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BARE

DRY SUIT OWNERS MANUAL

PLEASE READ THIS MANUAL BEFORE USING YOUR BARE DIVING DRY SUIT

CE 0078

"INSTITUT NATIONAL DE PLONGEE PROFESSIONELLE"

INPP #'s 0078 / 428 / 079 / 0898

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BARE

Please read all of these instructions before using your new

BARE Dry Suit

Bare has devoted over a quarter of a century to the design and production of wetsuits, survival suits and dry suits. The broad range of products manufactured and the technical nature of many of those styles requires a commitment to innovation, quality and value. Many of the innovations brought to the market have become accepted as the norm by consumers and competitors alike. Specific design solutions like the **ATR (Automatic Torso Recoil)** system used in all BARE front-entry dry suits have been awarded patents for uniqueness. Our product development team starts with meeting the needs of those that spend the most time in the water. Professional divers, instructors and recreational users of all levels provide feedback and new product ideas. Having some of the world's best outdoor facilities for diving in our own backyard allows us to put those ideas to the ultimate test. The search for new materials and construction techniques never stops at BARE! A good example is evident in the construction of our neoprene dry suits, **NST (No-Stitch Technology)** is an exclusive seam construction method involving not a single stitched seam! We constantly strive to find a better way to produce the products we make, so you can enjoy your favorite activity in the water even under extreme conditions.

Thank you for purchasing a BARE dry suit. Dive safely and enjoy yourself!

Basic Dry Suit Theory

A dry suit for use underwater is an exposure protection garment that is designed to be totally waterproof. The wrist seals, neck seal, and zipper are specifically intended to exclude any transfer of water or gas (usually air) into or out of the suit. Since a dry suit completely eliminates any contact between the diver and the environment, the internal volume of the suit (not occupied by the diver) is subject to all of the normal pressure/volume changes that occur while diving. When using your BARE dry suit you will notice the suit beginning to tighten around your body as your depth increases. This is normal regardless of the material the suit is constructed from. During your dive, pay close attention to your buoyancy as it changes during descending and ascending due to the internal volume of your dry suit. In order to maintain neutral buoyancy during your dive, become familiar with the inlet and exhaust valves on your dry suit. The most important consideration is that you are wearing your new dry suit correctly.

ATR BARE SYSTEM

BARE NST NO - STITCH TECHNOLOGY

BARE SWT SEAM WELDED TECHNOLOGY

a) Donning and Doffing

The zipper must be open all the way when donning and doffing the dry suit. Your suit should always be stored with the zipper open. Pull the zipper slider in the direction of its natural path of travel. Always pull the zipper slider laterally along the zipper chain; never pull the slider away from the zipper chain. Be careful not to catch the internal protective flap in the zipper teeth. Always lubricate the zipper before each dive. Directions for lubricating the zipper are found on the container of zipper lube included with your dry suit.

- Step into the suit, through the zipper (**do not put excessive force on the zipper ends**) one leg at a time and pull the boot all the way onto your foot and work the leg up to your thigh. Do the same with the other leg.
- Pull the suit up until the arms and neck seal hang at chest level making sure that the suit is pulled up all the way in the crotch and waist area.
- Use talc bag to apply talc to inside of latex seals.
- Once you are comfortable with the way your suit feels from the chest down, pull the suit up to neck level, hold onto the sleeve of your undergarment, and slip one arm into the sleeve of the suit. Let go of the sleeve of your undergarment when your hand reaches the wrist seal. The undergarment should not be under the wrist seal of the suit. Do the same with the other arm.

CAUTION
When putting your arms into the suit try not to put excessive force on the zipper.

- Next, hold the suit by the upper edge of the zipper with one hand on each side of the neck seal. Bend your head forward and pull the neck seal over your head. Straighten up and let the neck seal slide down completely over your head.

CAUTION
Use the palms of your hands to help slide the neck seal all the way down under your chin. Never use your fingernails.

- Remove any hair or clothing from under the neck seal. Fold neoprene neck seal inward about 2 1/2 to 3 1/2 inches so that the rubber skin surface of the neck seal is next to your skin. This is not necessary for latex neck seal.

IMPORTANT
Tucking in a neoprene neck seal is what creates the watertight seal around your neck.

