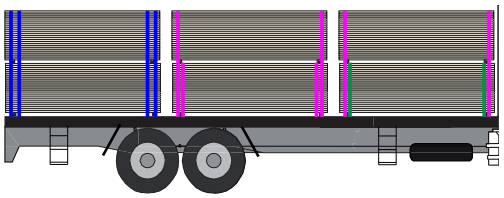
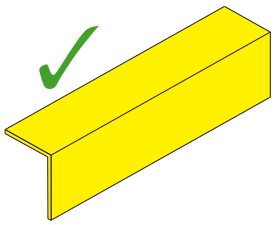
This guideline:

- Covers the transportation of gypsum board with widths ranging from 600 mm to 1350 mm, up to 12000 kg, cornice and GBMA accessories via road.
- Is the loader and driver guide to the certification E01264-LRC1 to meet the loading performance standards listed in Schedule 7 of the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation* (February 2021).

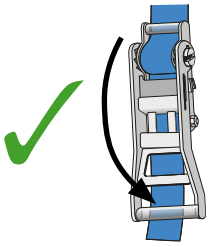


Load Restraint Equipment and Key Requirements:

- ✓ All Webbing straps must be in good working order.
- ✓ 50mm straps or larger, may be used for tie down over freight with Push Up ratchets (300kg resulting average pretension over the load).
- ✓ 50mm straps or larger, may be used for tie down over freight with Drum winches (300kg resulting average pretension over the load).
- ✓ 50mm straps may be used for tie down over freight with Pull Down ratchets (600kg resulting average pretension over the load).
- ✓ Maximum stack height of 4.3 m from the ground.
- ⚠ Stability of vehicles and product stacks can be impacted by high load heights.
- ✘ Do not leave items loose on the vehicle. Always secure within a box or crate.
- ⚠ Steel pallets must have Industrial rubber or rough sawn timber material placed under them to remove the steel on steel low friction surface contact.
- ⚠ For loads with multiple layers, the dunnage between each layer should be aligned vertically.
- ⚠ Timber dunnage may not have rounded corners.
- ⚠ Throwing webbing is a manual handling risk. Use caution when applying lashings and check the other side of the trailer is clear when throwing lashings.
- ✓ Loads should be blocked against a suitably engineered headboard/surface wherever possible.
- ✓ All packaged items must be unitised to meet the Performance Standards.

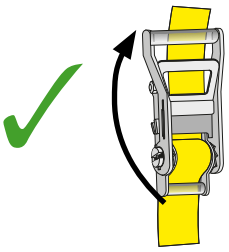


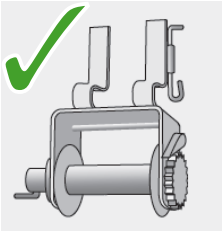
Corner protectors shall be used under all webbing straps.



Pull down ratchet

600kg average pretension over load.

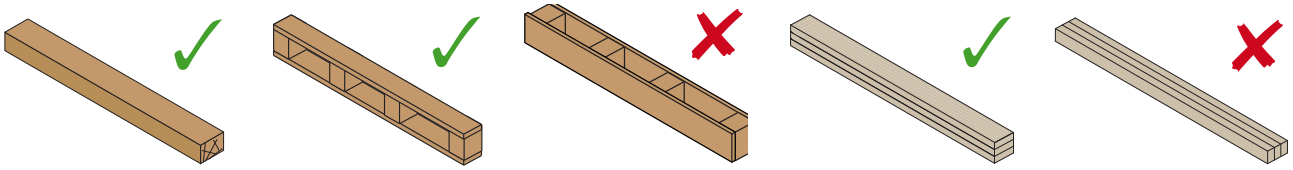




Push up ratchet and common Drum Winch

300kg average pretension over load.

Dunnage Requirements and Alignment



Solid Timber dunnage with a rough sawn surface is acceptable

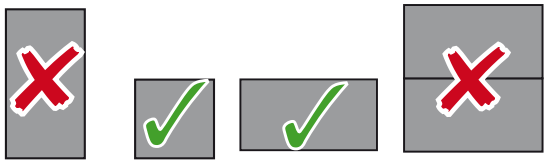
Fabricated timber dunnage must be used with boards horizontal tyne pockets open

Do not use fabricated timber dunnage with boards vertical

Glued plasterboard and plastic wrapped plasterboard dunnage is acceptable

Do not use glued or plastic wrapped dunnage with boards vertical

Dunnage Configuration

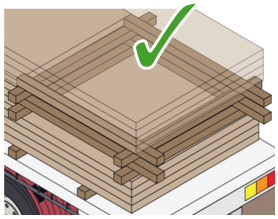


Do not use Rectangular Dunnage on short edge

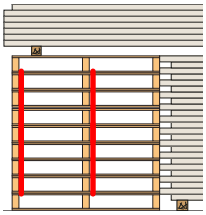
Do not stack dunnage

Plasterboard Dunnage Condition

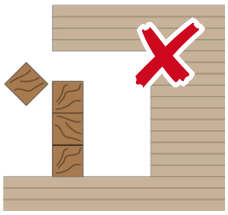
Plasterboard dunnage must be in good condition with no broken corners or cracks



