



# OCEAN 60 NR

USER MANUAL

**COLTRI SUB**<sup>®</sup>  
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## **PRECAUTIONS**

**WARNING:** you should use the regulator only after you have passed a diving training centre that authorized to issue diving certificates. To use the regulator properly, the following precautions must be taken.

- The regulator must be used in strict compliance with the instructions set out in this manual.
- The regulator must be used only for the purposes indicated in this manual.
- The regulator must be serviced and repaired only by approved service centres at the regular intervals specified in the warranty. In order to ensure operating efficiency, use only manufacturer-approved spare parts.
- If the above conditions are not complied with the responsibility for any faults lies with the owner or user of the regulator.

## **APPLICATIONS**

All regulators of Aerotecnica Coltri® S.p.A. have two stages. The first stage uses a piston or a diaphragm and the second one uses an inlet valve. The first stage is connected to the second stage by a low-pressure hose. In two-stage regulators the high-pressure air in the cylinders is reduced in the first stage to about 10 Bar above ambient pressure. Ambient pressure varies according to diving depth. The air that reaches the second stage is immediately available to the inlet valve but is supplied only when the diver breathes slightly.

**WARNING:** the regulator that are the subject on this manual is certified for use in dives down to a maximum depth of 50 metres.

## **PRELIMINARY CHECKS**

Before each dive, check all the regulator functions and check the parts of wear. If faults are found, do not use the regulator but get it checked by an approved service centre. Connect the first stage of the regulator to the cylinder using the fitting system that is appropriate for the cylinder valve: a standard yoke assembly or a DIN screw connector for the cylinders using a DIN valve. With yoke assembled, the O-ring seal is positioned on the cylinder's valve. With a DIN connector the O-ring seal is positioned at the end of the connecting system. Check the O-ring for wear and replace it if necessary.

## **USE**

Before opening the cylinder valve, try to breathe in through the second stage mouthpiece. If it is impossible to do so the inlet valve and the exhaust diaphragms are working correctly. If leaks occur, do not dive and contact a specialised service centre. Slowly open the cylinder valve and try to breath in through the mouthpiece of the second stage, press the exhaust button of the middle of the cover of the second stage. The regulator must regain its balance without leaks. Any air leaks mean that the regulator is not working correctly and must be repaired.

**WARNING:** EN 250/A1:2006 : The regulator complies with the standard EN250 but is not designed for more than one user simultaneously. If the regulator is configured and used by more than one user at the same time, its water and breathing performances might not be compliant with the requirements of the standard EN250.

## **COLD WATER DIVING**

Avoid using the regulator in water below + 10° C. You must also have been awarded a certificate in cold-water diving before using the regulator. If the regulator is used in water below 0° C do not use the regulator out of the water.

## **MAINTENANCE**

All regulators of Aerotecnica Coltri® S.p.A. are made from material that is suitable for use in seawater and each parts is protected from oxidation and has been approved for continuous use over many years. The regulators should nevertheless be tested every year at specialist centre.

## **CLEANING**

After use, use the air left in the cylinder to dry the protective cap, to prevent water entering in the first stage. Protect the sintered filter by covering it with the protective cap and rinse out the regulator with fresh water (not under pressure).

**WARNING:** during rising, do not press the manuale purge bottom of the second stage to prevent water from entering through the inlet valve. Leave the regulator to dry in a dry place but do not expose to direct sunlight. Place it in a temperature that is protected from high temperatures and make sure that the low-pressure hose that connects the first stage to the second stage uses a curve radius of at least 150 mm.

## **LUBRICATION**

Only the O-rings require occasional lubrication. They must be lubricated with silicone oil and greases.

**WARNING:** under no circumstances use normal (non-silicone) oils because they could damage the regulator parts. Do not use silicone lubricants for silicone parts (diaphragm, mouthpiece, valve seat plug) because such lubricants would cause irreparable damage.

Do not use alcohol or solvents to clean plastic or rubber components.

## Ocean 60 NR 1st stage

### TECHNICAL FEATURES

CERTIFIED CE EN 250 2000

**Type :** Balanced diaphragm.

**Materials :**

**Body :** Drawn brass copper plated, nickel-plated, chromium plated.

**Yoke :** Drawn forging brass, nickel-plated, chromium plated.

**Diaphragm :** Rubber

**Spring :** Stainless steel.

**Plating treatment :**

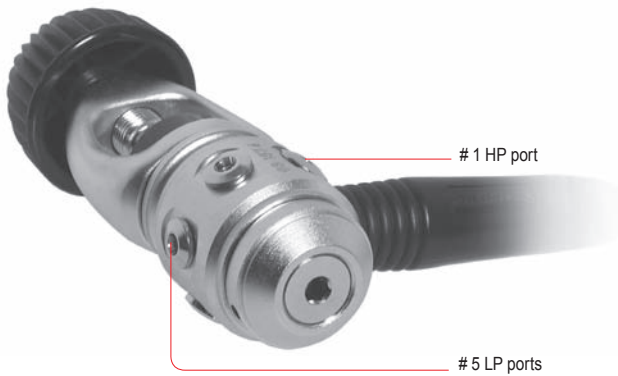
Chrome plated.

