seac sub

advanced diving technology

# Diamond Ice
# Diamond
# Diamond Octo

ISTRUZIONI (I)

INSTRUCTIONS (UK)

INSTRUCTIONS (F)

INSTRUCCIONES (E)

ANWEISUNGEN (D)

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CE 0474 - EN 250 : 2000

# INDEX



**EROGATORI**
**REGULATORS**
**DETENDEUR**
**REGULADOR**
**ATEMREGLER**

## Diamond Ice

## Diamond

## Diamond Octo

# Introduction

***Congratulations for choosing the quality and reliability of a Seac Diving Pro product. The equipment you bought was produced using selected and tested materials. Our constant evolution results from continuous research and development. Innovative production processes, constant testing and actual functionality tests developed at our research centre guarantees the reliability characterizing all Seac Diving Pro products.***

## Warning!

This booklet is not a diving manual! Read the whole instruction handbook before using this equipment!
This manual for use must be preserved for the whole life of the product!

## General Instructions

- Before using the regulator or any other products for underwater diving, you should attend a course held by qualified instructors and obtain the relevant diving certificate. The use of diving equipment by non certified divers is dangerous and can lead to serious accidents, or even death, to the diver and his/her diving mates.
- During the assembly and regulation of the regulator, every step was taken to ensure high reliability of the product in time. These steps however may become ineffective if the regulator is not used correctly and if adequate maintenance is not provided. Seac Diving Pro s.r.l declines any liability for any problem arising from non-compliance with the instructions contained in this handbook.
- For any other problem, please contact your dealer or directly Seac Diving Pro. Only laboratories authorized by Seac Diving Pro may carry out repairs or maintenance.
- Seac Diving Pro diving regulators are the result of a research carried out in close cooperation with many professional divers. Their innovative features ensure a reliability which remains unchanged even after a long series of dives. At the same time, their easy mechanics and operation allow an extremely simple maintenance.
- If you are not experienced in the use of this equipment, we strongly advise you to get familiar with its operation during test diving in shallow waters and under favorable conditions; if needed, contact a qualified instructor for a refresher course.
- This diving regulator has been certified according to standard EN 250: 2000 which provides a long series of functional tests up to a maximum depth of 50 meters and at a temperature of 4 degrees centigrade (test tolerance range -2°C/ +0°C).

## Warning!

This diving regulator has been designed to be used with normal atmospheric air complying with the specifications of standard EN 12001.

## Danger!

Do not use this or any other product of the Seac Diving Pro line with other gases or oxygen enriched air mixtures (usually known as NITROX). Failure to follow this recommendation could cause serious accidents or even death, due to fire or explosions, or seriously damage your equipment.



# Reference to European Standard EN 250: 2000

**PURPOSE - DEFINITIONS - LIMITS**
The purpose of the requirements and tests specified by standard EN 250: 2000 is to ensure a minimum safety level for the operation of Self-Contained Underwater Breathing Apparatus (SCUBA) at a maximum depth of 50 meters.

**SCUBA Definition:**
Compressed-air open-circuit underwater breathing apparatus contained in a cylinder.

**SCUBA - MINIMUM EQUIPMENT REQUIRED (EN 250 : 2000)**

1. Cylinder body and valve assembly (cylinder assembly)
2. Regulator
3. Pressure gauge or pressure control, reserve or alarm device
4. System for cylinder support, transport and connection to the diver (back-piece and/or straps)
5. Head equipment (mouthpiece or complete mask or diving helmet)
6. Instructions for use

**SCUBA - Component assemblies (EN 250 : 2000)**

- The Scuba may consist of separate component assemblies, such as:
  Cylinder assembly, Regulator, Pressure gauge, Support-transport system.
- Cylinder assembly defines the assembly of cylinder body, valve and tank boot, if any.
- The Seac Diving Pro regulators described in this handbook are to be used in the SCUBA assembly and are certified in compliance with European Directive 89/686/EC and standard EN 250 : 2000.
- The compressed air contained in the cylinder assembly shall comply with the requirements for breathable air defined in EN 12021 : 1998

## Warning!

The following instructions shall be integrated with the ones relevant to the other components of your SCUBA. Before using your SEAC SUB regulator, read carefully all the instructions for use contained in the relevant handbooks.

## CE Certification

The Seac Diving Pro regulators described in this handbook were tested and certified by the notified testing body 0474 RINA, Genoa office (Italy) in compliance with Directive 89/686/EEC of 21 December 1989.
Tests were carried out in compliance with standard EN 250: 2000, implementing the above Directive, which defines the conditions of sale and the essential safety requirements of Third-Category Individual Protection devices (DPI).
CE marking means compliance with the essential health and safety requirements (Ann. II DE 89/686/EEC). Number 0474 near "CE" identifies the notified testing Body RINA in charge of production control under Art. 11B DE 89/686/EEC.

**MARK ON EACH REGULATOR:** CE **0474**

The certification obtained for the DIAMOND, DIAMOND ICE, and DIAMOND OCTO provides possible use in both of the following categories:

- Regulators for non-cold waters, having a water temperature equal to or exceeding +10° C
- Regulators for cold waters, having a water temperature lower than +10° C

In compliance with standard EN 250 : 2000, waters are considered cold when their temperature is lower than + 10° C.

# EROGATORI DIAMOND, DIAMOND ICE, DIAMOND OCTO.

## DIAMOND REGULATOR - FIRST STAGE

This first stage combines very high performance with an extremely compact and round shape.
Operation is ensured by a balanced diaphragm system which keeps a constant intermediate pressure with reference to both tank pressure and depth. In addition, the diaphragm completely separates the regulator core from the external environment, ensuring total reliability over a long series of dives.

