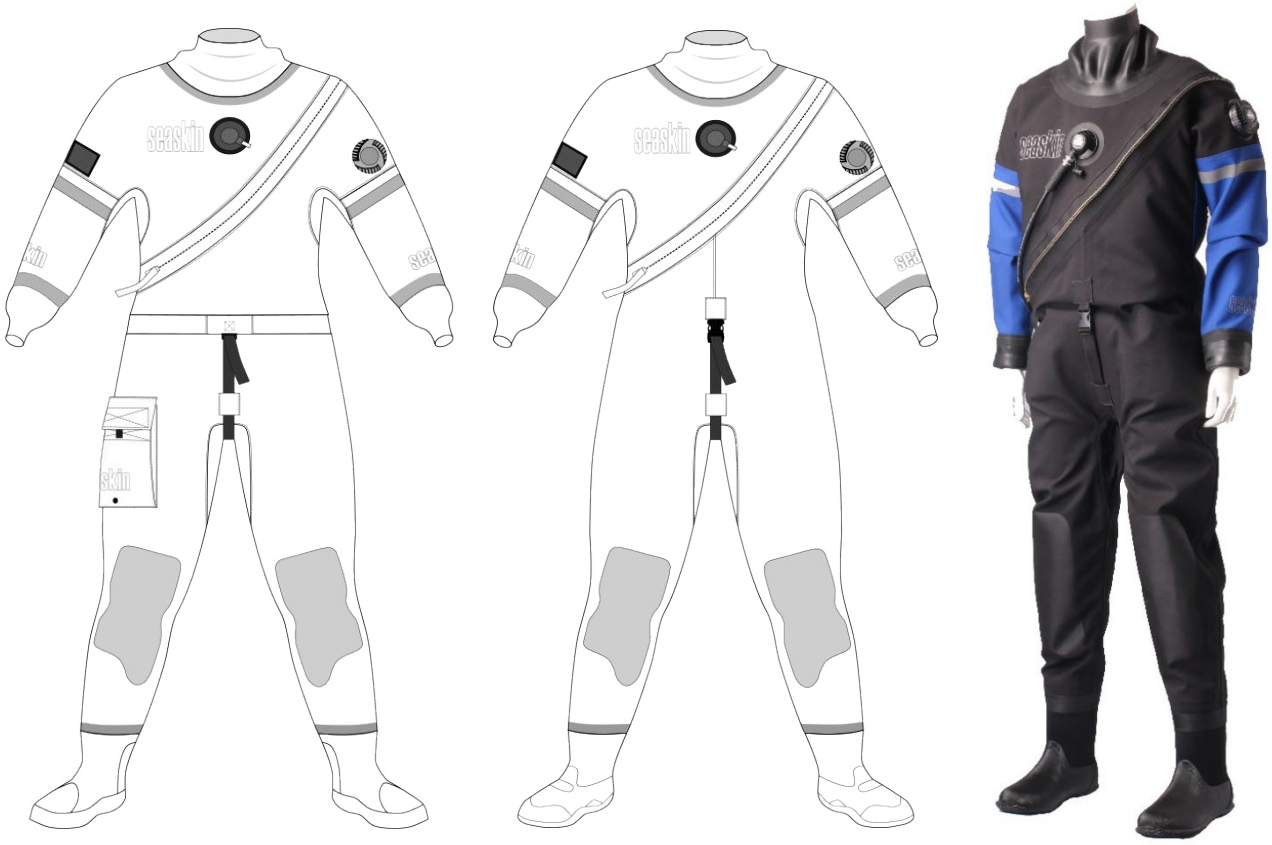
User Manual



SEASKIN Nova Diving Drysuit SSDSMEMNOVA

Aqualand Ltd
Unit 4X, Hill Top Commercial Centre,
Houghley Lane, Leeds, West Yorkshire,
LS13 2DN, United Kingdom.
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INFORMATION

1.1 Manufacturer

Aqualand Ltd

Unit 4X, Hill Top Commercial Centre,

Houghley Lane, Leeds, West Yorkshire,

LS13 2DN, United Kingdom.

