



## **TDI Advanced Nitrox Diver**

Are you looking to expand your dive time? Maybe you're a scientific diver or photographer looking to stay in the water a little longer? 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. TDI Advanced Nitrox is also a must for SCR or CCR divers.

### **Who this course is for:**

- The certified nitrox diver looking to expand their understanding of nitrox mixtures containing more than 40% oxygen
- The certified nitrox diver looking to expand their in-water skills
- The certified diver who has interest in moving forward with technical diving education

### **Course prerequisites**

(these requirements must be met prior to the start of the course):

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

### **What you can expect to learn:**

Advanced Nitrox picks up where TDI Nitrox leaves off and offers a more in-depth look at diving with nitrox including:

- 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, and oxygen service ratings for using gases with more than 40% oxygen

**Some of the skills you will complete in this course include:**

- Demonstrate buoyancy control; ability to hover at fixed position in water column without moving hands or feet
- Show good awareness of buddy and other team members through communication, proximity, and team oriented dive practices
- Demonstrate the ability to manage free flow from primary regulator in controlled fashion, shut down cycle, and switch to back up regulator
- Conduct appropriate safety stop while maintaining neutral buoyancy
- Demonstrate the ability to share air with buddy as both recipient and donor in a controlled manner while maintaining position in the water column
- Demonstrate correct body position; appropriate trim, such as horizontal/streamlined when moving forward
- Demonstrate proper stress analysis with self and dive buddy

**What's in it for you?**

- Ability to dive using EAN 21 through 100 percent oxygen provided:
  - The diving activities approximate those of training
  - The areas of activities approximate those of training
  - Environmental conditions approximate those of training
- Ability to enroll in TDI Decompression Procedures, TDI Semi-closed Rebreather courses, TDI Closed Circuit rebreather courses

**TDI Advanced Nitrox Diver minimum certification requirements:**

- Satisfactorily complete the TDI Advanced Nitrox course and written examination
- Complete all open water requirements safely and efficiently
- Demonstrate mature, sound judgment concerning dive planning and execution

# **TDI Decompression Procedures Diver**

Are you finding your no- decompression limits (NDLs) a limiting factor to dives? Do you have to ascend sooner than you would like? As sport divers, planned decompression is not something that we do or have been taught. 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.

## **Who this course is for:**

- The certified Advanced Diver looking to expand their knowledge of decompression theory and diving techniques
- The certified Advanced Diver who is interested in extending their bottom time
- The certified Advanced Diver who has interest in moving forward with technical diving education

## **Course prerequisites:**

- Minimum age 18
- Minimum certification of SDI Advanced Adventure Diver, Advanced Diver, or equivalent
- Proof of 25 logged open water dives

## **What you can expect to learn:**

- Decompression dive planning including:
  - 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 finning techniques

- Emergency procedures (equipment failures, catastrophic gas loss, omitted decompression, navigational errors, etc.)
- Equipment considerations, cylinder labeling, analyzing nitrox mixtures, and gas blending procedures

### **What's in it for you?**

- Ability to conduct decompression diving activities without direct supervision provided:
  - The diving activities approximate those of training
  - The areas of activities approximate those of training
  - Environmental conditions approximate those of training
- Ability to enroll in TDI Advanced Nitrox, TDI Extended Range, TDI Advanced Wreck, TDI Trimix courses

### **TDI Decompression Diver minimum certification requirements:**

- Satisfactorily complete the TDI Decompression Procedures course written examination
- Complete all open water requirements safely and efficiently
- Demonstrate mature, sound judgment concerning dive planning and execution

## Gear Checklist for Adv. Nitrox & Decompression Procedures

### Primary Cylinders

1. Nitrox friendly primary cylinders (80cu. Ft. or greater) -Rentals available
2. All primary cylinders must be properly labeled and within current VIP and HYDRO.
3. DIN tank valves are required. Dual outlet valves (H-vales) are required for Adv. Nitrox and Deco. Doubles with/without isolation manifold are strongly recommended for Decompression Procedures.

### Stage/Deco Cylinders

1. Oxygen clean for up to 100% O2
2. 30cu. Ft. minimum
3. Cylinder must be properly labeled and within current VIP and HYDRO
4. A DIN tank valve is required

### Regulators

1. 2 Primary back gas regulators must be appropriate for use with up to 40% Nitrox
2. A 7 ft. hose is required on the primary 2nd stage
3. An alternate 2nd stage is required (High performance 2nd stage is recommended)
4. A Deco regulator must be cleaned up to 100% O2 and have at least a 40" hose for the 2nd stage
5. Back gas regulator systems must have at least 1 SPG
6. A 6inch HP hose and SPG or a button gauge are required on the Deco regulator
7. All regulators must be recently serviced and in excellent working order

### BCD

1. Backplate/wing/harness system. Sidemount configuration with at least 30lb of lift is required
2. A continuous weave harness and stainless-steel plate are strongly recommended

### Gauges

1. A dive computer and a redundant depth/timing device are required
2. Computers can be air integrated, and must be Nitrox programmable

### Accessories

1. 1 dive slate (wet notes)
2. 1 DSMB (30lb min.)
3. 2 Reels (1 spool and 1 reel recommended)
4. 2 cutting devices
5. 2 lights (Primary and backup)