It is cast as a single block of copper-plated brass, subsequently nickel- and chrome-plated. Internal components are in chrome-plated brass with music-wire springs and nitrile-rubber seals. Particular care was given to the separating diaphragm, made of a special rubber which remains unchanged and is resistant to low temperatures.
Four low-pressure ports, provided with 3/8" thread, supply a constant pressure of 9.8 bars; all ports are considered preferential, as they are implemented on the same axis; in addition, two of them are positioned at 30° with regard to the first stage body, so as to make the correct bending of the valves inserted easier; the most important components, such as the main regulator (on the right) and the jacket or dry diving suit hose (on the left), shall be connected to these two ports.
In decentralized position there are two high-pressure ports (one to the right and the other to the left) with 7/16" thread and inner hole having a 0.20 mm. diameter; a diving pressure-gauge may be connected to these high-pressure ports, to check the internal pressure of the cylinder used, by means of a hose with 7/16" thread male connection.

## Warning!

Use only CE certified pressure gauges provided with standard thread. Do not use any type of adapter between the first stage and the high pressure hose connection.

The DIAMOND first stage has been designed to operate with cylinder working pressures up to 300 bar. For pressure exceeding 230 bar it is advisable to use the version provided with the 300 bar thread connection (THREAD CONNECTION ISO 12209-2/3.2; 300 BAR) implemented in our model DIAMOND ICE

The DIAMOND first stage is implemented in the following versions:
- International YOKE connection (ISO 12209-1 230 BAR)
- THREAD connection (ISO 12209-2/3.5; 230 BAR)

## DIAMOND ICE REGULATOR FIRST STAGE

First stage has the same characteristics as the DIAMOND version, but with the addition of the innovative ANTIFREEZE DRY SYSTEM.
This system enables diving under extreme temperature conditions, while keeping operating characteristics unchanged.
An antifreeze silicone separating diaphragm, placed at the end of the first stage insulates the regulator mechanics from the outside, while transmitting through a simple and functional mechanism, the water external pressure needed for proper and constant balancing of the first stage under any pressure and diving conditions.
This version is recommended for dives in cold waters or mountain lakes where the water may reach temperatures nearing zero.

The DIAMOND ICE version First stage is implemented in the following versions:
- International Yoke connection (ISO 12209-1 230 BAR)
- Thread connection (ISO 12209-2/3.5; 230 BAR)
- Thread connection (ISO 12209-2/3.2; 300 BAR)

## Warning!

To use the YOKE connection (ISO 12209-1 230 bar) or the THREAD connection (ISO 12209-2/3.5; 230 bar), you must use a cylinder having valves fitted with the relevant connections.
We recommend you to keep a common 8 mm Allen wrench within reach, so that you may operate on the valves, if needed, to obtain the right connection. Please note that (the 300 bar THREAD connection) (ISO 12209-2/3.2; 300 bar), only valves with the relevant connection should be used.



## DIAMOND /DIAMOND ICE REGULATORS SECOND STAGE

Second stage with air balancing system which reduces the initial breathing effort while providing a linear and constantly smooth breathing. The system operation is based on a pneumatic piston working in close contact with the spring, enabling the latter to work with a lower load force (consequent light breathing) ensuring a perfect seal of the air flow during the breathing out phase.
By actuating the knob located on the left of the regulator (see Figure A-B) you can regulate the breathing softness according to your breathing demand and to the diving conditions.
By rotating it anticlockwise you will get the maximum breathing softness and by rotating it clockwise you will gradually reach a standard breathing flow. This second stage consequently allows individualizing the breathing demand as a function of the dive requirements and type.

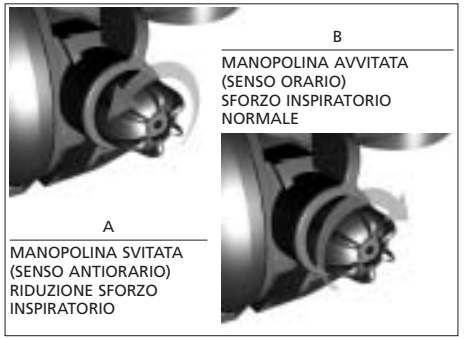


Figure A-B

The operation is of the "Downstream" type. This system allows for low air consumption by reducing air waste, as it perfectly meets the breathing demand.
This means that the air flow delivery is perfectly controlled by the diver's breathing action: a normal breathing action produces a light air flow, while heavy breathing due to fatigue or deep diving produces a free air flow, also increased by the Venturi effect.
In addition, this system also provides safety margins in case of first stage overpressure: should the intermediate pressure supplied by the first stage suddenly increase, the second stage would continue to work, thus releasing excess pressure and enabling the diver to breathe.
The control of the DIVE and PRE-DIVE mechanism allows to insert the Venturi effect. This system is placed around the knob regulating the breathing effort reduction system.
By actuating this mechanism placed to the left of the second stage you can insert the Venturi effect and consequently increase air delivery.
By turning the lever towards the outside you reach the "PRE-DIVE" position, while by turning the lever towards the diver you reach the "DIVE" position. (see Figure C)
The "PRE-DIVE" position is recommended to prevent accidental delivery when the regulator is under pressure but not used, while the "DIVE" position is recommended during the dive.
Warning! Move the lever to "PRE-DIVE" only when the regulator is not used, and rotate it to "DIVE" before dive start.

Figure C

The main body is made of synthetic resin, which is highly resistant to impacts, abrasions, ultraviolet rays and chemical agents. Diaphragms are made of medical grade silicone, while nitrile rubber O-rings are of different hardness (Shore) as a function of their applications. Chrome-plated brass and stainless steel internal components. Black anallergic silicone mouthpiece.
The nut placed on the hose end was especially designed with slightly marked lines for cosmetic purposes, so as to give the Diamond regulator a professional and captivating look.
The hose is of the standard type (770 mm length and 3/8" thread).

## DIAMOND OCTO

The technical specifications and the materials used for the DIAMOND OCTO are the same as for the second stage version assembled on the above described DIAMOND and DIAMOND ICE regulators.
The only differences are in the color of the shield which is yellow, especially designed for easier identification in case of quick use, and in the hose which is also yellow. The latter was especially made with a length of 1000 mm (3/8" thread) for easier use in emergency conditions.
We recommend correct positioning of the DIAMOND OCTO to PRE-DIVE and with the air flow regulation knob fully screwed up if it is used as an auxiliary or emergency regulator.
The DIAMOND OCTO first stage assembly shall be carried out by qualified or experienced persons in order to optimize and ensure the functionality and safety requirements needed.
Use a common 4 mm Allen wrench to remove the low pressure port closing cap (3/8" pitch) then make sure that the O-ring is present, inserted and positioned in the hose over the relevant thread. Screw up the hose with your fingers until end stop, and then tighten the nut with a 14 wrench without using excessive force.
Check for proper operation by putting the assembled regulator under pressure before the dive.

