



Scooter Diver II (Tec, OW)



Diver's Profile:

At this entry level, the typical Scooter Diver is a recreational diver on advanced training level who has the intention to enlarge his/her diving perimeter with the aid of an underwater diver propulsion device. The focus is on shallow water scooter dives in vicinity of or around a reef. The device allows the diver to cover more area underwater, and/or to stay longer due to a remarkably reduced gas consumption rate.

Aims & Objectives of the course:

Advanced scooter diver course for use in open water only, with equipment for technical diving (in combination with mixed gas diving such as Nitrox and Trimix), and with at least class 2 (or higher) rated scooters.

The main objectives of Scooter Diver II course compared to Scooter Diver I course are:

- a) to refresh and reinforce knowledge and skills learned in level 1 course and improving them to a higher level of proficiency
- b) to learn how to correctly use class 2 scooters
- c) to handle and correctly and safely use the scooter during all commonly occurring situations during a dive incl. device failures and buddy emergencies

Course Classification

The Scooter Diver II Course is an ADVANCED and TEC diving Open Water specialty course.

Course Prerequisites and Requirements

a. Prerequisites for students (for course admission)

Age:	18 years
OW-certificate:	Advanced Open Water Diver (CMAS 2star Diver or equivalent; fulfilling EN 14153-2)
Previous Scooter certificate:	SCD Scooter Diver I (Recreational, OW) or equivalent
Number of previous OW-dives:	50 after certification as a CMAS 2star diver (or equivalent) of which 10 must have been made within 2 months prior to course
Number of previous scooter dives:	20 of which 10 must have been made within 2 months prior to course
Other mandatory prerequisites:	Advanced Nitrox Diver (CMAS or equivalent) valid medical attest (fitness for diving), not older than SCD rules or national legislation require (1 year)
Other <i>recommended</i> certificates:	- SCD Stage Tank Handling or equivalent
Further requirements:	- Equipment as requested under "Personal equipment" - Must have own class 2 scooter for at least 3 months - Private Liability Insurance with a minimum coverage of 3 Mio.Euros

b. Requirements for training scooters in use

All scooters used must fulfill at least all technical characteristics as defined in Part V „SCD CONSTRUCTION STANDARDS FOR UNDERWATER SCOOTERS" for class 2 rated scooters.

c. General Training limits

- Scooter use in open water only
- Within diver's certification limits (s. below)
- Within scooter's operational limits (depth and range); ref. to manufacturer's "User Manual for Operation"



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d. Training Environment / Gases / Limitations

Environment for training:	any suitable OW site, near shore!
Max. depth:	according to certification level of participants; max depths: CMAS 2star or equivalent: 30m nominal CMAS 3star or equivalent: 40m EAD or 50m nominal (regardless of mixture)
Gas for training:	air or any suitable EANx or Tmx mixture accord. to depth if students are certified accordingly
Max. O2 partial pressure:	1.40bar for bottom / 1.60bar for deco
Stage decompression:	stage decompression allowed; overall decompression stop time MUST NOT exceed 15 minutes

Entry assessment (only if deemed necessary)

An entry assessment can be utilized to verify that candidates fulfill all prerequisites with regard to theoretical knowledge, practical skills and physical performance. Candidate must successfully pass all assessment requirements before being accepted to course.

Aims and priorities of the training

- To reinforce the understanding of the 3 different types of scooters, their relevant technical characteristics, their intended range of operation and their limitations, as defined in Part V „SCD CONSTRUCTION STANDARDS FOR UNDERWATER SCOOTERS “.
- To provide a clear understanding of the basic functions of the scooter: mechanical, electrical and nautical
(e.g. buoyancy in fresh and sea water, trim, torque, steering)
- To provide a clear understanding of the basic scooter's maintenance
- Proper equipment set-up for efficient scooter diving.
- To provide a clear description of the scooter operation in open water (lake/sea) with advantages and limitations of the machine.
- Scooter dive planning for prolonged dives: scooter's burn time and gas planning.
- Pre-dive and post-dive operations
- Positioning in the water and recover of the scooter
- Correct trim and buoyancy while managing several scooters – diver's horizontal position -
- Proper use of the scooter during the descent, bottom time and ascent
- Correct finning technique with a deactivated scooter
- Team diving with scooters
- Emergency scenarios
- SMB Deploying
- Gas switching (use of stage tanks); extensively exercised*
- Positioning during decompression stages at various depths
- Awareness of the environment

