VEGA

User Manual

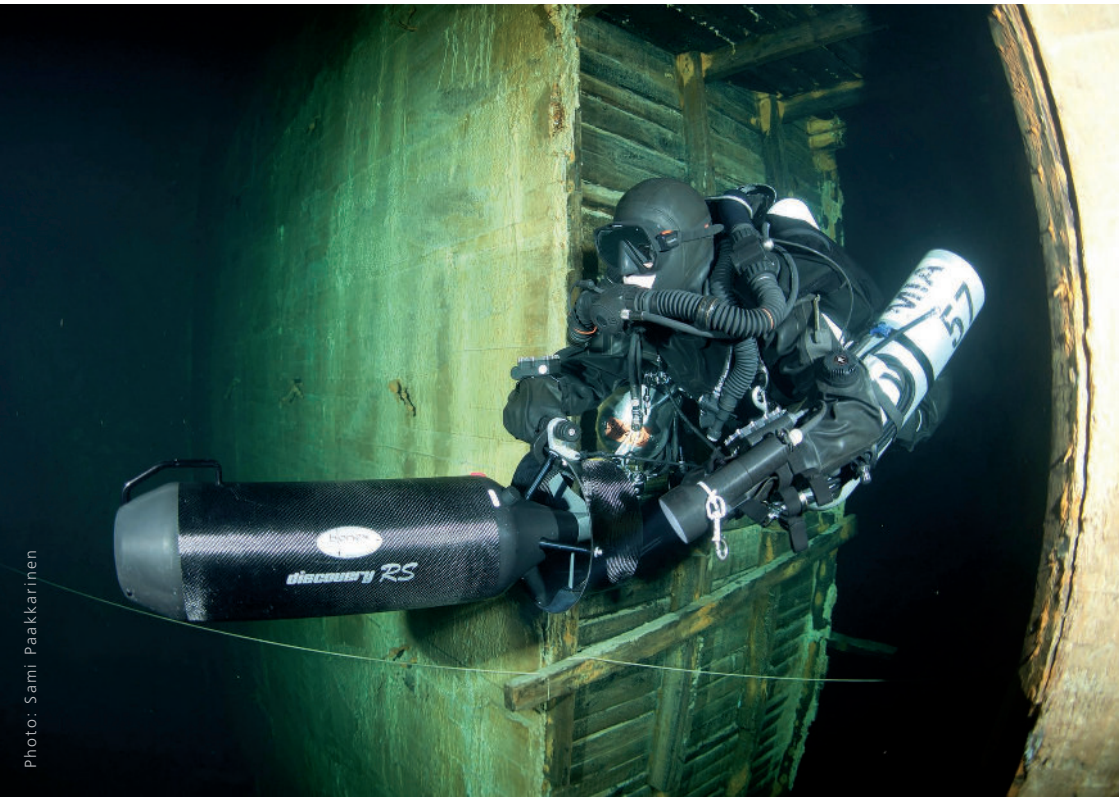


Photo: Sami Paakkarinen

www.sitech.se

SI TECH®

INNOVATIVE SAFETY SOLUTIONS – MADE IN SWEDEN

VEGA Inflation Valve

We want to congratulate you on your purchase of the VEGA Inflation Valve developed and manufactured by SI TECH in Sweden. By reading this manual you are only some simple steps away from diving it. The VEGA Inflation Valve provide the user of heated undergarments with a versatile Inflation Valve including swiveling gas and cable entries optimizing cable and hose angles in relation to other equipment.

Cables, hoses and grease are not included in the package!

Main Components

The VEGA Inflation Valve set includes:

- VEGA Inflation Valve (complete)
- 2,5 mm Allen key
- 4 mm Allen key

Benefits

- Provides inflation of gas and passage for cables in one single unit.
- Swiveling ports for optimized equipment configuration.
- Easy set-up and maintenance.

The VEGA Inflation Valve is available in different versions, for more information; see www.sitech.se.

Important information

- Please note that this manual do not cover installation/guidance or safety instructions for wiring, assembly and usage of battery packs, wires, connectors, garments or other parts of the electrical system or parts connected to electrical system.
- Always mount the VEGA Inflation Valve with friction washer installed on the inside of the suit.
- Always remember to disconnect power sources when working on cables etc.
- Always remember to grease O-rings and check them for eventual damage. Damaged O-rings must always be replaced.

1. Disassembling the Valve

1.1 Loosen and remove the screws on the cover lid using the 4 mm Allen key. Remove the lid. Make sure to hold the valve upright to prevent components from falling out.

1.2 Remove the bottom lid including friction washer by unscrewing it counterclockwise.

1.3 The next step is to remove the swiveling components. Start with the inflation assembly. Do not remove it by grabbing the inflation nozzle marked by "X"! Grab the piece within the dashed line area and lift it straight up. Ensure that the O-ring on the valve neck is still in position. The next step is to remove the cable side swivle. Use the same procedure for the removal.

1.4 These are the components that you have dissasembled to this point. Ensure that the O-rings are undamaged and that the O-ring grooves are clean.

2. Cable entry

2.1 Dismantle the cable entry swivel down to three components as shown in this picture. The arrow explains the path of the cable when installing it. Assembling of the swivel components shall be made after the cable has been installed and measured according to preferred length.

