

Ocean Quest Technical Diver Programs



PADI and TDI Technical Diving Centre
www.diveoceanquest.com - info@diveoceanquest.com

604.436.1157

107 - 3790 Canada Way, Burnaby, BC

Over 25 Years of Technical Diving Experience and Training

Why take your technical diver training at Ocean Quest?

For over the past 25 years, Ocean Quest is the only dive centre who has actively and consistently conducted technical diver training in the Greater Vancouver area. Like all of our courses, we will add many extras to your technical diver training beyond that of what is outlined in many technical programs.

Outside of the typical tech skills, we will continually focus on the foundational skills – buoyancy, trim, propulsion and awareness and how they apply to the technical diving environment. We are extremely detail oriented and will work with you until you have a solid execution of all the necessary skills of a tech diver. We will test and build upon your ability to problem solve as an individual and as a team member through scenario based failures and drills.

We are experts in decompression theory. All of our technical diving programs include extensive and up to date decompression theory so you have the knowledge and understanding of how to plan and execute decompression dives. We will guide you on how to apply decompression theory to your dive plans so you have full understanding of best practices and strategies for your technical dive planning. We don't teach you to just blindly follow your computer or decompression software.

We exclusively teach specific team diving principles and "Human Factors" to improve the successful outcomes of your technical dives. We guarantee that our technical diving programs are unmatched in the industry!



As an active technical diver training facility, we have an active technical diving community offering you opportunity to meet other technical divers and use your technical diving skills.

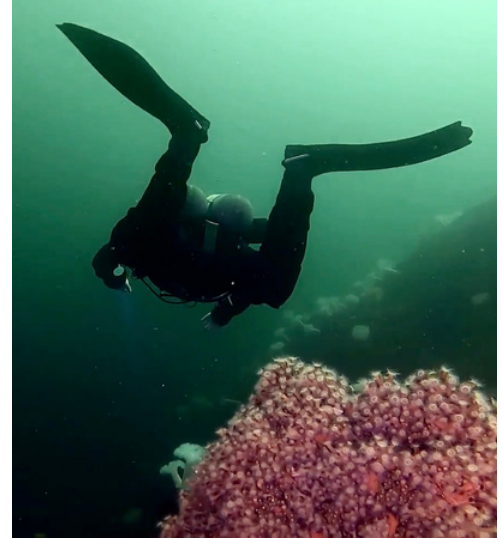
The Ocean Quest Technical Diver Training Progression

All Training Programs are available in Doubles or Sidemount Configuration

At Ocean Quest, we have developed a specific training philosophy that allows you to progress as a technical diver in a logical, systematic way. This progression ensures you get the best training and experience as you explore the ranges of technical diving. Our training is not necessarily tied to any given training agency, however, each step will result in a practical certification allowing you to explore technical diving at that level.

Tec 1 - Introduction to Technical Diving - Limited Decompression

Training at the Tec 1 level will introduce you to essential technical diving skills and concepts while teaching divers how to plan and execute basic tech dives with up to 10 minutes of decompression. Your training will not only include extensive decompression theory, but practical application of that theory for planning your actual technical dives.



We feel it is important that our technical diving students have a strong understanding of specific decompression strategies vs just blindly following their dive computers or plans generated from decompression software. This mindset looks at the big picture and creates a system that can be applied to all dives in all situations. Everyone in the team will have the same approach to the dive and everyone in the team will be on the same page should the plan need to change due to any emergency situations that may occur. Our method of dive planning will grow with you as you progress through higher levels of technical diving.

The limited decompression at the Tec 1 level is an important feature as divers will often have ample bottom and deco gas to get themselves “out of trouble” should they need to handle any emergencies. This allows our training to primarily focus on “failures” that may occur during the bottom part of your dive. Focusing on bottom failures will give you the confidence to think through a variety of realistic problems that may occur on a technical dive and still make it to the surface in a safe and methodical way. This measured approach to training avoids introducing too much at one time which may lead to overwhelming divers, ultimately losing the opportunity to take in all of the information and practice that is offered during training.

By the end of the program, divers will have a solid base of technical skills and knowledge to dive independently so they can gain technical diving experience prior to enrolling into the Tec 2 level of training.

