

# DRYSUITS

▶ The purpose of an exposure suit is to maintain a thermal balance between your body and the ocean. Since it's a lot easier to heat air than water, it makes sense that a drysuit is a much more efficient way to stay warm and comfortable while immersed in cold water.

**SEALS** Neoprene seals are either smooth-skin-in, with the smooth-skin lying directly against your skin, or smooth-skin-out, which needs to be folded under. Latex seals are either cone-shaped, which allow for trimming to fine-tune fit, or bell-shaped, which provide more surface sealing area.

**ZIPPER** Rear-entry drysuit zippers run horizontally along the shoulders, and require the help of a buddy to zip up. Front-entry suits have zippers running either diagonally across the chest or horizontally across the chest or waist.

**MATERIALS** Bilaminate or trilaminate drysuits are lightweight, have no inherent buoyancy, and don't compress at depth. They dry quickly and fold compactly for transport; their only job is to keep water out. Fabric suits rely on undergarments to provide the thermal protection.

**VALVES** The vast majority of modern drysuits – both neoprene and shell – use a dual-valve system: one inflate valve positioned on the chest for pumping air into the suit, and one exhaust valve, usually located on the upper left arm, for venting air out of the suit.

**MATERIALS** Neoprene drysuits are able to stretch so they can fit snugly while still offering good range of motion. They also provide their own thermal properties, so the undergarment doesn't have to be as thick or heavy as what's required with fabric suits.





## Out of the Box

**1 Read the owner's manual.** Like most of life's challenges, drysuits are not as complicated as they look. A thorough review of the owner's manual will alert you to all your suit's nuances, and get you headed in the right direction.

**2 Add a hose.** Hook up the low-pressure hose to your first stage. Most divers route it under their left arm, but since most drysuit valves swivel, either side will work fine.

**3 Trim seals.** Cut latex or silicone seals with large scissors. The key is patience. Most seals have ridge lines to cut against. Cut a line, try it on, cut another, try it on again, and so forth, until you get it comfortably snug but not uncomfortably tight.

**4 Readjust ballast.** Drysuit divers tend to need more ballast weight than wetsuit divers. Again, be patient, and take the time to determine the correct ballast requirements for the type of suit you're using, the thickness of the undergarments and your general comfort level. It's going to take at least a few dives to dial it all in.

**5 Take a class.** Drysuit classes aren't required, but they're highly recommended. By your first fun dive, you'll already have conquered the steepest slope of the learning curve and will be ready for a successful dry dive.

## HOW TO CARE FOR A DRYSUIT

► **PUT THE SUIT ON A WIDE HANGER** and zip it up, then wash its exterior with fresh water and a mild soap. Insert plastic cups or small buckets into the neck and wrist openings to keep water from getting inside the suit. Flush valves and wash seals to remove any body oils. Scrub zipper teeth with a toothbrush.

► **TURN THE SUIT INSIDE OUT** and wipe the liner down with a damp rag to clean any sweat residue. If the suit has attached boots, wash and dry their insides with towels.

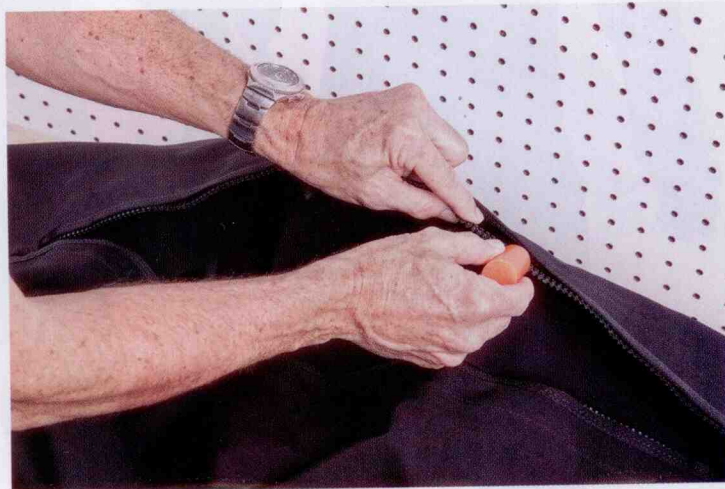
► **LET THE SUIT HANG** like this until dry, and then turn it right-side out to inspect the seals for tears or signs of aging. Look for abrasion, especially on knees and elbows. Obvious scuffing might be a sign of more-serious trouble to come, warranting the addition of protective patches.

► **IF YOU NOTICED A LEAK** prior to taking off your drysuit, repair it after the suit has thoroughly dried, but before you put it away

and forget about it. Many leaks can be repaired at home, but follow the manufacturer's recommendations.

► **AN ANNUAL OVERHAUL** enables you to get the valves serviced by a professional. This would also be the time to replace any questionable seals, service the zipper, and repair any leaks.

► **STORE THE SUIT** either with the zipper closed or opened all the way. If left partially open, the slider will leave a mark in the zipper track that might not seal the next time you wear it. Some divers store their suits on extra-wide hangers, while others fold them loosely and stow them in a plastic bag to protect from ozone.



## What You Need to Know About Drysuits



**Gloves** Any glove thick enough to provide the needed thermal protection will work with a drysuit. That said, one of the most popular advances in drysuit diving is the advent of easy-to-use dry-glove systems. They connect to the wrists via a pair of plastic rings. Wear a pair of thermal glove liners underneath, and you can have warm, dry hands in the coldest conditions.

**Soft Socks or Attached Boots** Drysuits usually come with a

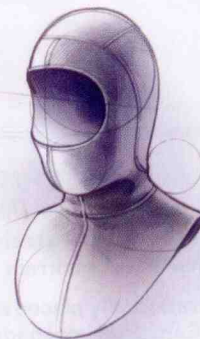
choice of latex or neoprene soft socks, which allow you to choose from a variety of drysuit over-boots. Soft socks also enable you to turn the suit completely inside out for cleaning, drying and airing after a day of diving. Attached boots, on the other hand, are convenient because



they simplify the donning process, and eliminate having to deal with extra gear. They can range from lightweight latex to rugged vulcanized rubber,

offering lots of foot support and aggressive tread.

**Hoods** In a pinch, any hood that fits well and can keep your head warm will work with a drysuit, but ideally you would use a hood



that is designed to be used with a drysuit. These specially made hoods are cut a little shorter and designed with smooth-skin panels that seal against the neck seal, or between the neck seal and the neck's warm collar, to significantly minimize water intrusion and keep you warm and dry.