- You will find that donning your dry suit will eventually become easy and straight forward. You must always be careful not to put unnecessary stress on the zipper or seals.
- If you are using neoprene wrist seals, next, tuck in the wrist seals. This is done in much the same way as the neck seal. Pinch the neoprene of the wrist seal between your index fingers and thumb about an inch or so up from your hand. Pull the material away from your wrist and using your middle finger tuck in about 1 1/2 to 2 inches of the wrist seal. Repeat the process around the entire circumference of the seal. You will notice that if you tuck in more of the material, the seal around your wrist will become tighter. If you dive with the suit and find that water is entering the suit through the wrist seals try tucking in more of the wrist seal.

b) Closing the Zipper

Never attempt to close the zipper by yourself. Always use your buddy to help you with closing the zipper of your dry suit. Give the instructions to your buddy who is primarily the one that will be working with the zipper in your suit. It is also a good idea to develop the habit of lubricating the zipper before each dive.

- Ensure that your dry suit undergarments and zipper flaps do not interfere with the zipper slider as it is being closed.
- Take hold of the slider loop in your middle finger and extend your little finger in through the zipper and under the slider. This assures that the slider is isolated from the undergarment material by your finger.

CAUTION
Pull the slider closed slowly. When pulling the slider, always pull in the direction of travel; do not pull the slider towards yourself while attempting to close the zipper. This could damage the slider.

Pulling the slider towards yourself while attempting to close the zipper creates considerable friction between the chain of the zipper and the slider, thus increasing the amount of force required to pull the slider in the proper direction. Pulling on the slider in only one direction while closing the zipper will help to lengthen the life of the zipper.

Trilam ATR HD • Trilam ATR Light • XCD2 Tech Dry

a) ATR (Automatic Torso Recoil) Systems: How Does it Work?

BARE's front-entry dry suits incorporate a unique, patented design that allows you to easily don and doff your suit without stress on the dry suit zipper or your neck! These front-entry suits are constructed in two sections: an upper and a lower. The lower half that extends almost to the divers chest is folded at the midsection. This fold is held in place by an internal elasticized waistband that is attached to the entire circumference of the upper and lower sections. The waist band allows the extra length to unfold when needed and to "recoil" back into a folded position when not needed. This action is automatic and does not require the use and continuous adjustment of suspenders and an external crotch strap. The design provides the extra length needed when donning a dry suit that requires the neck seal to be pulled over the back of the divers head.

b) Donning Instructions

When entering a diving dry suit of any kind it is extremely important to handle the zipper with care. Spreading the open ends too far can damage the zipper. Always lubricate the zipper with the supplied lubricant. This will help greatly with closing the zipper. Replacing the zipper in a diving dry suit is an expensive procedure.

Open the zipper of the gaiters and open the main zipper all the way. Also make sure the protective zipper flap is open completely. Enter the suit through the zipper, one leg at a time. Pull the leg up as far as possible, do the same with the other leg. Pull the suit all the way on so that the two halves of the zipper chain rest across your chest and shoulder blades. If you are using latex wrist seals, coat the inside of your seals with talc from the talc bag provided. Talc works to reduce friction and will help with sliding your hand through the seal. Put your left arm into the sleeve and use your right hand to help lift the zipper chain over your left shoulder. Go slowly and methodically and try not to put excessive force on the zipper. You may find it easier to bend your knees slightly while lifting the zipper over your left shoulder.

Push your left hand through the wrist seal while holding the sleeve near the wrist with your right hand. Once your fingers are through the wrist seal (use the fingers of your right hand) push the seal over your left hand.

When positioning latex wrist seals be careful not to use your finger nails and always use caution when pulling on the latex. Do not pull on the thin, sealing layer as it might tear with excessive force or become damaged by your fingernails.

Once the seal is over your hand and positioned on your wrist, remove any folds and wrinkles so that the seal is smooth and lays flat on your wrist with the end of the seal just over the wrist bone. At this point the neck seal should be directly behind your head. Now put your right arm (elbow first) through the zipper opening and extend it into the sleeve and bring the zipper over your right shoulder. Once you have positioned the wrist seal make sure the suit is pulled up in the crotch as high as it will go.