## Warning!

For safety reasons you are recommended to use the DIAMOND OCTO only on the DIAMOND, DIAMOND ICE and SORIUS first stages having an intermediate pressure of 9.8 bar.
The use of the DIAMOND OCTO connected to other first stages automatically makes the CE Certification null and void, as the latter was obtained with tests carried out with connection of the DIAMOND OCTO to Seac Diving Pro First stages.
Failure to comply with this recommendation may also cause malfunctioning of the second stage and serious accidents may result.

## Warning!

Do not use adapters for any reason with the purpose of connecting the low pressure hose and relevant second stage to the high pressure port identified by letters HP. Low pressure components were designed and implemented to operate with pressures not exceeding 20 bar. Failure to comply with this warning may cause serious damage to persons and equipment.
Be extremely careful when handling components that are under pressure.

| SPECIFICATION DESCRIPTION | DIAMOND | DIAMOND ICE | DIAMOND OCTO |
|---|---|---|---|
| CE Certification | Cold Water < 10 c° | Cold Water < 10 c° | Cold Water < 10 c° |
| Mark and Certifying Body | CE 0474 | CE 0474 | CE 0474 |
| Mark Position | On the first stage | On the first stage | On the hose |
| First Stage System | H.F. Balanced Diaphragm | H.F. Balanced Diaphragm | - |
| Antifreeze Dry System | No | Present | - |
| Low Pressure ports | No. 4 3/8" UNP | No. 4 3/8" UNP | - |
| High Pressure ports | No. 2 7/16 UNP | No. 2 7/16 UNP | - |
| Intermediate Pressure | 9,8 bar | 9,8 bar | - |
| First Stage weight | | | |
| Yoke 230 bar | 950 gr | 980 gr | - |
| Thread 230 bar | 730 gr | 750 gr | - |
| Thread 300 bar | - | 780 gr | - |
| Hose Length | 770 mm | 770 mm | 1000 mm |
| Second Stage System | Balanced Pneumatic | Balanced Pneumatic | Balanced Pneumatic |
| Second Stage Weight with hose | 350 gr | 350 gr | 400 gr |



## BEFORE EACH DIVE

- The regulator must always be transported separately so as to prevent it from being in contact with the other components of the equipment or with other heavy or pointed objects.

To assemble the regulator properly onto the valves, proceed as follows:

- When assembling a first stage with YOKE connection, check the O-Ring embedded in the valve; in case of THREAD connection, the O-ring is housed in the first stage.
- The O-ring must be in perfect condition, free from cuts or porosity; it is advisable to have some spare ones, so that it may be replaced at once in case the above signs of damage are detected.
- Check that all the hoses are properly connected to the first stage and that they do not show apparent signs of wear or damage.
- Open the valve let out a small quantity of compressed air, thus clearing the nozzle from any foreign matter.
- Remove the filter protection cap inserted on the relevant connections.
- Check for filter integrity and proper cleaning.
- Position the first stage on the valve and start screwing it up using the knob, in case of yoke connection, or the swivel screw, in case of thread connection.
- Slowly open the cylinder valve counterclockwise taking care to avoid violent and sudden air flow through the regulator; at the same time, *it is recommended to let out a breath of air from the second stage by keeping the latter slightly depressed*

**warning!**

*do not carry out this operation if ambient temperature is lower than +10°C.*

- Depress twice or three times the purge button of the second stage to discharge dust or foreign matter. Finally, breathe from the second stage to make sure that everything works properly.

**warning!**

Do not carry out this operation if ambient temperature is lower than +10°C.

- Check the cylinder internal pressure by means of the appropriate pressure gauge.
- In order to optimize the positioning of the different valves, it is recommended to place the main and secondary regulators on the right hand side and the service valves (pressure gauge hose, jacket hose, and dry diving suit hose) on the left.
- The valve must be fully open before dive start.
- When the regulator is not held in your mouth at the time of plunging into the water, it is advisable to submerge it completely to prevent air discharge due to its high sensitivity.
- The Octopus or the second safety regulator should be used in PRE-DIVE position and with the appropriate cap fitted on the mouthpiece to prevent the entrance of foreign matters or accidental air delivery.

## Warning!

- Do not rotate the first stage connected with the cylinder with the system under pressure.

## DURING THE DIVE

- When the regulator is not held in your mouth, air self-delivery may occur. This inconvenience may be easily eliminated by rotating the regulator upside down while checking that the same has been previously filled with water.
- The use of suitable containers for mouthpiece protection will prevent such inconvenience and will also provide a cover for the passage inside the second stage, thus removing the risks of sand and dirt introduction into it.
- Check that the regulations placed on the Diamond second stage are set in such a way as to fully exploit the advantages provided.

## AFTER EACH DIVE AND PERIODIC MAINTENANCE

Your regulator is made of very high-quality materials and has undergone exhaustive seawater testing. However, every precaution shall be taken in order to protect the equipment from the corrosive action of salt.

Below is the procedure to be followed after surfacing or on board at the end of the dive.

The first operation to be carried out after the dive is to disassemble the equipment used.

- Close the valve by turning it clockwise; discharge all the residual air remaining in the regulator system by actuating the second stage pushbutton.
- This operation may require several seconds, as the air leaving the pressure gau-

ge through the first stage shall pass through a 0.20 dia. hole.
- Unscrew the knob positioned on the yoke or, in case of Thread connection system, unscrew the threaded ring nut.
- Lay the cylinder down to prevent it from falling, positioning it in such a way that it cannot roll in any direction.
- Thoroughly clean and dry the first stage filter and housing with a cloth or with a soft compressed-air jet.
- Repeat the same operation on the protection cap covering the filter.
- Place the protection cap onto the filter and fasten it by tightening the knob screw or, in case of thread connection, screw up the swivel-screw cap.
- Rinse but do not immerse the regulator in running fresh water taking care of all its parts.
- In this phase do not for any reason remove the first stage filter protection cap. During this operation be extremely careful not to press on the diaphragm, to avoid water leaks into the first and second stage.

