



DESIGN | MANUFACTURE | SALE
QUICK OPENING CLOSURES

www.qocsolutions.com





WHO WE ARE

QOC Solutions is an Italian company that designs, manufactures, and sells quick opening closures for industrial plants in the *Oil & Gas, petrochemical, chemical, food, manufacturing and research sectors*.

Thanks to a team who has over twenty years of experience in the quick opening closures field, we are able to offer trustworthy products that can simplify and make safer the relationship between worker and plant.

Our company guarantees customized solutions that are tailor-made for the customers' needs. Each client can count on a product designed and created to suit perfectly their industrial plants, that is easy to use even by one man alone, that can ensure a quick and safe access to any type of equipment under pressure or not.

QOC SOLUTIONS' QUICK OPENING CLOSURE INSTALLATIONS.

QOC Solutions' quick opening closures **can be installed on various type of industrial equipment**. In particular, our products can be used for:

- *Pressure vessels and atmospheric tanks*
- *Pig launching and receiving traps*
- *Vertical and horizontal filters*
- *Manholes*
- *Handholes*
- *Separator filters*
- *Three phase filters*
- *Mini reactors*
- *Autoclaves*
- *Timed chain conveyors*

Our clients' satisfaction is important to us and that is the reason why we provide one-on-one consultations before taking upon the manufacturing process and a prompt customer service.

QOC SOLUTIONS' REFERENCE FIELDS.

QOC Solutions is a company that **designs, manufactures and sells quick opening closures** for businesses specialized in many different fields. Our team is composed of engineers and specialized professionals who works for provide to the clients customized quick opening closures that guarantee a rapid and safe access to every kind of equipment, pressurized or not.

Moreover, **QOC Solutions** doesn't only manufacture products but offers also **consultations and technical support to the most important companies on a national and international** scale that work in the field of Oil&Gas, food sector, manufacturing, chemical, petrochemical and of research.

ENGINEERING.

QOC Solutions' quick opening closure are designed and manufactured in compliance with the relevant regulations referred to the vessel (for example Code ASME VIII Div. 1, Div. 2, Directive 2014/68/CE (PED), etc..) and verified through the most modern calculation software.

ALL PROJECTS ARE ASSESSED AND TESTED TO GUARANTEE THE QUALITY AND THE SAFETY OF THE PRODUCT.

Businesses that are looking for a helping hand to increase their products performances and to improve the safety level of the workers will find in **QOC Solutions** the ideal partner.

The continuous pursuit of better and improved solutions makes the company flexible, versatile, and able to adapt its products to many different industrial sectors.

SAFETY.

All **QOC Solutions'** quick opening closures have a safety device designed and built according to ASME VIII div.1 UG-35 and ASME VIII div.2 Par. 4.8 which provides the operator with an audio warning in case of residual pressure inside the appliance.

Safety devices for visual warning and for the discharge of gas or acidic residues in a safe area away from the operator can be included.





10 VALID REASONS

TO CHOOSE OUR QUICK OPENING CLOSURES.

1. The safety system with an incorporated safety device for a visual and audio warning, and possible discharge in a safe area.
2. The special lip seal gasket that ensures a perfect seal.
3. The device to open/close the cover (hinge/davit).
4. The possibility of Partial Asme Stamp certification.
5. The certified hydraulic test performed on samples.
6. The possibility of automatic movement.
7. The possibility of hydraulic movement.
8. The quality certification databook.
9. The 24 months warranty starting from the delivery date.
10. The installation and after-sales assistance.





QOC SOLUTIONS' WARRANTIES.

QOC Solutions performs functional tests on all products and also there are hydraulic tests on a sample of product size/range.

It is also important to underline that our products can be certified **Asme U-Stamp e U2-Stamp** with issuing of the Partial Data Report stamped by ASME Inspector or certified PED according to the Pressure Equipment Directive **2014/68/UE (PED)** with the issuing of a technical dossier.

QUALITY AND CERTIFICATIONS.