Position the zipper so that the upper chain (the one nearest the neck seal) is running across the back of your neck and the lower half, across your chest. The neck seal should be standing straight up behind your head. Bend your head forward and to the right as if you are attempting to touch your chin to your right collarbone. Bending slightly at the knees, reach over both shoulders and take hold of the upper portion of the zipper so that one hand is on either side of the neck seal. Pull the suit upward and forward at the same time. This will stretch the suit vertically making use of the recoil system and extra length available in the midsection. When the neck seal is in position over your head, stand up straight and slide the neck seal as far as possible over your head. Using both hands, reach into the top of the neck seal and push it down over your head in a similar fashion as you pushed the wrist seals onto your hands. Position the neck seal and adjust it as you did with the wrist seals. Make sure that your hair and clothing are removed from under the neck seal. Fold neoprene neck seals 2 1/2 to 3 1/2 inches so the rubber-skin surface of the neck seal is next to your skin. This is not necessary if using a latex neck seal.

Tucking in the neoprene neck seal is very important; this is what creates the watertight seal around your neck.

c) Closing the Zipper

To close the zipper, extend your chest outward and rotate your left shoulder backward slightly. This will help the zipper to lay flat along the length of your torso. Holding the top of the zipper with your left hand, pull the slider in a downward direction that follows the zipper's natural orientation. Do not pull the slider to either side or away from the suit while also pulling downward. This puts a great deal of strain on the teeth and could, over time

nose the teeth to loosen. If you are having trouble closing the zipper **DO OT FORCE IT!** Get your buddy to help you. You will find that after sing your suit a few times, donning and closing the zipper will become uch easier.

ummary of Donning Procedures

lease read the instructions above before using this summary.

- Open the gaiter zippers.
- Lubricate the main dry zipper and open it completely.
- Open the zipper flap completely.
- Step in one leg at a time pulling each leg up as far as possible.
- Pull the suit up so the zipper rests across the chest and shoulder blades.
- Left arm in, position the wrist seal.
- Right arm in, elbow first, position the wrist seal.
- Bend slightly at the knees.
- Touch your chin to your right collar bone.
- Position both hands on either side of the neck seal holding the zipper.
- Pull the back of the suit up and forward over your head.
- Slide your head through the neck seal.
- Push the neck seal over your head with the fingers of both hands (do not use your fingernails).
- Tuck in the neck seal (for neoprene neck seal only).
- Carefully and slowly close the zipper. DO NOT FORCE THE ZIPPER!
- Close the protective zipper flap and the gaiter zippers.

Doffing Instructions

Removing a front entry of any kind is similar to removing a pair of coveralls. The first step is to make sure the zipper flap and zipper are open all the way. Unfold the neck seal so that the nylon inner surface is against your neck and rests just under your chin. Insert your fingers of each hand between the neck seal and your neck on either side of your neck. With your fingers spread, stretch the neck seal outward while pulling upward and bringing your elbows together. While pulling the neck seal straight up, bend your knees slightly and bend your head forward and out of the seal. At this point the suit will be in the same position as when donning the suit just before you put your head into the neck seal.

Remove your arms from the sleeves starting with the right arm. Begin by inserting the fingers of your left hand into the wrist seal of the right sleeve as far as possible. **Never use your fingernails when pulling on latex or neoprene wrist seals.**

Removing your hand from the wrist seal is similar to removing the neck seal except only one hand is used to pull off the wrist seal. It is easier to remove the seal if your hand and the seal are dry. With your fingers inserted into the seal, pull the seal in such a way as to increase its diameter while pulling it off your hand.

Be careful not to pull on the thin end of the seal as this part of the seal will not withstand the force necessary to remove the seal from your hand and could tear.

Do not try to remove the sleeve completely until the zipper is pushed over your right shoulder. Use your left hand to gently, and without stress to the zipper, push the zipper over your right shoulder. Now reach behind your back with both arms and pull the right sleeve with your left hand. While pulling on the right sleeve work the suit off of your right shoulder and remove your arm from the sleeve. You may need to help the suit over your shoulder with your left hand a few times before you can remove your arm from the sleeve. Repeat the procedure for removing the left sleeve. Once the suit is down to your knees the boots can be removed by standing on the heel and pulling your leg out of the suit.

