

Technical Characteristics for the Neptune Space and Neptune II NIRA

ADAPTABILITY - The patented bellows-type skirt with a "spring profile" and large sealing surface (30-45 mm, double that of a conventional mask) is molded of premium grade silicone rubber. The spring effect is achieved by a combination of the double "S" section and the inner support ribs, resulting in a comfortable fit and ample support. This allows the mask to "float" comfortably on the face. The face seal and strap concepts are OCEAN REEF patents.

VISUAL FIELD - The visor, made of transparent polycarbonate, is designed to be wider and sit closer the face than previous full face masks. This design maximizes the visual field, particularly the peripheral area. The visible light transfer of the visor is 92%.

DURABILITY AND SCRATCHING RESISTANCE - The visor of the Neptune Space can resist the impact of a 6.35 mm steel ball traveling at speeds of 540 km/hour (335 mi/hour). The visor is coated on both sides with a siloxane resin to increase the scratching resistance. For added protection during transport, the Neptune Space comes with a removable protective shield (to be removed before diving).

THE HEAD HARNESS AND FRB II - The head harness straps are directly attached to the face shield, allowing pressure to be distributed equally along the mask skirt. The six straps of the head harness hold the mask in a firm position due to their low elasticity. The tip of each strap is wider, making them easier to grasp while wearing neoprene gloves. The FRB II (Fast Rotating Buckle) allows the mask to be donned and doffed quickly.

AIR CIRCULATION - The Neptune Space air circulation system is designed to minimize fogging and reduce the amount of CO and CO₂ build-up. The silicone oral-nasal pocket is built with two one-way valves through which air is inhaled. Exhaled air is directed through a valve under the oral-nasal pocket, limiting the mixing of this air (containing high amounts of CO₂) with the fresh air from the regulator. The direction of exhaled air is controlled by a four position exhaust valve. The adjustable valve allows exhaust to flow in four directions:

- A—to the left
- B—to the right
- C—both (direction of least resistance)
- D—no exhaust

Position D, the "off" position is used when the diver is in a "head-down" position which, due to pressure on the second stage, causes the regulator to free flow. Placing the exhaust valve in the off position causes pressure to build in the mask, preventing free flow and returning the system to an "air on demand" situation.

DRAINING AND PRESSURE EQUALIZATION - Water that may seep into the mask is easily eliminated by exhaling or pushing the "purge" button on the second stage. Mask squeeze, a common problem for conventional masks, will not occur with the Neptune Space because the pressure inside the mask is equal to the pressure outside the mask.

THE 3-D EQUALIZATION SYSTEM - The patented OCEAN REEF 3-D equalization system is designed to allow equalization during a dive. The system consists of a movable plate and two eccentric blocks; these blocks move close to the nostrils when the upper part of the visor is pressed. The blocks plug the diver's nose allowing equalization. Before donning the mask, the blocks may be moved up or down depending on the length of the diver's nose. They may also be adjusted to fit wide or narrow noses. The system also includes extenders which allow the distance between the blocks and the nose to be modified to accommodate the diver's face. The 3-D equalization system makes diving more comfortable and inhibits any undesired pressure during a dive.

REGULATOR CHARACTERISTICS - The pneumatically balanced second stage provides consistent ease of breath at any tank pressure. An inhalation adjustment feature allows the diver to control air delivery under a variety of diving conditions. The Dive/Pre-dive venturi lever reduces free flow on the surface and provides maximum air flow while at depth.

The purge button, made by premium grade silicone rubber, has a temperature range of operations between -40°C and 70°C (-40°F and 158°F). The purge button protection bezel is made of a high impact-resistant double metal/coated techno polymer.

USE OF CONVENTIONAL REGULATORS - A special adaptor allows the connection of several kinds of regulators. The adaptor is available in two sizes, medium (standard) and small. This adaptor fits in place of the surface air valve. (code 33020: S, code 33021: M)

Another adaptor, which does not require removal of the surface air valve, is available upon request. (code 33073)

USE OF OVER-INJECTED REGULATORS - Over injected regulators have a diaphragm with an inhalation cracking pressure below zero. These regulators "free flow" easily, and as a result, should not be used with the Neptune Space or other Neptune masks.