



Technical dive courses



TDI Sidemount

The TDI Sidemount course is designed to teach certified divers how to safely utilize side-mounted primary cylinders as an alternative to the traditional back-mounted configuration. This course can be combined with other TDI courses such as: Decompression Procedures, Extended Range, Trimix, Advanced Trimix and Advanced Wreck. If combined the standards for both courses must be met.



What you can expect to learn:

- Gas matching procedures
- Gas management utilizing independent cylinders
- Psychological considerations of technical diving
- Equipment considerations
- Communication (light and hand signals)
- Problem solving in a sidemount configuration
- Diving in tight or confined spaces
- Conservation
- Water entries/exits
- S-drills specific to sidemount diving

Some of the required skills

- Demonstrate various propulsion techniques
- Demonstrate adequate buoyancy control
- Demonstrate adequate trim
- Demonstrate the ability to safely manage gas in independent cylinders
- Demonstrate conservation and awareness
- Deploy a lift bag

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as a PADI Open Water Diver, TDI Open Water Scuba Diver or equivalent
- Proof of 25 logged open water dives

Dives: 3 | Max depth: N/A | Duration: 2 to 3 days | Configuration:



TDI Intro to Tech

The TDI Intro to Tech course introduces students to the world of technical diving. This course is designed as an introductory course to the TDI Advanced Nitrox course and the TDI Decompression Procedures Course. The objective is to familiarize students with technical equipment configurations, to enhance open water diving skills (such as buoyancy, trim, and situational awareness), and to introduce students to advanced gas planning techniques within a no-decompression context.



What you can expect to learn:

- In-depth dive planning
- Propulsion Techniques
- Advanced buoyancy control
- Gas management
- Situational awareness
- Proper trim
- Gear configuration and selection

What's in it for you:

- Exposure to in-depth dive planning
- Introduction to more advanced diving and equipment
- Opportunity to become a more proficient diver
- Expand on diver skills and knowledge

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as a PADI Open Water Diver, TDI Open Water Scuba Diver or equivalent
- Proof of 25 logged open water dives

Dives: 3 | Max depth: 23m | Duration: 2 days | Configuration:



TDI Advanced Nitrox

Are you looking to expand your dive time? The TDI Advanced Nitrox Course qualifies divers to use enriched air nitrox from EAN 21 through EAN 100 percent within your current certification level to a maximum depth of 40 metres/130 feet during dives that do not require staged decompression. Often taught in conjunction with the TDI Decompression Procedures course, this can be considered the foundation of your technical diving career.



What you can expect to learn:

- Physics and physiology relating to diving with gas mixes containing more than 40% oxygen
- Gas planning, dive tables, dive computers, oxygen limitations, nitrogen limitations
- Equipment considerations, cylinder labeling, analyzing nitrox mixtures, gas blending procedures

Some of the required skills

- Demonstrate buoyancy control
- Show good awareness of buddy and other team members
- Demonstrate the ability to manage free flow from primary regulator
- Conduct appropriate safety stop while maintaining neutral buoyancy
- Demonstrate the ability to share air with buddy
- Demonstrate correct body position; appropriate trim
- Demonstrate proper stress analysis with self and dive buddy

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as a PADI or TDI Nitrox Diver or equivalent
- Proof of 25 logged open water dives

Dives: 4 | Max depth: 40m | Duration: 2 to 3 days | Configuration:



TDI Decompression Procedures

Are you finding your no-decompression limits (NDLs) a limiting factor to dives? Do you have to ascend sooner than you would like? The TDI Decompression Procedures Course prepares you for planned staged decompression diving. With a maximum operating depth of 45 metres/150 feet, this course is your first step beyond the normal sport diving limits. The TDI Decompression Procedures Course combined with the TDI Advanced Nitrox course form the foundation of all other technical courses. After these two courses and some additional experience, the stage has been set for you to move onto additional technical levels.