Try not to let the upper portion of the suit drag on the ground while removing your legs from the suit. Standing on a dry clean mat when doffing prevents dirt, sand and other debris from getting trapped in the zipper. Be cautious when doffing not to step on the wrist seals or zipper. It's a good idea to use a dry clean mat to stand on when removing your suit. This keeps your feet dry and prevents any dirt from the ground contaminating the suit.

f) Summary of Doffing Procedures

Please read the instructions above before using this summary.

- Open the gaiter zippers.
- Open the zipper flap completely.
- Open the main zipper completely.
- Unfold the neck seal.
- As described above, remove your head from the neck seal.
- Work your right hand out of the wrist seal.
- Help the zipper over your right shoulder.

- Reach behind your back with both arms.
- Hold the right sleeve with your left hand.
- Work the suit off your right shoulder.
- Use your left hand periodically to help the zipper over your shoulder while pulling your right arm out of the sleeve.
- Remove the left wrist seal and your left arm.
- Slide the suit down to your knees.
- Stand on the heel of the boot and remove your leg.

NOTE: When doffing do not to put any excessive force on the ends of the zipper.

Operating the Inlet and Exhaust Valves

Note: Both valves have been mounted onto a urethane port which maintains a watertight seal. This arrangement allows removal of either valve if necessary. The orientation of the inlet valve can be rotated 360 degrees to accommodate the orientation of the inflator hose from the regulator.

a) Inlet Valve

Once your suit is zipped up and the seals are properly tucked in (before donning your scuba unit) you may want to add some air to the suit to expand it. This allows you to shift your body inside the suit and helps to let the undergarments move into a more comfortable position. Adding some air to your suit at this point can be done by connecting the inflation hose from your scuba unit to the inlet valve on your suit and depressing the button until sufficient amount of air has been added. To connect the low pressure supply hose to the inlet valve, slide back the locking slider and push the hose onto the inlet valve connection nipple and let go of the locking slider. You should hear a click as the slider locks the hose to the valve. Always check the connection to make sure that the hose is secure to the valve. If you pull on the hose without touching the locking slider and it comes free from the valve, it was not connected properly. Make sure that the hose connection is clean and free of any grit, or sand etc. Before donning the scuba unit, vent any excess air from your dry suit by bending down in a squatting position to force the air to the upper part of the suit and depress the exhaust valve. Performing this entire "pre-dive dry suit ritual" is a habit among dry suit divers because it helps to increase the wearing comfort of your suit and is a good way of checking the function of the valves.

b) Exhaust Valve

All BARE diving dry suits are equipped with an adjustable automatic exhaust valve which is designed to maintain a constant internal suit volume. If the valve is adjusted fully clockwise the internal suit pressure will be allowed to reach its maximum before the valve vents. When the exhaust valve is adjusted fully counter clockwise, it will maintain a very slight increase in internal suit pressure and any excess air that is added to the suit will directly pass through the exhaust valve. Understanding the function of the exhaust valve is an important step in learning to use and appreciate the performance of your new dry suit.

c) Descending

When you are surface swimming or wanting to maintain positive buoyancy, the exhaust valve should be adjusted fully clockwise. To descend, dump air from your buoyancy compensator and adjust the valve counterclockwise until you feel less buoyant and begin to descend.

CAUTION
Remember: When wanting to exhaust air from your dry suit, always extend your upper arm laterally and position the exhaust valve so that it is the highest point on the suit. This allows all of the air in your suit to flow to the exit point.

You can also manually dump the air from your suit by pushing on the button of the exhaust valve with your free hand. As you descend and the volume of air in your suit begins to decrease, add air by pushing the button of the inlet valve. At this point you should keep your eye on the exhaust valve to see if the air you are adding is escaping. If it is, adjust the exhaust valve clockwise until the bubbles stop flowing. You will very quickly develop the ability to work the exhaust and inlet valves while descending.

d) Ascending

When ascending, the exhaust valve will automatically vent air from the suit as the internal suit volume increases. This "hands-free" feature helps you keep your ascent rate relatively constant. You may find that the air inside your suit can expand during a rapid ascent at a rate that exceeds the maximum "automatic venting" capacity of the exhaust valve. To avoid this situation, slow your ascent rate and manually vent the valve. Manual venting significantly increases the volume of air that the valve exhausts. Once you reach the surface adjust the exhaust valve clockwise so that you can maintain positive buoyancy. With a little practice and after a few dives, you will find that using the valves of your dry suit becomes second nature

and you quickly gain an awareness of how comfortable diving in a BARE dry suit can be.

