boards as per Table 1.



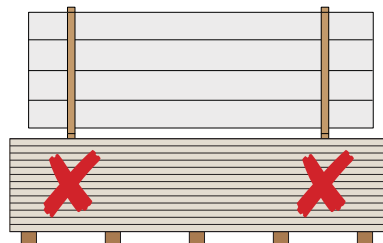
**Fibre cement must be loaded full width only**



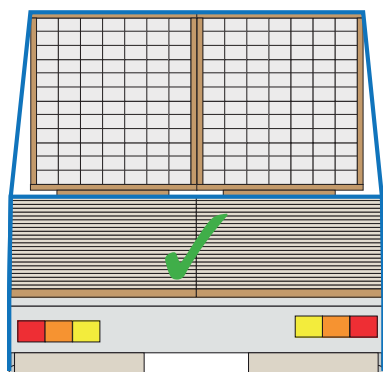
**Do not load fibre cement boards single file**



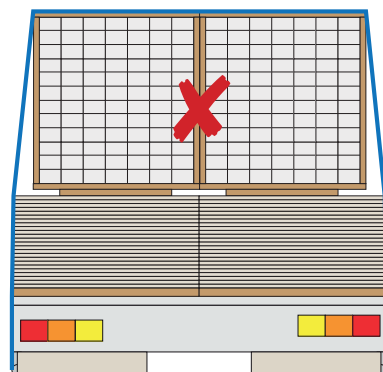
**Cleats from Rediwall packs align with dunnage from Fibre Cement Boards**



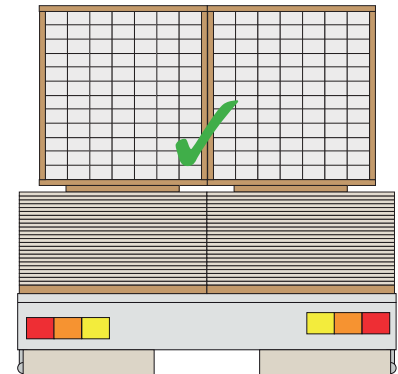
**Do not load cleats mid span of the fibre cement dunnage**



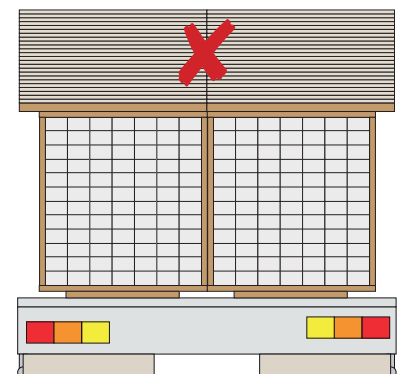
**Restrain fibre cement boards separately as per Table 1**



**Do not restrain fibre cement boards and Rediwall packs together**



**Fibre cement boards loaded on the base of the stack**



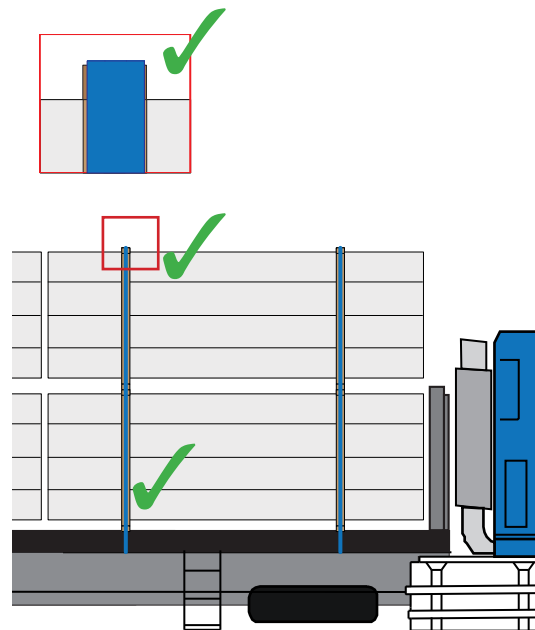
**Do not load fibre cement on top of Rediwall packs**

