



SCUBA TECH PHILIPPINES



Sidemount • Technical • Wreck



ANDY DAVIS - CONSULTANT TECHNICAL DIVING INSTRUCTOR



Andy Davis – Technical Diving Programme

What is Technical Diving?

TECREC
Technical
Diving
Courses



Technical diving can be defined as: diving other than conventional commercial, military or scientific diving, that takes divers beyond recreational diving limits. It is further defined as an activity that includes one or more of the following: diving beyond 40 meters/130 feet, required stage or accelerated decompression,

diving in an overhead environment beyond 130 linear feet from the surface and/or the use of multiple gas mixtures in a single dive

Because technical diving exceeds the scope of recreational diving, technical divers require advanced training, extensive experience, specialized equipment and often utilize breathing gases other than air or standard nitrox.

The Need for Credible Instruction!

Talk to any experienced technical diver and they will assure you that, when it comes to technical diving, the quality, *specific -active- experience* and *motivation* of an instructor is everything.

In an era of fast-track 'zero-to-hero' technical instructor courses, the prospective student needs to be extremely discerning in their selection of a training provider and mentor.

With 20+ years of diving experience, across 5 continents, specializing in technical wreck diving, qualifications from multiple technical agencies and a pedigree as a technical diving author and course designer; you can

be assured of receiving the most comprehensive, world-class instruction and the highest of standards.

I dive sidemount, technical and wreck... day-in, day-out... and have done so for a very long time...and I live to teach!



Available Technical Diving Courses:

Pre-Tech Foundations Clinic

The Pre-Tech Foundations Clinic is an in-house, personally tailored development clinic that aims to provide divers with an excellent standard of core scuba capabilities, such as precision gas management, advanced dive planning, situational awareness, buoyancy, trim, weighting, control and propulsion skills. This can be completed in single-tank, for recreational divers seeking refined skills, or in double-tank (back-mount or sidemount) for those seeking to effectively prepare for technical diving training. It is a flexible program, adaptive to the student's particular needs - and therefore is not a formal qualification course.

Tec Basics

The Tec Basics Specialty Course exists for recreational divers interested in understanding the basics of technical diving, with a view to full qualification at a later date. It provides an academic and practical insight into the world of technical diving, which also provides significant benefits for improving recreational diving capability. This is a recreational level certification course.

Tec Sidemount

The Tec Sidemount Course offers divers the ability to conduct subsequent technical training using sidemount configuration equipment. It is an optional extra - otherwise, standard back-mounted cylinders are used for

all technical courses. Training is available through TecRec (PADI) and ANDI.

Tec Deep Diver Program

The Tec Deep Diver program includes three courses which you can take separately or together depending upon your requirements, level of diving experience and training. These courses are the Tec 40, Tec 45 and Tec 50. No more than 2 students are permitted on a single course.

Tec Wreck Diver

The Tec Wreck Diver Course exists for qualified technical divers (Tec45/Advanced Nitrox and above) who wish to develop deep wreck penetration skills at an advanced level. It is an overhead protocols course, focused on line-laying, risk mitigation and emergency procedures appropriate for complex and demanding wreck penetrations.



SIDEMOUNT TECHNICAL WRECK
SIDEMOUNT TECHNICAL WRECK



Pre-Tech Foundations Clinic

The Need for Pre-Tech Training

Technical diving is an extremely demanding and precise activity, requiring a high standard of core scuba skills at the outset; buoyancy, weighting, trim, propulsion, control, gas management and situational awareness. These demands are reflected in the scope and intensity of technical diving courses. Compared to recreational diving classes, the failure or remedial course extension rate is relatively high. As a consequence, many technical diving students value the opportunity to conduct pre-tech foundations clinics and appraisals, in order to provide the best possible preparation for future technical diving classes.

In addition to the aspiring technical diver, many experienced recreational divers also advocate the development of highly refined core scuba skills.

Benefits for the Recreational Scuba Diver

One-to-one or group participation on the Foundations Clinic is a fast-track to the development of exemplary scuba diving capability.