Nest dunnage to fill larger gaps

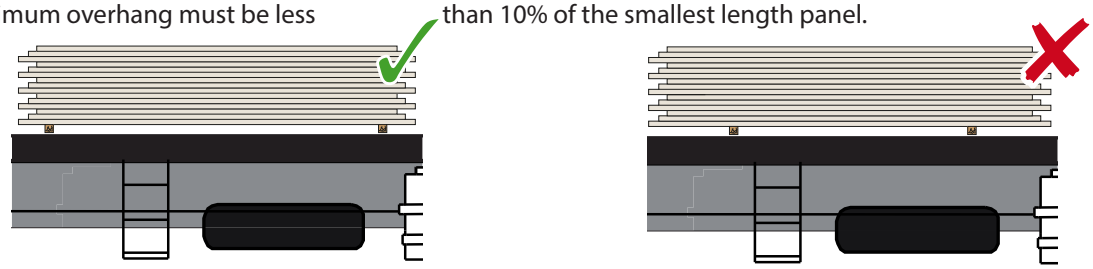


Stacks of pallets strapped together

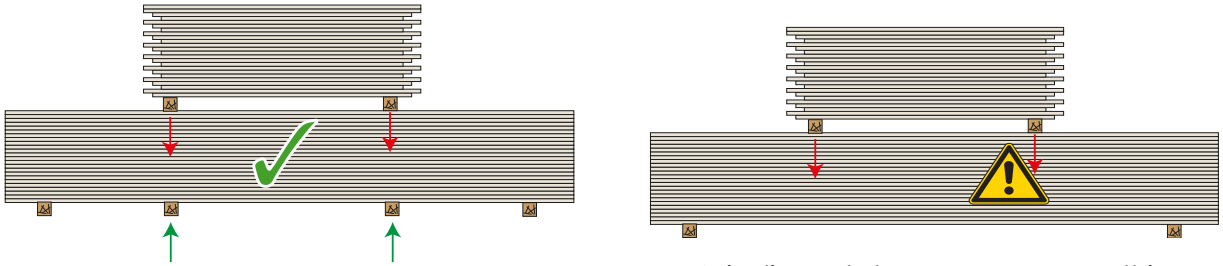


Do not stack dunnage to fill larger gaps

☑ Maximum overhang must be less than 10% of the smallest length panel.



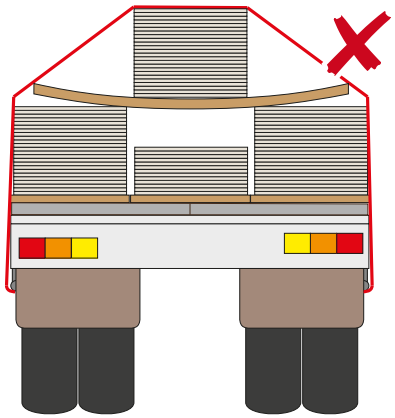
☑ Align dunnage within stacks where practical.



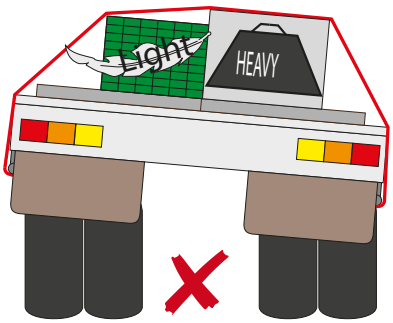
Additional dunnage should be positioned vertically to reduce pack bending from weight above

Misaligned dunnage can result in bending/flexing of longer packs

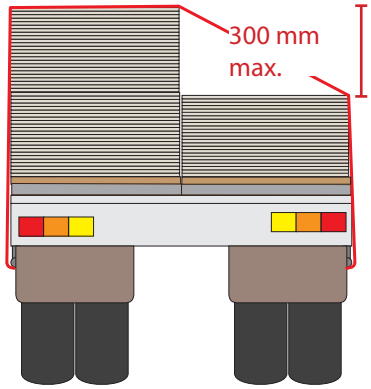
Load Configurations - Sheet Product



Do not bridge dunnage



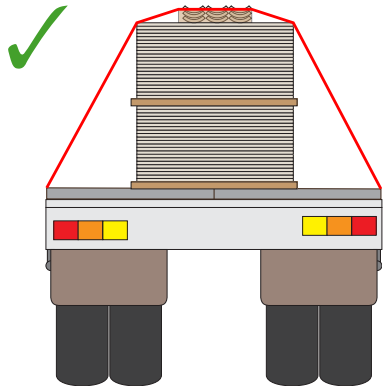
Avoid Imbalanced Loads



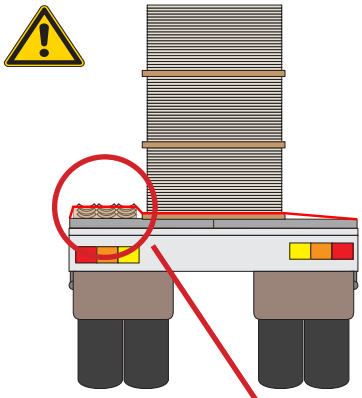
Two Abreast packs maximum height difference is 300mm

Load Configurations - Loose Cornice Product and metal packs

- ✓ Unitise groups of metal.
- ✓ Metal packs must be loaded on timber dunnage.
- ✓ Cornice and metal packs require forwards and rearwards blocking if loading more than two abreast.

