

SEMI-CLOSED REBREATHER NITROX



AZIMUTH

INFORMATION MANUAL
English version transcribed by

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**Conforming to 89/686/CEE
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INTRODUCTION

AZIMUTH has gone through tests before being commercially produced proving to be fully reliable, exceeding all expectations in all working conditions.

The absence of complicated and unreliable moving parts and the ease of maintenance make this breathing apparatus simple, sturdy and reliable in any dive setting.

As it is produced utilising the latest-technology materials, the most innovative working processes and being thoroughly inspected and tested. It represents the state of art in NITROX mixture breathing apparatus.

SPECIFICATIONS

The main features of AZIMUTH model are:

- 1) The shield, which allows a balanced trim in any position, comes from precise studies on the positioning of all the components for an optimum weight distribution.
- 2) Maximum breathing smoothness due to extra wide gas passages and to the optimal volume of the breathing bags.
- 3) High capacity filter (radial type) in order to ensure the total absorption of carbon dioxide produced by the breathing.
- 4) Non-magnetic high capacity aluminium alloy cylinders (4 l, 200 bars).
- 5) The multifunction dosing group for distribution of the gas mixture.
- 6) Ease of maintenance and filling of both filter and cylinders; it will take only few minutes to make the breathing apparatus ready for further use.
- 7) Emergency demand regulator for effective redundancy.



Recycleur à circuit semi-fermé AZIMUTH

TECHNICAL DATA

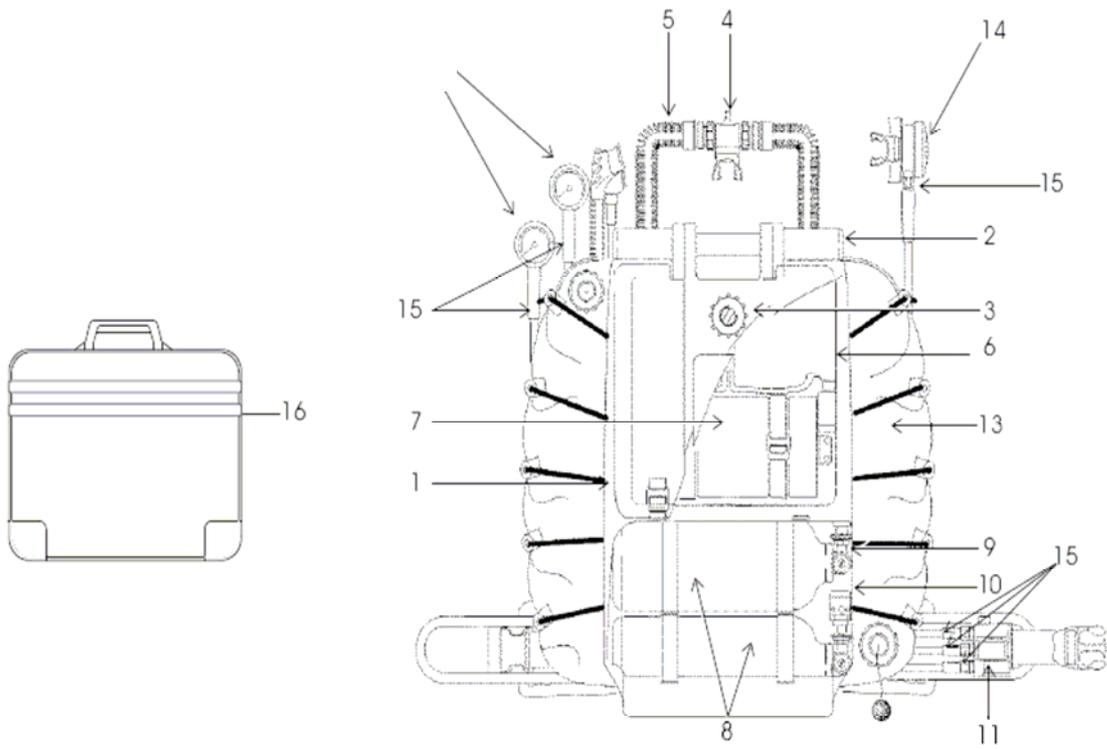
Part n°:	200-001.04
Working principles	Semi-closed cyclical circuit Open in emergencies
Specifications of the gas	Mixture of Oxygen / Nitrogen (Nitrox)
Cylinder:	
Capacity	2 x 4 litres
Maximum pressure	200 bars
Breathing bag	2 x 6,2 litres
Purifying material	Soda lime
Soda lime canister capacity	2,35 kg
Dive time duration	About 5 hours
Operating temperature	- 1° C + 35° C
Maximum buoyancy GAV	30 kg
Dive time duration	> 2 hours 30 with Nitrox 40%
Maximum operating depth	40 m with Nitrox 32%
Weight ready to use	25 kg in air, neutral in sea water
Constant flow regulation	From 5,1 et 15,6 l/min (Nitrox 32 à 60%)