**Table 1: Number of lashings per stack:**  
(\*)=impractical)

Stack Mass Restrained	Unblocked	Blocked
	(81 - 90°)	(81 - 90°)
	Push up ratchet /Drum winch	Push up ratchet /Drum winch
0 - 500 kg	2	2
501 - 1,000 kg	2	2
1,001 - 1,500 kg	3	2
1,501 - 2,000 kg	4	2
2,001 - 2,500 kg	5	2
2,501 - 3,000 kg	6	2
3,001 - 3,500 kg	6	2
3,501 - 4,000 kg	7	2
4,001 - 4,500 kg	8	2
4,501 - 5,000 kg	9	3

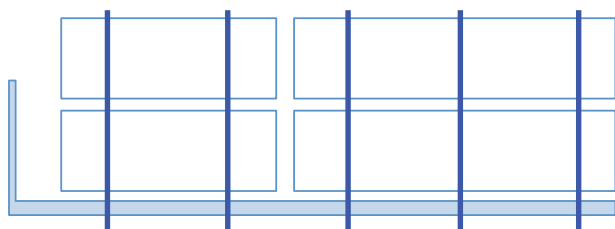
### 5. Apply Tie-down Lashings

- ✓ Place a 50 mm tie-down lashing over each cleat line.
- ✓ Align the lashing centrally with the cleat top.
- ✓ The lashing should be close to vertical when looking at the load side on. A small angle back is acceptable.
- ✗ Do not angle the lashing forward or rearward.
- ✓ Fully tension the lashing using a ratchet or drum.
- ✓ Lashings shall have no more than one twist in any tie-down leg.



*Lashings central and vertical along the truck*

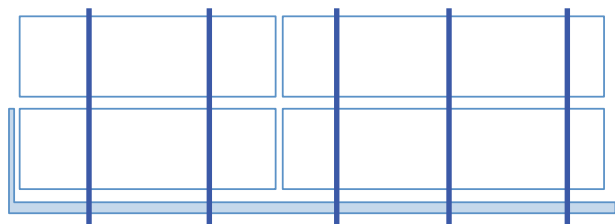
### 6. Maximum Pack Mass by Configuration



*Mass Limits for Two-High, Two-Abreast  
NOT BLOCKED Forwards*

320	320
480	480
320	320
480	480

kg mass for:  
2-cleat packs  
3-cleat packs



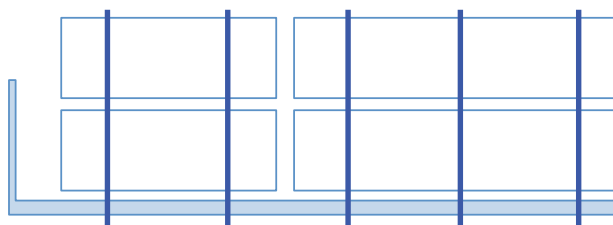
*Mass Limits for Two-High, Two-Abreast  
BLOCKED Forwards*

320	320
480	480
500*	320
750*	480

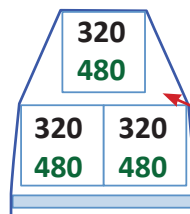
kg mass for:  
2-cleat packs  
3-cleat packs

\* Heavier packs  
\* Only one heavier pack in bottom row

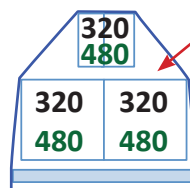
### 6. Maximum Pack Mass by Configuration (continued)



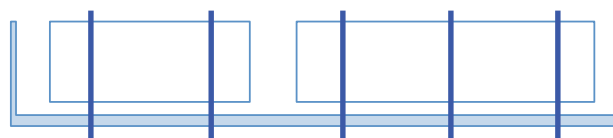
**Two-High, Narrower Upper Layer – One or Two Packs**  
**NOT BLOCKED Forwards**



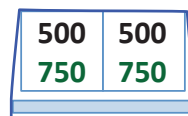
For top layer single pack or 2x narrow packs, the total top layer mass is limited to 320 kg or 480 kg for 2 or 3-cleat packs respectively



Minimum lashing angle to top row is 30°



**One-High, Full-Width or Narrower**  
**NOT BLOCKED or BLOCKED Forwards**



For one-high, single pack or 2x narrow packs, the load mass is limited to 500 kg or 750 kg for 2 or 3-cleat packs respectively



Minimum lashing angle is 30°



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