**Weight without hose :**

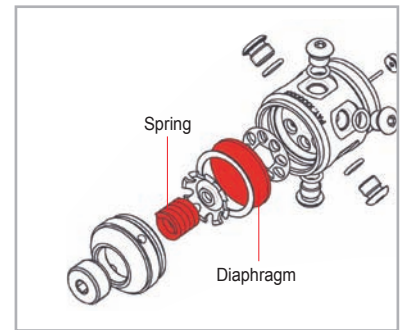
INT 230 Bar 772 gr

DIN 230 Bar 588 gr

**Ports :** 1 HP, 5 LP



1st stage with DIN 230 Bar type.



## Ocean 60 NR 2nd stage

### TECHNICAL FEATURES

CERTIFIED CE EN 250 2000

**Materials :**

**Body :** High resistance Polycarbonate.

**Diaphragm :** Silicone

**Control lever :** Stainless-steel.

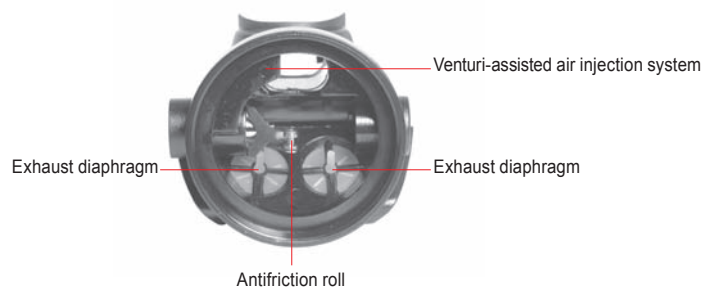
**Exhaust diaphragms :** Silicone.

**Mouthpiece :** Silicone

**Spring :** Stainless-steel.

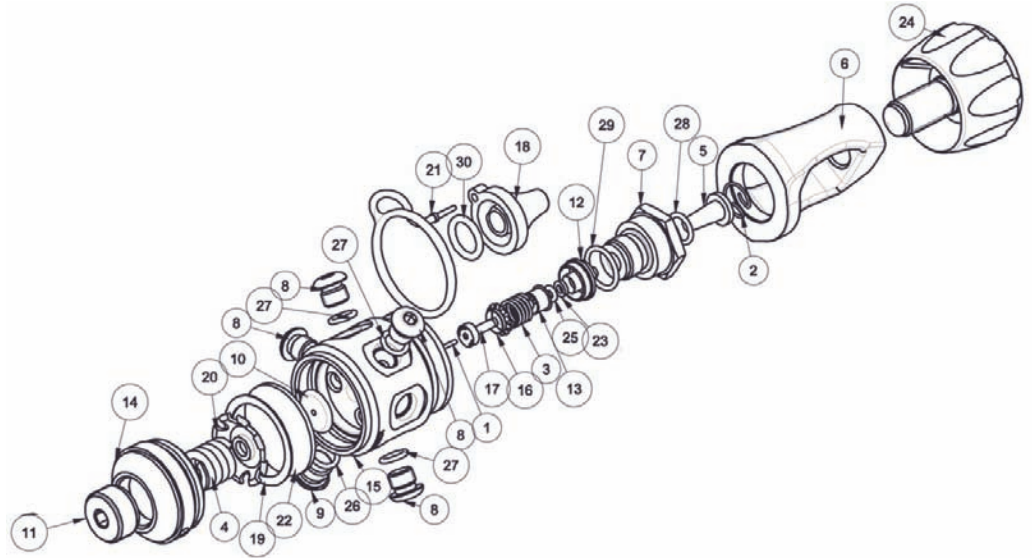
**Hose length :** 28.7"

**Weight without hose :** 186 gr



## Ocean 60 NR 1st stage

- 1 - Slide bar D.25031
- 2 - Clips holder filter
- 3 - Return spring piston
- 4 - Adjusting spring
- 5 - INT conical filter
- 6 - INT Yoke
- 7 - Yoke stop
- 8 - LP 3/8 plug
- 9 - HP 7/16 plug
- 10 - Washer
- 11 - Ring diaphragm for regulation
- 12 - Balancing chamber
- 13 - Locking O-ring
- 14 - 1 stage plug
- 15 - Body MF1
- 16 - Pilot boss
- 17 - Poppet
- 18 - Plug holder INT
- 19 - Diaphragm washer hold
- 20 - Ring nut
- 21 - Ring holder
- 22 - Diaphragm
- 23 - BK Anties diaphragm
- 24 - Wing nut
- 25 - OR. 2012 70-75 SH Ø 2.9xØ 1.78
- 26 - OR. 108 70 SH Ø 8.73xØ 1.78
- 27 - O.R. 2031 Ø 7.66xØ 1.78 70 SH
- 28 - O.R. 2037 70 SH Ø 9.25xØ 1.78
- 29 - O.R. 2056 70 SH Ø 14xØ 1.78
- 30 - O.R. 3050 90 SH Ø 12.37xØ 2.62



## Ocean 60 NR 2nd stage

- 10 - Manual regulation system
- 11 - Conical spring
- 12 - Chamber
- 13 - Nylon ring
- 14 - Silicone diaphragm
- 15 - Body
- 16 - Exhaust valve
- 17 - Silicone mouthpiece
- 18 - Nylon clam
- 19 - Hose-connector
- 19/a - Metering orifice
- 20 - O Ring
- 21 - Silicone shaft pad
- 22 - Valve seat
- 23 - Nut shaft
- 24 - Spacing bar
- 25 - Washer shaft
- 26 - Shaft
- 27 - Spring shaft
- 28 - Control lever valve
- 28/a - Needle for lever
- 50 - Hose
- 52 - O-ring hose connector

