SCUBA TECH PHILIPPINES

Sidemount • Technical • Wreck

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Sidemount Diving Courses Overview

Sidemount Diving is a ground-breaking new approach for streamlined, convenient & safe diving, at both recreational and technical levels.

It is time that you learned more about the fastest-growing revolution in scuba diving...

There are three primary course options;

- **PADI Sidemount** - A basic course, teaching sidemount configuration and diving techniques for the open water environment.
- **TecRec Sidemount** - Teaches use of sidemount *plus* decompression stage cylinders. For qualified technical divers, or to provide an insight into technical diving for those not yet tech qualified.
- **ANDI Sidemount (Level 2)** - A flexible course option, providing comprehensive sidemount tuition that can be developed according to the students pre-existing qualification level, including technical diving and overhead environment/wreck penetration.

The availability of effective sidemount diving tuition is still a rare commodity - this is your opportunity to enjoy lessons with a dedicated, active sidemount technical instructor and diver - one of the first qualified PADI Sidemount and Tec Sidemount instructors in Asia!

What is Sidemount Diving?

Sidemount diving is the, now increasingly formalized, approach towards conducting dives with 2 or more primary cylinders secured at the side of the body and in line with the torso - with no cylinders on the diver's back. A common feature that defines sidemount configuration is the use of bungee cords to provide an upper attachment on the cylinder valve, normally routed from behind the diver's upper back, whilst the lower cylinder is secured to the diver's lower harness (butt-plate or waist D-rings) via bolt-snaps.

Why Sidemount Diving?

Sidemount is one of the most exciting developments in scuba diving 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.

What are the Benefits of Sidemount Diving?

Flexibility

The sidemount approach offers divers significant benefits to the flexibility of their approach. Unlike back-mounted doubles, acquiring and transporting sidemount suitable cylinders is often much more convenient and accessible. Sidemount configuration allows the travelling diver to conduct technical and/or overhead environment dives without having to source traditional back-mounted cylinders. When diving in remote locations, the transportation of diving logistics, especially by hand, is

considerably less physically taxing. Sidemount equipment is also considerably lighter, and less bulky than back-mounted alternatives - allowing for easier and cheaper (considering the rate of many airline's excess baggage costs) travel.

Accessibility

Unlike back-mounted cylinders, the sidemount diver has immediate access to, and observation of, the regulators and tank valves of their cylinders. This enables immediate problem identification and allows swifter resolution, without recourse to 'behind the head' shut-down drills that require a higher level of mobility, flexibility and freedom to operate.

Streamlining

Sidemount configuration places the cylinders under the diver's armpits, in line with their body. This decreases water resistance (improving air consumption and reducing fatigue) whilst also allowing the diver to pass through smaller restrictions than would otherwise be possible in back-mounted cylinders. The flexibility to remove tanks, and propel them in front, allows the diver to pass through very small passages and holes - being limited only by the size of their bodies and exposure protection.

Safety

Increased accessibility to life-supporting regulators, first-stages and valves improves efficiency and speed of critical cylinder shut-down procedures, allows immediate gas-loss identification and provides the diver with quick access to alternative safety procedures; such as regulator swapping (between cylinders), valve-'feathering' to access gas within a cylinder whose regulator is malfunctioned/ free-flowing... or even breathing directly from a tank valve.

In addition, stowage of the cylinders next to the diver's torso, and beneath his armpits, serves to protect vulnerable valves and regulator first-stages from collision, impact and abrasion damage, or accidental shut-down through contact with a ceiling. It also significantly reduces the risk of entanglement behind the diver, where it is least easy to rectify.

Comfort

Many divers will testify that sidemount configuration offers greater stability and easier-to-attain trim and control in the water. It is also less

physically tiring to carry, and get into, sidemount equipment than with traditional back-mounted doubles - especially when operating from a small boat or a rough shore entry. The ability to attach, remove and replace cylinders whilst in the water allows the diver to avoid ever having to carry heavy-weight back-mounted cylinders. This is combined with reduced physical exertion when conducting regulator shut-down procedures, which is a major benefit to technical divers who suffer from shoulder or back discomfort or reduced mobility from old injuries.

