

**Update on Machinery Regulation
and Harmonised Standards
regarding textile lifting
accessories and hoisting ropes
as part of lifting machinery**

*Be prepared for the future of textile
lifting accessories and textile
hoisting lines ...*

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A lot has happened since December 2022. Therefore, a more comprehensive update is provided.

The very first publication of the European Union's (EU) *Machinery Directive* occurred in 1989, with a second publication taking place in 1998 followed by the most recent third publication – *Machinery Directive 2006/42/EC* – in 2006.

Unlike a standard, which is in most cases voluntary and is meant to guide industry to meet certain requirements, the *Machinery Directive* is legislation and therefore mandatory. This means that each manufacturer, or his authorized representative of 'machinery' – including textile lifting accessories and textile hoisting ropes as part of lifting machinery being covered by the Machinery Directive – shall to comply with the Machinery Directive before putting such products on the European market.

Under the *Directive*, any product put on the European market that falls into the category of 'machinery' must display a CE (Conformité Européenne) marking to demonstrate the manufacturer, or his authorized representative, affirms the product's conformity with the essential health and safety requirements as laid down in the *Directive*.

The essence of the *Machinery Directive* is meeting *essential health and safety requirements* ensuring that products are engineered and put together properly and are fit for the intended purpose as part of a more comprehensive system. Fit for the intended purpose stipulates how adequate acceptance criteria need to be established - which is the responsibility of the

manufacturer and his authorized representatives. For a lifting sling made with synthetic fibers this implies that attention shall be paid to more than just a breaking strength test and/or the correct effective working length.

Compliance is easier said than done

Proper implementation and interpretation of the main legal body text of the *Directive* is often seen as being complex and ambiguous, and causing a lot of uncertainty for manufacturers, their authorized representatives as well as users. This often creates challenges in ensuring compliance with the *Directive*. The “*Guide to application of the Machinery Directive 2006/42/EC*” provides some guidance on the interpretation of the *Directive* while not providing sufficient clarity.

For many products under the regime of the *Machinery Directive* there are already so-called harmonised standards in place that fall under the umbrella of the European standards body, the European Committee for Standardization (CEN). In case these products comply with a harmonised standard, they are presumed to also comply with the *Machinery Directive*. EN 1492-1¹, 1492-2² and 1492-4³ are harmonised standards covering resp. web slings, round slings and rope slings made with PP, PA and PET fibers intended to be used for general-purpose lifting, i.e., harmonised standards for certain lifting accessory. There are no harmonised standards at all if it comes to textile hoisting ropes.

However, even for textile lifting accessories, the complication starts when looking at products made with synthetic fibers such as High Modulus Polyethylene (HMPE) or Aromatic Polyamide (Aramid) fibers, as the scopes of the CEN harmonised standards do not yet cover these kinds of high-performance fibers.

Without proper harmonised standards in place, other standards can be used as a reference without giving way to a presumption of conformity. Availability of revised and of new harmonised standard can ease compliance with the *Directive*.

The new Machinery Regulation (EU) 2023/1230

In December 2022, European Parliament negotiators reached a deal with their Council counterparts on the new *Machinery Regulation*, which has been adopted by the European Parliament and the Council and will enter into force on Jan. 20, 2027. This *Regulation* overcomes and revises the existing *Machinery Directive* and adapts it to address the emerging risks and challenges posed by new technologies to machinery products and to ensure these can be operated safely. Focus was clearly on the integration of AI into machinery.

One of the shortfalls of the *Machinery Directive* has been a certain degree of latitude to individual EU member states on how to comply with its intended objectives, bringing with it some legal

¹ EN 1492-1:2000 + A1: 2008, Textile slings - Safety - Part 1: Flat woven webbing slings made of man-made fibres, for general purpose use,

² EN 1492-2:2000 + A1: 2008, Textile slings - Safety - Part 2: Roundslings made of man-made fibres for general purpose use

³ EN 1492-2:2000 + A1: 2008, Textile slings - Safety - Part 4: Lifting slings for general service made from natural and man-made fibre ropes

uncertainty depending on each member state's interpretation. The new law - being a *Regulation* - will have to be applied in all member states directly, and will:

- Ensure machines are safe and increase users' trust in new technologies.
- Reduce administrative burden and costs for manufacturers.
- Foster legal certainty.
- Establish more effective market surveillance.