A diver could expect the following benefits as a result of improved core skills;

- Less stressful diving = more fun
- Decreased air consumption
- More efficient fin technique
- Increased control in the water column
- More insightful understanding of diving concepts
- Precision buoyancy control
- Streamlined, effective equipment configuration
- Gas management capability
- Comprehensive dive planning
- Refined teamwork and buddy skills
- Improved underwater communication

Pre-Tech Foundations Clinic Content

- Knowledge Development
- Practical Applications
- 2x Confined Water Dives
- 2x Open Water Dives
- 3 Days Duration

Available Clinic Formats

- Single Tank (rec)
- Double Tank (tec)
- Sidemount (rec/tec)

Can be combined with Sidemount or Intro-To-Doubles for increased equipment options.

Pre-Tech Foundations Clinic Prerequisites

- Open Water Diver
- 18 years or over

Pre-Tech Foundations Clinic Student Requirements

- Completed Medical Declaration
- Log Book / Proof of Certification

Please note: this is not a certification course or formal prerequisite for tech courses.

Recreational Foundations -

- Full set of scuba kit, inc dive computer*

Technical Foundations -

- Full set of standardized tech diving kit *or*
- Full set of sidemount kit (2 cylinders)

** Full equipment, of any configuration, can be rented if necessary.*

** Sidemount qualification required for sidemount foundations*

Standardized Pre-Tech Clinic Duration

The Pre-Tech clinic can be run as a flexible (day-by-day) assessment and refinement, or a standardized format can be selected.

4 days* with classroom, practical workshops and 6 dives

Day 1 - Classroom theory, equipment workshop and practical applications

Day 2 - Skills training dives 1-2 Focus: *Precision buoyancy and weighting*

Day 3 - Skills training dives 3-4 Focus: *Propulsion, trim and control*

Day 4 - Skills training dives 5-6 Focus: *Advanced diving procedures and teamwork*

**A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

Successful completion of the Pre-Tech Clinic satisfies my requirement for a technical diving assessment of competence, prior to engaging on technical diving training.

Pre-Tech Clinic Training Dives

Training Dive One

Environment: Confined open water
Depths: Minimum: 2.4 metres/8 feet
Maximum 10 metres/30 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 6:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 18 metres/60 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1

Training Dive Three

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 18 metres/60 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1

Training Dive Four

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 18 metres/60 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1

Training Dive Five

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 30 metres/100 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1

Training Dive Six

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 30 metres/100 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1



Tec Basics

Course Outline

The PADI Tec Basics course is a bridge from recreational to technical diving. It exposes recreational divers to tec diving and entry level tec diving skills and equips them with the information they need to decide whether or not to accept the additional risk and commitment that PADI Tec courses demand. The PADI Tec Basics course runs within recreational limits, using segments from PADI Tec 40 Dives 1 and 2. The course allows PADI Tec Deep Instructors to have students practice fundamental tec skills before enrolling in the PADI Tec 40 program. The course also recognizes students who choose not to continue their technical training.

Perfect for -

- Experiencing tech diving, without substantial investment
- Recreational divers interested in safely using tech specification kit
- Development of precision dive planning & gas management skills

Course Content -

- Knowledge Development
- Practical Applications
- 2x Confined Water Dives
- 2x Open Water Dives

Prerequisites -

- Advanced Open Water Diver
- Rescue Diver Recommended
- 15 years or over

Tec Basics Course Credit

Since the PADI Tec Basics Distinctive Specialty is actually a portion of the PADI Tec 40 course, Tec Basics may credit toward this certification.

At the instructor's discretion, the Tec Basics student may choose to move up to PADI Tec 40.

The instructor may request a repeat of some confined water sessions and practical application sessions, depending on the interval between Tec Basics certification and the start of the PADI Tec 40 course.

Tec 40 Training Dive One, Practical Applications One and Two and Knowledge Development One and Two may be credited towards the PADI Tec 40 Diver if all performance requirements have been met.

Credit towards Tec 40 Diver is valid for 12 months from the completion of the Tec Basics Distinctive Specialty.