All the materials used are certified according to **EN 10204 3.1 / 3.2 / 2.2** (according to necessities) and undergo strict quality controls such as **PT-VT-MT-UT SNT TC 1A** qualifications **EN-473**. Non-destructive tests MT-PT-UT are performed directly by our qualified internal staff and controls on welding are made through the collaboration of welding inspectors our partners.

MATERIALS.

QOC Solutions' Quick Opening Closures can be made of: Carbon steel, Stainless steel, Duplex or super duplex. Moreover, we also offer protection/anti-corrosion treatments of the components such as: *nickel plating - cold galvanizing - teflon coating - sandblasting and coating with zinc rich epoxy primer - final painting according to specification*

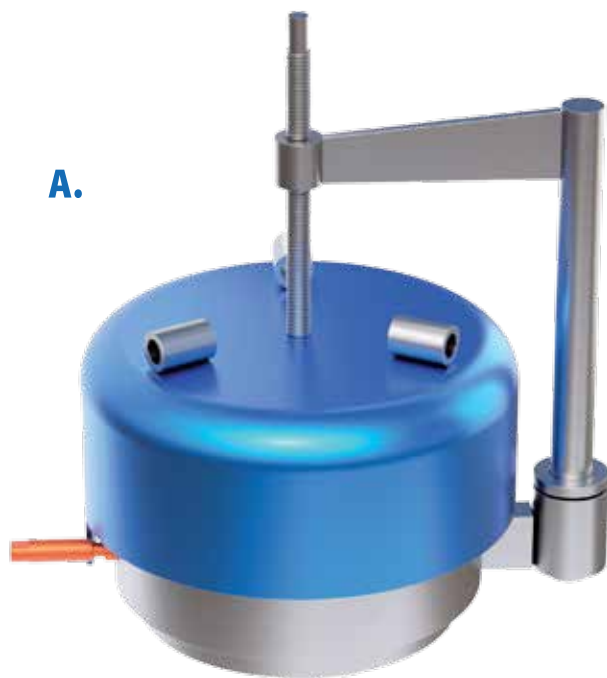
MADE IN ITALY.

QOC Solutions' products are developed and manufactured in Italy. **QOC Solutions** supports the idea of a product that includes, as fundamental elements

1. easy to use
2. movement carried out by one man
3. immediate understanding of the operation
4. opening / closing speed
5. balanced and intelligent application of technology

PRODUCTS

A.



TECHNICAL SPECIFICATIONS.

- Production range starts from **DN 2" to DN 72"**
- The pressure ratings available go up to **ANSI 2500**
- The temperature goes **from -46°C to +350°C**
- The O-Ring gasket or **special lip seal** provided guarantees a perfect seal even at low pressures.

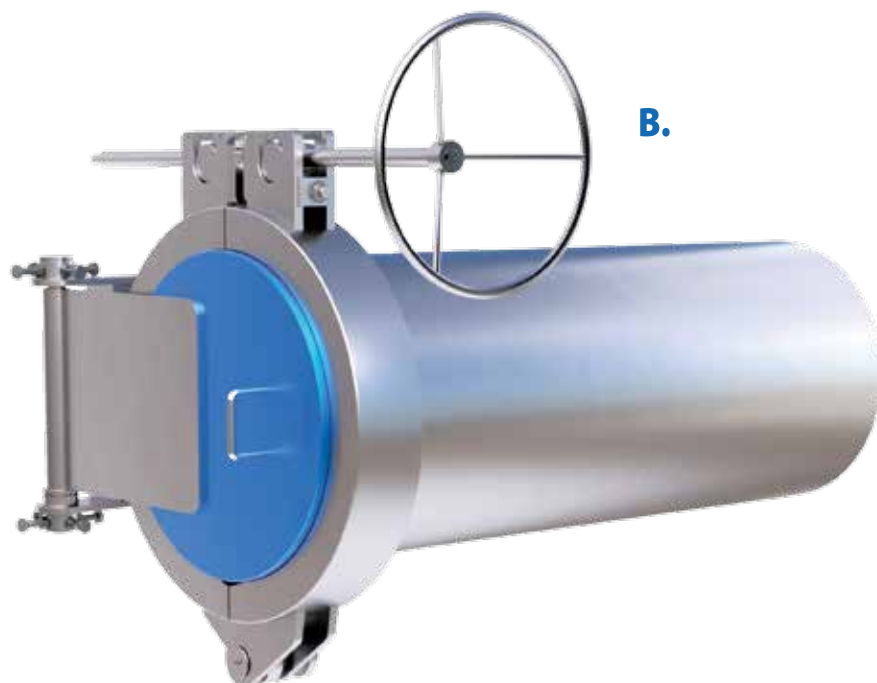
A. THREADED QUICK OPENING CLOSURES (QOC THD).