Instructor : Students Ratio

Theory/classroom: 1:8 (one instructor for max. 8 students)

Practical: 1 instructor or instructor candidate : 4 students under normal or better conditions; must be reduced to 1:2 if situation is considerably worse

Requirements for instructors/assistants

- Responsible course director must be Scooter Diving Instructor I (on its own) or Scooter Diving Instructor I CANDIDATE under supervision of a delegated supervising instructor from SCD.
- Assistants must be TEC Scooter Assistants or TEC Scooter Assistant CANDIDATES.
- Equipment as requested under “Personal Equipment” for all staff



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Personal Equipment

Mandatory Equipment:

- All standard OW equipment for dives at CMAS 2star diver **or equivalent** level (especially buoyancy compensator, power-inflator, dive computer and compass, submersible pressure gauge !)
- Harness with the possibility of attaching stage tanks (max. 3 and with crotch-strap with front-strap D-ring)
- Min. one (1) double 10 liter tank set / 200 bar), EITHER completely independent tanks (back-mount or sidemount) OR backmount with manifold connection WITH an isolator valve
- Each carry-on tank in use (whether mono or double) MUST carry a separate submersible pressure gauge
- Two (2) independent regulator rigs
- One (1) primary long hose with a min. length of 2.10m and a max. length of **2.40m (7-8 feet)**

- Two (2) additional stage tanks per student with a min. volume of 7liters (recommended are 80cft aluminum tanks)
- Each student has to bring his/her own Class 2 rated scooter (tow-behind style only!)
- One (1) deployable surface marker buoy (SMB)

Recommended (suggested) Equipment:

nothing special

Final Knowledge (Theory) Evaluation

Theoretical knowledge will be evaluated with one single, written test, consisting of **15 MC questions + 5 Open Text questions + 5 Calculations** (deco, SAC rates, etc.) on the main topics as listed under "aims and priorities of the training".

In order to pass, the student must have a scoring of at least 80% of the maximum score.

Final Skills Evaluation

Continuing and permanent evaluation based on standardized exercises. Min. passing score is C (on scale of A – E).

Minimum Course Duration and Structure

- Minimum of 2.5 days
- Theory/Classroom: 4.0 hrs
- Dives: Minimum 4 dives with a minimum of 180 min. total duration. Two of the dives must include (simulated) decompression stops
Not more than 2 dives per day; dives with max. depth of 9m or less do not account for
Max. depth according to planned skills exercises and open water diver certification level of students.
- Depth Limits: ref. to Course Prerequisites & requirements / d. Training Environment / Gases / Limitations
- Breathing Gases: ref. to Course Prerequisites & requirements / d. Training Environment / Gases / Limitations
- Decompression: ref. to Course Prerequisites & requirements / d. Training Environment / Gases / Limitations

Course fees

Refer to the yearly training course schedule overview on the Swiss Cave Diving website.

Course dates

By arrangement; course will be held with at least 2 participants.

All actual course dates the yearly training course schedule overview on the Swiss Cave Diving website.



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Certification

- SCD double-sided C-card
- Wall certificate in A4 format

Insurance

Is in the personal responsibility of each participant.

Quality Control

Compliant with SCD Standards and the relevant procedures.



Additional information: www.swiss-cave-diving.ch or Beat Müller: bmueller@bluewin.ch