If you think you are not going to use the regulator for some weeks, again connect the regulator to a cylinder and, by depressing the second stage pushbutton, cause continuous delivery for about ten seconds. In this way all the water is discharged and there is no risk of scale deposits or evil taste.

The regulator shall be put to dry in a place sheltered from the sun and dust, hanging from the first stage yoke, so that the hose is not bent.

At the end of a particularly intensive diving season or, in any case, after a long period of inactivity, it is advisable to give the equipment to an authorized service centre for a complete overhaul. Consequently, we advise you to contact your dealer who will give you the best information on the quickest and safest ways for carrying out the annual overhaul.

## DIVING IN COLD WATER

Incorrect preparation for cold water diving (less than +10 degrees centigrade) might cause serious damage.

Before diving in cold water, you should follow specific training under the supervision of specialized and qualified trainers in cold water diving.

You must use specific regulators certified for such conditions and closely follow the instructions contained in the relevant handbooks.

Though the risks of freezing are limited as far as possible by continuous research, it is not possible to prevent second stage freezing in the most extreme conditions.

This could be the case when the water temperature is below +4 degrees centigrade and with external air temperatures is below zero).

Consequently, in order to prevent or reduce any possible risks, adequate training is needed to prevent the regulator from freezing.

In extreme conditions you should strictly observe the following guidelines:
1. Do not use the regulator out of the water particularly when the external surface temperature is below zero.
2. Never actuate the second stage discharge pushbutton unless under water.
3. Try to limit as far as possible the time of rest on the surface before diving.

***For further information you may contact our technical office at the following e-mail address: info@seacsub.com***





# Certificat de Garantie

Seac Diving Pro s.r.l. garantit le bon fonctionnement du produit auquel ce certificat est joint.
Cette garantie a une durée de 2 (deux) ans, conformément à la réglementation européenne en vigueur.
La garantie en question ne s'applique qu'aux conditions et dans les limites spécifiées ci-dessous:

1. La garantie a une durée de 2 (deux) ans à partir de la date d'achat du produit chez un revendeur agréé Seac Diving Pro et ne nécessite aucune formalité préalable ou validation successive.

2. La garantie n'est reconnue qu'au premier acheteur du produit chez un revendeur agréé Seac Diving Pro.
   La garantie étant strictement nominative, elle ne peut pas être cédée à un Tiers sans préalable autorisation explicite de la part de Seac Diving Pro.

3. La garantie couvre uniquement tous les défauts de fonctionnement dus à:
   - Vices intrinsèques dérivant d'un matériel jugé inadéquat
   - Erreurs évidentes de conception, fabrication ou assemblage du produits ou de ses composants
   - Instructions et avertissements d'utilisation incorrects ou impropres

4. La garantie déchoit automatiquement, et avec effet immédiat, à la suite de toute réparation, modification, transformation, adaptation ou violation en général du produit fini ou de ses composants qui n'a pas été préalablement autorisée par Seac Diving Pro ou en tout cas effectuée par du personnel non agréé.

5. La garantie donne droit à l'intervention et à la réparation gratuite dans les plus brefs délais ou bien au remplacement sans frais du produit (au choix sans appel de Seac Diving Pro) ou de quelques uns de ses composants si Seac Diving Pro a reconnu que ces vices de fonctionnement sont formellement cités à l'alinéa 3 ci-dessus.

6. La garantie peut être exercée par l'envoi du produit jugé défectueux à Seac Diving Pro. L'intermédiaire autorisé à cette opération doit être le revendeur agréé Seac Diving Pro où le produit a été acheté. Dans le cas où cela ne serait pas effectivement possible, n'importe quel revendeur Seac Diving Pro. peut expédier le produit défectueux, après avoir obtenu l'autorisation du fabricant. La condition nécessaire pour que la garantie puisse être exercée est que le produit soit accompagné de la copie du ticket de caisse ou de la facture (ou d'autre document d'enregistrement fiscal où figure le nom du revendeur agréé Seac Diving Pro chez lequel le produit a été acheté, ainsi que la date de l'achat.
   Pour le cas où Seac Diving Pro. recevrait un produit qui:
   - n'est pas accompagné du document d'enregistrement fiscal ayant les caractéristiques ci-dessus
   - que les circonstances sont telles qu'elles déterminent la déchéance de la garantie, comme spécifié à l'alinéa 4 ci-dessus
   - qu'il présente des défauts dérivant de causes externes ou diverses de celles formellement spécifiées à l'alinéa 3
   - qu'il a été utilisé d'une façon impropre et/ou pour un emploi divers de celui pour lequel il a été conçu

elle s'abstiendra de toute intervention sur le produit et en fera parvenir la communication immédiate à l'expéditeur ou au revendeur agréé.
Si l'expéditeur désire quand même faire effectuer la réparation, il devra faire parvenir à Seac Diving Pro, dans les quinze jours ouvrables successifs, une demande dans ce sens en déclarant qu'il se chargera de tous les coûts relatifs à l'intervention en question (main d'œuvre, pièces de rechange éventuelles, frais d'expédition).
Dans le cas contraire, Seac Diving prendra soin de retourner le produit aux frais et aux soins du destinataire.

Werfen wir also einen Blick auf die Regeln, die zu beachten sind, nachdem der Tauchgang beendet ist und wir wieder an der Oberfläche oder auf dem Boot sind.

Als erstes ist nach einem Tauchgang das gebrauchte Gerät zu demontieren.

