QCS Oval

User Manual

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A MODULAR QUICK CHANGE SOLUTION BY SI TECH

Prepared for the ANTARES Dry Glove System

SI TECH®

INNOVATIVE SAFETY SOLUTIONS – MADE IN SWEDEN

www.sitech.se

QCS Oval – User Manual

We want to congratulate you on your purchase of a Modular Quick Change Solution developed and manufactured by SI TECH in Sweden. The QCS Oval has a narrow and oval shape that makes it compact and comfortable. The system provide you with the great opportunity of quickly changing a torn or broken seal. It also offers you a modularity to choose from a variety of seals.

Components

The system itself consists of three components per arm:

- PU-Rings
- Oval Stiff Rings
- Wrist Seals (silicone or latex)

Benefits

- A slim and comfortable solution with minimum bulk volume.
- Increased freedom of movement.
- Opportunity to choose from a variety of seals and to change them whenever you want to.

Profile of the new Oval Stiff Ring

Profile of the old Oval Stiff Ring

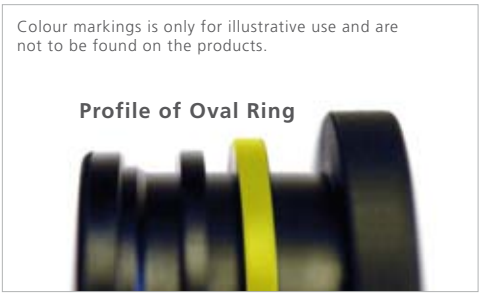
This new Oval Stiff Ring comes delivered with all QCS Oval systems manufactured after May 2012.
(The new Oval Stiff Ring is compatible with the ANTARES Dry Glove System.)

This manual does not address the topic of gluing/attaching the PU-Ring of the QCS Oval to your drysuit. Please visit: www.sitech.se for further information.

1. Mounting seals

1.1 Assemble the seal by inserting it through the Oval Stiff Ring and bringing it back 1,5 cm over the ring.

Colour markings is only for illustrative use and are not to be found on the products.



1.2 Different drysuits, drysuit designs and fabrics demands a different approach when mounting the seal. Refer to images **1.3-1.4.**

NOTE: The silicone seal has a shiny surface on one side and a matte finish on the other, bear in mind that it is the matte surface seals against your skin.

IMPORTANT: These two images illustrate two different ways of positioning the seal depending on the design and fabric of the drysuit and how the PU-Ring is attached into the drysuit! When you have reached the final step in the mounting process of your QCS Oval, one of these mounting alternatives will work better than the other. It is important to try assembling the components both ways to see which one works best.

1.3 Adjust the seal so that it covers the area marked red and aligns towards the part of the Oval Stiff Ring marked yellow.

1.4 The alternative way to do this is to adjust the seal so that it covers the area marked yellow. Prefered alternative depends on the design of the suit!

2. Attach to PU-Ring

2.1 Now it´s time to mount the Oval Stiff Ring with seal into the PU-Ring on the drysuit. Read the step by step instructions carefully so as not to damage the seal or mismatch the rings.

2.2 Keep the seal in a fixed grip and rest the Oval Stiff Ring firmly against your hand, when pressing the rings together. This will prevent the seal from slipping out of position.

2.3 Squeeze the two rings together, make sure that the seal does not slide out of its position.

2.4 if the seal slips out of its groove, it will almost certainly be squashed between the rings. If this happens, detach and restart from image **1.1** (check seal from damage).

2.5 Make sure the Oval Stiff Ring is bottomed out and that the ring flange is in the position shown in the image. Before diving your QCS Oval, you should check that the Oval Stiff Ring and seal has been fixed correctly in position. Grab the seal with one hand and try to pull it in the opposite direction from the suit without using excessive force. If everything feels ok, perform test dive! If not ok, refer to images **1.3-1.4.**

3. Detaching the QCS Oval assembly

3.1 Grab the QCS Oval assembly as shown in these images. Push the front end of the PU-Ring up and away from the Oval Stiff Ring using your thumbs. At the same time press the back end of the PU-Ring inwards to press the Oval Stiff Ring out of its position to release the whole assembly.

These are suggested instructions only

Whatever method chosen, be certain the cuff seal, be it latex or silicone, is properly treated. Always make a leakage and stress test on your drysuit seals before diving.

Use together with Dry Gloves

The QCS Oval is adapted for use as an attachment platform for the ANTARES Dry Glove system made by SI TECH. The ANTARES offer a variety of Dry Gloves to be used.

Important information

- A cuff seal provides the sealing of the system and must be used at all times, even when the QCS Oval is used in combination with the ANTARES Dry Glove system.
- A minimun seal thickness of 0,8 mm is recommended. Use of a thinner seal may cause leakage.
- Test the strength and seal integrity before diving.

Maintenance and Storage

- Remove the Stiff Ring regularly to rinse the cuff seal and/or glove from salt or debris, and to relieve the Wrist Rings and seals from stress settings especially when storing for prolonged periods.
- Avoid exposing the Wrist Ring to heat or sunlight. Subjecting the assembled unit to prolonged heat or sunlight with an inserted cuff seal is not recommended. The PU-material may expand, which could cause leakage.

Spare Parts

Item no.	Item
60251	PU-Ring for QCS Oval
60250	Oval Stiff Ring
60260	ANTARES Oval Stiff Ring
61025	Silicone Seal, Standard (wrist circumference 13,2-17 cm / 5,2-6,7")
61026	Silicone Seal, Small (wrist circumference 10,6-15 cm / 4,2-5,9")
61060	Latex Seal, X-Small (wrist circumference 12,5-14 cm / 5,0-5,5")
61061	Latex Seal, Small (wrist circumference 13,5-16 cm / 5,4-6,4")
61062	Latex Seal, Medium (wrist circumference 15,5-18 cm / 6,2-7,4")
61063	Latex Seal, Large (wrist circumference 18-21 cm / 7,2-8,4")

SI TECH is a Swedish company focusing on manufacturing and marketing of components for protective suits such as; drysuits, rescue suits and garments designed for diverse hostile environments. SI TECH is rooted in the diving industry which is still the company's core market. The company was founded in 1971 by the diving pioneer Stig Insulán.

Core products

Modular Quick Change Solutions, Drysuit Valves, Drysuit seals, Dry Glove Systems, Gas Inflation Systems and special compoents for military purposes

Inhouse capabilities

Development and production is made in-house at our facilities in Brastad, Sweden. Inhouse competencies include: CAD construction, Injection Molding, CNC Machining, EMD Machining, Assembly, Sales and Marketing, Logistics and Administration. Our team of engineers, sales and marketing personell have close co-operation with the distributors and end-users of our products.

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