What you can expect to learn:

- Decompression gas choices
- Tables vs. personal dive computers
- Emergency and contingency planning
- Equipment selection
- Pre-dive checks and drills
- Stress analysis and mitigation
- Following a decompression schedule
- Gas switching
- Team awareness and communication
- SMB/lift bag deployment
- Proper trim, buoyancy and finning techniques
- Emergency procedures
- Equipment considerations
- Gas blending procedures

Course prerequisites:

- Minimum age 18
- Certified as a PADI Advanced Diver, TDI Advanced Adventure Diver, Advanced Diver, or equivalent
- Proof of 25 logged open water dives

Dives: 4 | Max depth: 45m | Duration: 2 to 3 days | Configuration:



TDI Helitrox

The Helitrox course examines the theory, methods and procedures for planned stage decompression diving utilizing Helium in the breathing mixture. This program is designed as a stand-alone course or it may be taught in conjunction with TDI Advanced Nitrox. The objective of this course is to train divers how to plan and conduct a standard staged decompression dive not exceeding a maximum depth of 45 metres / 150 feet. The most common equipment requirements, gear set-up, and decompression techniques are presented



What you can expect to learn:

- Gas requirements
- Oxygen limitations
- Nitrogen limitations
- Helium limitations
- Decompression gas choices
- Helium as a breathing gas
- Effects on narcosis
- Effects on respiration
- Effects as an insulator
- Counter diffusion
- HPNS
- Decompression diving procedures
- Equipment selection
- Pre-dive checks and drills
- Following a decompression schedule
- Gas switching
- Team awareness and communication
- Proper trim, buoyancy and propulsion techniques
- Emergency procedures
- Equipment considerations
- Gas blending procedures

Course prerequisites:

- Minimum age 18
- Minimum certification: PADI Advanced Open Water, SDI Advanced Diver (with Deep Specialty), or TDI Intro to Tech diver, or equivalent
- Certified as TDI Advanced Nitrox Diver (unless being taught concurrently)
- Proof of 50 logged dives

Dives: 4 | Max depth: 45m | Duration: 2 to 3 days | Configuration:



TDI Extended Range

The TDI Extended Range course teaches you the proper techniques for utilizing air as a breathing gas, to a maximum depth of 55 metres/180 feet. The Course provides the training and experience necessary including proper techniques, equipment requirements, and hazards of deep air diving, to competently utilize air for dives that require staged decompression, using nitrox mixtures or/and oxygen during decompression.



What you can expect to learn:

- History of deep air diving
- Physics
- Physiology
- Decompression Options
- Equipment considerations
- Dive tables
- Dive planning
- Diving procedures
- Descent considerations
- Ascent considerations
- Technical dive support
- Navigation

Some of the required skills

- Demonstrate buoyancy control
- Show good awareness of buddy and other team members
- Demonstrate the ability to manage free flow from primary regulator
- Conduct appropriate safety stop while maintaining neutral buoyancy
- Demonstrate the ability to share air with buddy
- Demonstrate correct body position; appropriate trim
- Demonstrate proper stress analysis with self and dive buddy

Dives: 6 | Max depth: 55m | Duration: 3 to 4 days | Configuration:



TDI Trimix 60m

Are you looking to expand your depth range? One of the major limiting factors of going deeper is narcosis; TDI's Trimix Diver course shows how to minimize the effects of narcosis by adding helium to offset the nitrogen in your breathing gas. While taking the Trimix Diver course your TDI Instructor will teach you how to plan and execute dives utilizing as little as 18 percent oxygen and diving to maximum depth of 60 metres/200 feet with a blend of helium appropriate for the planned depth.