Tec Basics Training Dives

Confined Water & Open Water Dive One (without stage/deco cylinder)

- Working in a team, assemble and inspect the basic technical diving rig following the taught rigging philosophy and to meet individual/environmental needs.
- Demonstrate the proper weight required for the dive.
- Demonstrate neutral buoyancy while wearing the basic technical dive rig underwater in water too deep in which to stand by hovering for 1 minute without sculling or kicking.
- Within 30 seconds, independently close the cylinder valve to a regulator that is experiencing a simulated free flow.
- Assist a team mate by closing the correct valve to a regulator that is experiencing a simulated free flow.
- Within 30 seconds, independently close the isolator valve in response to a simulated manifold leak. This skill is not required if using sidemount configuration.
- Respond to a simulated out of gas emergency by signalling a team mate, switching to the teammate's long hose second stage, then swimming 30 metres/100 feet using the long hose regulator and maintaining contact with the team mate.
- Respond to a teammate's simulated out of gas emergency by, on signal, providing the teammate with the long hose second stage, switching to the short hose secondary, then swimming 30 metres/100 feet as the teammate uses the long hose regulator, maintaining contact.

Confined Water & Open Water Dive Two (with one stage/deco cylinder)

- Working in a team, plan the dive following the A Good Diver's Main Objective Is To Live procedure, and perform pre-dive checks following the Being Wary Reduces All Failures procedure.
 - Working in a team, perform a bubble check, descent check and S-drill.
 - Independently don, remove and re-don a stage/deco cylinder on the bottom.
 - Perform gas switches to stage/deco cylinders correctly following the NO TOX procedure.
 - Shut down both manifold valves and the isolator valve, and switch second stages to maintain a breathing supply, beginning with any valve chosen by the instructor, within 60 seconds (or within 40 seconds if there is no isolator valve).
 - Deploy a lift bag or DSMB from the bottom in water too deep in which to stand.
 - Swim at a steady pace at a constant depth for sufficient time to determine the SAC rate.
 - Using only neutral buoyancy, maintain a simulated decompression stop for eight minutes.
 - Remove and replace stage/deco cylinder at the surface in water too deep in which to stand
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Tec Basics Equipment Requirements

- Twin cylinders with dual manifold and isolator or independent cylinders in a sidemount configuration
- Primary and secondary regulators – primary regulator must have seven foot/two meter hose for air sharing.
- SPG. In sidemount configuration both regulators must have SPGs.
- Harness with shoulder and hip D-rings (backmount or sidemount).
- BCD – wings
- Stage/deco cylinder with attachment hardware, a single second stage regulator, and SPG.
- Dive computer
- Appropriate exposure suit
- Weight System, if required to offset buoyancy created by equipment and exposure protection.
- Reel or spool
- Knife/cutting device
- Slate
- Compass
- Lift bag or DSMB



Tec Sidemount

The TecRec Tec Sidemount Course provides structured training for technical, or prospective technical, divers who wish to transition into using sidemount configuration for their diving. The course includes, knowledge development and practical applications, allowing divers to learn how to properly set-up and configure sidemount kits, including deco tanks. Divers also participate in a series of open water training sessions, enabling them to get the most out of this ground-breaking approach to scuba diving.

Tec Sidemount Course Goals

Once certified, divers will be able to use sidemount equipment, including 2 or more stages, comfortably for all technical diving activities, including participation on subsequent specialty and technical level courses in that configuration.

Why Tec Sidemount?

Sidemount diving is one of the most exciting developments in scuba for many years. It combines the advantages of streamlining, flexibility, redundancy and safety into an easy-to-transport configuration, that can be used easily with standard scuba tanks from any dive center.

For divers who operate within the overhead environment (wreck and cave), it provides an exceptionally low-profile method to carry necessary gas, whilst allowing penetration within the most confined spaces.

How can Sidemount be amalgamated into my technical dive training?

Once qualified as a tec sidemount diver, all subsequent TecRec training can be conducted in sidemount configuration.



Tec Sidemount Course Content

- 3x Practical Application Sessions
- Confined Water - Foundation Skills Dive
- 2x Open Water Dives (Double Cylinder)
- 2x Dives Double Cylinders, plus 1-2 Stages

Tec Sidemount Prerequisites

- Advanced Open Water Diver (*Nitrox recommended)
- 18 years or over
- 30 Logged Dives

Course Duration

4 days* with classroom, practical workshops and 6 dives

Day 1 - Classroom theory, equipment workshop

Day 2 - Skills training dives 1 - 2

Day 3 - Sidemount dives 3 - 4

Day 4 - Sidemount dives 5 - 6

**A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

The course is *performance* based, not *time* based.