Tel: 0113 2361776

info@seaskin.co.uk

1.2 Drysuit type

Diving drysuit for recreational and professional use

1.3 Standard

BS EN 14225-2:2017 Diving suits Part 2

The Nova drysuit are tested to EN 14225-2:2017 and meet the regulation (EU) 2016/425 of The European Parliament and of the Council.

Notified Body No: 2452

Vojenský technický ústav, s.p.

Mladoboleslavská 944

Kbely, 197 00 Praha 9,

Czech Republic

EN 14225-2:2017

4.6.2 Special protection

4.6.2.1 Suits with thermal insulation - Please note the Nova drysuits claims no inherent thermal insulation so should be worn in conjunction with the with the correct level of thermal protection for the water temperature and dive duration.

4.6.2.2 Resistance against chemicals - Please note the Nova drysuit IS NOT designed to offer chemical resistance against chemicals in the diving environment.

4.6.2.3 Resistance against biological hazards - Please note the Nova drysuit IS NOT designed to provide the user with protection against microorganisms e.g. infective agents in the diving environment

4.6.2.5 Visibility - The Nova drysuit comes as standard with reflective strips on the upper arms but do not claim the suit to have enhanced visibility.

1.4 Included components

Transport bag, inflation hose, seal talc with duster bag, and zip lubricant are attached to every drysuit. Additional optional components according to specification

1.5 Inflation hose

The inflation hose is attached with throttle valve for limiting air pressure. Hose release type matching the inflation valve nipple type.

Connecting the drysuit inflation hose to a scuba regulator
The hose supplied with your drysuit will fit all regulator First Stages that use 3/8"UNF Low Pressure Ports. The First Stage should not be connected to the cylinder. There may be a choice of LP (Low pressure) ports to choose from. Select the port that gives you the best routing of the hose to the chest inflator valve. Remove the blanking port using the correct size hex key. Check O ring is place at the base of the thread. Carefully screw in the threaded connector of hose using a correctly set adjustable wrench/spanner. Do not overtighten this could damage the O ring.

Connecting the drysuit inflation hose to the inflation valve.
The suit inflator valve connects to the hose using a quick-release mechanism. To attach, pull back the spring-loaded flange on the connector, align it with the fitting on the inflator valve, and press to secure. Release the flange to lock the connection firmly in place. Before diving, always ensure the inflator hose is securely attached. To detach the hose, pull back the spring-loaded flange and gently separate the hose from the valve. It’s recommended to practice this procedure, including while wearing gloves, to ensure you're prepared to perform it in an emergency.

1.6 Drysuit variations

All drysuits are built to the customers specification, this includes options which can be selected during the ordering process.

1.7 Pictogram explanation

Pictograms on the internal label of the suit indicate washing and drying procedure:

 Hand wash only

 Do not dry clean

 Do not iron

 Do not tumble dry

 Do not bleach

WARNINGS

WARNING

This suit is only to be used by an individual who has had specific training in its use or who is under the supervision of an industry recognized diving instructors for use.

Read the manual carefully before using the drysuit and keep it for future reference.

The use of diving equipment by an untrained person may cause damage to your health or death.

The materials in this suit could cause an allergic reaction in some individuals.

2.1 Usage

The maximum depth a diver can reach is not limited by the drysuit construction itself, but rather by the diver's knowledge and qualifications, gas mixture, thermal protection, and suitable technical security. It is essential for divers to fulfil these conditions to ensure their safety and prevent any harm to their health or even loss of life.

Inflation of the drysuit with air is a crucial aspect of using a drysuit. It should be done using the attached inflation hose, which should be connected to a gas cylinder first stage regulator and the inflation valve in the drysuit. The user can regulate the amount of air inside using the button on the inflation valve and the deflation valve on the arm.

