

Submatix SMS Extended Range LEVEL II

- A) Course:** Closed Circuit Rebreather "Extended Range" Diver Level II
- B) Course objective:** This course is designed to provide experience and training with the Submatix SMS for either:
- Option A:**
CCR II Extended Range (Air) Diver – This course provides the opportunity to safely learn the techniques and theory for CCR decompression dives with air diluent to a maximum depth of 50m
- Option B:**
CCR II Extended Range (Normoxic Trimix) Diver – This course provides the opportunity to safely learn the techniques and theory for CCR decompression dives with air and normoxic Trimix diluent to a maximum depth of 50m and 60m respectively
- C) Pre-requisites:** minimum 18 years of age, certification as an IART CCR I Diver or equivalent, proof of a minimum of 50 hours diving the Submatix SMS and a valid diving medical
- D) Course content/duration:**
- Option A** - All theoretical and practical aspects of deep (air diluent) and decompression diving. The classroom sessions explain the physical and physiological hazards of deep diving, the decompression planning, equipment considerations for deep diving, the need of bail-out gas, and all procedures involved. An important point is dive planning using computer-based dive tables such as Z-Plan, Proplanner, etc. The practical part of the course includes 4 dives over at least 3 days with a minimum accumulated dive time of 180 minutes. The instructor-to-student ratio is 1:2.
- Option B** – Covers all aspects of option A with additional normoxic Trimix theory and 2 normoxic Trimix dives. In total 6 dives over at least 5 days with a minimum accumulated dive time of 300 minutes. The instructor-to-student ratio is 1:2.
- E) Support material:** IART CCR Level II manual, NOAA O₂-exposure tables, standard air decompression tables. Computer-based dive tables such as Z-Plan, ProPlanner, etc., flash-cards, Instructor manual and Instructor presentation materials.
- F) Required equipment:** Complete diving equipment, separate bail-out cylinder, lift bag, safety reel, knife or tool, decompression table, slate, depth gauge and bottom timer or computer. The rebreather should be equipped with an oxygen bail-out second stage.
- G) Limits:** The maximum depths during training are: Air 50m and normoxic Trimix 60m. At least 3 dives should be conducted at a minimum of 40m depth and require a decompression stage. Maximum decompression requirements during training should not exceed 5 minutes at 3 metres for option A and 20 minutes for option B normoxic Trimix dives.
- H) Practical skills:** The dives should include the proper planning, including calculation of dive profile, gas analysing and labelling, equipment familiarization (Stage bottle removal/replacement, oxygen bail-out regulator use), emergency and out-of-air procedures (gas sharing, rescue ascent, etc.), ascent reel and lift bag deployment, and proper decompression techniques.

IART Standards & Procedures

- I) **Certification requirements:** The student must satisfactorily complete a written exam. Once training requirements are met at the Instructor's discretion, it is necessary to submit an application in order to obtain the corresponding IART certification card. In accordance with IART quality control, the student and Instructor are required to fill in the training protocol form. The instructor must retain this form with the student file.
- J) **Certification:** IART HQ
- K) **Certification Renewal:** n/a