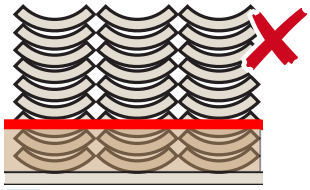


✓ Cornice on top of stack, blocked rearwards to dunnage lashed down to prevent spearing

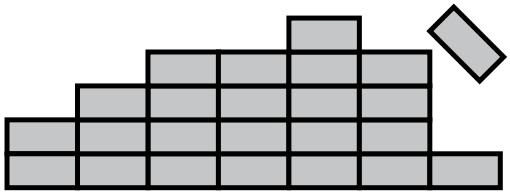


⚠ Cornice adjacent to stack, blocked rearwards to dunnage lashed down to prevent spearing

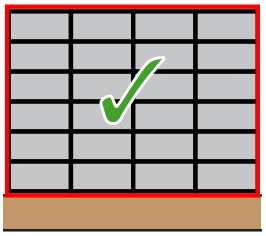
✗ Do not block to metal unless it is fixed to the deck



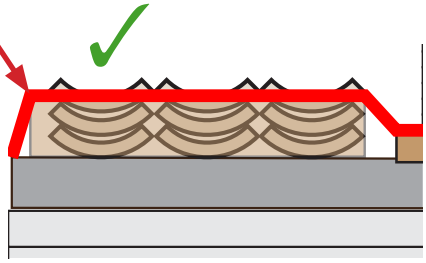
✗ Middle cornice can spear if unblocked



✗ Do not load metal product loose on trucks



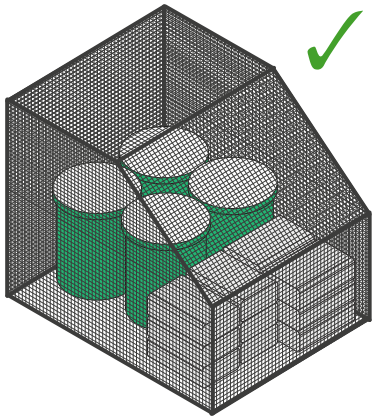
✓ Groups of metal belly wrapped, loaded on timber.



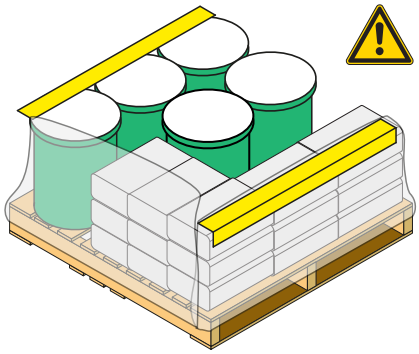
Corner protectors are needed between the cornice and strap and between cornice and deck

Load Configurations - Accessories

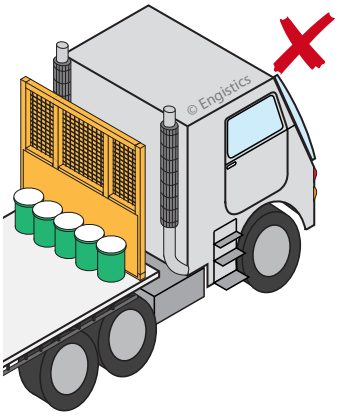
☑ Accessory cages and stretch wrap must meet performance standards.



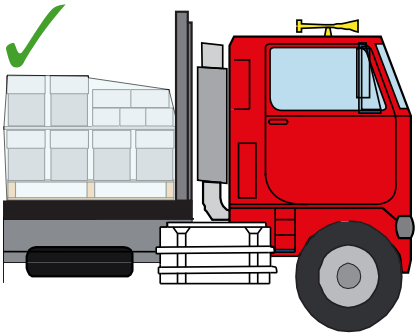
Accessories restrained by accessory cage where available



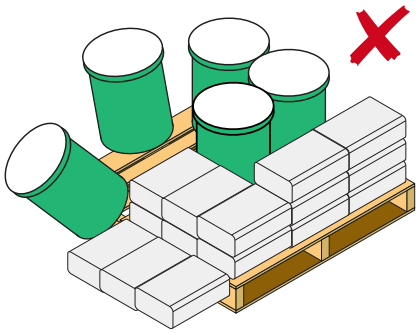
Accessories stretch wrapped to a pallet.



