

SAFETY RECOMMENDATIONS FOR UNPACKING AND/OR FINAL STRAP REMOVAL FROM COILS AND OTHER PRODUCTS

1- Warning

The customer's attention is drawn to the fact that unpacking the products is a potentially dangerous operation. Appropriate action must be taken to ensure the personal safety of staff engaged in these operations.

In particular, the rupture of straps, accidental or deliberate, during handling or unpacking operations can deeply injure operators. This risk increases with material thickness and mechanical properties.

These unpacking operations are performed by the customer, under his sole responsibility, and must be executed in accordance with all rules and regulations in force such as **state of art**, standards, technical notices, professional rules and best practices, and in accordance with the recommendations in the documentation provided by the seller, in whatever form this may be, and under appropriate conditions to ensure that no personal injury or damage to property is sustained.

All entities belonging to the ArcelorMittal Group shall not provide any warranty, and shall never be liable, in case of any damage whatsoever or any defect of the products resulting from any use, handling, unpacking, transportation and/or stocking of the products contrary to the state of art, standards, technical notices, professional rules, best practices and/or the recommendations set forth in the present document or any documentation provided by the seller.

In all cases, this document and/ or any recommendations and/or any technical advice provided by the seller, before and/or during the unpacking of the products, whether provided verbally, in writing or on-line, are given in good faith but shall not release the customer from his obligation to take all appropriate measures to prevent any injury to persons and/or damage to property arising during or as a result of such unpacking operations.

2 – Operator Equipments

Operator in charge of unpacking and/or strap removal operations must wear individual protective equipment (IPE) that has been adapted to the nature of these operations, in particular helmet, gloves, goggles, safety shoes, working clothes, etc., to ensure that he is protected from all conceivable injuries, especially physical injuries likely to be caused by elastic springback of the strap when it is cut by the operator.

The tool used must be suitable for the unpacking and/or strap removal operations. In particular, shears specially designed for such operations should be used, i.e. flat noses to facilitate the positioning of the shears between the strap and coil.

3 – Coil positioning

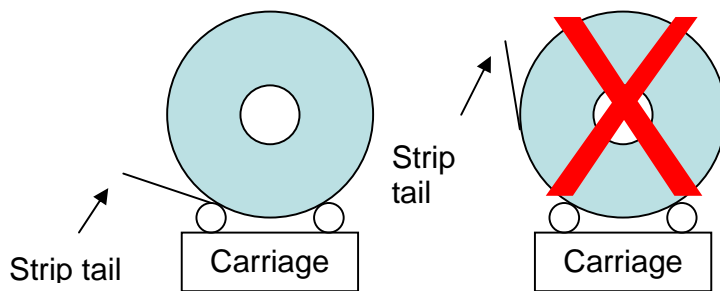
The stability of the coil is an important safety issue for the person working nearby. The risk of instability increases with the ratio between the outer diameter and the width of a slit coil, which should never exceed the value of 3.



Consequently, adequate equipment must be used to ensure the stability during unpacking operations for coils and/or slitted coils.

To prevent elastic springback of the coil tail it must be placed as low as possible under the coil on the rolls, stands or unpacking pins (see figure below)

If this is not the case, place the coil on a de-coiling tool (in particular a mandrel, positioning rolls, etc.), perform the rotation required and replace the coil on the stands of the conveyor in the proper position before removing the straps.



If strap removal takes place on a mandrel on the line, maintain the position of the strip tail by means of the feed carriage or the pressing roll, according to the line equipment and the instructions issued specifically for use of the tool.

Pressing roll must be designed and powered according to the level of springback effort.

4 – Strap removal on coils and slit coils

The higher the elastic limit of the product, the greater the spring action of the strip tail.

The risk increases also when the thickness of the metal increases and/or when the outside diameter of the coil is reduced.

Consequently, the operator must stand to the side of the coil in order to cut the strap: do not stand in front of the coil.

It is not permissible to remove the strap(s) retaining the strip tail without previously making sure that it is retained absolutely securely according to chapter 3.

If there are more than 2 circumferential straps, first cut it (them) from the centre.



No packaging material should remain on the floor but must be thrown away in skips for this purpose.

5 – Partial de-coiling of coils and slit coils

Handling and transportation of coil after complete unpacking is a very dangerous operation and must be prohibited.

If partial de-coiling takes place, restore the original safety strapping, respecting in particular the number and section of straps.

In the particular case of small diameter coils for which the self de-coiling phenomenon is a major factor, pay especial attention to the following: carry out the strapping on a mandrel with the strip tail retained by the pressing roll or on the stand and the strip tail wedged on the coil.

Should you have any question or remark, please contact your usual ArcelorMittal technical contact.