Dry Suit Care & Maintenance

ll BARE dry suits are produced using the highest quality materials with st ate f the art construction technology. The materials from which your dry sui is ade have been developed specifically to withstand the demands of diving and e elements to which diving dry suits are exposed. There are, however, so me ise care and maintenance considerations for your dry suit, which will gre atly ontribute to its life and function.

) Zipper Care

CAUTION

lways inspect the zipper for any grit or foreign material that may affect its bility to close and create a watertight seal.

- Before each dive lubricate the zipper; follow the instructions on the container of zipper lubricant supplied with your suit.
- Open and close the zipper a few times after the lubricant is applied to the zipper chain. The friction caused by the slider traveling over the teeth heats the lubricant causing it to flow into the teeth.
- Apply a small amount of silicone grease to the sealing surface of wh ere the slider completes the closure of the zipper. This is called the dock ing end of the zipper. The rubber ridges that can be seen on the inside of the docking end is where the grease should be applied. Also make s ure that this area is clean and free of any other materials that may affect the seal.

CAUTION

ever use spray lubricants or petroleum based lubricants on your dry suit ipper. These products can adversely affect the zipper and suit materials.

) After Diving

- Close the zipper and rinse the outside of your dry suit with clean, fr esh water. Rinse any of the inner surfaces that may have come in con tact with salt water, such as the neck seal and wrist seals. Make sure that any sand, dirt, or gravel is washed away from the teeth of the zipper.
- Open the zipper and hang the suit (if possible) over a piece of pla stic pipe. A dry suit hanger can easily be made by passing a rope throu gh a

plasti c pipe of about 3 to 4 inches in diameter and fastening both ends of the rope to an area where you can leave your suit to dry.

CAUTION

Never leave your dry suit in direct sunlight. Ultraviolet radiation from the sun will deteriorate neoprene and rubber materials very quickly. Prolonged exposure to direct sunlight will substantially lessen the life of all scuba equipment.

c) Dry Suit Storage

The best way to store your dry suit is to leave it on its drying hanger in a cool, dry, dust-free area. If the suit must be stored otherwise; once it is **completely dry inside and out** lay it on the floor with the valves facing upward. Turn the boots inward and loosely roll-up the legs and torso to the base of the neck seal. Bring the arms together over the top of the rolled suit so that the **open zipper forms an arch as it does while you are wearing the suit.** Slide the suit into its carrying bag and store it so that **nothing else will be put on top of the bag.**

Dry Suit Diving Tips and Trouble Shooting

a) "Leaks" — some causes and cures

There are many variables that must be investigated when dealing with leaks in a dry suit. Very often a leaking dry suit is not the fault of the suit itself. Usually, but not always, the cause of a leak can be determined when all of the events related to the doffing, donning, and diving with the dry suit are carefully and objectively reviewed. For example, a diver may discover that her left foot is wet after a dive. The immediate and natural conclusion is that the suit is leaking in the left boot. The suit is checked for a leak in the left boot but no leak is found. The next time the suit is used the divers left foot stays dry. This is a very common occurrence. What often happens in this situation is that the undergarment, either a sock or an attached underwear booty is wet prior to putting it into the boot of the dry suit. During the dive the moisture eventually travels through the layers and appears as if it became wet during the dive. The underwear boot could have become wet from being in contact with a wet piece of equipment during transport, or from stepping on wet ground prior to putting on the dry suit. Another possible cause could be water that entered the suit when it was rinsed after the last dive. Often a leak in a dry suit is clearly visible when the suit is tested, but sometimes other factors that may be determined from objective analysis are the cause.

