TATA STEEL



# TECHNICAL ADVICE DOCUMENT Webbing strap edge protection examples

This Technical Advice Document lists examples of good and poor edge protection for webbing straps that are used to restrain steel loads for road transport.

## 1. Purpose of edge protection

Edge protection is required to protect the strap from sharp or abrasive edges of the product or trailer. Failure to apply appropriate edge protection to the strap introduces the risk of cutting the strap and losing some or all of the restraint on the product.

Edge protection also reduces the stress on the outer fibres of the strap by increasing the radius of the corner. Using the a strap over a tight corner without edge protection will reduce strap strength significantly.

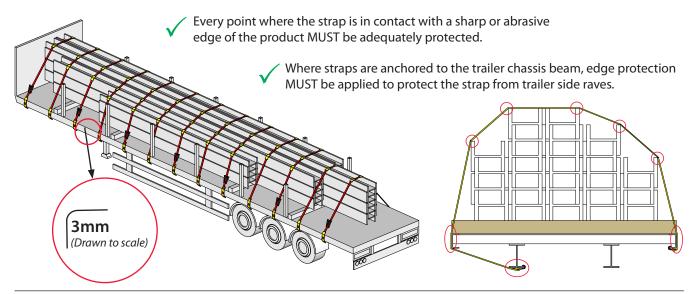
It is important to note that each strap used to keep the product on the trailer works as part of a system of restraints where failure of one component could compromise the entire system.

### 2. Equipment requirements

- Edge protection MUST be appropriate for the method of restraint being used:
  - high level of abrasion and cut resistance against sharp and/or rough edges of the product or trailer;
  - flexible enough to form to the shape of curved edges without damage e.g. coil bore;
  - ensure straps cannot slide off during use.

### 3. Where to apply

Straps must be protected when in contact with any corner of the product or trailer with a radius of less than 3mm.



## **TECHNICAL ADVICE DOCUMENT**

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## 4. Examples of good and poor edge protection



Heavy duty webbing wear sleeve (Polyester, minimum 3mm thick)





- Good flexibility.
- Recommended edge protection for ALL steel loads.

## X Lightweight wear sleeve



- Poor abrasion resistance.
- × Poor cut resistance.
- NOT to be used as edge protection for steel products.



## Coil bore packaging



- ✓ Good abrasion resistance.
- √ Good flexibility.
- Slippery NOT to be used with tie-down restraints.
- Recommended for direct restraints through coil bores.

## **X** Foam edge protection



- Poor abrasion resistance.
- Poor cut resistance.
- NOT to be used as edge protection for steel products.



#### Plastic corner protectors



- ✓ Good abrasion resistance.
- Poor flexibility.
- ✓ Ideal for tie-down restraints.
- ✓ Recommended edge protection for straight edges ONLY.

## Cardboard corner protectors



- Poor flexibility.
- Slippery NOT to be used with tie-down restraints.
  - NOT recommended as edge protection for steel products.



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Fire hose sleeve

- Whenever possible purpose made edge protection should be used.
- Sleeves made from fire hose can be used as a substitution for purpose made edge protection when driver arrives without enough equipment.
- Fire hose must be in good condition i.e. surface of the sleeve must be free of cuts.

#### It is NOT acceptable to use anti-slip matting as a substitute for edge protection.

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