

## **The new ISO 10855 series: an international accepted agreement about offshore containers**

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**ISO, the international organization for standardization, published the 3-part ISO 10855 series in 2018. These series of standards describe the requirements for design, construction, inspection, testing and in-service examinations of offshore containers and associated lifting sets. With these series of standards, the oil and gas sector has access to a global harmonized and accepted set of requirements for offshore containers. This will increase interoperability and safety as well as cost efficiency in the sector.**

The ISO 10855 series is based on the European EN 12079 series, which was published about 18 years ago. These series of European standards were offered to the ISO technical committee for offshore structures in the oil and gas sector (ISO/TC 67/SC 7) a couple of years ago with the aim to transform them into a series of international standards. The ISO 10855 series are also adopted as European standards (i.e. EN-ISO 10855), superseding the EN 12079 series which have been withdrawn. Organisations that apply the EN 12079 series should therefore switch to the ISO 10855 series.

### **Dutch input**

Ron Winands, Board Director at Control Union Testing & Inspection, has made a significant contribution to the development of the ISO 10855 series as Dutch expert in this process. He was also involved in the development of the EN 12079 series and could therefore share his knowhow and experience of this process as well. Inspecting and testing of offshore containers is one of the activities of Control Union. Their practical experience with EN 12079 and other standards in this area was very welcomed. Participation in the committee provided Ron Winands the opportunity to influence the direction of the series of standards as well as first-hand information for his company at an early stage. Ron Winands: "Participation in standardisation not only provides access to an interesting network of experts, but also a strategic benefit by being close to the source."

### **Level playing field**

Ron Winands: "The main task of the committee was to investigate the possibility to create a single standard that would be globally accepted in order to create a level playing field for offshore container owners and users, and above all regulators outside Europe. The aim was to develop an ISO standard in which the European standards (EN 12079), American standards (through API) and standards of classification bodies (e.g. DNV 2.7-1) are combined to a single harmonized agreement including references to standards about welding and materials for offshore containers."

Taking notice of the publication of the ISO 10855 series, the committee succeeded to develop a single ISO standard. This fits perfectly to the vision of ISO/TC 67, the ISO technical committee for the oil and gas sector: 'International standards used locally worldwide'. Ron Winands reassures users of EN 12079 and DNV 2.7-1: "All offshore containers that have been certified to EN 12079 or DNV 2.7-1 are considered equivalent to ISO 10855, so there is no immediate action needed".

## Key aspects of ISO 10855

The key aspects of the ISO 10855 series:

- ✓ fully equivalent to and replacement EN 12079
- ✓ one manufacturing standard
- ✓ one periodic inspection scheme
- ✓ level playing field for everyone
- ✓ ability to make other standards obsolete (subject to country and company)
- ✓ recognition of Eddy Current as an acceptable non-destructive examination method
- ✓ requirement for stacking fittings and guides
- ✓ guidance for top protection to avoid snagging
- ✓ acceptance of sling marking on the ferrule to reduce dropping objects

## Certification for application in open seas

Ron Winands further explains that offshore containers need to comply with the requirements of IMO, the international maritime organization: "Fortunately, IMO has concluded that the ISO 10855 series meet the requirements of IMO MSC / Circular 860 (1998) for the design, construction, inspection, testing and in-service examination of offshore containers and associated lifting sets which are handled in open seas." He continues: "The ISO 10855 series do not specify certification requirements for offshore containers that are covered by IMO MSC / Circular 860 and SOLAS, the international convention for the safety of life at sea. IMO MSC / Circular 860 already requires certification of offshore containers by national administrations or organizations duly authorized by the administration, like Control Union Testing & Inspection. This is also an advantage of having been involved in the development of the ISO 10855 series."

Ron Winands likes to continue to address certification aspect in more detail: "Certification shall take account of both the calculations and the testing when assessing conformity to the requirements, i.e. theory and practice need to match. The conformity assessment shall also take into account the dynamic lifting and impact forces that can occur when handling such equipment in open seas. The certificate of conformity as described in ISO 10855 complies with IMO MSC / Circular 860. This is a nice illustration of the way in which standardization contributes to compliance to regulation."

## Use of offshore containers

The ISO 10855 series do not cover operational use or maintenance of offshore containers. For these purposes, a number of industry standards are available to which references can be made. Ron Winands: "We have listed the applicable standards in the bibliography of the ISO 10855 series that the user of ISO 10855 can consult." Concerning the use of offshore containers, he adds: "Under conditions in which offshore containers are often transported and handled, the 'normal' rate of wear and tear is high resulting in damage for which repair will be needed. However, offshore containers that are designed, manufactured and periodically inspected according to the ISO 10855 series should have sufficient strength to withstand the normal forces encountered in offshore operations. In addition, these offshore containers do not suffer complete failure, even if subject to more extreme loads. This also illustrates literally and figuratively the strength of ISO standards!"

## Obtain your copy of ISO 10855

The three parts of ISO 10855, *Offshore containers and associated lifting sets* are available at your national standardisation body. More information is available through the website of ISO:

[ISO 10855-1:2018](#), Part 1: Design, manufacture and marking of offshore containers

[ISO 10855-2:2018](#), Part 2: Design, manufacture and marking of lifting sets

[ISO 10855-3:2018](#), Part 3: Periodic inspection, examination and testing

## **More information**

Contact Ron Winands, Board Director at Control Union Testing & Inspection, for more information about the ISO 10855 series and other aspects related to offshore containers by sending an e-mail to [rwinands@controlunion.com](mailto:rwinands@controlunion.com) or calling +31 223 685 180. For information about international standardization for the oil and gas sector, you are advised to contact your national standardization body. Dutch interested parties can visit the [web page](#) of the Dutch standardization committee 'Gas and oil exploration and production' or contact Jarno Dakhorst, NEN consultant Energy, by sending an e-mail to [jarno.dakhorst@nen.nl](mailto:jarno.dakhorst@nen.nl) or calling +31 15 2 690 245.