b) Troubleshooting Leaks

i) Zipper

- ***Problem***
  - wet arm, shoulder area, and crotch
- ***Possible cause:***
  - zipper not totally closed
  - undergarment caught in zipper teeth
  - zipper dirty (grit,lint,sand,salt,etc.)
  - zipper is worn-out, damaged or broken
- ***Other causes:***
  - leaking wrist seal (water is migrating to zipper area)
  - leaking neck seal
  - leaking exhaust valve
- ***Possible solutions:***
  - make sure zipper is completely closed
  - check undergarment for signs of being caught in the zipper
  - make sure the zipper (inner teeth and outer chain) are free from debris and well lubricated
  - check zipper for missing teeth, worn-through areas, or if the zipper is broken

ii) Seals

- ***Problem***
  - wet arm(s), chest and shoulder area, and crotch
- ***Possible cause:***
  - neoprene seal not tucked inward enough or at all
  - undergarment disrupting the integrity of the seal
  - seals may not be the correct size
  - seals may be torn, split, delaminated from suit or punctured
  - hair under the neck seal
  - may be other leak, see rest of troubleshooting

- ***Possible solutions:***
  - review instructions in the "Donning and Doffing" section of this manual
  - replace the seals if they are damaged or stretched far beyond their original size, or have them altered to fit correctly

iii) Valves

- ***Problem***
  - wet arm(s), chest and shoulder area, and crotch
- ***Possible cause:***
  - valve not tightened securely to suit
  - valve port delaminating from the suit
  - valves are dirty or contaminated with lint from underwear
  - internal diaphragm of exhaust valve damaged or displaced
  - may be other leak, see rest of troubleshooting
- ***Possible solutions:***
  - tighten the valve to the suit by holding the outer section and turning(clockwise) the inner section
  - reglue the valve port to the suit or return the suit for service
  - remove the valve from the suit and submerge it completely in warm water and work the valve several times as you would while diving; repeat this procedure under running warm/hot water
  - return the valve for service

iv) Leaks in Seams or Through Fabric

- ***Possible cause:***
  - puncture, tear, worn through
  - seam split or delamination
  - neoprene cellular degradation-material old and worn out
  - may be other leak, see rest of troubleshooting
- ***Possible solution:***
  - repair damage if possible or, return suit for repair

v) **Condensation**

Condensation can be a significant, misleading factor when investigating suspected leaks in your dry suit. This occurs frequently with non-insulating dry suit materials such as polyurethane coated nylon, vulcanized rubber, and trilaminate. The formation of condensation on the inside of the suit is due to the difference in temperature between the inner environment of the suit and the outer environment. It is very common for the inside of the suit to be very damp after a dive. You can check the moisture on the inner surface of the suit to see if it is condensation and not moisture from a leak by examining the spread of pattern of the wet areas. If the entire inner surface of the suit is evenly damp, it is most likely due to moisture from condensation. If the dampness is greater in one area when compared to that of another, and your undergarment is also noticeably wet in the same area, then the suit may have a leak. When diving in salt water, condensation can easily be differentiated from a leak by tasting the damp surface (salty flavor).

Dry Suit Insulation and Undergarments

All dry suits, regardless of the material from which they are made, are designed to be used with an insulating undergarment. The insulating characteristics of the undergarment will vary depending on the dry suit material. For example, an undergarment used with a neoprene dry suit may not be the best choice for use with a trilaminate or nylon dry suit. Generally, the higher the insulation characteristics of the dry suit material, the lower insulation characteristics of the undergarment. This generalization is due to all divers having different thermal requirements. Variables include personal metabolism, dive experience, water and air temperature, and the type of undergarment.

The most important consideration when selecting an insulating undergarment for use with your dry suit is to **maximize the insulation and minimize the bulk.** You want to limit the problem of adding buoyancy to your dry suit by trapping a large volume of air within the insulating material of your undergarment. It is much easier to "maximize the insulation and minimize the bulk" when using a neoprene dry suit because neoprene is a good insulator so thinner undergarments can be used. Regular density neoprene will compress with depth, therefore some of its insulating characteristics will be lost. Compressed neoprene will provide more warmth at depth because the neoprene is already compressed. Non-neoprene dry suit materials don't provide the same insulation, therefore must be used with an undergarment that provides maximum insulation. Dry suits made from non-neoprene materials provide greater undergarment flexibility with changing environmental conditions.

There are several fabrics available that are very effective insulators and are relatively thin. These materials work well when used in a "layering" fashion. Selecting an appropriate undergarment for the type of dry suit that you have, and **using the idea of layering will give you the most adaptable and effective insulating combination.** Below are some examples of insulating undergarments offered by BARE , and guidelines for understanding different combinations of insulating fabrics to help you choose the best undergarment(s) for the various diving environments.