- Schließen Sie das Ventil, indem Sie das Handrad im Uhrzeigersinn drehen und lassen Sie die gesamte restliche Luft heraus, die sich noch im System des Atemreglers befindet, indem Sie auf den Duschknopf der zweiten Stufe drücken.
- Dieser Vorgang kann einige Sekunden dauern, da die Luft, die aus dem Manometer durch die erste Stufe austritt, durch eine Öffnung vom Durchmesser 0,20 entweichen muß.
- Die Bügelschraube am Bügel abschrauben, oder im Fall des Gewindeanschlusses (Thread Connection), den Schraubenring abschrauben.
- Legen Sie die Flasche hin, damit sie nicht umfällt und achten Sie darauf, dass die Flasche nach keiner Richtung wegrollen kann.
- Den Filter der ersten Stufe und sein Gehäuse sorgfältig säubern und abtrocknen, entweder mit einem Lappen oder mit einem schwachen Strahl Pressluft.
- Verfahren Sie ebenso mit dem Schutzverschluss, mit dem der Filter abgedeckt werden muss.
- Die Staubschutzkappe auf den Filter setzen und mit der Bügelschraube blockieren, bzw. im Falle des Gewindeanschlusses den betreffenden Schraubdeckel aufschrauben.
- Sorgfältig alle Teile des Atemreglers mit Süßwasser abspülen, ohne das Gerät ganz einzutauchen.
- In dieser Phase darf auf keinen Fall die Staubschutzkappe des Filters auf der ersten Stufe entfernt werden. Es ist sorgfältig darauf zu achten, dass kein Druck auf die Membrane ausgeübt wird, um zu vermeiden, dass Wasser ins Innere der ersten und der zweiten Stufe eindringt.

Wenn Sie, den Atemregler für einige Wochen nicht benutzen, verbinden Sie ihn wieder mit einer Flasche und, während Sie den Duschknopf der zweiten Stufe drücken, führen Sie für einige Sekunden einen Luft-Zufluß herbei. Auf diese Weise werden alle Wasserreste ausgeblasen und man vermeidet Kalkablagerungen oder eine Geschmacksverschlechterung.

Der Atemregler wird zum Trocknen an einem sonnen- und staubgeschützten Platz am Bügel der ersten Stufe aufgehängt wobei der Schlauch nicht geknickt werden soll.

Nach einer besonders intensiven Saison oder auch nach einer langen Zeit, in dem das Gerät nicht benutzt wurde, sollte das Gerät einer autorisierten Werkstatt zu einer kompletten Überholung, übergeben werden. Ihr Fachhändler kann Ihnen kompetent Auskunft geben über die schnellsten und sichersten Möglichkeiten, die jährliche Überholung durchführen zu lassen.

## TAUCHGÄNGE IN KALTEN GEWÄSSERN

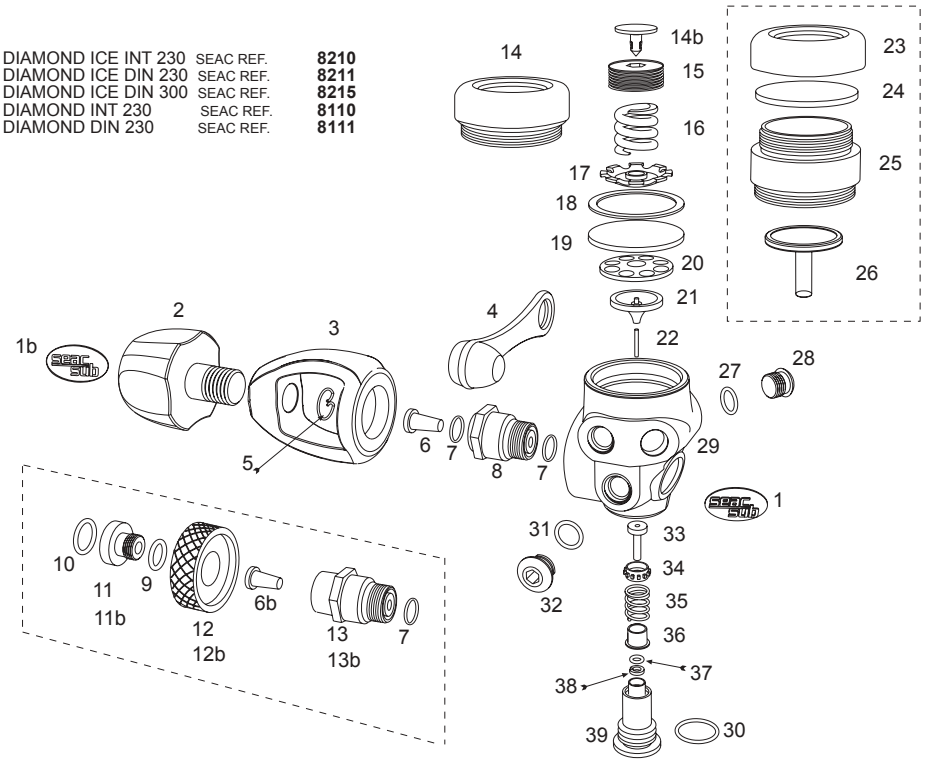
Eine ungenügende technische Vorbereitung auf Tauchgänge in kalten Gewässern (unter +10°C ) kann schwerwiegende Folgen haben. Vor Tauchgängen in kalten Gewässern ist eine besondere Vorbereitung ratsam, die unter Aufsicht von spezialisierten und qualifizierten Tauchlehrern erfolgen sollte. Bei Tauchgängen in kalten Gewässern sind weiterhin besondere Atemregler und Zertifikationen notwendig. Außerdem sollten die Anweisungen in den jeweiligen Bedienungsanleitungen genauestens befolgt werden.
Zwar wird durch andauernde Forschungsarbeit in unseren Labors die Gefahr des Einfrierens begrenzt, aber es ist nicht möglich, das Einfrieren der zweiten Stufe in jeder Lage zu vermeiden. Das gilt insbesondere, wenn der Temperaturunterschied zwischen der Oberfläche und dem Wasser beträchtlich ist (wir sprechen hier von Tauchgängen in kalten Gewässern mit +2°C/ +4°C und Außentemperaturen weit unter null Grad) . Auch der Atemregler DIAMOND ICE könnte in besonders extremen Situationen Symptome eines „Einfrierens» zeigen. In einer solchen Situation könnte es sein, dass der Atemregler nicht korrekt funktioniert. Das kann auch schwere Schäden zur Folge haben. Zur Vermeidung oder Verminderung potentieller Risiken ist deshalb eine entsprechende Vorbereitung notwendig, damit eventuelle Probleme , die durch einen Atemregler mit Anzeichen des „Einfrierens» entstehen, vorab vermieden oder beseitigt werden können.
In derartigen Situationen sollten folgende Regeln genauestens befolgt werden:

- Die Benutzung des Atemreglers außerhalb des Wassers ist zu vermeiden, besonders wenn die Außentemperatur unter null Grad liegt.
- Den Duschknopf der zweiten Stufe nur während des Tauchgangs verwenden.
- Halten Sie sich vor dem Eintauchen nur so kurz wie möglich an der Oberfläche auf.

