



Scooter Diver I (Recreational, 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:

- a) to further enhance the divers competence and diving range with the use of underwater scooters (diver propulsion vehicles, DPV).
- b) to learn how to correctly prepare, maintain and use class 1 scooters
- c) to handle and correctly and safely use the scooter during
 - Extended bottom time
 - Extended distance range
 - Position of the scooter during safety stop
 - Towing buddies and scooters in case of engine failures
 - Towing the buddy in OOG situation to the entry point when the gas reserve is sufficient
 - Swimming back to entry/exit against a current
 - Technical trouble shooting underwater (flooding, failure, runaway)

Course Classification

The Scooter Diver I Course is a BASIC and purely RECreational specialty diving course for scooter divers and for use in open water only, with sport diver equipment and with at least class 1 (or higher) rated scooters.

Course Prerequisites and Requirements

a. Prerequisites for students (for course admission)

Age:	16 years
OW-certificate:	Advanced Open Water Diver (CMAS 2star Diver or equivalent; fulfilling EN 14153-2)
Number of previous OW-dives:	25 after certification as a CMAS 2star diver (or equivalent) of which 5 must have been made within 2 months prior to course
Other mandatory prerequisites:	valid medical attest (fitness for diving), not older than SCD rules or national legislation require (max. 1 year)
Other <i>recommended</i> certificates:	<ul style="list-style-type: none">- CMAS Nitrox Diver or equivalent- SCD Stage Tank Handling Course or equivalent
Further requirements:	<ul style="list-style-type: none">- Equipment as requested under "Personal equipment 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 1 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"

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 nominal



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Gas for training:	air or any suitable Ntx mixture accord. to depth, if students are certified accordingly; no Tmx!
Max. O2 partial pressure:	1.40bar for bottom / 1.60bar for deco
Stage decompression req.:	all dives to be carried out within NDL; no true stage decompression allowed; simulated deco stops only. However, a safety stop at end of every dive is strongly recommended.

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 provide a basic 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 (i.e. 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 : 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 the scooter – diver's horizontal position -
- Proper use of the scooter during the descent and ascent
- Correct fining technique with a deactivated scooter
- Team diving with scooters
- Emergency scenarios :
- SMB Deploying (*suggested*)
- Awareness of the environment

Instructor : Students Ratio

Theory/classroom: 1:8 (1 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 Recreational Scooter Assistants or Recreational Scooter Assistant CANDIDATES.
- Equipment as requested under “Personal Equipment” for all staff

Personal Equipment

Mandatory Equipment:

- All standard OW equipment for dives at CMAS 2star open water diver level (especially buoyancy compensator, power-inflator, dive computer and compass, submersible pressure gauge !)
- Min. one (1) single 10 liter tank / 200 bar with two (2) separate outlets (however, one (1) double 7 liter tank set is more recommendable)
If double tanks are used: EITHER completely independent tanks (backmount or sidemount) OR backmount with manifold connection WITH an isolator valve



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- 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 2.1m and a max. length of 2.4m (7-8 feet)
- Harness and crotch-strap with front-strap D-ring
- One (1) Class 1 (or higher) scooter (may be rented); tow behind style strongly suggested.

Recommended (suggested) Equipment:

- One (1) deployable surface marker buoy (SMB)

Final Knowledge (Theory) Evaluation

Theoretical knowledge will be evaluated with one single, written test, consisting of **15 MC questions + 5 Calculations** (tables, SAC rates, etc.) on 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
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: ref. to the yearly training course schedule overview on the Swiss Cave Diving website.

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: btmueller@bluwin.ch