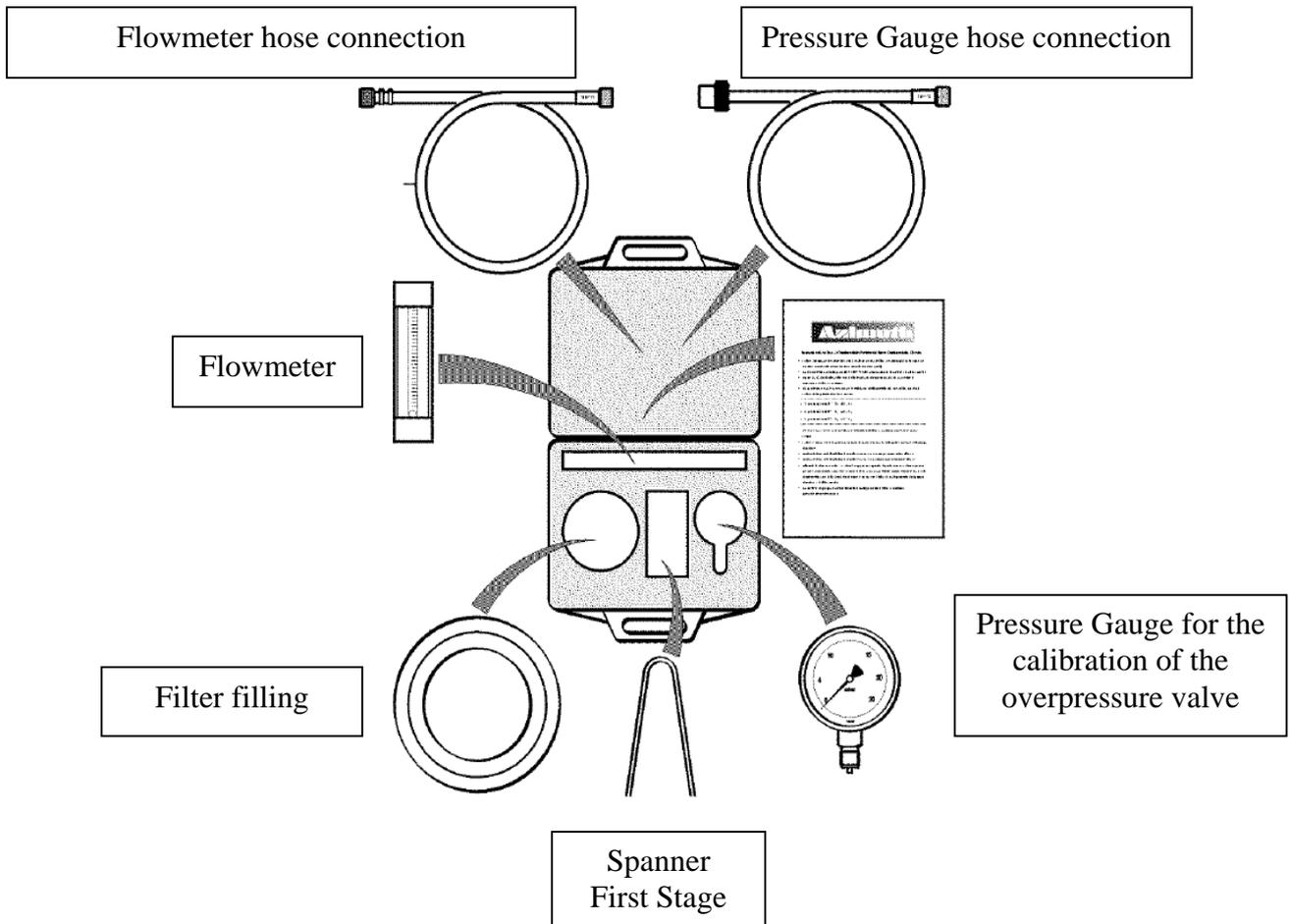
DESCRIPTION

CONFIGURATION OF EQUIPMENT (see following figure)