What equipment do I require..?

Below is a list of the equipment you require for making technical dives in sidemount configuration, you may bring your own, or I can supply it for you. If you already have sidemount kit, I can assist you with refining the configuration for the most benefit during the course:

- Mask, Fins & Suitable Exposure Protection
- 2 Primary Regulators and 1st Stages
- 1-2 Deco Regulators
- 1.5 to 2m long regulator hose
- Sidemount Harness & BCD (approved by instructor prior to the course)
- Dive Tables or Laptop Technical Dive Planning Software
- 2 x Depth Gauge & Dive Timer (or Dive Computer)
- Cutting Device or Knife
- Slate with Pencil
- 2x Surface Signalling Devices (whistle & SMB or signal mirror)
- DSMB and Reel (of sufficient length to deploy at planned bottom depth)
- Compass
- Pocket
- Configuration Equipment (spare bungee, double ended bolt snaps, cable ties and mouthpiece)

Tec40

TECREC Technical Diving Courses



Tec40 Course Outline -

The Tec40 subcourse of the TecRec 'Tech Deep' program is a limited, entry-level technical diving program that bridges the gap between recreational diving and full technical deep decompression diving.

Certified Tec40 divers are qualified to make limited decompression dives using equipment that is more extensive than that used in recreational diving

Perfect for -

- Recreational divers looking for entry into technical diving
- Limited non-accelerated decompression, with one deco tank
- Deco gas >50% O₂

Tec40 Prerequisites -

- Advanced Open Water Diver
- Nitrox and Deep Diver
- 18 years or over
- 30 Logged Dives (inc 10x Nitrox & 7x >30m)

Tec40 Course Content -

- Knowledge Development and exam
- 3x Practical Applications
- 4x Open Water Dives (3 cylinders)

Tec40 Course Duration -

4 days* with classroom, practical workshops and 4 dives

Day 1 - Classroom theory, equipment workshop and practical applications

Day 2 - Skills training dives 1 - 2

Day 3 - Classroom theory and practical applications

Day 4 - Technical dives 3 - 4

**A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

Pre-study of course materials/completion of knowledge reviews can shorten the course duration. This is highly recommended. You may obtain your own copy of the TecRec 'Tech Deep' manual in advance, or I can email handouts/reviews.

The course is performance based, not time based. Performance requirements for each section must be satisfied to allow progression and certification.

Tec40 Training Dives -

Training Dive One

Environment: Confined open water
 Depths: Minimum: 2.5 metres/8 feet
 Maximum 10 metres/30 feet
 Decompression: No stop only
 Gases: Air, EANx up to EANx50
 Ratios: 3:1

Training Dive Two

Environment: Open water
 Depths: Minimum: 10 metres/30 feet
 Maximum: 18 metres/60 feet
 Decompression: No stop only
 Gases: Air or EANx up to EANx50.
 Ratios: 3:1