BARE's offering of insulating dry suit undergarments allow the diver to match to his or her specific needs. Our **CLIMATE CONTROL** two-piece underwear made of Polartec fleece is an excellent option for light insulation, as an extra layer of insulation or after dive wear. For moderate insulation, try the **T-100 POLAR WEAR** undergarment. Made of quilted anti-friction taslan outer, 3M C100 Thinsulate and a brushed polyliner for warmth without bulk. For ultimate insulation without bulk and buoyancy, your choice would be the **CT-200 POLAR WEAR EXTREME** which is made of fusion laminated anti-friction taslan outer, 3M B200 Thinsulate and a 7.5oz fleece liner. Full thermal coverage in and around the water in all kinds of conditions.

Undergarment Options

DRY SUIT:	WATER TEMP:	UNDERGARMENT:
XCD2 Tech Dry	Below 8°C / 45°F 8°-13°C / 45°-55°F Above 13°C / 55°F	CT-200 Polar Wear Extreme T-100 Polar Wear Extreme Climate Control System
CD4 Pro Dry	Below 8°C / 45°F 8°-13°C / 45°-55°F	T-100 Polar Wear Extreme Climate Control System
D7 / D6 Supra Dry	Below 8°C / 45°F 8°-13°C / 45°-55°F	Climate Control System Climate Control System
Trilam ATR HD Trilam ATR Light Nex-Gen Dry Twin Shell Dry	Below 8°C / 45°F 8°-13°C / 45°-55°F Above 13°C / 55°F	CT-200 Polar Wear Extreme T-100 Polar Wear Extreme Climate Control System

REMEMBER

All divers have different thermal requirements based on environmental and personal conditions. The following information is only a guideline.

For extreme cold water conditions, the Climate Control System is an excellent layering option, worn under the T-100 Polar Wear or CT-200 Polar Wear Extreme.

Undergarment Insulating Fabrics

a) Thinsulate

3M Thinsulate is still the warmest "thin" insulation on the market. Used as a layer in BARE's T-100 Polar Wear and CT-200 Polar Wear Extreme, Thinsulate provides about 1½ times the warmth of down and about twice the warmth of other high-loft insulating materials. Thinsulate insulation absorbs less than 1% of its weight in water, therefore, it retains its insulating ability even if it becomes damp. Type C, used in the T-100 Polar Wear is designed for use where a thin compressible insulation is important. It is lightweight, breathable and moisture resistant. Type B, used in the CT-200 Polar Wear Extreme is designed to resist compression and maintain maximum warmth under pressure.

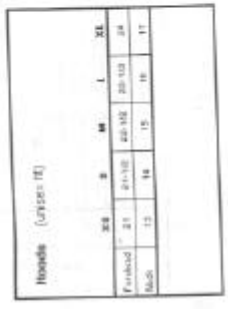
b) Polyester

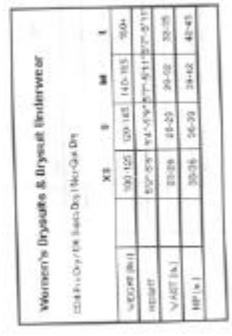
There are several garments made from polyester. The most common of these is known as "polyester fleece". Used as a layer in the CT-200 Polar Wear Extreme polyester fabrics are very effective at transporting moisture away from the body. The "wicking" properties of polyesters, keep you warm and dry even while perspiring heavily. Garments made of 100% spun polyester or polyester/lycra blends come in various weights and are considered to be the best at providing effective insulation when used as layers.

c) Polartec

Polartec series fabrics provide maximum warmth by trapping body heat in tiny air pockets within the fabric layers. A super soft breathable material that allows body moisture vapor to pass through keeping you comfortable throughout your dive. Polartec is an ultra-lightweight fabric, that gives you a non-restrictive feeling when worn. It's a "non-pilling" material that dries quickly and is odor resistant.