***Für jede weitere Information können Sie sich an unsere technische Abteilung unter folgender E-Mail Adresse wenden:***
***info@seacsub.com***

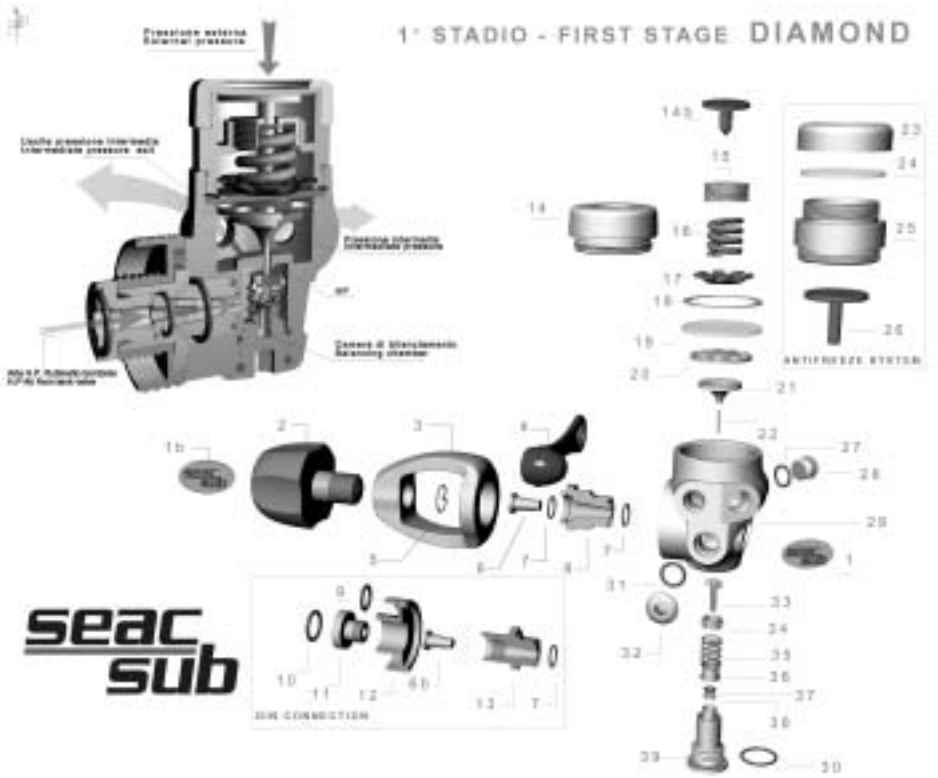


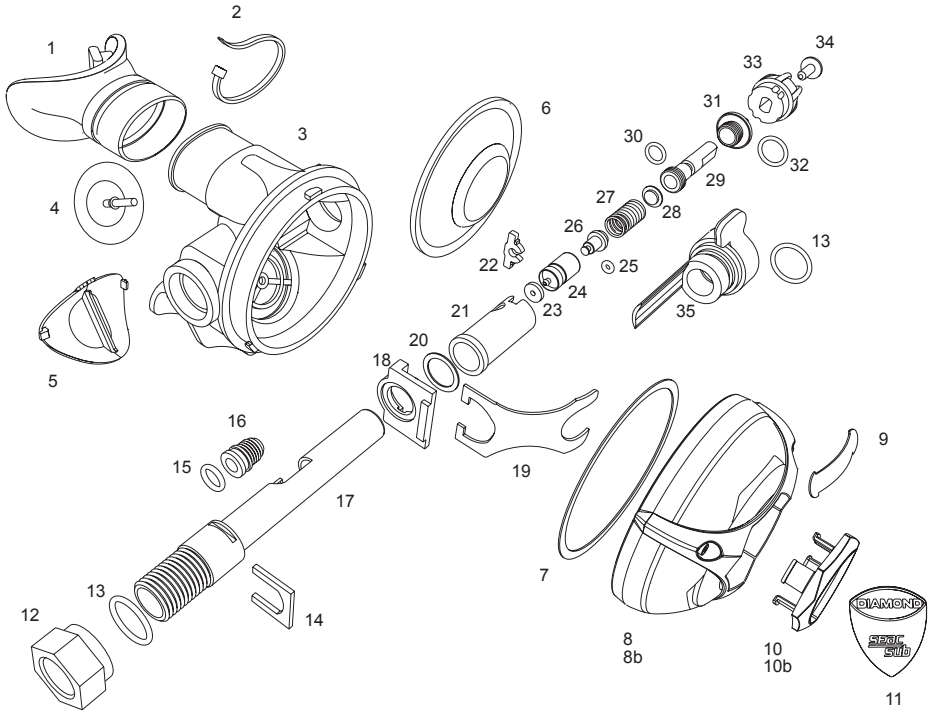
DIAMOND ICE INT 230 SEAC REF. **8210**
DIAMOND ICE DIN 230 SEAC REF. **8211**
DIAMOND ICE DIN 300 SEAC REF. **8215**
DIAMOND INT 230 SEAC REF. **8110**
DIAMOND DIN 230 SEAC REF. **8111**