Redundancy of Gas

Whilst technical divers have always utilised a redundant gas system, either isolated-manifold or independent back-mounted cylinders, recreational divers have traditionally resorted to using 'pony cylinders' or 'ascent bottles' as contingencies against out-of-air emergencies. Whether attached to the primary cylinder, or slung at the chest, these cylinders often presented problems with stability and streamlining, whilst simultaneously only providing a bare minimum supply of air for emergency ascent. Sidemounting two cylinders helps resolve stability and streamlining issues, and ensures that a truly capable redundant supply of air is maintained.

How can Sidemount be amalgamated into my future dive training?

Once qualified as a recreational sidemount diver, you can utilise this equipment configuration for all subsequent PADI and TecRec training courses. If you are currently a technical diver, or ambitious to become one, then sidemount configuration can be used for all subsequent TecRec training.

What Sidemount Training is Available?

I provide the option of either ANDI, PADI (basic) or TecRec (advanced) sidemount courses. Whilst these courses are all similar in format, your choice of course should be determined by your specific diving goals.

Basic Sidemount Course

PADI (Basic) Sidemount Course Outline

The PADI Sidemount Course provides structured training for recreational divers who wish to safely and effectively use 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. 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.

PADI (Basic) Sidemount Course Goals

Once certified, student divers will be able to use sidemount equipment comfortably for no stop recreational dives in conditions similar to, or better than, those encountered during training.

PADI (Basic) Sidemount Course Content

- Knowledge Development
- Practical Application - Equipment Set-up
- Confined Water - Foundation Skills Dive
- 3x Open Water Dives (Double Cylinder)

PADI (Basic) Sidemount Course Prerequisites

- Open Water Diver
- 15 years or over

PADI (Basic) Sidemount Course Duration

3 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 - Sidemount dives 3 -4

**A 4 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 substantially reduce daily workload for the student. This is highly recommended. I can email handouts/reviews upon payment of deposit.

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

PADI (Basic) Sidemount Training Dives

Training Dive One
Environment : Limited Open Water
Depths: 1-3m
Decompression: No Decompression
Gases: Air
Ratio: 10:1

Training Dive Two
Environment : Open Water
Depths: 6-18m
Decompression: No-Decompression
Gases: Air or Nitrox (if qualified)
Ratio: 8:1

Training Dive Three
Environment : Open Water
Depths: 12-30m (as per qualification)
Decompression: No-Decompression
Gases: Air or Nitrox (if qualified)
Ratio: 8:1

Training Dive Four
Environment : Open Water
Depths: 12-30m (as per qualification)
Decompression: No-Decompression
Gases: Air or Nitrox (if qualified)
Ratio: 8:1

Assessment Standards

The student diver must demonstrate accurate and adequate knowledge during the confined water and open water dives and must perform all skills (procedures and motor skills) fluidly, with little difficulty, in a manner that demonstrates minimal or no stress.

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)

ANDI Sidemount Diver - Level 2

The ANDI Sidemount course trains divers *of any advanced level* to use sidemount equipment configuration for their choice of diving environment and specialist activity. This course can be conducted in open water, using decompression and inside the wreck overhead environment if combined with, or the student already possesses, appropriate training for those elements.

ANDI Sidemount Diver - Course Overview

The ANDI Sidemount Diver course, level 2, consists of three section:

- **Theory** - minimum 3 hours theory, covering different sidemount configurations and recommended uses
- **Skills Evaluation and Practice** - conducted in confined water/open water (depth not exceeding 10m/33ft
- **Open Water Dives** - 3 sidemount scuba dives, max 2 dives per day, 120 minutes minimum diving duration

ANDI Sidemount Diver - Student Prerequisities

ANDI certified as Advanced diver and Level 2 Complete Safe Air User (equiv: Advanced Nitrox).

Plus the following requirements: The candidate should be able to present a log book showing current diving activity commensurate with the anticipated course objectives, AND a total diving experience of NOT LESS THAN 50 dives.

Note: This is a progressive level diving course. The certification awarded indicates a high level of diving competence. In order to maintain the calibre of course graduates, additional practice dives under instructor supervision, may be required before certification will be awarded.