- 1) Rigid self-supporting shield made of a polyethylene shell, which contains all the components of the apparatus and a shutter, which protects the components leaving partially uncovered only the cylinders.
- 2) The ballast placed in the upper part of the shield in order to counterbalance the positive buoyancy of the breathing bags and to ensure the best trim to the diver.
- 3) Pressure relief valve, which enables to control the gas flow pressure in excess.
- 4) Four-way valve equipped with the mouthpiece connected to the filter by means of corrugated hoses.
- 5) Two corrugated hoses equipped with attachments connect the hose connectors to the four-way valve; in the upper part, they contain a non-return valve, which makes the gas to flow, in the corrugated hoses/filter circuit, only in counter-clock wise direction.
- 6) 2 breathing bags equipped with attachments made up of a shaped semi-transparent polyurethane sheet, high frequency welded and containing an anti-collapse spiral.
- 7) Filter made of a metal drum inserted in a metal hollow cylinder, which contains the soda lime necessary to absorb the carbon dioxide produced during the breathing process.
- 8) 2 cylinders mounted one above the other inside the shell.
- 9) 2 shut-off valves relevant to the gas flow between the cylinder and the pressure reducer.
- 10) 2 pressure reducer or 1st stage regulator in order to reduce the pressure level from the cylinder to the emergency regulator and the dosing group.
- 11) Dosing group equipped with by-pass valve regulates the quantity and the gas pressure, which goes into the inhalation breathing gas.
- 12) 2 pressure gauges one for each cylinder in order to control the gas pressure, which goes into the inhalation-breathing bag.
- 13) The jacket equipped with buoyancy compensator enable the diver to keep the apparatus tight to the body and change the trim in water.
- 14) Emergency regulator used in case of emergency when the semi-closed circuit is malfunctioning.
- 15) Hoses relevant to low pressure for the outler mixture of the pressure reducers and high pressure for the gauges.
- 16) Metering and first stage maintenance Kit.



CALIBRATION SET



METERING OPTIONS

The rebreather AZIMUTH has a dosing group and a continuous metering of the flow. This fact it can use all types of NITROX included between 32 and 60% of oxygen.

Depending on the mixture available it is possible to calculate the maximum operating diving depth and its relative autonomy.

The table below allows to plan max depth and time of immersion.

Mixture	L/min	Max Depth(1,4 bar)	Max Depth attainable (1,6 bar)
Nitrox 32	15,6	33m	40m
Nitrox 33	14,5	32m	38m
Nitrox 34	13,5	31m	37m
Nitrox 35	12,7	30m	35m
Nitrox 36	11,9	28m	34m
Nitrox 37	11,3	27m	33m
Nitrox 38	10,7	26m	32m
Nitrox 39	10,1	25m	31m
Nitrox 40	9,6	25m	30m
Nitrox 41	9,2	24m	29m
Nitrox 42	8,8	23m	28m
Nitrox 43	8,4	22m	27m
Nitrox 44	8,1	21m	26m
Nitrox 45	7,8	21m	25m
Nitrox 46	7,5	20m	24m
Nitrox 47	7,2	19m	24m
Nitrox 48	7,0	19m	23m
Nitrox 49	6,8	18m	22m
Nitrox 50	6,6	18m	22m
Nitrox 51	6,4	17m	21m
Nitrox 52	6,2	16m	20m
Nitrox 53	6,0	16m	20m
Nitrox 54	5,8	15m	19m
Nitrox 55	5,6	15m	19m
Nitrox 56	5,5	15m	18m
Nitrox 57	5,3	14m	18m
Nitrox 58	5,2	14m	17m
Nitrox 59	5,1	13m	17m
Nitrox 60	5,1	13m	16m