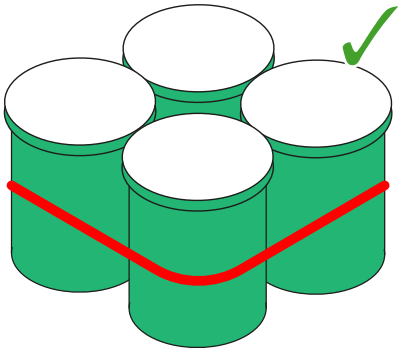
Accessories loose on the back of the trailer.



Block stretch wrapped accessories forwards where possible.

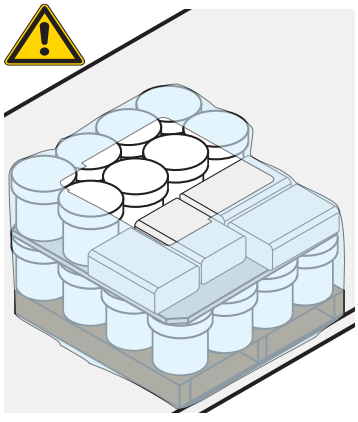


Accessories loose on a pallet

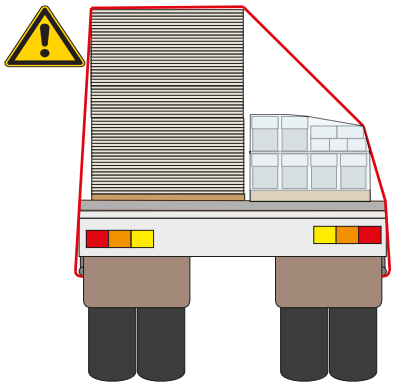


Unitise buckets of compound with PET strap

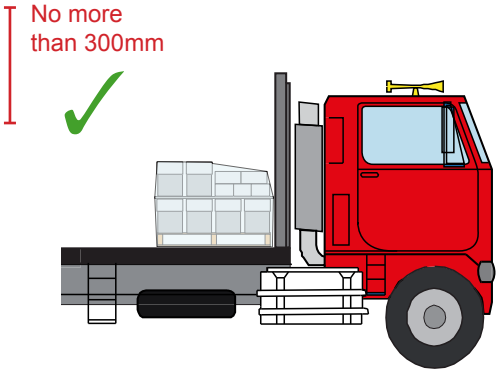
Load Configurations - Mixed loads



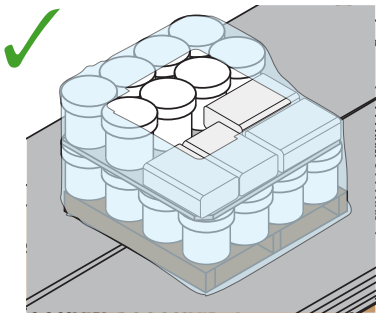
Accessory products must be packed to meet the NTC performance standards



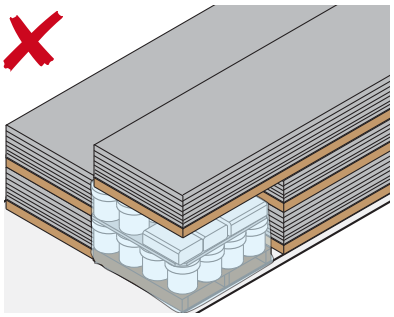
Maximum height difference across the truck is 300mm



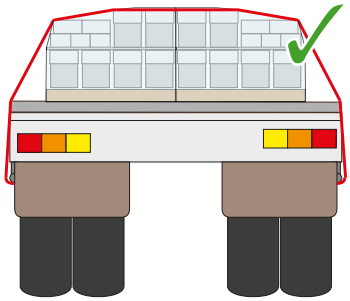
Block compound and accessories product wherever possible



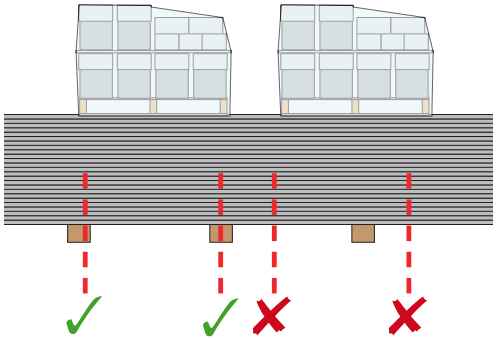
Stack compound product on top of sheet product.