- **Tec 1 Certification Result - PADI Tec 40**
- **Minimum 4 Training Dives**
- **Certification Depth - 130 ft/40 m**
- **Deco Cylinders - 1 Deco Cylinder with 50% Max O2**
- **Decompression Time - 10 minutes Max**
- **Tuition - \$795 - Students are responsible for Tec Fills and Training Materials**

Our unique approach to technical diver training includes extensive decompression theory, technical dive planning, detailed skills practice and problem solving ability

Tec 2 - Extended Decompression / Helitrox

The Tec 2 level has multiple goals, one is to extend your decompression time, two is add oxygen as a decompression gas and three is to introduce helium as an option for diving below 130 ft / 40 m.

Extending your decompression time - Your Tec 1 certification limits your decompression to 10 minutes. At the Tec 2 level, there is no certification limit for how long you can plan your decompression time for your dive. When we talk about decompression time, we almost always are referring to accelerated decompression time.



From this perspective, you always have to consider the non-accelerated time when planning your dives. In general, if you have 20 minutes of accelerated deco, then you have a 40 minute obligation of non-accelerated deco. 25 minutes equals 50 mins, 35 minutes equals 70 mins, etc. This gives a practical limit for how much decompression you should be planning as there may be situations where there are no viable options to get to the surface safely in the event of a catastrophic failure. The Tec 2 course will address these issues both in theory and during the practical training to help you plan your dives safely.

Oxygen Decompression - Oxygen decompression is another important add on to the Tec 2 level of training. There are times where Oxygen may be the best decompression gas in theory, but there are other factors to consider when choosing O2. Decompression dives which utilize O2 have a different decompression "shape", often including bottom mix decompression. The Tec 2 program will examine when it is best to choose O2 as a deco gas.

Helitrox - Helitrox is just another name for Trimix. When diving deeper than 130 ft / 40 m, or if you are doing dives that have a higher degree of task loading on dives between 100 ft / 30 m and 130 ft / 40 m, you may want to use a Trimix blend. Trimix will offer you two significant benefits, it will lower narcosis and it will decrease gas density. A decrease in gas density will improve your work of breathing and lower the risk of CO2 retention issues. Narcosis and CO2 retention can dramatically increase the risk of deep diving, especially when task loaded, stressed, or dealing with an emergency. We believe that every tech diver should have Trimix as an available tool available to them.

- **Tec 2 Certification Result - TDI Helitrox or PADI Tec 45 with Helium (both up to 35% He)**
- **Minimum 6 Training Dives including 2 x Decompression Dives - 1 with Helitrox and 1 with O2 Deco**
- **Certification Depth - 150 ft/45 m**
- **Deco Cylinders - 1 Deco Cylinder with up to 100% O2**
- **Decompression Time - No Limit (recommended 30 minutes)**
- **Tuition - \$995 - Students are responsible for Tec Fills and Training Materials - Instructors He Fills are Split between students**

Ocean Quest adds additional real world skills to their technical diving programs

Tec 3 - Extended Range Diver

Tec 3 will train divers how to extend their decompression obligations beyond 30 minutes by utilizing two decompression gases. Utilizing two decompression gasses will make your decompression more efficient (and effective) as well as give you options should you have any deco gas related failures.

Your Tec 3 program will look at how to plan extended bottom and decompression times while reviewing options and protocols to handle emergencies during extended range dives.

Two decompression cylinders - Although having two decompression cylinders provides specific benefits for extended range dives, it also adds a new risk as you have a better opportunity to switch to the wrong gas at the wrong depth caused by potential task loading and stress. This is a potentially fatal mistake. Your Tec 3 training will focus on bottle handling and gas switch protocols to ensure maximum safety and comfort in handling multiple bottles and gasses.

Exclusive to Ocean Quest - The Extended Range program is designed to teach using two deco cylinders. At Ocean Quest we will also introduce the use and benefits of a stage bottle. Successful students will be able to plan dives utilizing two deco bottles or one stage and one deco bottle.