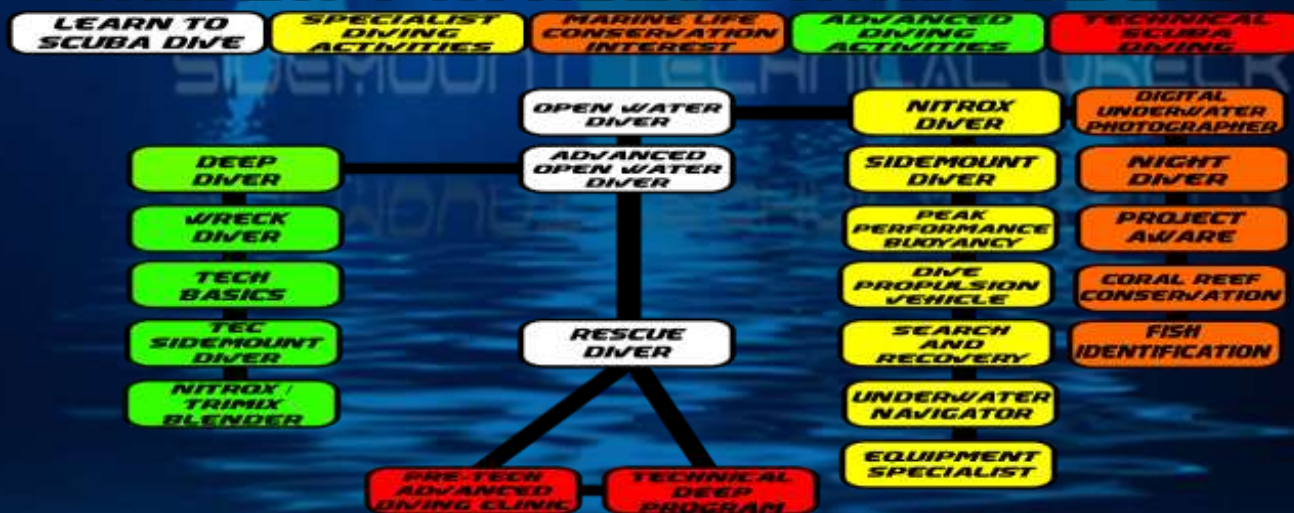
Training Dive Three

Environment: Open Water
 Depths: Minimum: 15 metres/50 feet
 Maximum: 27 metres/90 feet
 Decompression: No stop only
 Gases: Air, EANx up to EANx50
 Ratios: 3:1

Training Dive Four

Environment: Open Water
 Depths: Minimum: 26 metres/85 feet
 Maximum: 40 metres/130 feet
 Decompression: 10 Mins Non-Accelerated
 Gases: Air, EANx up to EANx50
 Ratios: 3:1

TRAINING FOR RECREATIONAL DIVERS



Tec40 Equipment Requirements

- Double cylinders of at least 12 l/70 cf each, with isolator manifold.
- The isolator manifold is not required for divers using sidemount configuration.
- Primary and secondary regulators for back mounted double manifolds, one
- with two metre/seven foot hose for air sharing and one with SPG. Note: In sidemount configuration, one regulator must have the two metre/seven foot hose, and both regulators must have an SPG.
- 1x Stage/decompression cylinder with regulator and SPG, with proper labels/markings.
- Tec diving BCD(s) and harness (backmount or sidemount)
- Two multigas enriched air capable dive computers, or one multigas enriched
- air computer and a back up single gas computer with dive tables, or one single gas enriched air computer and a backup timer and depth gauge with dive tables.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed). Note: Students and staff should weight for the contingency of decompressing with near-empty primary cylinders and empty or absent stage/deco cylinders
- Jon line (as needed for environment)
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note that a sausage type DSMB may double for the inflatable signal tube.
- Reel and lift bag (bright yellow preferred) or DSMB. A suitable DSMB has sufficient buoyancy to help steady a diver during a drifting decompression, and is unlikely to spill when deployed from the underwater.
- Knife/cutting device and back up
- Slate
- Back up mask (optional)
- Compass
- Lights (optional – as required for dive environment)
- Backup buoyancy control – the student must have a reliable means for controlling buoyancy and maintaining decompression stops in midwater with a failed primary BCD. This is usually accomplished with a backup BCD (double wings)

Tec45

TECREC Technical Diving Courses



Tec45 Course Outline

The Tec45 subcourse of the TecRec 'Tech Deep' program introduces Tec 40 divers to the first stages of full, technical deep decompression diving. Certified Tec45 divers are qualified to make multistop

decompression dives that employ EANx and oxygen for accelerated decompression.

The expectation is that a Tec45 diver intends to continue on in technical diving. Accordingly, the course not only develops the knowledge and skills to make open circuit technical dives as deep as 45 metres/145 feet, but also begins developing the knowledge and skills the diver will need at the Tec50 level and beyond.