It is important to note that the drysuit is intended for recreational and professional diving in both natural areas and artificial man-made containers and reservoirs., and its primary purpose is to protect the diver from the ingress of water. It can also help protect the diver from cuts and injuries caused by underwater flora and fauna. However, excessive, and unwary use of the drysuit can damage the material, which can compromise its effectiveness and safety.

The drysuit is intended for use with all type of other known diving equipment than can provide gas to inflate the drysuit within the required pressure range. Sizing of the suit is such that a 250gsm Thinsulate and additional base layers can be worn. If bulkier undersuits are worn (unless specified in the suit build) some restrictions in movement may occur. It is essential that the undersuit should allow free passage of air between the user's body and the deflation device.

In summary, divers must ensure that they have the necessary knowledge, qualifications, gas mixture, thermal protection, and technical security when using a drysuit. They should also follow proper procedures when inflating the drysuit with air and avoid excessive and unwary use to prevent damage to the material.

2.2 Construction and components of the drysuit

The diving drysuit is manufactured according to the PN-EN14225-2:2018-02 standard. The exact components used are specified during the ordering process.

2.3 Warnings

Temperature range

The drysuit can operate within a range of temperatures. The manufacturer suggests that thermal protection should be chosen based on following conditions: water temperature, season of the year, diving depth and level of activity under water. Temperature might influence diving comfort and diving length, in extreme situations may affect your health and safety.

Thermal protection

Drysuit isolation depends on the right undersuit and thermal underwear selection. Lack of right thermal protection might cause hyperthermia and hypothermia.

The effects of high work rate when diving

While using the drysuit the user should remember about not reaching the dangerous rate of work activity.

Diving conditions

The drysuit is designed for recreational and professional diving. It can be used in natural and artificial water reservoirs. Factors such as: water purity, pH, chlorine etc. should be within the range tolerated by the human skin. The drysuit does not isolate 100% of the diver's skin from water. Diving in contaminated waters can cause allergic reactions. Chemical contamination of water may also cause damage or deformation of the suit.

Pay attention to undersuit selection, matching to the water temperature and meteorological conditions. The drysuit protects the diver's body against abrasion and underwater flora and fauna within a reasonable range. Excessive and careless operation may damage the drysuit material.

Pay special attention to abrasions during dives on reefs, wrecks and caves. Polyurethane knee patches provide longer life of the material.

Buoyancy and depth

Your buoyancy should always be neutral if not intentionally descending or ascending in the water column. You should always the BCD system together with drysuit. While descending you should control your buoyancy with the inlet valve by adding the air to your drysuit together with depth change to avoid damage caused by hydrostatic pressure.

While ascending the increase in volume of air should be released by the dump valve on an arm to prevent an uncontrolled assent

Thermal insulation and depth

Thermal insulation is reduced due to hydrostatic pressure, which is increases with depth. The user must be aware that thermal capacity of the undersuit might be reduced.

Drysuit and compatible equipment

The drysuit is compatible with all standard diving equipment, such as: undersuit, mask, fins, BCD, tanks, regulator, or other equipment designed to use with drysuits. The user should be trained and familiar with the use of the equipment for use with the drysuit.

Enriched gases

Use of any gas for inflation of the drysuit other than normal air like oxygen or argon, enriched gases can cause the risk of health and equipment damage. Adequate training should be undertaken prior to use enriched gas.

Allergic reaction

Every synthetic material including those to construct the drysuit might cause allergic reactions. Before using the drysuit, please make sure that the user is not allergic to material which the drysuit is made of, as well as the other elements included in the drysuit, such as: neck and wrist seals, warm neck and seal covers if fitted.

2.4 How to check the drysuit

Prior to use

Before each dive the following should be checked:

• The drysuit is complete and in working order

• The drysuit is clean, there is no sand, insects, plant pieces or other things which may cause

Discomfort after donning

• The dryzip is not damaged is running freely and the zip elements are all in place.