DRY SUIT NORTH AMERICAN SIZE CHART





DRY SUIT INTERNATIONAL SIZE CHART

Men's Barefit - Please refer to specific Bare suit for sizing availability — Special sizing - see specific suits for availability

	S	MShort	M	MTall	MLShort	ML	MLTall	LShort	L	LTall	XLShort	XL	XLT	XXL	XXXL
WEIGHT (Kgs)	61-79	66-77	68-79	70-80	73-82	77-85	79-91	82-91	86-95	88-108	91-100	95-107	98-109	104-116	[illegible]
HEIGHT (Cm)	170-175	[illegible]	175-180	[illegible]	170-175	176-180	[illegible]	175-180	180-185	[illegible]	176-180	180-186	[illegible]	185-191	[illegible]
CHEST (Cm)	91-94	97-99	97-99	97-99	102-104	100-104	100-104	107-110	107-110	107-110	111-114	111-114	111-114	117-119	122-124
WAIST (Cm)	74-79	79-84	79-84	79-84	84-89	84-89	84-89	89-94	89-94	89-94	94-99	94-99	94-99	99-104	104-109
HIP (Cm)	89-94	94-99	94-99	94-99	99-104	99-104	99-104	104-109	104-109	104-109	109-114	109-114	109-114	114-119	119-124

Women's Drysuits & Drysuit Underwear

CDS Pro Dry / D6 Supra Dry / Nu-Sea Dry

	XS	S	M	L
WEIGHT (Kgs)	45-57	55-66	64-75	73+
HEIGHT (Cm)	157-168	163-175	170-180	170-183
WAIST (Cm)	58-66	66-74	74-81	81-89
HIP (Cm)	83-91	91-99	99-107	107-114

Hoods (unisex fit)

	XS	S	M	L	XL
Forehead (Cm)	53.5	54.0	57.0	59.5	61.0
Neck (Cm)	33.0	35.5	38.0	40.5	43.0

Dry Suit Underwear and Twin Shell — Special sizing - see specific suits for availability

	XXS	XS	S	MShort	M	MLShort	ML	LShort	L	XL	XXL
WEIGHT (Kgs)	44-52	52-60	64-64	63-67	69-73	73-80	77-86	86-91	86-95	95-108	108+
HEIGHT (Cm)	150-164	160-168	165-173	158-168	170-75	166-172	176-184	170-78	180-190	186-196	194-202
CHEST & HIP (Cm)	80-85	88-91	92-97	97-102	97-102	100-107	102-107	107-112	107-112	93-98	117+

Dry Suit Attachments and Accessories

TREK BOOTS — **Product No. 69316**

Rugged Lace-up advanced design dive footwear that provides ultimate traction and stability. Used with all BARE dry suits that have the compression resistant Soft Boots attached.

TECH DRY HOOD — **Product No. 69306**

7mm N2S with heat reflective Metalite laminate inside and 5mm Twin Skin face seal. Skin inside / Glideskin out for effective mask sealing. Radar and Light reflective patch for added safety. Strategically placed vent to allow for release of trapped air. Zipper with pull tab for easy donning.

DRY HOOD — **Product No. 69305**

7mm N2S with heat reflective Metalite laminate inside and 5mm N1S trimable faceneck seal. The hood neck seal is designed to work with a dry suit neck seal and marries to the dry suit double-collars.

CUFF-RING SYSTEM — **Product No. 69380**

A two-part, interlocking ring system that allows for in-field replacement of latex seals and attachment of the Quick-Disconnect Dry Glove System. This system is perfect for rental suits and those divers wanting latex wrist seals but are concerned with quick and easy replacement of damaged seals. System is delivered with outer plastic ring permanently attached to the suit.

DRY GLOVES SYSTEM — **Product No. 69401**

Dry Gloves with Docking Rings offer the ultimate in warmth & dexterity. Available in 3 sizes, the thermal lined rubber gloves attach to the Quick-Disconnect docking rings which then easily connect to installed Cuff-rings or user friendly Quick Clamps.

5MM KEVLAR COLD WATER GLOVES — **Product No. 69312**

5mm N2S with durable KevlarTM palm, double glued & blind stitched with heat reflective Metalite laminate inside and Powertex reinforced finger tips.

5MM COLD WATER GLOVES — **Product No. 69313**

5mm N2S with Powertex palm double-glued & blind stitched with heat reflective Metalite laminate inside.

7MM THREE FINGER MITT — **Product No. 69311**

7mm N2S, double-glued & blind stitched 3 finger mitt with PU coated palm. 5mm N1S heat reflective Metalite laminate glideskin wrist designed to seal with a dry suit wrist seal.