Perfect for -

- Technical divers seeking extended bottom time up to 45m
- Unlimited accelerated decompression, >100% O₂
- Use of a single decompression stage cylinder

Tec45 Course Content -

- Knowledge Development
- Practical Applications
- 4x Open Water Dives (3 cylinders)

Tec45 Prerequisites -

- Rescue Diver, with CPR/First Aid
- Tec 40 Diver
- 50 Logged Dives
- 18 years or over

Course Duration

4 days* with classroom, practical workshops and 4 dives

Day 1 - Classroom theory, equipment workshop and practical applications

Day 2 - Skills training dives 1 - 2

Day 3 - Classroom theory, practical application and technical dive 3

Day 4 - Classroom theory, practical application and technical dive 4

**A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

Pre-study of course materials/completion of knowledge reviews can shorten the course duration. This is highly recommended. You may obtain your own copy of the TecRec 'Tech Deep' manual in advance, or I can email handouts/reviews.

The course is performance based, not time based. Performance requirements for each section must be satisfied to allow progression and certification.

Tec45 Training Dives -

Training Dive One

Environment: Confined open water
Depths: Minimum: 2.4 metres/8 feet
Maximum 10 metres/30 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 6:1

Training Dive Three

Environment: Open Water
Depths: Minimum: 18 metres/60 feet
Maximum: 30 metres/100 feet
Decompression: No stop only
Gases: Air, Air, EANx or oxygen
Ratios: 4:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 18 metres/60 feet
Decompression: No stop only
Gases: Air or EANx
Ratios: 4:1

Training Dive Four

Environment: Open Water
Depths: Minimum: 27 metres/90 feet
Maximum: 45 metres/145 feet
Decompression: 1x Deco Mix
Gases: Air, EANx or oxygen
Ratios: 3:1

Tec45 Equipment Requirements

- Double cylinders of at least 12 l/70 cf each, with isolator manifold.
- The isolator manifold is not required for divers using sidemount configuration.
- Primary and secondary regulators for back mounted double manifolds, one
- with two metre/seven foot hose for air sharing and one with SPG. Note: In sidemount configuration, one regulator must have the two metre/seven foot hose, and both regulators must have an SPG.
- 1x Stage/decompression cylinder with regulator and SPG, with proper labels/markings.
- Tec diving BCD(s) and harness (backmount or sidemount)
- Two multigas enriched air capable dive computers, or one multigas enriched
- air computer and a back up single gas computer with dive tables, or one single gas enriched air computer and a backup timer and depth gauge with dive tables.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed). Note: Students and staff should weight for the contingency of decompressing with near-empty primary cylinders and empty or absent stage/deco cylinders.
- Jon line (as needed for environment)
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note that a sausage type DSMB may double for the inflatable signal tube.
- Reel and lift bag (bright yellow preferred) or DSMB. A suitable DSMB has sufficient buoyancy to help steady a diver during a drifting decompression, and is unlikely to spill when deployed from the underwater.
- Knife/cutting device and back up
- Slate or Wetnotes
- Back up mask (optional)
- Compass
- Lights (optional – as required for dive environment)
- Backup buoyancy control – the student must have a reliable means for controlling buoyancy and maintaining decompression stops in mid-water with a failed primary BCD. This is usually accomplished with a backup BCD (double wings)

Tec50



Tec50 Course Outline

The Tec50 sub-course of the Tec Deep course introduces Tec45 divers to the first stages of full technical deep decompression diving. Certified Tec50 divers are qualified to make multistop decompression dives using air, EANx and oxygen with up to two gases for accelerated decompression.

The Tec45 diver comes to the course with a strong knowledge and skill base. The Tec50 course extends these, expanding existing skills and with an added emphasis on mission planning and execution.

Perfect for -

- Technical divers seeking extended bottom time up to 50m
- Unlimited accelerated decompression, >100% O₂
- Use of a two, or more, decompression stage cylinders

Tec50 Course Content -

- Knowledge Development and exam
- Practical Applications
- 4x Open Water Dives (4+ cylinders)

Tec50 Prerequisites -

- Tec45 Diver, or equivalent
- 100 Logged Dives (20x EANx 18+m / 15x 30m+)
- 18 years or over

Course Duration

4 days* with classroom, practical workshops and 4 dives

Day 1 - Classroom theory, equipment workshop and practical applications

Day 2 - Skills training dives 1 - 2

Day 3 - Classroom theory, practical application and technical dive 3

Day 4 - Classroom theory, practical application and technical dive 4

**A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

Pre-study of course materials/completion of knowledge reviews can shorten the course duration. This is highly recommended. You may obtain your own copy of the TecRec 'Tech Deep' manual in advance, or I can email handouts/reviews.