Do not stack sheet product on top of compound product

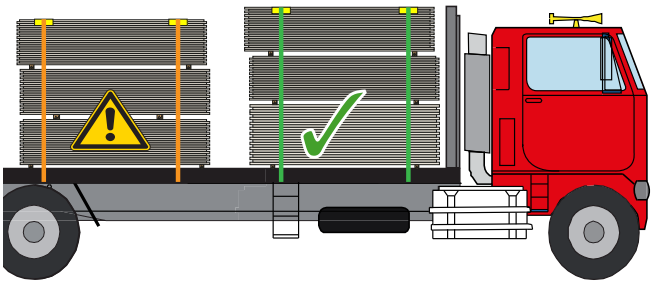


Load pallets maximum two abreast

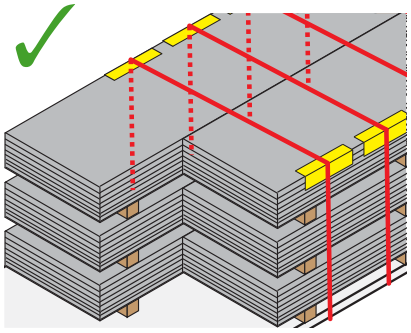


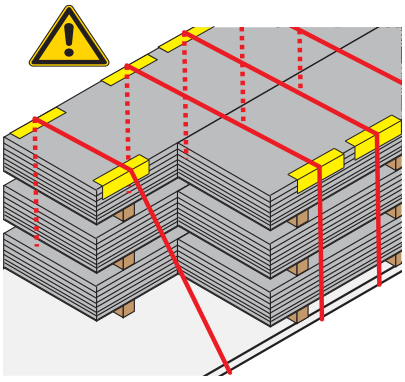
Pallets stacked on loose sheet product - bearers must align with the supporting dunnage

Load Build - Tie-down Alignment

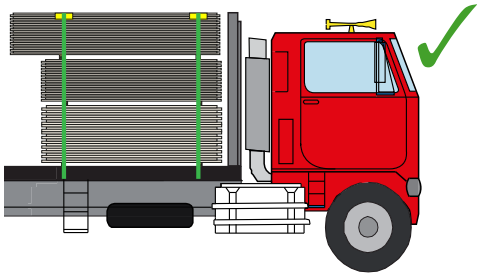


- ☑ Lashings should be aligned with lines of dunnage.
- ☑ Use rigid corner protectors between webbing lashings and products.

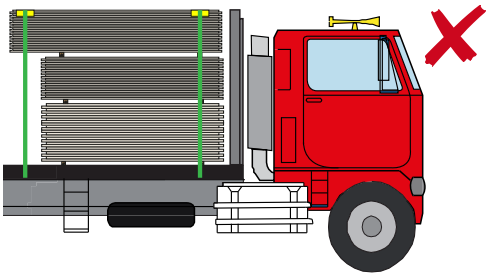




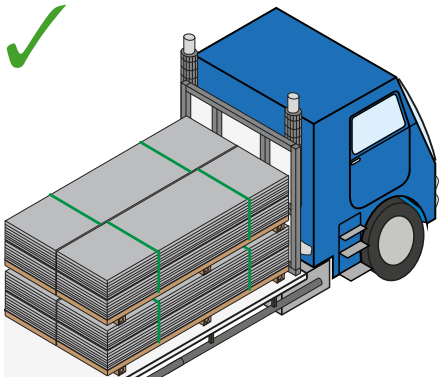
☑ For staggered packs, position lashings so that clamping is applied to both sides as far as practical. Only a small proportion of lashings at the overhang.