PRIMO STADIO DIAMOND - DIAMOND ICE — DIAMOND - DIAMOND ICE FIRST STAGE

| | | | | |
|---|---|---|---|---|
| 1 | ADESIVO BLU | S810002 | BLUE LABEL | 1 |
| 1b | ADESIVO NERO | S500027 | BLACK LABEL | 1b |
| 2 | MANOPOLA | S500025 | HANDGRIP | 2 |
| 3 | STAFFA | S810005 | YOKE | 3 |
| 4 | TAPPO 1° STADIO | S500024 | DUST CAP | 4 |
| 5 | ANELLO ELASTICO | S500029 | SNAP RING | 5 |
| 6 | FILTRO CONICO INT | S500030 | INT CONE-SHAPED FILTER | 6 |
| 6b | FILTRO CONICO DIN | S500051 | DIN CONE SHAPED FILTER | 6b |
| 7 | O-RING 2037 | S510021 | O-RING 2037 | 7 |
| 8 | BLOCCA STAFFA | S810006 | YOKE NUT | 8 |
| 9 | O-RING 2043 | S101030 | O-RING 2043 | 9 |
| 10 | O-RING 115 | S101023 | O-RING 115 | 10 |
| 11 | RACCORDO VOLANTINO 230 BAR | S810007 | DIN HANDWHEEL CONNECTION 230 BAR | 11 |
| 11b | RACCORDO VOLANTINO 300 BAR | S810008 | DIN HANDWHEEL CONNECTION 300 BAR | 11b |
| 12 | VOLANTINO DIN 230 BAR | S810009 | DIN HANDWHEEL 230 BAR | 12 |
| 12b | VOLANTINO DIN 300 BAR | S810010 | DIN HANDWHEEL 300 BAR | 12b |
| 13 | FERMO VOLANTINO DIN 230 BAR | S810011 | DIN HANDWHEEL LOCK 230 BAR | 13 |
| 13b | FERMO VOLANTINO DIN 300 BAT | S810012 | DIN HANDWHEEL LOCK 300 BAR | 13b |
| 14 | CAPPELLOTTO | S810013 | CAP | 14 |
| 14b | SIGILLO ROSSO | S720004 | RED SEAL | 14b |
| 15 | GHIERA REGOLAZIONE | S500046 | PRESSURE ADJUSTING RING NUT | 15 |
| 16 | MOLLA TARATURA | S500044 | SETTING SPRING | 16 |
| 17 | PIATTELLO APPOGGIO MOLLA | S810014 | CAP SETTING SPRING | 17 |
| 18 | RONDELLA TENUTA MEMBRANA | S500040 | DIAPHRAGM RETAINER WASHER | 18 |
| 19 | MEMBRANA 1° STADIO | S500039 | FIRST STAGE DIAPHRAGM | 19 |
| 20 | PIATTELLO SPINTA | S810015 | THRUSTING CAP | 20 |
| 21 | DEFLETTORE FLUSSO PRIMO STADIO | S810016 | FIRST STAGE FLOW DEFLECTOR | 21 |
| 22 | ASTINA GUIDA | S500038/B | SLIDE STEM | 22 |
| 23 | CAPPELLOTTO ANTIFREEZE | S810017 | ANTIFREEZE CAP | 23 |
| 24 | MEMBRANA ANTIFREEZE | S810003 | ANTIFREEZE DIAPHRAGM | 24 |
| 25 | ANELLO ANTIFREEZE INTERMEDIO | S810018 | INTERMEDIATE ANTIFREEZE RING | 25 |
| 26 | FUNGHETTO ANTIFREEZE | S810019 | ANTIFREEZE THRUSTING HEAD | 26 |
| 27 | O-RING 2031 | S101017 | O-RING 2031 | 27 |
| 28 | TAPPO L.P. | S810020 | L.P. PORT PLUG | 28 |
| 29 | CORPO 1° STADIO | S810021 | FIRST STAGE BODY | 29 |
| 30 | O-RING 2056 | S101024 | O-RING 2056 | 30 |
| 31 | O-RING 108 | S510022 | O-RING 108 | 31 |
| 32 | TAPPO H.P. | S810022 | H.PPORT PLUG | 32 |
| 33 | PISTONCINO | S500037 | H.P. SEAT/POPPET | 33 |
| 34 | BOCCOLA GUIDA PISTONCINO | S500037/B | H.P. CROWN GUIDE | 34 |
| 35 | MOLLA RITORNO PISTONCINO | S500037 | RETURN SPRING | 35 |
| 36 | BOCCOLA FERMO O-RING | S500035 | O-RING LOCK BUSH | 36 |
| 37 | O-RING 2012 | S150004 | O-RING 2012 | 37 |
| 38 | ANTIESTRUSORE BK 2012 | S500034 | ANTIEXTRUDER WASHER BK 2012 | 38 |
| 39 | CAMERA BILANCIAMENTO | S810023 | BALANCING CHAMBER | 39 |