However, the ambiguities and unclarities regarding textile lifting accessories and textile hoist ropes have not been overcome. For that reason, we have started a variety of initiatives.

Providing clarity

To help the industry in moving forward, the liaison team of the European Association of Rope, Twine and Netting manufacturers, their suppliers, and their affiliate industries – Eurocord – has made a strong signal to the '*European Commission's Expert Group on Machinery*' as well as the '*Administrative Cooperation on Machinery*' that most of the changes implemented in the new Regulation are focused on the implementation of AI technologies with the rigging industry being left behind. A signal that has led to important steps forward:

During the meeting of the '*European Commission's Administrative Cooperation on Machinery*' on Oct. 17, 2024, a positive decision was taken based on Eurocord's position paper. The objective of this position paper is to describe technical measures reflecting the state of the art in the (textile) lifting industry and building on a lot of knowledge and experience gained with textile lifting accessories having working coefficients as low as 3.38 and used in non-routine/engineered lifting operations, e.g. in the offshore field of use. With these technical measures, which follow the order of priority according to *Machinery Directive* and *Machinery Regulation* alike, the essential health and safety requirements can be fulfilled with measures according to the state of the art as well as the strict conformity rules of the *Machinery Directive* and the *Machinery Regulation*, while deviating from the working coefficient cited by legislation "*as a general rule*".

This reasoning and the derived measures to be taken reduce the uncertainties dictating that slings in routine/general-purpose lifting operations require a higher working coefficient '*as a general rule*'. This decision comes with great responsibility for the sling manufacturers as well as sling users.

The European Commission has put a clear responsibility to *CEN/TC168 WG3* to cover that standpoint in the revision of the EN 1492 series.

The revision of the existing harmonised standards EN 1492-1, 1492-2, and 1492-4 has started within *CEN/TC168 WG3*. Beside adding high-performance fibers, such as HMPE and aramids, the revision will cover textile lifting accessories for both general-purpose as well as engineered lifting operations, and more stringent requirements to fulfill the essential health and safety requirements in accordance with the *Machinery Regulation*. This is something that sling manufacturers need to get prepared for. The preliminary revised European standards of EN 1492-2 and EN 1492-4 are to be expected during the 1st half of 2025. With the current draft revisions at hand, we are keeping speed as high as possible, knowing such processes largely depend on the involvement of the European

Commission's Harmonised Standard Consultants who are tasked with a compliance review of the draft standard with legislation.

The framework for the creation and revision of harmonised standards is the so-called “*Standardisation Request*” of the European Commission to CEN. The change from *Machinery Directive* to *Machinery Regulation* required renewal of the “*Standardization Request*” related to the *Machinery Directive*. A decision to implement a new “*Standardisation Request*” relating to the *Machinery Regulation* was taken on Jan 20, 2025 and provides the basis that any work on standards done under the regime of the old legislation is carried on to the regime of the new one. Standards under the old regime must be revised or amended at the latest by Jan. 2034. This may seem far away. Given the number of standards and the revision efforts required this is nevertheless a challenge for the standardisation work groups.

In addition, the new “*Standardisation Request*” covers entirely new standards for hoisting lines made with high-performance fibers as well as synthetic chain slings. The work on these new standards has already started, but *CEN/TC168 WG3* must give priority to the revision of the EN 1492 series.

Finally, we have been pushing that during the revision of the *Guide to the Application of the Machinery Directive*, becoming a “*Guide to the Application of the Machinery Regulation*”, the ambiguities and unclarities will be dealt with. The revision is done by the Editorial Committee of the European Commission and we - based on various conversations with key stakeholders of the ‘*European Commission's Expert Group on Machinery*’ as well as the ‘*Administrative Cooperation on Machinery*’ Eurocord - have received a confirmation to become member of the ‘*Editorial Group*’. This Group will reconvene in early 2025 defining the way forward. Soon after, Eurocord will be invited to actively contribute therein.

Even though we are not there yet, a lot of networking has resulted in important steps forward on the route to more clarity for many stakeholders. During Eurocord's 50th Celebration and Annual Meeting in Spain, from June 15-17, 2025, a more comprehensive update on this complex topic will be provided.

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