After diving

After each dive, if the drysuit is dirty, you can use the following steps for cleaning and disinfection: To keep the suit clean, rinse the external part of the diving suit with clean water (Particularly after diving in sea water or chlorinated pool water). This will remove the salt and mud from the fasteners and will limit the formation of mould, as well as the development of bacteria. Rinse with a strong stream of running water.

If the drysuit has become wet on the inside, wash it as outlined above. When drying, the diving suit should be hung on a wide hanger with the fasteners unzipped and all other parts of the suit hanging freely Avoid drying in the sun, near chemical substances or open fire, as well as heaters, electric engines or other devices that produce ozone. The effect of these can cause color of the fabrics to fade and damage elements of the diving suit.

When the suit is dry and clean lubricate the zip. Beeswax is supplied with suits fitted with BDM (brass toothed) zips this should be rubbed down the outside length of the zip avoiding the narrow strip of material that protrudes from the top of the teeth. Open an close the zip a few times to work the wax in. ZIPTECH is supplied with suits fitted with plastic dryzips (YKK Aquaseal zips). Apply in a thin layer on all surfaces of the teeth and around the end stop, wipe of and excess. Open and close the zip a few times to work it into the zip.

2.5 Drysuit usage

The drysuit is extremely versatile in its usage, making it possible for use with a variety of undersuits to match a given activity. It is necessary to match suitable underwear and undersuit to the conditions. An ideal solution is to have an undersuit consisting of 3 layers. Because of the difference between internal and outside temperatures, dampness is condensing on the internal part of the drysuit, therefore the outside layer of the undersuit must absorb this moisture efficiently.

In case of any allergic reactions due to drysuit material, please seek medical advice.

Fitting of the drysuit

Check the fit of the drysuit with each combination of thermal garment to be worn. Ensure that the full range of movements undertaken when diving can be performed.

All Nova drysuits are made to the measurements provided by the use so provide the ideal fit.

It may be necessary to adjust the size (only smaller) of latex and silicone neck seals. If it is necessary to make adjustment to the neck seals, it should be made by cutting off around the circumference and removing one of 5mm rings and then try it on again. Then neck seal is conical

shape, so removing one 5mm ring will slightly increase its size. Continue in this way until a satisfactory watertight fit is obtained. Ensure not to leave ragged edges when cutting as this can cause the material to split when stretched. If it is necessary to make adjustment to the silicon and latex cone wrist seals, it should be made by cutting off around the circumference of the suggested lines. The cuts should be straight and smooth. Try on a seal, after each time you trim it. Bottle shaped latex seals should not be trimmed in this way.

OVER TRIMMING SEALS WILL CAUSE THEM TO LEAK

Donning the drysuit

Make sure the area around you is clean and free of any sharp object that may damage the suit. Ideally use a change mat or change mat bag opened out. Remove any jewellery or watches that may snag the seals. Ensure you wearing the correct level of thermal undersuits for the dive and conditions. Carry out the basic suit checks outlined in 2.4. Talc the neck and wrist seals. If compressed neoprene socks are fitted make sur your rock boots are to hand. Check the zip is fully open and that the crutch strap is unclipped.

- Insert legs fully into suit, taking care not to displace the undersuit legs. Make sure the internal braces are not trapped between your legs.
- Pull suit up to the hips. Pull the braces over the shoulders. Check the brace are laying flat without twists and then adjust their length to comfortable pull the legs fully up to the crutch.
- Pull suit to chest and insert left arm. Taking care when pushing the hand through the wrist seal.
- Insert left arm, again taking care when pushing hand through the wrist seal.
- Reach back and pull the neck hole of the suit onto the top of your head.
- Catch inside edge of the neck seal with your hands, stretch it and put on through your head.
- Pull the neck seal down over the head so the seal is positioned on the neck. If a Neoprene neck seal is fitted invert the top 7cm down under the rest of the seal. Run your finger around next to neck to remove any tucks in the neoprene.
- Check that ends of the braces or any folds of under are clear of the zip and them slowly pull the zip closed, if any resistance is found stop and check for any obstruction and that the two sides of the zip below the slider are as close together as possible. Ensure that the zip is fully closed.
- Close the cover zip if one is fitted.

