

## **PROTEC 2\*\* DIVER**

PROTEC SCUBA DIVER 2

(Silver Degree, CMAS\*\*, Advanced Open Water Diver)

### **Intention of this course**

The Intention of this course is to check the advanced skills of an scuba diver 1\* after sufficient diving practice, to extend these skills and to confirm them accordingly in case of success.

Instruction by ProTec 2\*\* Instructor.

### **Training environment**

Any open water, safe for scuba diving.

### **Prerequisites**

A very good physical condition and fitness likewise very good diving skills plus sufficient skill in the most important specialities such as night, navigation, current diving, boat diving and (simple) rescue diving - that should be proved through

- A medical statement
- A certification of scuba 1\* diver
- 50 confirmation of TG practice.
- The minimum age is 16 years.

### **Accomplishment**

Time and distance diving test (or Apnoe 2 certification) after the theoretical test, then pool equipment skills test and finally OW final test. In contrast to scuba diver 1\* course where the training and the structure of diving basic skills are in the first place, the emphasis in scuba diver 2\*\* is on extending and testing the advanced skills and to work more on details and to get rid of mistakes.

- The necessary special skills (see prerequisites) can be gained either by self study or in the special courses (see specialities).
- Any sign of N2 narcosis has to be reported to the student and the concerned diver has to be escorted immediately with help to less depth.
- Repeat all the dives that are not correctly ended until the result in all the requirements is correct or draw the student out of the course.
- Do not tolerate excessively air consumption (in relation to the body size and situation).
- No obligatory “course –enforce”!
- 

There is a checklist for every ProTec course, where all important skills and exercises are listed. The ProTec Instructor has to use this list absolute. When finished, the duly signed original has to be handed to the student, while a copy have to remain over 5 years at the instructors records for quality assurance.

### **Theoretical lessons**

General recap and extension of scuba diver 1\* knowledge.

- Diving physic: Pressure laws, partial pressure O<sub>2</sub>, N<sub>2</sub>, temperatures and their effect, regulator freezing up (causes, effects and countermeasures)
- Diving medicine: Rebreathing, Oxygen reception, hyper- ventilation, black – outs, under cooling, bends, decompression, dehydration, behavior after deco – TG (no sport/efforts)
- Diving techniques: Dive equipment - regulator, tank & valves, lifting bags, buoys, advanced swimming and diving techniques; navigation, deco table for multi level dives, deco- dives, altitude diving, night diving, boat diving.
- Security: Danger through over estimation of one’s abilities, current diving, to be hanged (fishing lines, nets), cavern and overhangs, marine life, ships (danger and the correct behavior), self and buddy help - possibilities and danger.

### **Practical training**

#### **Pool**

- Diving time Apnoea 60 sec
- Distance diving ABC about 40 m
- Gear UW off, take off the mask, UW 12 meter swimming, gear on, then put on the mask
- Distance diving 25 meter without mask with buddy breathing

## **OW**

- On the surface: Gear on and off, check the behavior (for example; venting BCD, portable mask), snorkel with equipments about 200 m,
- Gear off at 8 msw deep, emergency ascent, then free descending and gear on
- The best buoyancy control, as exercise:  
Descend to 5 msw, than take 30 sec. to get right bouyancy – stay there floating for 2 minutes without movement of fins / hands and without further BCD- adjustments - remain in the same level ( +/-0,5m) just with breathing control
- Air Consumption & Movement Technique  
Check the calculated values on a dive at 20 msw.
- Rescue diving – solving problems & self rescue, diver rescue & transport on surface, supply (simple version)
- 40 msw Deep Diving - check the N2 - anesthesia effect - solve calculation example (max. 1 min. UW “work”).
- Navigation Exercise with compass in the depth of 6 – 10 msw, as night dive (triangle...).
- Some dives / exercises can be done together.

### **Attention:**

The deep dives (20 to max. 40 msw) have to be set up slowly and be accomplished under control. The divers who show any signs of loss of control (N2- anesthesia) has to be guided to less depth immediately and is allowed to dive deeper just after sufficient and gradual depth training, step by step.

### **Remark:**

Diving and breathing UW without mask same as UW gear off and on are just good anti-stress exercises (for saftey this type of exercises are strictly excluded while diving deeper than 10msw)

<h2><b>Courseware</b></h2>
----------------------------

Visit ProTec members area for any material / price list.

- Checklist Pool

- Checklist Open Water