What you can expect to learn:

- Advanced decompression dive planning including:
 - Gas planning based on equivalent narcotic depths
 - Nitrogen and helium absorption and elimination
 - CNS and OUT limits, Isobaric Counter diffusion
 - Decompression gas choices
 - Emergency and contingency planning
- Decompression diving procedures
 - Equipment selection
 - Pre-dive checks and drills
 - Following a decompression schedule
 - Gas switching
- Management of multiple decompression/stage cylinders
- Emergency procedures
- Equipment considerations

Course prerequisites:

- Minimum age 18
- Minimum certification of TDI Advanced Nitrox AND Decompression Procedures Diver, or equivalent
- Proof of 100 logged dives

Dives: 6 | Max depth: 60m | Duration: 3 to 4 days | Configuration:



TDI Trimix 75m

Are you looking to expand your depth range? One of the major limiting factors of going deeper is narcosis; TDI's Trimix Diver course shows how to minimize the effects of narcosis by adding helium to offset the nitrogen in your breathing gas. While taking the Trimix Diver course your TDI Instructor will teach you how to plan and execute dives utilizing as little as 16 percent oxygen and diving to maximum depth of 75 metres/250 feet with a blend of helium appropriate for the planned depth.



What you can expect to learn:

- Advanced decompression dive planning including:
- Gas planning based on equivalent narcotic depths
- Nitrogen and helium absorption and elimination
- CNS and OUT limits, Isobaric Counter diffusion
- Decompression gas choices
- Emergency and contingency planning
- Decompression diving procedures
- Equipment selection
- Pre-dive checks and drills
- Following a decompression schedule
- Gas switching
- Management of multiple decompression/stage cylinders
- Emergency procedures
- Equipment considerations

Course prerequisites:

- Minimum age 18
- Minimum certification of TDI Advanced Nitrox AND Decompression Procedures Diver, or equivalent
- Proof of 100 logged dives

Dives: 6 | Max depth: 75m | Duration: 3 to 4 days | Configuration:



TDI Advanced Trimix

The TDI Advanced Trimix Diver Course is the top level of training for open circuit divers wishing to dive to depths as deep as 100 metres/330 feet utilizing hypoxic levels of oxygen (below 17 percent). This course is perhaps one of the most informative and challenging of all of the TDI open circuit courses. Upon completion, you will be among some of the most elite divers, capable of doing and seeing more while diving than any other divers out there. This course is for The TDI Extended Range or Trimix Diver looking to Extend their depth range and advance their technical diving education.



What you can expect to learn:

- Advanced decompression dive planning including:
 - Gas planning based on equivalent narcotic depths, nitrogen and helium absorption and elimination, CNS and OTU limits, isobaric counter diffusion, volume requirements, etc.
 - Use of hypoxic gasses
 - HPNS and isobaric counter diffusion
 - Decompression gas choices
 - Tables vs. personal dive computers
 - Emergency and contingency planning (equipment failure, omitted decompression, etc.)
- Decompression diving procedures
 - Equipment selection
 - Pre-dive checks and drills
 - Stress analysis and mitigation
 - Following a decompression schedule
 - Gas switching
 - Team awareness and communication
 - SMB/lift bag deployment
- Proper trim, buoyancy and fining techniques
- Management of multiple (minimum of 3) decompression/stage cylinders
- Emergency procedures (equipment failures, catastrophic gas loss, omitted decompression, navigational errors, injured/unconscious diver, etc)
- Equipment considerations, cylinder labeling, analyzing trimix nitrox and mixes, and gas blending procedures

Course prerequisites:

- Minimum age 18
- Minimum certification of TDI Extended Range or Trimix Diver or equivalent
- Proof of 100 logged dives, 25 must be deeper than 30metres/100feet

Dives: 6 | Max depth: 100m | Duration: 5 days | Configuration:



TDI Technical DPV

The purpose of the TDI Diver Propulsion Vehicle (DPV) Course is to familiarize divers with the skills, knowledge, planning, organization, procedures, techniques, problems, and hazards of using DPV's while technical diving. Upon successful completion of the TDI Diver Propulsion Vehicle Specialty training, the student will be able to: demonstrate comprehension of the practical knowledge necessary for DPV diving, properly plan and safely conduct DPV dives, and implement techniques and procedures to manage and minimize DPV diving hazards.