- Pull the top fabric of the suit down to get a neat tuck at the telescopic element positioned at the top of the hips. Clip the crutch strap in place and adjust the strap length so the top back and front of suit are being pulled gently down.
- Make some stretching movements to get the suit parts into their best position.
- Air can be removed from the suit by carefully inserting fingers down the front of the neck seal and squatting down with arms tucked in to your sides, remove fingers from the neck and then stand up.
- When the rest of the gear is donned then the inflation hose can be connected, most hoses need the ring collar to be pulled back before they can be slide onto the inflation valve nipple. Check the air flow by pressing quickly twice. The automatic dump can be adjusted to preference. A typical starting position is fully open it then four clicks back.

Donning the drysuit

- Disconnect the inflation hose and remove all other pieces of equipment including rock boots.
- Unzip cover zip if fitted. Unzip the dryzip all the way to the top of the opening
- Unclip the crutch strap.
- Catch the edge of the neck seal with all your fingers (thumbs outside). Bend the head forward and drag the neck seal over your head.
- Remove right arm.
- Remove the left arm.
- Remove braces.
- Legs from suit, sitting down to do this is advantageous and prevent damage to the suit by stepping on it.

2.6 Using the drysuit

Warning!

The drysuit should only be used by trained person, who has completed drysuit use training and possesses a certificate or is being trained by diving instructor recognized by the local authorities.

For correct and safe use of the drysuit it is essential to check the following:

• Prior to each dive whether the drysuit is worn correctly.

• Before diving the undersuit is suitable for the temperature of the water, the season and the type of diving activity.

• Whether the drysuit is complete and in working order.

• Adjustment of the appropriate diving weight, equipment and adequate undersuit, equipment carried, as well as instructor's recommendation and local regulations.

Checking of the drysuit should be done in accordance to the instructions in this manual. Diving should be done in accordance to the diving rules and regulation, internal rules of the diving organizations as well as with good diving practice. Such usage will prolong the good functioning of the drysuit and will increase the safety of the user. If it is necessary, the use of a shot line is recommended while descending and ascending.

Diving in polluted water should be avoided, or water that may contain chemicals or oil. The composition of some fluids may damage the drysuit.

2.7 Maintenance, service and drysuit modifications

Maintenance

Proper maintenance is essential for long and trouble-free use of the drysuit. For every kind of repair or alteration to consult with Aqualand or a recognised drysuit service centre. In the case of damage resulting from wrong use or service of the drysuit, guarantee claims cannot be not accepted.

It is recommended that the drysuit should be periodically (at least annually) checked by a qualified service facility.

Valve Maintenance Proper care of the inlet and exhaust valves is essential to ensure their functionality. While they require minimal upkeep, maintaining cleanliness is crucial. Follow these guidelines for care:

- Annual Check-Up: Have the valves inspected by a qualified service facility at least once a year. Avoid disassembling the valves yourself.
- Post-Dive Rinsing: After each dive, rinse the valves thoroughly to remove any sand or debris.
- Choose Suitable Undergarments: Use undergarments that produce minimal lint, as excess lint can clog the exhaust valve and lead to leaks.

By adhering to these recommendations, you can extend the lifespan and performance of your valves.

Zip care

When the suit is dry and clean lubricate the zip. Beeswax is supplied with suits fitted with BDM (brass toothed) zips this should be rubbed down the outside length of the zip avoiding the narrow strip of material that protrudes from the top of the teeth. Open an close the zip a few times to work the wax in. ZIPTECH is supplied with suits fitted with plastic dryzips (YKK Aquaseal zips). Apply in a thin layer on all surfaces of the teeth and around the end stop, wipe of and excess. Open and close the zip a few times to work it into the zip.