The course is performance based, not time based. Performance requirements for each section must be satisfied to allow progression and certification.

Tec50 Training Dives -

Training Dive One

Environment: Confined water or limited open water
Depths: Minimum: 2.4 metres/8 feet
Maximum 10 metres/30 feet
Decompression: No stop only, five stop simulated decompression
Gases: Air or EANx
Ratios: 6:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 24 metres/80 feet
Decompression: No stop only, 30 minutes simulated decompression
Gases: Air or EANx
Ratios: 4:1

Training Dive Three

Environment: Open Water
Depths: Minimum: 30 metres/100 feet
Maximum: 50 metres/165 feet
Decompression: Decompression dive with two decompression gases
Gases: Air, Air, EANx or oxygen
Ratios: 3:1

Training Dive Four

Environment: Open water
Depths: Minimum: 40 metres/130 feet
Maximum: 50 metres/165 feet
Decompression: Decompression dive with two decompression gases
Gases: Air, EANx or oxygen
Ratios: 3:1

Tec50 Equipment Requirements -

- Double cylinders of at least 12 l/70 cf each, with isolator manifold.
- The isolator manifold is not required for divers using sidemount configuration.
- Primary and secondary regulators for back mounted double manifolds, one
- with two metre/seven foot hose for air sharing and one with SPG. Note: In sidemount configuration, one regulator must have the two metre/seven foot hose, and both regulators must have an SPG.
- 2x Stage/decompression cylinders with regulator and SPG, with proper labels/markings.
- Tec diving BCD(s) and harness (backmount or sidemount)
- Two multigas enriched air capable dive computers, or one multigas enriched
- air computer and a back up single gas computer with dive tables, or one single gas enriched air computer and a backup timer and depth gauge with dive tables.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed). Note: Students and staff should weight for the contingency of decompressing with near-empty primary cylinders and empty or absent stage/deco cylinders.
- Jon line (as needed for environment)
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note that a sausage type DSMB may double for the inflatable signal tube.
- Reel and lift bag (bright yellow preferred) or DSMB. A suitable DSMB has sufficient buoyancy to help steady a diver during a drifting decompression, and is unlikely to spill when deployed from the underwater.
- Knife/cutting device and back up
- Slate or Wetnotes
- Back up mask (optional)
- Compass
- Lights (optional – as required for dive environment)
- Backup buoyancy control – the student must have a reliable means for controlling buoyancy and maintaining decompression stops in mid-water with a failed primary BCD. This is usually accomplished with a backup BCD (double wings)

Technical Wreck Course



The Technical Wreck course aims to develop the skills, knowledge and procedures required for technical level divers to operate safely in the overhead wreck environment.

The course focuses on penetration and guidelines skills, along with a team approach for safe and controlled exploration inside areas of shipwrecks that pose significant hazards.

The course explains the dangers, risks, mitigating procedures and necessary techniques involved while technical diving in the overhead wreck environment, going beyond the daylight zone, beyond 40m/130ft linear distance from the surface, through restrictions and in confined spaces.

Qualification is available via [ANDI](#) or [TecRec](#).

The Technical Wreck course places a high emphasis on the refinement of core (technical) diving skills: buoyancy, trim, weighting and situational awareness. In addition, it focuses on the management of high tolerance task loading, stress control and the development of effective team diving skills in limited/zero visibility.

Put simply; *this is one of the most challenging, highly demanding courses that you could ever take...* but also, without doubt, one of the most personally satisfying and rewarding!

Perfect for -

- Technical divers who penetrate shipwrecks
- Guideline and Overhead Environment protocols
- Apex level technical level diving skills

Technical Wreck Course Content -

- Knowledge Development
 - Practical Applications
 - 6x Open Water Dives (3-4 cylinders, *depending on qualification*)
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Prerequisites

TecRec Technical Wreck

Rescue Diver, with CPR/First Aid

Tec 45 Diver, or equivalent

50 Logged Dives

18 years or over

ANDI Technical Wreck

Technical SafeAir Diver

SafeAir Wreck Diver or equiv

Complete SafeAir Diver

50 Logged Dives

18 years or over

Note: This is an advanced level, equipment intensive training program that represents an apex in diver ability and training. The certification awarded indicates the highest level of diving expertise and experience. In order to maintain the calibre of course graduates, additional practice dives under instructor supervision, *may* be required before certification will be awarded.

