TATA STEEL

TATA

TECHNICAL ADVICE DOCUMENT
NL Tube loads blocking guidance

1. This Technical Advice Document applies to:

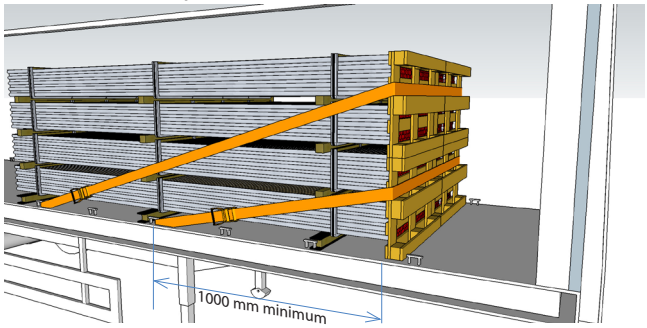
- Blocking options for tube loads in the Neherlands.
- For Inter-modal loads, the blocking method must be replicated on the rear of the loads.

2. Essential Requirements

- The method of blocking used must fully cover the height and the width of the load.
- Euro pallet (EPAL 1) 800 mm x 1200 mm as specified in ISO-3394 as a minimum expected standard to be used.
- Restraints must be a minimum of LC2000daN and compliant with EN12195-2.
- Stanchions to be a minimum size of 80 mm x 80 mm x 5 mm (Grade S355) in accordance with *TIS-0011Side pins and deck stanchions*.
- Suitable load restraint must be added to the load as per *LRG-0009 HS Tube Bundles*.

3.1 False headboard using pallets

3.1.1 Horizontal pallets



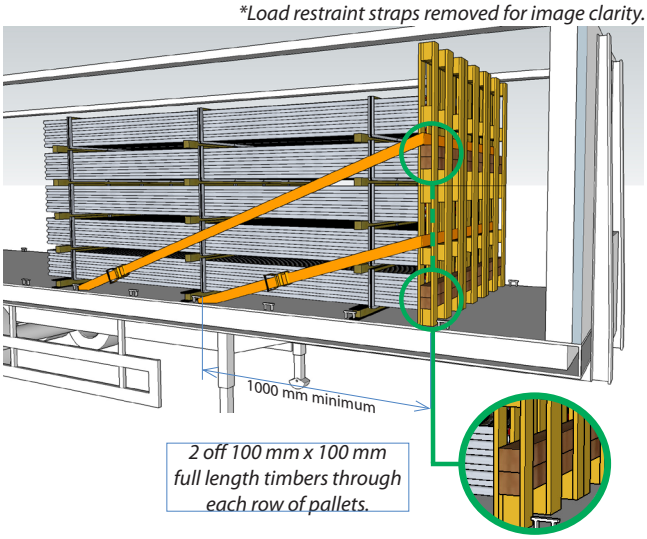
**Load restraint straps removed for image clarity.*

- ✓ 2 off Euro pallets laid on the long edges to cover 2400 mm wide load.
- ✓ Maximum load height of 1600 mm utilising 2 rows of Euro pallets.
- ✓ 2 off LC2000daN webbing straps provide up to 7t (68kN) of blocking force.

3.1.2 Vertical pallets

- ✓ 3 off Euro pallets laid on the narrow edge to cover 2400 mm wide load.
- ✓ 2 off full length timbers to be placed within each row of pallets (as shown).
- ✓ Maximum load height of 1900 mm using 2 off pull back restraints.
- ✓ Load height greater than 1900 mm using 3 off pull back restraints.
- ✓ 3 off LC2000daN webbing straps provide up to 10t (98kN) of blocking force.

**Load restraint straps removed for image clarity.*



TECHNICAL ADVICE DOCUMENT
NL Axle loading guidance

3.1.3 Pull back restraints

- Bottom Euro pallet restraint leg must be located 1000 mm rearwards minimum.
- Upper Euro pallet restraint must be located behind the lower restraint leg (as shown).
- *Should a 3rd pull back restraint be required, the restraint must be located behind the 2nd leg.
- Opposing lashing points must be used for each pull back restraint.

3.2 Forwards blocking using stanchions and pallets

- *Where required for inter-modal loads, a stanchion blocking arrangement can be used for the forward blocking of the load, and a false headboard arrangement should be used at the rear of the load.*

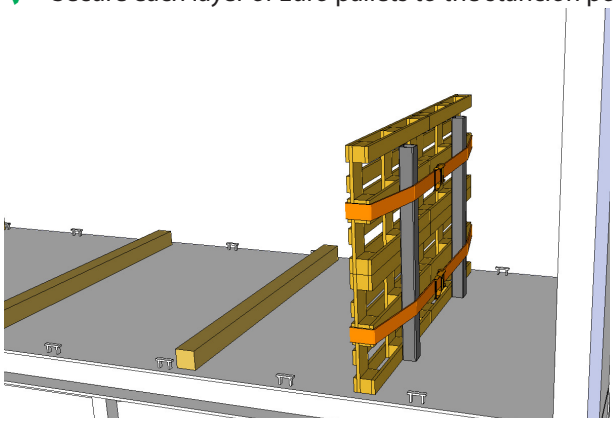
✓ Euro pallets to be placed on the long edge in front of the stanchions, and a webbing strap placed around both stanchions and pallets to hold into place.

✓ Load product evenly across the face of the plallets minimizing the distance between product and pallet to 50 mm maximum.

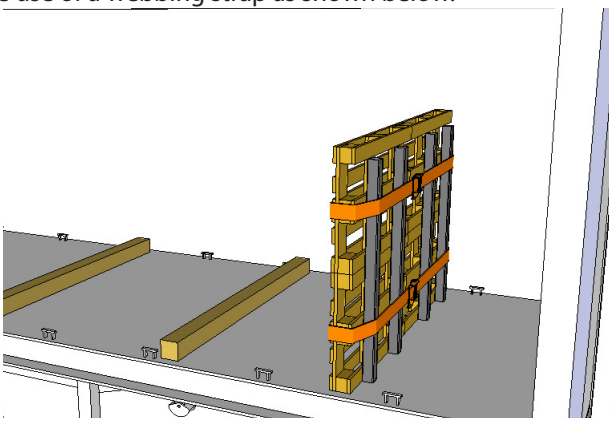
✓ Do not load above blocking height (1600 mm).

3.2.1 Forwards blocking arrangement

✓ Secure each layer of Euro pallets to the stancion posts with the use of a webbing strap as shown below.



✓ **2 off** 100 mm x 100 mm x 5 mm (Grade S355) stanchions at 1500 mm high provide 4.4t (43kN) of forward restraint.



✓ **4 off** 80 mm x 80 mm x 5 mm (Grade S355) stanchions at 1500 mm high provide 5.4t (53kN) of forward restraint.

3.2.2 Forward Blocking Capacities

- Stanchions must be square profiled and must meet the number required and the dimensions shown:

Table 1: Forward Blocking Capacities

Blocking Method	Size / Rating		Quantity	Blocking Force / Forward Restraint	
Stanchions plus 4 Pallets	100 mm x 100 mm x 5 mm	1500 mm long	2	4.4t	43kN
	80 mm x 80 mm x 5 mm	1500 mm long	4	5.4t	53kN
False Headboard using Euro Pallets and webbing straps	2000daN Webbing Straps		2	7t	68kN
			3	10t	98kN

Note: Flatbed loads must NOT be built above side pin heights in accordance with LRG-0009 HS Tubes Bundles (Section 2)