- **Tec 3 Certification Result - PADI Tec 50 with Helium (up to 35%)**
- **Minimum 4 Training Dives including Stage Bottle Training**
- **Certification Depth - 165 ft / 50 m**
- **Stage/Deco Cylinders - 2 x Deco Cylinders or 1 x Stage & 1 x Deco Cylinder**
- **Decompression Time - No Limit**
- **Tuition - \$795 - Students are responsible for Tec Fills and Training Materials - Instructors He Fills are Split between students**



Take your underwater exploration to the limit with Trimix Training

Trimix 1 - Normoxic Trimix

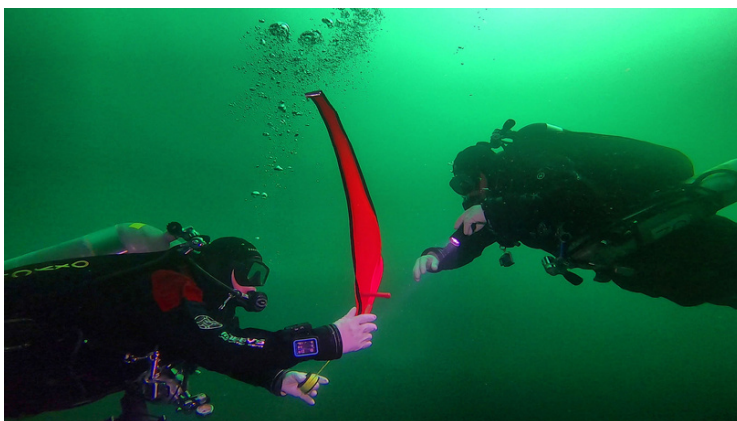
Successful students will be qualified to utilize trimix with a minimum oxygen content of 18% as a bottom gas and complete accelerated decompression dives using two decompression cylinders with enriched air or O₂ to a maximum depth of 210 ft/ 65 m.

Training will include extensive decompression theory, dive planning, deco schedules, emergency procedures all relative to deep trimix dives.

Exclusive to Ocean Quest: Our Trimix program will include practical training and application in the use of a stage bottle plus two decompression cylinders ("3 bottle dives"). In addition, you will learn how to and apply the procedures to conduct two repetitive technical dives in a single day.

- **Trimix 1 Certification Result - PADI Tec Trimix 65 or TDI Trimix - Min O₂**
 - **Minimum 6 Training Dives including Stage Bottle Training**
 - **Certification Depth - 200/210 ft / 60/65 m**
 - **Stage/Deco Cylinders - 1 x Stage plus 2 x Deco Cylinders or 3 x Deco Cylinders**
 - **Decompression Time - No Limit**
 - **Tuition - \$1295 - Students are responsible for Tec Fills and Training Materials - Instructors He Fills are Split between students**
-

Trimix 2 - Full Trimix - Full Trimix Training is available upon request - contact Ocean Quest for more details



Ocean Quest also offers PADI Technical Instructor Training from Tec 40 Instructor to Full Trimix Instructor

Equipment Requirements

Technical diving has very specific requirements when it comes to equipment. Ocean Quest provides detailed equipment advice based on over 25 years of technical diving experience.

Technical Diving Equipment List

Primary Rig - Backmount Doubles or Sidmount

General Equipment

- Primary and Back Up Mask
- Fins - Proper sculling fins
- Small Knife – No leg knives
- Back Up Knife or Line Cutter
- Surface Marker Buoy - Low Volume - Closed Circuit recommended
- Finger Spool - 100 ft / 30 m recommended
- Wrist Compass
- Wet Notes
- Drysuit with 2 x Thigh Pockets
- Dive Computer – Contact Ocean Quest Staff for recommendations
- Back Up Dive Computer or Bottom Timer – Computer should have gauge mode capabilities
- Primary Light – 3 to 5 Hour Capacity – Goodman Handle – SS Clip
- Back Up Light – Low Profile w SS Clip
- Heated Vest – Strongly recommended due to prolonged exposure times in cold water

Deco / Stage Cylinder(s) - See specific course for specific requirements

- Deco Cylinder (Properly Rigged and Labelled)
- Deco 40 Cuft Aluminum w DIN Valve - Stage 80 Cuft Aluminum w DIN Valve
- Pressure Gauge w 6" HP Hose
- DIN Regulator w First and Second Stage – Contact Ocean Quest for Regulator style and hose length recommendations

Drysuit Inflation for courses using Helium - Contact Ocean Quest for recommendations



Contact Ocean Quest regarding equipment recommendations for
your technical diver training
Special discounts are available on most gear