Course Duration (TecRec/ANDI)

4 days* with classroom, practical workshops and 6 dives

Day 1 - Classroom theory, equipment workshop, surface practice of penetration protocols.

Day 2 - Skills training dives 1 - 2

Day 3 - Wreck penetration dives 3 - 4

Day 4 - Wreck penetration dives 5 - 6

** A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

The course qualification is *performance* based, not *time* based.

Technical Wreck Training Dives (TecRec)

Training Dive One

Environment: Limited Open Water
Depths: Minimum: 2.4 metres/8 feet
Maximum 12 metres/30 feet
Decompression: No stop only
Penetration: Open Water only
Restrictions: None
Gases: Air or EANx
Ratios: 2:1

Training Dive Three

Environment: Open Water
Depths: Minimum: 12 m/140 feet
Maximum: 30 metres/100 feet
Deco: Simulated deco with 1 deco gas
Penetration: Light zone, w/restrictions
Restrictions: Yes / Moderate
Gases: Air, Air, EANx or oxygen
Ratios: 2:1

Training Dive Five

Environment: Open Water
Depths: Minimum: 30 metres/100 feet
Maximum: 50 metres/165 feet
Decompression: 1-2 deco gases
Penetration: Beyond light zone
Restrictions: Yes / Confined Area
Gases: Air, Air, EANx or oxygen
Ratios: 2:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 24 metres/80 feet
Decompression: No stop only
Penetration: Open Water only
Restrictions: Simulated
Gases: Air or EANx
Ratios: 2:1

Training Dive Four

Environment: Open water
Depths: Minimum: 12 metres/140 feet
Maximum: 30 metres/100 feet
Deco: Simulated Deco with 1-2 deco gases
Penetration: Light zone, w/restrictions
Restrictions: Yes / Confined Area
Gases: Air, EANx or oxygen
Ratios: 2:1

Training Dive Six

Environment: Open water
Depths: Minimum: 30 metres/100 feet
Maximum: 50 metres/165 feet
Decompression: 1-2 deco gases
Penetration: Beyond light zone
Restrictions: Yes / Confined Area
Gases: Air, EANx or oxygen.
Ratios: 2:1



Technical Wreck Equipment Requirements

- Double cylinders of at least 12 l/70 cf each, with isolator manifold or sidemount independents.
- The isolator manifold is not required for divers using sidemount configuration.
- Primary and secondary regulators for back mounted double manifolds, one
- with two metre/seven foot hose for air sharing and one with SPG. Note: In sidemount configuration, one regulator must have the two metre/seven foot hose, and both regulators must have an SPG.
- 1-2 Stage/decompression cylinder with regulator and SPG, properly labeled/marked, depending on qualification
- Tec diving BCD(s) and harness (backmount or sidemount)
- Two multigas enriched air capable dive computers, or one multigas enriched air computer and a back up single gas computer with dive tables, or one single gas enriched air computer and a backup timer and depth gauge with dive tables.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed). Note: Students and staff should weight for the contingency of decompressing with near-empty primary cylinders and empty or absent stage/deco cylinders.
- Jon line (as needed for environment)
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note that a sausage type DSMB may double for the inflatable signal tube.
- Lift bag (bright yellow preferred) or DSMB. A suitable DSMB has sufficient buoyancy to help steady a diver during a drifting decompression, and is unlikely to spill when deployed from the underwater.
- Knife/cutting device and back up
- Slate / Wetnotes
- Back up mask
- Compass
- Primary Penetration Light
- Back-Up Lights
- Primary Penetration Reel
- 2x Safety/Jump Spool

Assessment of Technical Dive Training Readiness

In preparation for all courses, and before beginning open water dive training, there will be an informal assessment of the potential student's skills and comfort level in water, along with a general assessment dive knowledge. If the potential student appears to lack dive readiness appropriate for the training level, remedial training will be offered before training progresses.

Contact me to discuss your training requirements:

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