The **threaded quick opening closures (THD)** are recommended for using on equipment with dimension starting from DN 2" to DN 12"; with recommended ratings up to ANSI 600. This type of QOC is activated by screwing/unscrewing the threaded cover/cap to the hub welded to the vessel.

B. QUICK OPENING CLOSURES WITH JAWS.

The recommended sizes for use of these type of quick opening closure go from DN 6" up to DN 72" with suggested rating up to ANSI 2500.

The **quick opening closures with jaws** is activated by screwing/unscrewing a threaded operating rod that moves the jaws allowing the release of the cover for the opening.



B.

C.



C. QUICK OPENING CLOSURES WITH SECTORS.

The **quick opening closures with sectors** are composed of two parts, a hub and a cover. This type of QOC is activated by the unlocking of the sector's system which allows the movement of the cover.

We recommend the use of the Quick Opening Closures with sectors on equipment with sizes that start from DN 6" and go up to DN 68". They are suitable for ratings up to ANSI 2500.

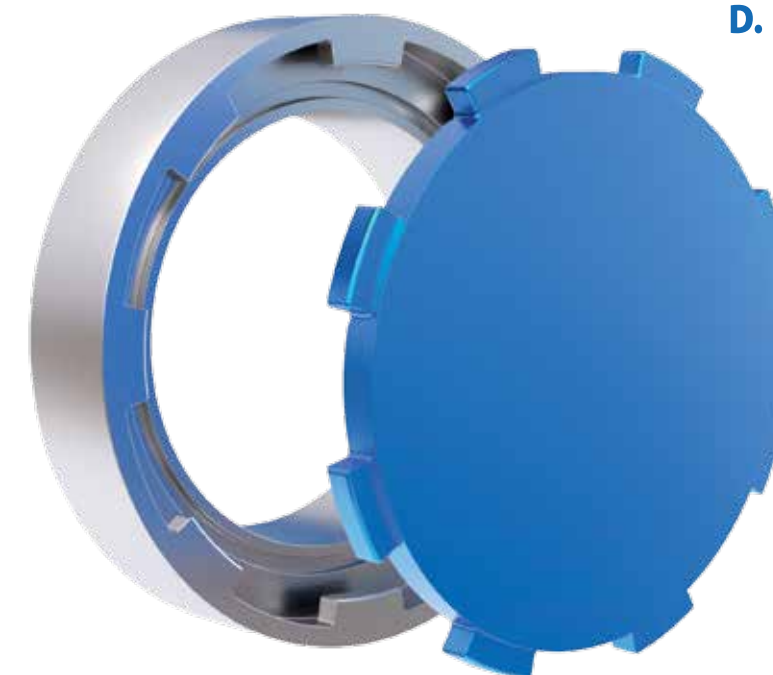
QOC Solutions' team offers to its customers one-on-one consultations in order to listen closely to the customers' needs and design a product with ideal characteristics based on its intended use.

D. QUICK OPENING CLOSURES WITH TOOTH.

QOC Solutions offers manual **quick opening closures with tooth** as well as automatic. This type of QOC gets activated through the rotation of a system of teeth which allows the fast opening.

The manual rotation uses a rack system, while the automatic one uses a hydraulic piston and pump system.

The recommended sizes for our quick opening closures with tooth go from DN 6" to DN 46", and the specially recommended rating is ANSI 150, even if typology can be applied to rating ANSI 600.



D.



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