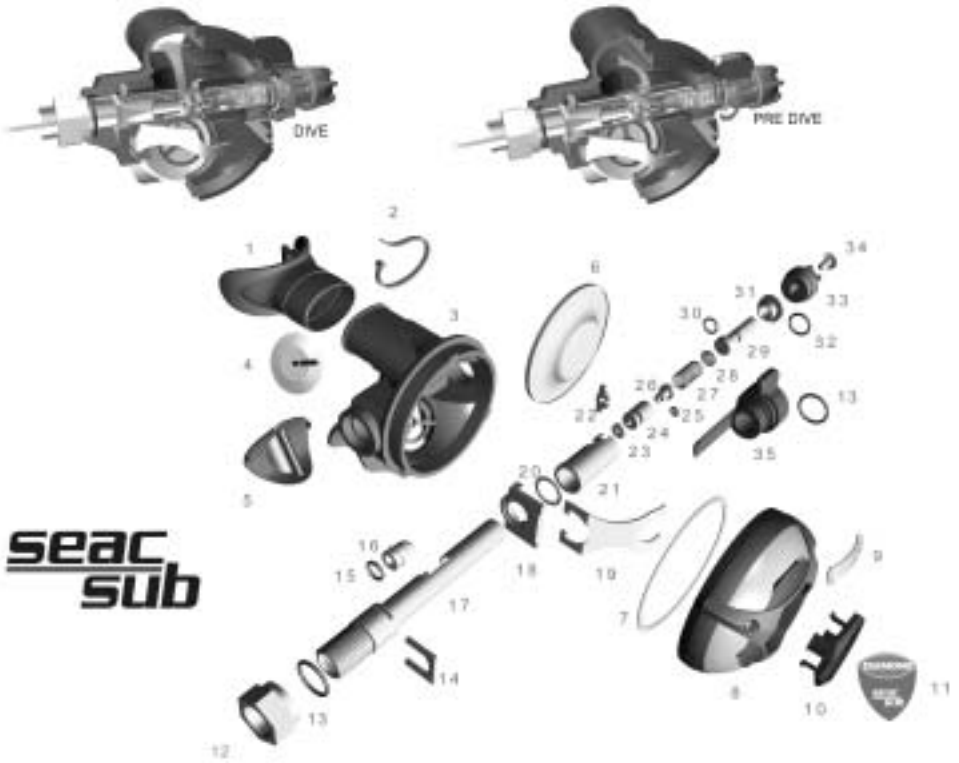



SECONDO STADIO DIAMOND — SEAC REF. 8120
SECONDO STADIO DIAMOND OCTO — SEAC REF. 8320

DIAMOND SECOND STAGE — SEAC REF. 8120
DIAMOND OCTO SECOND STAGE — SEAC REF. 8320

| | | | | |
|---|---|---|---|---|
| 1 | BOCCAGLIO | 236 | MOUTHPIECE | 1 |
| 2 | FASCETTA | S500023 | MOUTHPIECE STRAP | 2 |
| 3 | CORPO SECONDO STADIO DIAMOND | S812004 | DIAMOND SECOND STAGE BODY | 3 |
| 4 | VALVOLA DI SCARICO | S812003 | EXHAUST VALVE | 4 |
| 5 | COPERCHIO VALVOLA | S812005 | EXHAUST VALVE PLUG | 5 |
| 6 | MEMBRANA | S770003 | SECOND STAGE DIAPHRAGM | 6 |
| 7 | RONDELLA ANTI GRIP | S812024 | DIAPHRAGM RING | 7 |
| 8 | SCUDO ASSEMBLATO DIAMOND | S812060 | DIAMOND ASSEMBLED COVER | 8 |
| 8b | SCUDO ASSEMBLATO DIAMOND OCTO | S812061 | DIAMOND OCTO ASSEMBLED COVER | 8b |
| 9 | MOLLA PIATTA | S770005 | FLAT SPRING | 9 |
| 10 | PULSANTE DIAMOND | S812028N | DIAMOND PURGE BUTTON | 10 |
| 10b | PULSANTE DIAMOND OCTO | S812028G | DIAMOND OCTO PURGE BUTTON | 10b |
| 11 | ADESIVO PULSANTE | S812029 | PURGE BUTTON LABEL | 11 |
| 12 | DADO BLOCCO CORPO VALVOLA | S812006 | BODY VALVE STOP NUT | 12 |
| 13 | O-RING 2056 | S101024 | O-RING 2056 | 13 |
| 14 | CHIAVETTA BLOCCO | S812008 | LEVER SUPPORT LOCK | 14 |
| 15 | O-RING 2025 | S500021 | O-RING 2025 | 15 |
| 16 | UGELLO | S500016 | ORIFICE | 16 |
| 17 | CORPO VALVOLA | S812007 | BODY VALVE | 17 |
| 18 | SEDE LEVA | S812009 | LEVER SUPPORT | 18 |
| 19 | LEVA | S812010 | LEVER | 19 |
| 20 | RONDELLA LEVA | S812011 | LEVER WASHER | 20 |
| 21 | CANNOTTO TRASMISSIONE | S812012 | TRANSMISSION BUSH | 21 |
| 22 | BLOCCO PISTONE | S812013 | PISTON LOCK | 22 |
| 23 | PASTIGLIA FORATA | S812014 | RUBBER SEAT | 23 |
| 24 | PISTONE | S812015 | PISTON | 24 |
| 25 | O-RING 2007 | S812017 | O-RING 2007 | 25 |
| 26 | PISTONCINO BILANCIATORE | S812016 | BALANCING PISTON | 26 |
| 27 | MOLLA | S500018 | STEM SPRING | 27 |
| 28 | BOCCOLA GUIDA MOLLA | S812018 | SPRING BUSH GUIDE | 28 |
| 29 | VITE DI REGOLAZIONE | S812019 | ADJUSTING SCREW | 29 |
| 30 | O-RING 2015 | 23602 | O-RING 2015 | 30 |
| 31 | DADO BLOCCO DEFLETTORE | S812020 | DEFLECTOR LOCK NUT | 31 |
| 32 | O-RING 2043 | S101030 | O-RING 2043 | 32 |
| 33 | MANOPOLA | S812021 | KNOB | 33 |
| 34 | VITE MANOPOLA | S175008 | KNOB SCREW | 34 |
| 35 | DEFLETTORE FLUSSO | S812023 | FLOW DEFLECTOR | 35 |

# 2° STADIO - SECOND STAGE DIAMOND




| | | | |
|---|---|---|---|
| 1 | Boccaglio | 19 | Leva |
| 2 | Fascetta | 20 | Rondella leva |
| 3 | Corpo 2° stadio | 21 | Gancetto trascinatore |
| 4 | Valvola scarico | 22 | Blocco pistone |
| 5 | Copertura valvola | 23 | Pastiglia tenuta |
| 6 | Membrana | 24 | Pistone |
| 7 | Rondella antigrip | 25 | O-Ring 2007 |
| 8 | Scudo assemblato | 26 | Pistoncino bloccaleva |
| 9 | Molla piatta | 27 | Molla |
| 10 | Pulsante | 28 | Cappellotto sella |
| 11 | Adesivo palloncio | 29 | Vite di regolazione |
| 12 | Dado blocco corpo valvola | 30 | O-Ring 2012 |
| 13 | O-Ring 2034 | 31 | Dado blocco deflettore |
| 14 | Chiavetta blocco | 32 | O-Ring 2043 |
| 15 | O Ring 2025 | 33 | Manopola |
| 16 | Ugello | 34 | Vite manopola |
| 17 | Corpo valvola | 35 | Deflettore fisso |
| 18 | Sede leva | | |

S810030

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