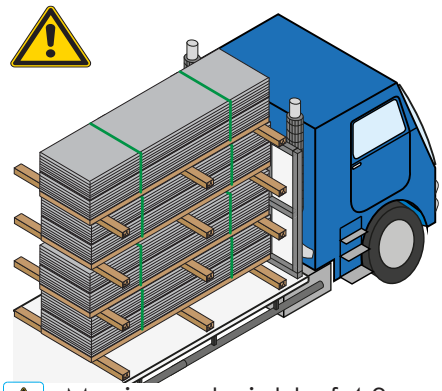


Apply lashings over supported loads only

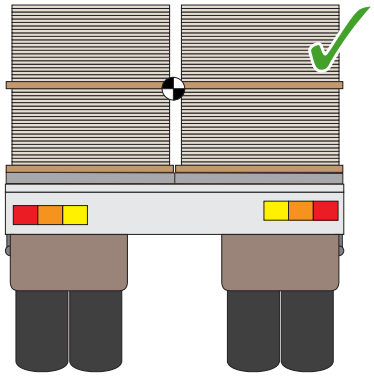


Lashings must not be applied to unsupported loads

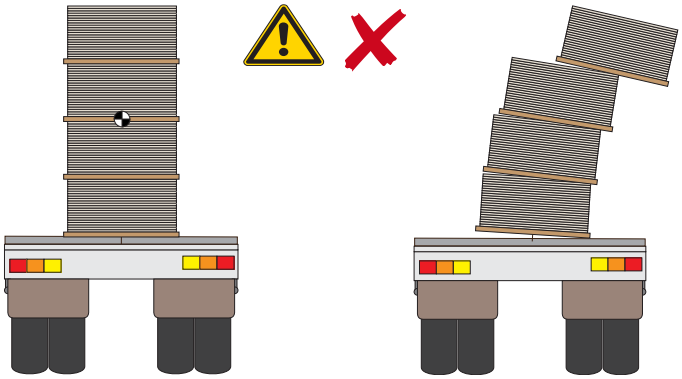




Maximum height of 4.3 m from the ground



Lower Centre of Gravity



Tall loads are more likely to topple

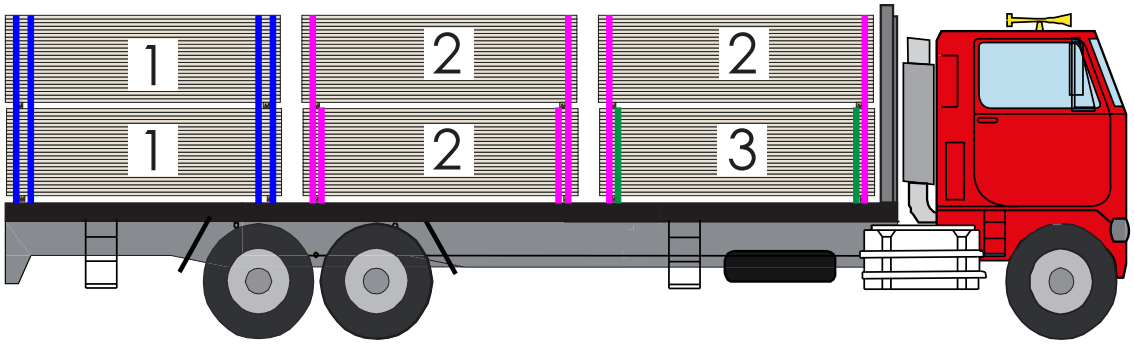
Table 1: Maximum Height per stack

Number of lashings	Smallest Board Width (mm)				
	600	800	1000	1200	1350
1	1200	1600	2000	2500	2800
2	1200	1700	2100	2600	2900
3	1300	1800	2200	2700	3000
4	1300	1800	2300	2800	3200*
5	1400	1900	2400	2900	3300*
6	1400	2000	2500	3000	3400*
7	1500	2000	2600	3200*	3600*
8	1500	2100	2700	3300*	3700*
9	1600	2200	2800	3400*	3800*
10	1600	2300	2900	3500*	4000*

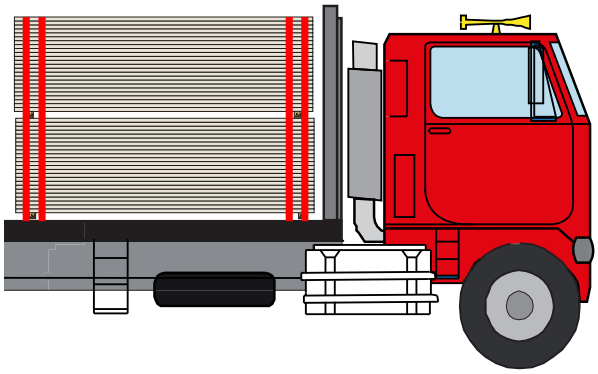
Load Build - Belly Strapping

✓ Strap each stack or groups of stacks of gypsum board independent of others.

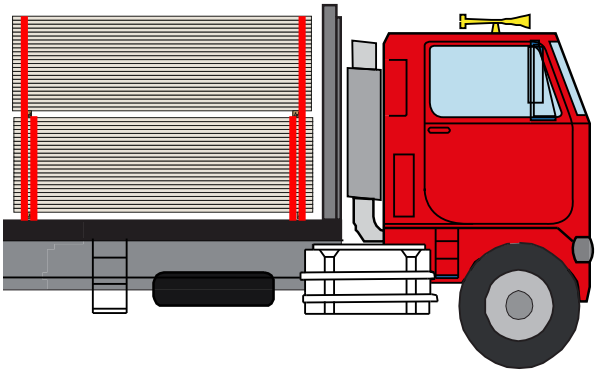
⚠ Apply lashings as per Table 1, 2 or 3



Multi-drop stacks strapped independent of other stacks.
The order of this muti-drop is blue, purple then green.



Load restrained with four (4) lashings over the entire load

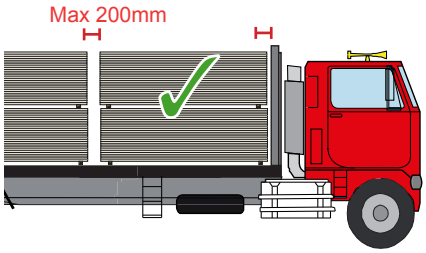


Load is restrained with two (2) lashings over each layer

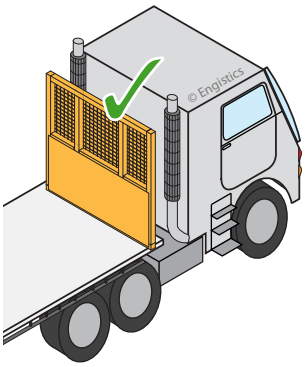
Table 2: Number of lashings required

Load Weight (kg)	Lashing Angle			
	30 - 45°	46 - 60°	61 - 80°	81 -90°
1000 - 2000	4	3	2	2
2001 - 3000	5	4	3	3
3001 - 4000	7	5	4	4
4001 - 5000	9	6	5	5
5001 - 6000	10	8	6	6
6001 - 7000	12	9	7	6