ANDI Sidemount Diver - Course Limitations

- The maximum recommended exposure of oxygen is 1.45 Po2.
- The absolute maximum exposure to Oxygen, approved for normal dive (non-emergency) profiles is 1.6 Bar PO2 (1.6 ata) during deco at

rest. The recommended maximum exposure to Nitrogen is 4.5 Bar PN2 (4.5 ata).

- For students that are not qualified with a overhead environment certification all dives will be completed in a non overhead environment.
- For divers that have a Technical Wreck and/or Cave qualification are permitted to conduct training dives 2 - 4 in a overhead environment. Depth and penetration limits are based on their highest appropriate certification.

ANDI Sidemount - Dive Profiles

Sidemount Dive #1 (Pool or shallow water)

- Full equipment systems check and equipment rigging
- Refinement of buoyancy, swimming attitude and trim
- ANDI gas switching protocol (for students doing decompression profiles)
- ANDI descent procedures
- ANDI Equipment matching
- Long hose deployment
- Gas management
- Cylinder removal and replacement
- Swim a minimum or 25 meters with one cylinder attached and the cylinder off guided by the valve or handle.
- Swim 9 meters with both cylinders removed. Keeping hold of both cylinders by the tank valve or handle.
- Practice no-silt propulsion without the use of your fins, by pulling with your hands.
- Swim inverted with mask flooded for a distance of 3 m.
- Complete a mask clearing drill in the inverted position (head down/ feet up)
- Do a valve shut down drill in both the horizontal position and also the inverted (head down/feet up).
- ANDI ascent procedures

ANDI Sidemount Dive #2

- ANDI descent procedures
- Out-of-Air long hose deployment
- Proper gas management
- Cylinder removal and replacement
- Swim a minimum or 25 meters with one cylinder attached and the cylinder off guided by the valve or handle.
- Swim 9 meters with both cylinders removed. Keeping hold of both cylinders by the tank valve or handle.
- Evaluation of previous dive skills
- ANDI ascent procedures

ANDI Sidemount Dive #3

- ANDI equipment matching
- ANDI descent procedures
- Out of Air long hose deployment
- Proper gas management
- Practice swimming without the use of your fins by pulling with your hands.
- Swim inverted with mask flooded for a distance of 3 m.
- Complete a mask clearing drill in the inverted position (head down/ feet up)
- Do a valve shut down drill in both the horizontal position and also the inverted (head down/feet up).
- Evaluation of previous dive skills
- ANDI ascent procedures

ANDI Sidemount Dive # 4

- ANDI equipment matching
- ANDI descent procedures
- Out of air, long hose deployment
- Repeat all previous skills with black out mask, maintaining contact with primary line
- ANDI ascent procedure

Minimum Equipment Requirements List

- 2 Masks
- Power Fins sufficient to the task
- 2 Submersible Pressure Gauges
- 2 quality regulator first stages
- 2 regulator second stages, review hose length with your instructor.
- Wings-style buoyancy compensating device. If student is unable to maintain buoyancy due to a bladder failure, two bladders with a combined minimum lifting capacity of 36 Kg (80 lbs) is recommended.
- 2 inflator hoses (plus a dry-suit inflation hose, if reqd)
- Exposure protection adequate for the conditions
- 2 depth gauges with adequate depth range parameters
- 2 time pieces (preferably with stop watch capabilities) which may be combined with the depth gauges
- 2 small cutting devices
- Integrated weight system or weight belt with double clasps/buckles
- 1 line reel with a minimum of 90 meters (300 ft.) of #24 nylon line
- 1 safety spool with a minimum of 30 meters (100 ft.) of #18 nylon line
- 2 dive slates / wet notes
- A primary dive light (canister light recommended) with an appropriate burn time
- 2 back-up lights
- 3 directional markers (line arrows)
- 3 non-directional markers (REMs, cookies or clothes pins)
- 10 regulator contents tags and 10 cylinder contents tags or labels
- 500 electrical tie-wraps of varied sizes is recommended
- A selection for varied size bolt and double-end snaps
- If decompression profiles are planned, additional regulators/SPGs and stage tanks are be required
- If completed in a wreck environment, a lift bag will be required

Contact me to discuss your training requirements:

www.scubatechphilippines.com

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