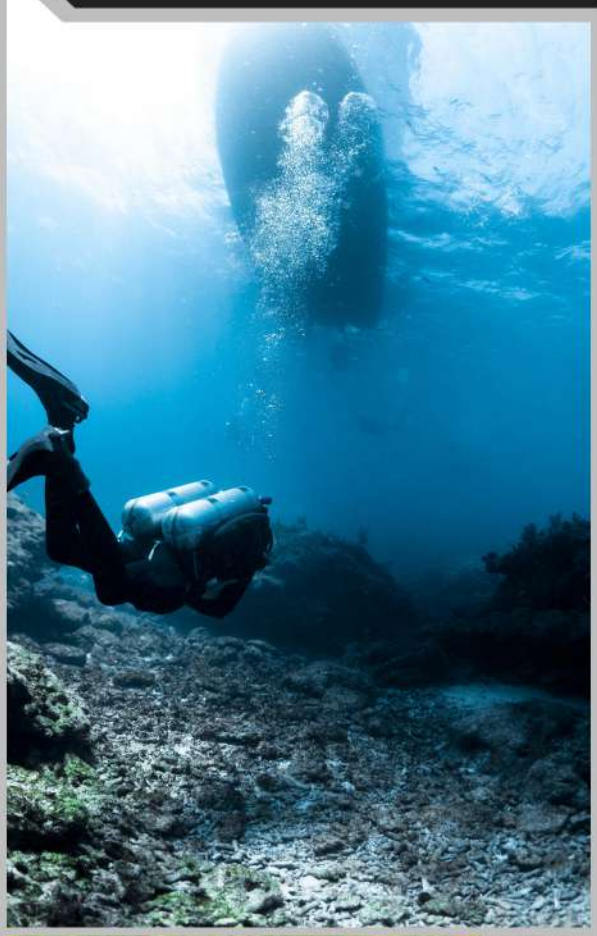
Technical dive courses



technical diving

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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. The course can be combined with Solo diver, Intro to tech and Decompression procedures. If combined the standards for both courses must be met.

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as an Open Water Diver or equivalent.
- Proof of 25 logged open water dives

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
- Carry additional cylinders is optional in this

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

technical diving

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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 an Open Water Diver or equivalent.
- Proof of 25 logged open water dives

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

technical diving

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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.

Course prerequisites:

- Minimum age 18, 15 with parental consent
- Certified as a Nitrox diver
- Proof of 25 logged open water dives

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

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

technical diving

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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 an Advanced Open Water Diver, Adventure Diver or equivalent.
- Proof of 25 logged open water dives

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

technical diving

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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

Course prerequisites:

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

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

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

technical diving

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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

Course prerequisites:

- Minimum age 18
- Certified as a TDI Decompression procedures or equivalent

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

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

technical diving

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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:

technical diving

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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:

technical diving

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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.

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

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

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

technical diving

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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

technical diving

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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.

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

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

technical diving

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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.

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

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

technical diving

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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

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

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 supply (not to exceed 30 metres/100 feet)
- Deploy surface marker buoy (SMB)

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

technical diving

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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

Tech Divers Trained Here

OPEN CIRCUIT

- NITROX
- TDI SIDEMOUNT
- INTRO TO TECH
- ADVANCED NITROX
- DECO PROCEDURES
- HELITROX
- EXTENDED RANGE
- TRIMIX
- ADVANCED TRIMIX

REBREATHER

- AIR DILUENT CCR
- SEMI CLOSED REBREATHER
- AIR DILUENT DECO CCR
- HELITROX CCR
- MIXED GAS CCR
- ADVANCED MIXED GAS CCR

OVERHEAD

- *CAVERN
- CAVERN DISCOVERY
- *INTRO TO CAVE
- ADVANCED WRECK
- *FULL CAVE
- •DIVER PROPULSION VEHICLE (DPV)
- •MINE
- •CAVE SURVEY
- •STAGE CAVE
- •CAVE DPV

open circuit & ccr options available

SERVICE

- NITROX BLENDER
- ADVANCED BLENDER
- 02 SERVICE TECH

PROFESSIONAL

- TDI NON-DIVING SPECIALTY INSTRUCTOR
- TDI DIVEMASTER
- TDI INSTRUCTOR
- TDI INSTRUCTOR TRAINER