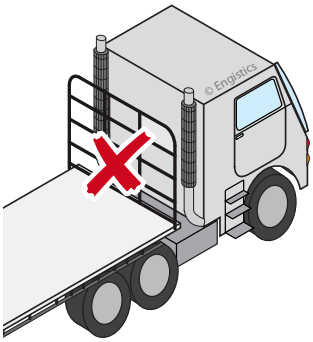
Blocking Requirements - Headboards



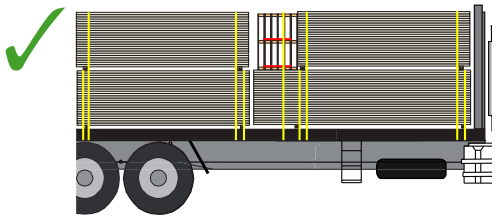
Blocking to headboard preferred. Max 200mm gap between packs and blocking surface.



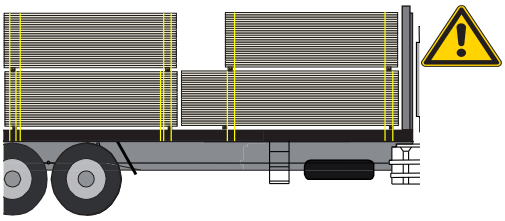
Headboards must be suitably engineered to 30% of payload



Pipe gates are not suitable for blocking for these product types



Back top stack is blocked to a stack of vertical pallets

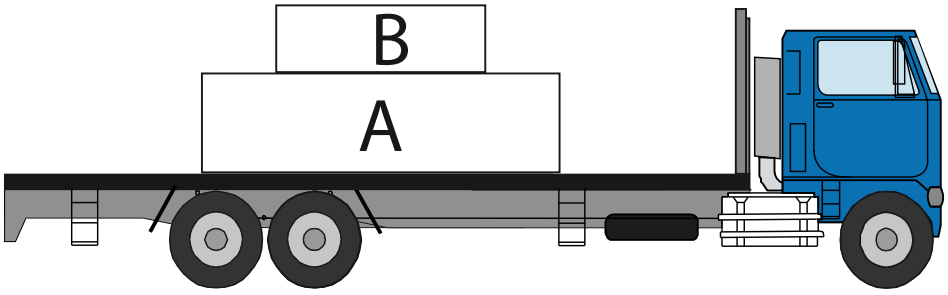


Back top stack is not blocked and more tie-downs are required

Blocked & Unblocked Configurations - Load & Part-Load

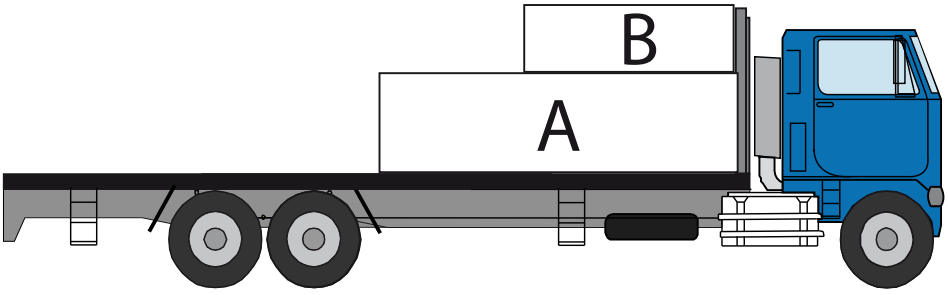
☑ Use these examples to work out which tables to use for tie-down lashing numbers.

*1). Both A and B are **Unblocked***



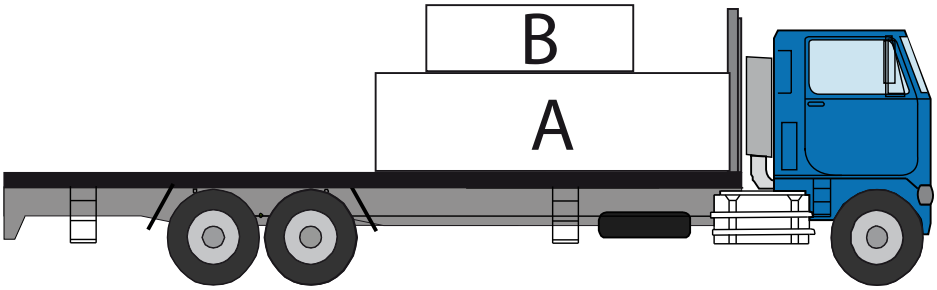
☑ Use Table 3 to evaluate straps for total stack weight (A + B). Place most straps over

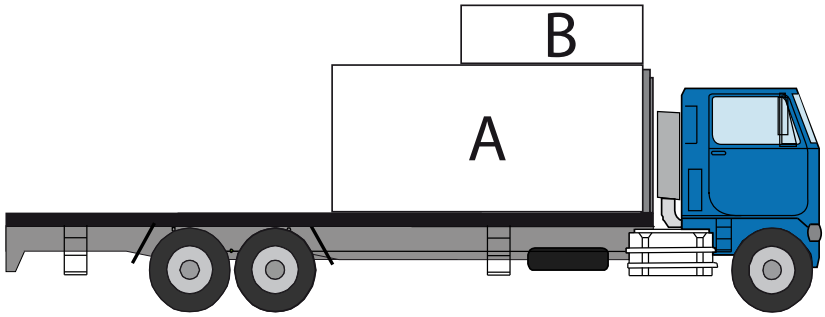
*2). Both A and B are **Blocked***



☑ Use Table 4 to evaluate straps for total stack weight (A + B). Place most straps over B.