Minor repairs

In order to ensure the drysuit will give long service and satisfaction to the user it requires constant maintenance and periodic inspections. It is possible that during the inspections outlined above the suit may occur to be damaged. Damage is usually the result of chafing on rocks, shells of crustaceans, wrecks bridges and wharfs etc. Repairs of the drysuit, valves, and other equipment, should only be carried out by an authorized service representative.

Drysuit modification

The drysuit can be returned to Aqualand for the addition of the following.

Dryglove systems, Pee valves and convenience zip, Pockets, Attachment points, Alternative valves, small adjustments in sizing.

2.8 Drysuit usable lifetime

Because of the variety of storage conditions and use, it is impossible to specify the life cycle of a drysuit. The drysuit should be checked before each dive and it is advised that an annual inspection should be carried out including pressure testing if leaks are detected. Seals should be replace if showing any signs of damaged or degradation. Boots and socks can also be replaced if worn out. Dryzips should be replaced by recognised drysuit repairers.

2.9 Drysuit Cleaning

Warning!

For cleaning the drysuit, no solvents or strong detergents should be used. These chemicals may damage the drysuit and cause its failure when diving. After several dives, at the end of the diving trip or in case of severe contamination, the suit can be hand washed using warm water with very small amount of detergent. A soft brush may be used for removing sand etc. If cleaning is carried out as above the number of times it is done should not affect the usable life of the drysuit.

After cleaning the drysuit should be rinse with a strong stream of running water. When drying, the diving suit should be hung on a wide hanger with the fasteners unzipped and all other parts of the suit hanging freely Avoid drying in the sun, near chemical substances or open fire, as well as heaters, electric engines or other devices that produce ozone. The effect of these can cause color of the fabrics to fade and damage elements of the diving suit.

2.10 Drysuit storage

Warning!

Do not store the drysuit close to electric motors or other equipment producing ozone.

Time limited for storage

The manufacturer is concerned about the long term and correct functioning of the product, consequently the user should follow some precautions regarding the storage. The main limitation when it comes to the usage of the drysuit is its condition. The drysuit between dives should be stored dry and hanging on a wide hanger with the zip opened by 20cm. It is important that the drysuit is not stored folded or rolled, which may lead to long term deformation and a breakdown in the structure of the material the zip particularly. The place of storage should be distant from intensive sun light, chemicals, open fires, heating devices and electrical equipment which produce ozone. These factors are liable to influence life and colours of the suit. During long periods of storage, it is necessary to check twice a year whether some traces of damage are not beginning to show (seams, zips, seals, material etc.). It is necessary in appropriate cases to ventilate or to change the storage environment. Manufacturer is not able to estimate the influence of ageing and usage of the drysuit on its longevity of usage, as it depends on the intensity of using the drysuit.

Transporting and packing the drysuit

For the transport it is advised to roll the suit with special attention to ensure the zips are not having sharp bends that could cause its damages. To avoid drysuit deformation upon rolling follow the instructions below. Rolling the drysuit should be done on a clean dry surface.

• Make sure, that the drysuit is clean and dry and the zip lubricated.

• Open the zip by 20cm. Arrange the drysuit zip face down for front zip suits. Face down for back zip suits.

• Add the talcum powder on latex seals.

• Fold the suit at the top of the boots then roll the legs around the boots up to the crutch, avoid creating a fold in the boots.

• Roll the trunk of the suit up to the neck seal.

• Fold the arms over the rolled suit

• For protection we recommend transporting the drysuit in a bag supplied with the suit.

Warning!

Never pack the drysuit to a bag until it is completely dry. Never bend the boots.

2.11 Drysuit Disposal

The drysuit is made from polyester/butyl rubber/nylon. After the suit is no longer usable,

it is necessary to reprocess in accordance with local regulations regarding the disposal of articles

made from rubber and synthetic substances.

2.12 Dry suit guarantee/warranty

All Seaskin products are fully guaranteed for one year we are so confident in the quality and method of our construction we guarantee the seams on drysuits for three years. The warranty does not cover latex seals & socks which have failed due to accidental damage. This warranty in no way affects your statutory rights. The guarantee starts the date of invoice.