Required Skill Performance and Graduation Requirements

The student must perform the following S-drill and skills during all dives:

- Demonstrate adequate pre-dive planning
- Equipment check and equipment matching
- Demonstrate specialized propulsion techniques in varying types of flow
- Demonstrate proper buoyancy control
- Demonstrate proper body posture
- Demonstrate proper stress analysis (detection and management)

The student must perform the following in-water skills during dives:

- Proper use of DPV
- Gas sharing ascent with DPVs clipped off
- Ascent with a disabled DPV
- Tow a team member and his disabled DPV

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as a PADI Open Water Diver, TDI Open Water Scuba Diver or equivalent
- Proof of at least 25 logged dives

Dives: 3 | Max depth: N/A | Duration: 1 to 2 days

TRY FX CCR Rebreather Dive Workshop

Not yet ready for the big step? This course is the introductory first step to the FX CCR course. Or just a simple way to find out if CCR (Rebreather) diving is for you. Some of our students want to try CCR to see if the silence will take them nearer marine life for underwater photography. Others want to experience the bigger depth that a CCR can be used at or minimize the cost of using helium. If this sounds like you, and you'd like to know more about the FX CCR or what it feels like to be diving on a rebreather, take our TRY CCR workshop.



What you can expect to learn:

- You will learn about how the FX CCR works, basic rebreather theory and knowledge
- You will get to try the unit safely in the pool with an instructor
- You will learn buoyancy control and trim – very different on a CCR
- Subject to diver readiness and conditions, you will be able to take a shallow water dive on our house reef and experience coming closer to fish and other marine life

Course prerequisites:

- 18 years or older
- Logged at least 10 open water dives for confined water session
- Logged at least 25 open water dives for open water session
- TDI Nitrox diver or equivalent

Dives: 1 | Max depth: Xm | Duration: X days | Configuration:



FX CCR Rebreather Training

(Air Diluent, Air Diluent with Decompression or Helitrox)

Training on the IQsub FX CCR is stepping into a new dimension of diving where efficiency, silence, and precision become second nature. The FX CCR itself is a lightweight, chest-mounted closed-circuit rebreather designed for both recreational and technical diving, capable of depths up to around 100 m. It integrates modern electronics (Shearwater control), an intuitive breathing loop, and robust scrubber technology to recycle your breathing gas — meaning longer dives with minimal bubbles and greatly reduced gas consumption.



What you can expect to learn:

- Detailed equipment setup & pre-dive checklist execution
- Real-time gas management, including understanding how to manage and adjust oxygen partial pressures
- Critical thinking under water, such as how to detect and troubleshoot sensor or loop issues
- Emergency procedures, including using bailout gas and switching to open circuit
- Efficient dive planning for extended durations and quiet, low-bubble dives

Training isn't about memorizing buttons — it's about developing a mindset of vigilance and precision.

Course prerequisites for decompression:

- TDI Advanced Nitrox and Decompression Procedures
- Experience in decompression diving with at least 50 dives

Course prerequisites for Helitrox:

- TDI Advanced Nitrox and Decompression Procedures
- Proof of at least 50 deep diving experience

Course prerequisites:

- Minimum age: 18 years
- Proof of 20 logged open water dives
- TDI Nitrox or equivalent

Dives: 7 | Max depth: 45m | Duration: 6 days | Configuration:



KISS Sidewinder Try Dive

Curious about diving on a CCR but not sure whether it's for you? At Atmosphere we offer a unique one day try dive experience to give you a better idea about whether or not you want to take the plunge into silent, bubble-free diving. Designed as a cave diving rebreather, the KISS Sidewinder is lightweight, compact, and super streamlined. It's design makes for easy diving right from the very first breath. Where other rebreathers are more challenging to dive, especially in shallow water, the KISS Sidewinder allows the diver to easily stay in trim whilst experiencing very little change in position and buoyancy throughout the breathing cycle.



What you can expect to learn:

- Equipment workshop – learning the basics of the CCR components and how they work
- First breaths in the pool with a KISS Sidewinder factory approved instructor
- An introduction to rebreather control, oxygen monitoring and finding optimal breathing patterns
- An introduction into mastering buoyancy and trim, whilst more difficult on a rebreather, the design of the sidewinder makes this challenge much easier
- Subject to diver readiness and conditions, divers may also go on a shallow dive on our house reef, to experience some of the benefits that the rebreather gives you in regards to encountering marine life.

