

### This guideline applies to:

- Alspec product on trade customer vehicles up to 4.5 tonne gross vehicle mass (GVM).

### Information covered includes:

- Customer safety on Alspec sites;
- Application of Chain of Responsibility legislation to Alspec customer pick ups;
- Loading general conditions;
- Loading dimension requirements;
- Load Restraint.

## 1. Customer Safety on Alspec Sites

- ✓ Customers must remain in the safe area at all times unless otherwise directed by an Alspec representative.
- ✓ Customers must obey all site requirements as indicated upon entry. Such requirements may include:
  - Personal Protective Equipment;
  - Speed Limits;
  - Restricted area access.

## 2. Chain of Responsibility

- ✓ Alspec is committed to the safe transport of goods. This extends to the transport of products despatched on customer vehicles.
- ✓ Alspec applies the key tenets of Chain of Responsibility for the safe transport of goods:

**“Any Party who has control in a transport operation can be held responsible and may be made legally liable”**

Alspec has the following Chain of Responsibility requirements for customer pick ups:

Customer (Consignor / Transporter)
<ul style="list-style-type: none"> <li>• Ensure the vehicle is not overloaded by mass or dimension;</li> <li>• Apply required load restraint (section 5).</li> </ul>
Loader
<ul style="list-style-type: none"> <li>• Ensure products are packed suitably;</li> <li>• Ensure load placed within dimensional and mass limits;</li> <li>• Assist customer to satisfy their responsibilities where necessary.</li> </ul>

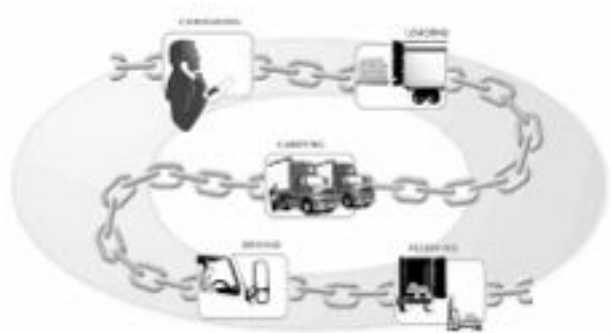


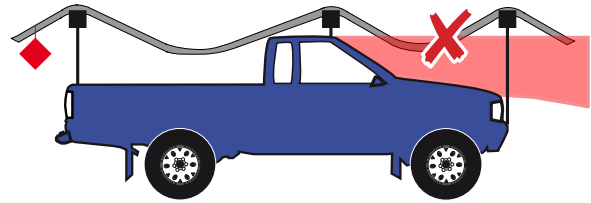
Image Courtesy of the NTC

## 3. Loading conditions

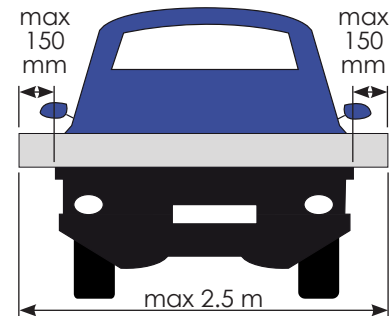
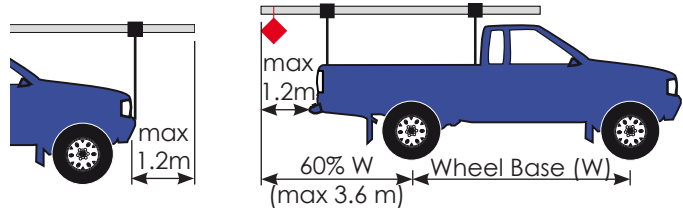
- ✓ The transport of loads that are too heavy, wide or long on an unsuitable vehicle can be dangerous and in breach of the law.
- ✓ Alspec reserves the right to refuse loading of any vehicle considered inappropriate for the load or loading configuration proposed.

## 4. Daytime Vehicle Load Dimensions and Rack Requirements

- ✓ Drivers vision must not be obstructed by product loaded on overhead racks.
- ✓ All rear projecting loads must be fitted with a red flag 300 mm x 300 mm or larger.
- ⚠ Legal projection (overhang) limits may not be suitable for all products due to flex in product or design of vehicle. Thus other limits may apply.
- ✓ Maximum front projection is 1.2 m.
- ✓ Rear overhang maximum 60% of wheel base from rear overhang line (normally rear axle centre) or 3.6 m, whichever is less.
- ✓ Maximum side projection 150 mm (excluding mirrors), however the total width must be less than 2.5 m.
- ✗ Flexible material should not overhang the sides.
- ✗ Flexible material should not project beyond racks by more than 20% of their length. Regular supports are required to minimise flex.
- ✓ Inclined loads should not overhang by more than 10%.
- ✓ All vehicle types have the same overhang requirements.
- ✓ Trade racks must not exceed manufacturer limits. If not specified, no more than 100 kg will be loaded.
- ✓ Non-commercial vehicle roof racks must not exceed manufacturer limits (both rack and vehicle). If not specified, maximum 40 kg (total).
- ⚠ Vehicle performance is effected by heavy loads on racks, especially sideways.
- ✓ Light commercial trucks must not exceed the following (unless otherwise certified by manufacturer). For narrow loads (less than half width of rack) halve the values.