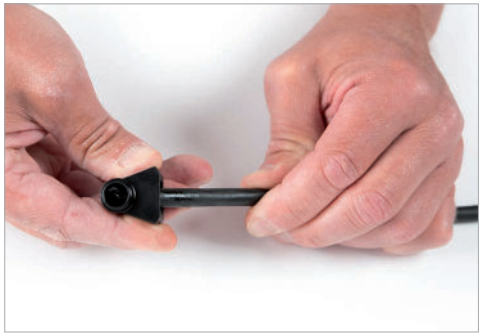
2.2 Lubricate the cable cover with soft soap or similar product. This will ease up the process of getting the cable through the cable entry components. Ensure that the cable is disconnected from eventual power sources.

2.5 Before next step it is important to measure the length of the cable for your specific need. When the nipple is mounted and fastened it will not be possible to adjust the cable in any direction without disassembly.

2.6 Mount the nipple into the socket by gently rotating it clockwise, be careful not to damage the thread. Tighten the nipple in two steps:

1. Start with tightening the part of the nipple closest to the swivel.
2. End with tightening the lid of the nipple.

2.3 Thread the cable through the nipple components as shown in this picture.



2.4 The best way to get the cable through the swivel socket is to rotate the cable while pressing it forward into the socket. You may simplify this procedure by using a tool with soft edges! Do not use sharp tools as knifes or similar as you may damage the socket or the cable.

2.7 Mount the swivel into the valve body, make sure that the O-ring is undamage and in place. It does not matter which entry you use as the construction of the valve allows both.

2.8 Before you press the swivel into the bottom of the O-ring seat, the O-rings may need to be greased (preferably with silicone grease). Check the function of the swivel!

3. Assembly of gas socket and cover lid

3.1 The next step is to mount the gas socket swivel into the valve body. Make sure that the O-ring is greased/undamaged and located as in the picture. Mount it in the same way as the cable entry swivel.

3.2 The next step is to mount the cover lid.

3.3 Put the cover lid in position. Use you fingers to mount the screws and rotate them as far as you can by the force of your fingers. The Allen key must only be used when tightening the screws. Use gentle force when tightening the screws.

4. Final assembly

4.1 Disassemble the bottom lid by removing the screws with a 2,5 mm Allen key.

4.2 The Valve can be mounted in any SI TECH Valve Ports with large or dual guide ridge and in all Internal Valve Ports.

4.3 Mount the valve into the drysuit and attach the body of the bottom lid. Position the valve in preferred direction and tigthen it by force of hand. Tightening shall be made through rotation of the bottom lid body.

Do not forget the anti-friction washer that must be located on the inside of the drysuit.

4.4 Bend the cable in preferred direction and mount the lid.

4.5 Tighten the screws gently with the 2.5 mm Allen Key.

4.6 The Valve is now ready for use!

Troubleshooting

- If the screw is difficult to tighten; remove and check for dirt (both on the screw and in the screw hole). There should be no resistance when tightening the screw.
- If leakage occur; check the Valve port and O-rings first. If the problem still occur; check the cable nipple. If leakage still occur; please contact your dealer or SI TECH.

Maintenance and Storage

- Avoid exposing the quick connector socket on both valve and hose to water and sand. Use the protective cap when the hose is not attached.
- Rinse the drysuit and Inflator Valve with fresh water after every dive. After rinsing, attach the hose and purge air through the valve until clean and dry. If the action of the inflate button becomes stiff, spray a suitable silicone based spray into the quick connector socket and work the push button.

Warnings

- DC Current is dangerous and could be lethal. Regarding battery packs, wires, connectors, garments or other parts of the electrical system or parts connected to electrical system; please contact the manufacturer for installation/technical guidance and safety instructions or other necessary information.

- If there are any signs of leakage or other malfunction; the system should be shut off.

Recommendations

- Before donning your drysuit – check that the valves are properly fitted.

- SI TECH AB recommends you to limit drysuit compartments that can trap and contain gases which could cause buoyancy control problems. This means that the BCD should normally not be used for buoyancy control during the dive.

- A tightly fitting suit, belt or other equipment may restrict the flow of gas within the suit causing reduced deflation capacity of the Exhaust Valve. A non-restrictive-fit is desirable, but the suit must not be too large, especially not over the shoulder area .

- Be sure that the neck seal is properly trimmed and folded for comfortable fit. A neck seal that is too tight can restrict the flow of blood to and from the brain. A neck seal that is too loose will allow gas to leak out and cause a reduction of pressure within the suit that will have a negative effect on the Exhaust Valve's capacity to provide automatic buoyancy control. Remember to squeeze the drysuit before entering the water feet first. If not, you may risk the neck seal turning inside out.

- Differing compositions and physical properties of various drysuit undergarments affect the flow of gas through to the exhaust valve.

- While diving, avoid inflating when your feet are above your head.

- Using yourself and your drysuit as a lift bag will put your life in danger. For the same reason, never attach a lift bag to your Drysuit or BCD Hose.

- If you are unfamiliar to diving with a drysuit tell your dive buddy and/or your dive master. Allow yourself time to get familiar with the characteristics of your drysuit.

- Diving can be a potentially dangerous activity. Stressed divers can make decisions that may prove fatal. Dive within your physical, mental and experience limitations. Get to know your equipment and practice in a comfortable environment. Your personal fitness, experience, knowledge and judgment are factors that will be crucial for your ability to handle a crisis situation. Give up diving for the day if you are not feeling well or if you do not feel comfortable with the dive situation, your own ability or equipment. Always perform a pre-dive check on all your diving equipment and correct any malfunctions before diving.

All diving is done at your own risk.

Spare Parts

Item no.	Item
23263	Allen key 2,5 mm
23264	Allen key 4 mm
23258	Screw (for cover lid)
21813	Screw (for bottom lid)

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 components 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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