Diver prerequisites

- 18 years
- 10 logged dives for confined water
- 25 logged dives for open water
- TDI Nitrox diver (or equivalent)
- Sidemount experience preferred but not mandatory

Dives: 1 | Max depth: 12m | Duration: 1 day | Configuration:



KISS Sidewinder Rebreather Training

Step into the world of silent, bubble-free diving. The KISS Sidewinders modular design means that it is not 'mounted' anywhere, but is built around the diver. It's lightweight and compact nature makes it feel like the rebreather is not even there. It is a mechanical CCR with a fixed IP and orifice, allowing the diver to have optimal control over the oxygen content in the breathing loop. While the sidewinder was not designed for huge depths, it is still an incredibly popular sport rebreather in open ocean diving due to it's ease of diving. Want to stay longer underwater? Or ready to venture into the overhead realm? The Sidewinder is for you.



Diver Prerequisites

- 18 years
- 25 logged dives
- TDI Nitrox diver (or equivalent)
- TDI Sidemount diver (or equivalent)

What you can expect to learn:

- Detailed equipment assembly, configuration, maintenance, and pre-dive checklist procedures
- Comprehensive understanding of the KISS Sidewinder system and CCR fundamentals
- Oxygen partial pressure management, including monitoring and safe operational practices
- An in depth look at buoyancy and trim, with a strong focus on how correct weighting and equipment configuration contribute to both comfort and diver safety
- Efficient ascent and descent procedures, loop management, and gas control
- Development of critical thinking and problem-solving skills in both normal and emergency diving scenarios
- Improved situational awareness, task loading management, and overall diving discipline
- Building confidence, comfort, and proficiency through progressive in-water skill development

Prerequisites for Decompression

- TDI Advanced Nitrox & Deco Procedures (or equivalent)
- Experience in decompression diving with at least 50 dives

Dives: 7 | Max depth: 30-40m | Duration: 7 days | Configuration:



TDI Divemaster

The TDI Divemaster Course is the first professional level certification in the TDI leadership levels. During this course you will be challenged and learn what it is like to work with divers as they begin or continue their technical diving experiences. You will learn how to manage divers, work as land or boat support, and conduct enjoyable dives. Dive physics, physiology, how to conduct pre-dive briefing, how to assist technical instructors as well as how to be a professional TDI Divemaster is all part of the course. Your skills will be refined to demonstration quality and your knowledge increased to that of a technical diving professional.

Required Skill Performance

- Must give a minimum of 2 complete briefs and debriefs
- Show preparation, planning, and control in dive management and technical diving activities
- Four open water dives, at least 2 of which must be at the highest Divemaster level being applied for
- Students must demonstrate all the skills required in the previous courses at Divemaster quality in leadership level equipment



Course prerequisites:

- Minimum age 18
- Certified as an SDI Divemaster or crossover to SDI prior to the TDI Divemaster course
- Provide copies of current CPR and first aid training
- Have a current medical examination signed by a licensed physician within the past 12 months
- Provide proof of 50 logged dives
- Certified as technical diver for which they are applying as a TDI Divemaster in

Dives: N/A | Max depth: N/A | Duration: 1-8 weeks

TDI Nitrox Gas Blender

Have you ever wondered how your nitrox cylinders are filled? Do you like the “behind the scenes” look at what makes a dive happen? Take the TDI Nitrox Gas Blender Course to find out how your cylinders get filled with nitrox! The TDI Nitrox Gas Blender Course will take you through the blending of nitrox in an easy-to-understand format. This course provides the training required to competently blend nitrox gas. The objective of this course is to train candidates in the proper techniques, equipment requirements and hazards involved in blending nitrox gases for recreational scuba diving activities.



- Mixing techniques
 - General considerations
 - Continuous blending systems
 - De-nitrogenated air systems
 - Pre-mix system
 - Partial pressure blending mathematics

What you can expect to learn:

The TDI Nitrox Gas Blender Course takes an in-depth look at all of the following and more!