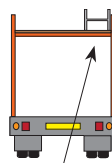
Drivers vision must not be obstructed



### Twin racks

Upright Member Size	Weight Guidance Limit (total)
35 x 35 x 3.0 SHS	150 kg
40 x 40 x 3.0 SHS	220 kg
50 x 50 x 3.0 SHS	380 kg

SHS standards for Square Hollow Section (eg Tubeline<sup>®</sup> or DuraGal<sup>®</sup>)

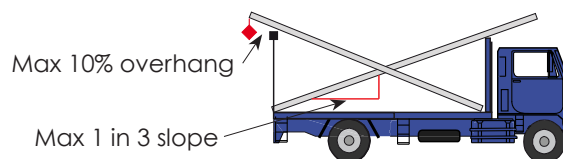
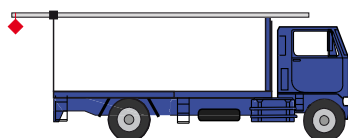


Halve weight for small loads (less than half rack width)

### Inclined load (single rack)

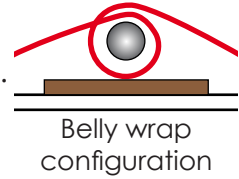
Upright Member Size	Weight Guidance Limit (total)
35 x 35 x 3.0 SHS	100 kg
40 x 40 x 3.0 SHS	150 kg
50 x 50 x 3.0 SHS	250 kg

SHS standards for Square Hollow Section (eg Tubeline<sup>®</sup> or DuraGal<sup>®</sup>)



## 5. Load Restraint Requirements

- ✓ All loads recommended to be loaded into a cargo area (eg ute tray).
- ✓ Minimum 1 restraint per 1.5 m of product length recommended.
- ✓ All product longer than 1 m to have minimum 2 lashings.
- ✓ Use belly wrap or choke lashings for: round objects, any bundles, for objects with a low lashing angle, and multiple abreast packs (more than 2).
- ✓ All product loaded on an incline must be lashed, preferably belly wrapped.
- ✓ Any product loaded into a passenger compartment must be placed on the floor and be unable to slide.
- ✗ No metal on metal contact. Products must be placed on surfaces such as timber or rubber.
- ✓ Cargo nets or covers highly recommended over utes and box trailers.



### Mass Limits per restraint

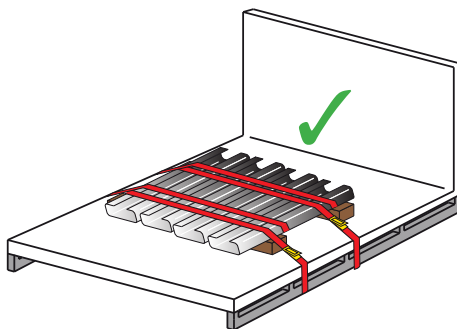
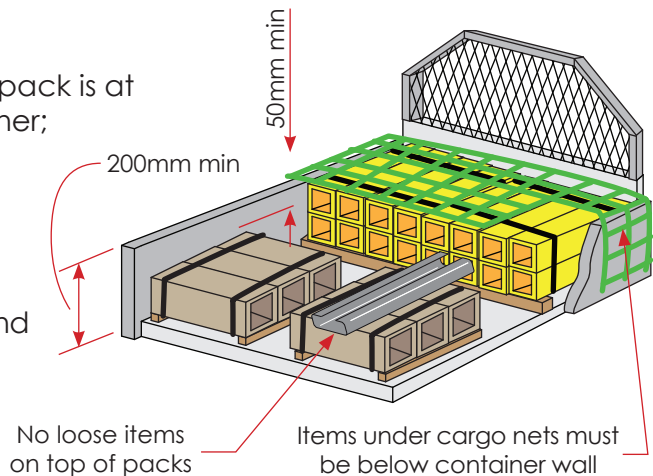
Lashing angle to horizontal	50mm webbing strap and ratchet	35mm webbing strap and ratchet	25mm ratchet tightened webbing	25mm hand tightened webbing	8mm synthetic rope with single hitch
30 - 45 degrees	160 kg	135 kg	54 kg	19 kg	27 kg
45 - 60 degrees	230 kg	190 kg	76 kg	27 kg	38 kg
60 - 90 degrees	280 kg	230 kg	93 kg	33 kg	47 kg

Note: If load is on racks, check rack capacity is not exceeded.