*3). A is **Blocked** and B is **Unblocked***





✓ Use table 2 to evaluate tie-down number for B and table 3 to evaluate tie-down numbers for total weight (A+B). Use the greater of the 2 strap quantities evaluated. Place sufficient (most) over B.

Tie Down Lashing Requirements

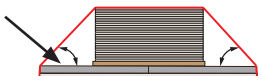
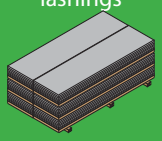
Lashing Angle 

Table 3: Unblocked Configuration

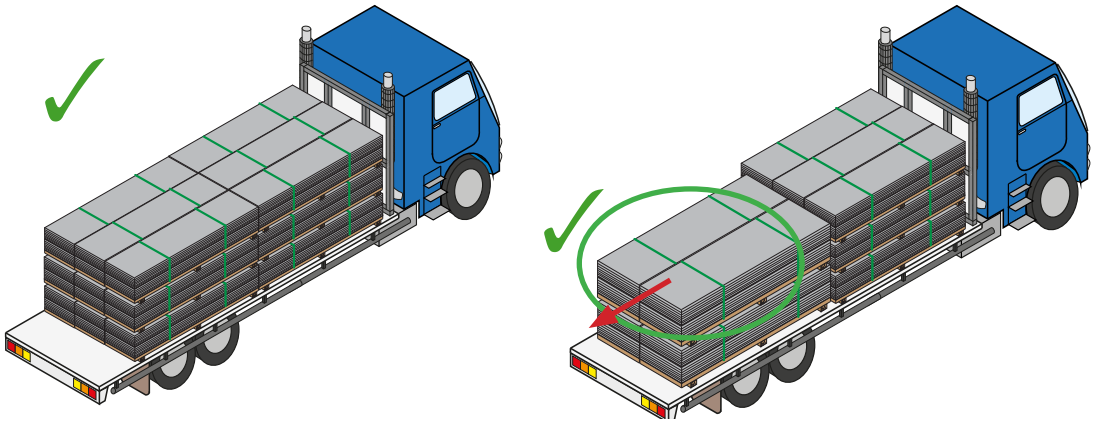
Number of lashings 	Mass per stack (kg)							
	(81 - 90°)		(61-80°)		(46-60°)		(30-45°)	
	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet
1	550	1100	500	1000	400	800	300	600
2	1100	2300	1000	2000	800	1600	600	1200
3	1700	3500	1500	3100	1200	2500	900	1800
4	2300	4700	2000	4100	1600	3300	1200	2400
5	2900	5900	2500	5100	2100	4200	1500	3000
6	3500	7000	3100	6200	2500	5000	1800	3600
7	4100	8200	3600	7200	2900	5900	2100	4200
8	4700	9400	4100	8300	3300	6700	2400	4800
9	5300	10600	4600	9300	3800	7600	2700	5400
10	5900	11800	5100	10300	4200	8400	3000	6000

Table 4: Blocked Configuration

Number of lashings 	Mass per stack (kg)							
	(81 - 90°)		(61-80°)		(46-60°)		(30-45°)	
	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet	Push up ratchet / Drum winch	Pull Down Ratchet
1	2300	4700	2000	4100	1600	3300	1200	2400
2	4700	9400	4100	8300	3300	6700	2400	4800
3	7000	14100	6200	12400	5000	10100	3600	7200
4	9400	18900	8300	16600	6700	13500	4800	9600
5	11800	23600	10300	20700	8400	16900	6000	12000
6	14100	28300	12400	24900	10100	20300	7200	14400
7	16500	33000	14500	29000	11800	23700	8400	16800
8	18900	37800	16600	33200	13500	27100	9600	19200
9	21200	42500	18700	37400	15200	30500	10800	21600
10	23600	47200	20700	41500	16900	33900	12000	24000

Load Configurations - Sheet Product : 3 or more across deck

- ✓ All stacks more than 2 Abreast must be blocked to an Engineered Headboard.
- ✓ All stacks more than 2 Abreast must be blocked rearward by a Rear wall of a Tautliner or a 2 abreast stack of product.
- ⚠ Maximum height limits apply to multi abreast product stacks.
- ⚠ Top pack of a pyramid stack must be at least 500mm high inclusive of pallet or dunnage.



Multi abreast loads with more than 2 abreast must be blocked rearwards by 2 abreast stacks or Tautliner rear wall