- The responsibility of the Gas Blender
- Gases of diving
 - Air
 - Oxygen
 - Nitrogen
- Oxygen handling
 - Oxygen hazards
 - Causes and prevention of oxygen fire
 - Oxygen system design
 - Local regulations for gas blending and handling
- Gas production equipment
 - Compressors
 - Cylinders
 - Filtration systems
 - Analog gauges
- Oxygen analysis
 - Procedures
 - Oxygen analyzers
- Cylinder handling and sign out

Dives: N/A | Max depth: N/A | Duration: 1/2 to 1 days

TDI Advanced Gas Blender

Are you ready to progress on as a Gas Blender? The TDI Advanced Gas Blender Course picks up where you left off in the previous sequence in training, the TDI Nitrox Gas Blender course. After successful completion of the TDI Advanced Gas Blender course, you will be able to engage in the blending of oxygen and helium based gases. The objective of this course is to train candidates in the proper procedures needed for the preparation and blending of high quality nitrox and trimix gases for use in technical diving. The TDI Advanced Gas Blender course will take you through this process in an easy-to-understand format.



- Mixing techniques
 - General considerations
 - Continuous blending systems
 - De-nitrogenated air systems
 - Pre-mix system
 - Partial pressure blending mathematics

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- Gas production equipment
 - Compressors
 - Cylinders
 - Filtration systems
 - Analog gauges
- Oxygen analysis
 - Procedures
 - Oxygen analyzers
- Cylinder handling and sign out

Dives: N/A | Max depth: N/A | Duration: 1/2 to 1 days

Solo diver

At one point or another, many divers have found themselves alone during a dive, whether it was intentional or not. Solo Diving is the practice of self-reliant scuba diving without a “dive buddy.” Solo diving, once considered technical diving and discouraged by most certification agencies, is now seen by many experienced divers and some certification agencies as an acceptable practice for those divers suitably trained and experienced. Rather than relying on the traditional buddy diving safety system, solo divers should be skilled in self-sufficiency and willing to take responsibility for their own safety while diving.



Some of the required skills you will have to demonstrate include all of the following and more:

- 200 metres/600 feet surface swim in full scuba equipment.
- Demonstrate adequate pre-dive planning
- Plan dive limits based on personal air consumption rate
- Plan exact dive and properly execute the planned dive
- Equipment configuration appropriate for solo diving
- Proper descent/ascent rates
- Monitoring of decompression status equipment; tables, computers, equipment, etc.
- Compass navigation skills
- Demonstrate emergency change over to redundant air

What you can expect to learn:

The Solo Diver course takes an in-depth look at all of the following and more:

- Why solo dive?
- History of buddy diving
- Pros and cons of buddy diving and solo diving
- Legal liability assumed by buddy diving
- How to use the SDI Solo Diving waiver and release
- Who must solo dive?
- The solo diving mentality
- When not to solo dive
- Equipment for solo diving
- Planning and conducting a solo dive
- Navigation
- Management of solo diving emergencies

Dives: 3 | Max depth: 30m | Duration: 2 days | Configuration:



Equipment Specialist

This course is designed to give an in-depth look at how dive equipment works. This course is designed to give an in-depth look at how dive equipment works. It will cover general repairs and maintenance of various types of exposure suits, BCD's, regulators, and other accessories. The course is for the certified diver looking to learn more about the scuba equipment they use on each dive as well as how to perform basic "in the field" repairs to prevent losing a dive due to an equipment malfunction



What you can expect to learn:

The SDI Equipment Specialist Diver Course takes an in-depth look at all of the following and more:
Exposure suits (wetsuits and dry suits), Buoyancy Compensator Devices (BCDs), regulators and alternate air sources, cylinders and weight systems, computers, accessories, various equipment and devices.

- Types of materials they are made of
- How they work
- Features
- Basic repairs
- Care and maintenance
- Transportation
- Choosing the best for you

Course prerequisites:

- Minimum age 18, 10 with parental consent

Dives: N/A | Max depth: N/A | Duration: 1/2 to 1 days