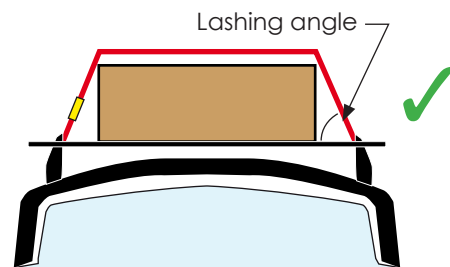
### Restraint of product to the vehicle

All items not restrained by lashings must:

- ✓ Be contained so that the bottom of the pack is at least 200 mm from the top of the container;
- ✓ Be blocked in a way that will not allow the load to pierce the container;
- ✗ Not be prone to movement;
- ✗ Not have loose items on top of a pack; and
- ✗ If placed under a cargo net, not extend above the top of the container.



Belly wrap all long product where possible

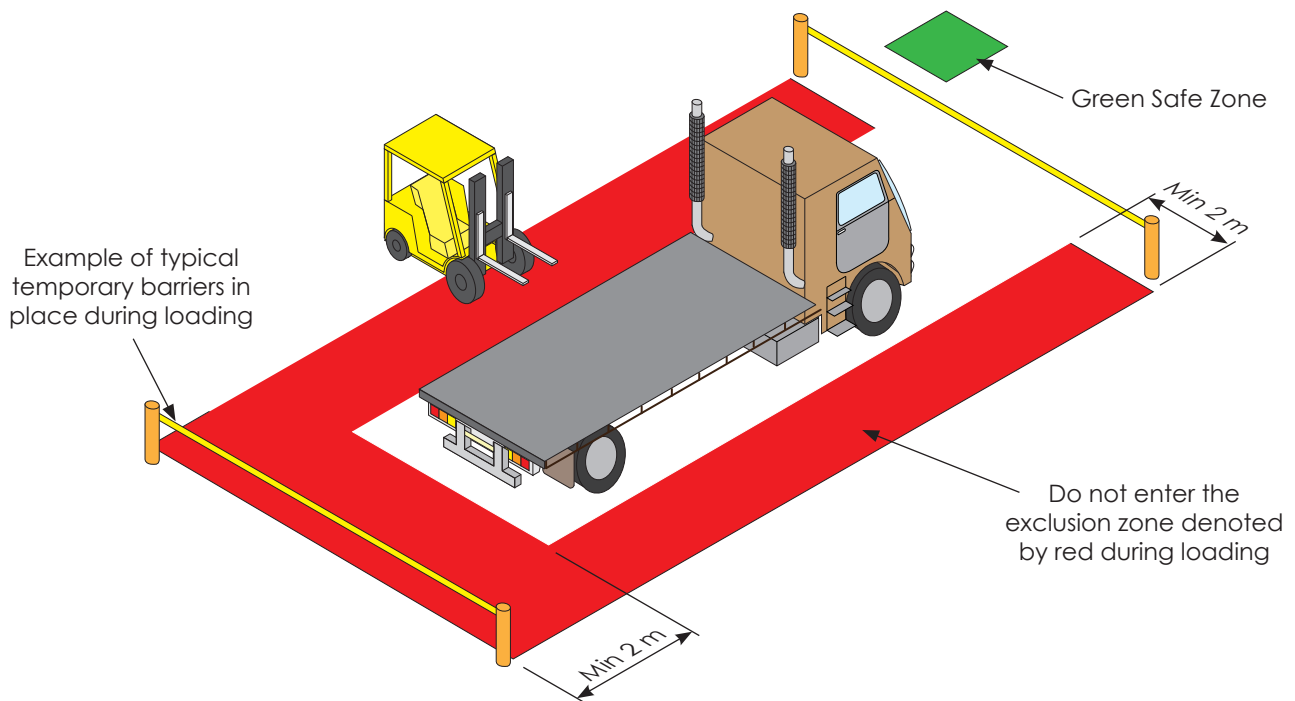


Steep lashing angles above 60° are preferred

## 6. Loading Areas

- ✓ When vehicle is being loaded by forklift or over head crane, customers must remain in the designated safe location as directed by Alspec personnel. This may include inside the vehicle.
- ✓ Customers may only access the area once loading is complete or advised by Alspec personnel.
- ✗ Customers must not get into the ute/truck trays at any time during the loading process.
- ✗ The opposite side of the vehicle from the forklift or an over head crane is a high risk area. Do not access the exclusion zone during loading.

### Sample Loading Area for Customer Pick Ups for GVM less than 4.5 tonnes



#### Key Assumptions:

1. Minimum coefficient of friction between load and support (rack or tray) is  $\mu_s = 0.28$  (allows for worst case friction of plastic wrapping sheet to timber).
2. Minimum 2 SHS sections in any rack.
3. Uprights are no higher than 1.8 m from the tray.
4. Minimum yield strength of material 350 MPa for tables on page 2.
5. All structures and welds in good condition.

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