

## Summit Elite System



Summit Elite System shown with a small size facemask, identified by the blue oxygen delivery hose

### System Overview

The Summit Elite System has been designed for the experienced high altitude mountaineer, guide and Sherpa. The difference between the Elite System and the Standard System is the inclusion of a flow selector, mounted on the shoulder, which gives the climber much improved access to flow control.

It consists of the following main components:

- Himalayan Summit 4-ltr Oxygen Cylinder
- Himalayan Regulator  
(Two flow ranges available - upto 4-lpm and upto 6-lpm)
- Himalayan Facemask  
(Three mask sizes (small, medium and large) and two reservoir volumes (100ml and 200ml) available)

## Summit Elite System - In Detail

### Himalayan Summit Oxygen Cylinder



Himalayan Summit 4-ltr  
Oxygen Cylinder

Summit Oxygens Himalayan Summit oxygen cylinder is the lightest oxygen cylinder in the world with a working pressure of 300bar. The cylinder has a 20year design life and can be refilled 5000 times.

We are the only company that fills our cylinders from a source of liquid oxygen. The reason for using a liquid oxygen source is because it gives us total control over the moisture content of the gas. It also allows us to guarantee the purity of the oxygen.

The cylinder valve comes with a protective aluminium cap which prevents the ingress of dirt and other contaminants into the valve. There is also an attachment point around the neck of the cylinder to assist with securing the cylinder to the mountain when stored.

A full list of the cylinder specifications can be seen in the table below.

### Himalayan Summit Oxygen Cylinder Specifications

Cylinder Capacity	Working Pressure	Litres of Oxygen	Cylinder Weight	Weight of Oxygen	Weight of Valve	Total Weight	Length (mm)	Diameter (mm)
4-ltr	300bar	1200	2200g	1600g	110g	3910g	567	110

## Himalayan Elite Facemask



Himalayan Facemask showing oxygen reservoir, 'snood' protecting exhalation valve and protective cover for inhalation valve.



Himalayan Elite Facemask with 200ml oxygen reservoir.



Flow Indicator

**Introduction** - Summit Oxygens Himalayan Facemask is the culmination of several years of research and development. The result is a facemask that addresses the issues of using supplementary oxygen on the worlds highest mountains.

**Oxygen Reservoir** - The oxygen reservoir is a sleek and compact design conveniently mounted on the side of the facemask. This gives it good protection from accidental damage and also means the collected volume of oxygen is as close as possible to the mouth ready for the next inhalation.

**Inhalation Valve** - The inhalation valve is covered to prevent strong winds blowing straight onto the valve and deforming it. This also prevents the valve from becoming blocked by hoods and other face protection. The valve flap itself is balanced to open fractionally after the oxygen inlet valve ensuring oxygen is delivered to the lungs before atmospheric air.

**Exhalation Valve** - The exhalation valve is protected by a rubber 'snood' which is firmly attached to the front of the mask allowing climbers to break off any accumulated ice. The 'snood' also gives thermal protection to the exhalation valve preventing ice forming on the valve flap itself and instead forming on the 'snood' which can then be broken off.

**Flow Indicator** - Unimpeded oxygen flow is confirmed by the 'flow indicator' which gives a visual indication that oxygen is flowing correctly. It is manufactured in a hardened clear case and is very easy to read.

**Head Harness** - The head harness is manufactured from webbing with elastic straps and buckles for tensioning. There is also an elastic neck strap to keep the bottom of the facemask securely in place.

**Mask Sizes** - The Himalayan Facemask is available in three sizes, indicated by the colour of the oxygen delivery hose.

Small - Blue hose

Medium - Red hose

Large - Black hose

**Reservoir Volume** - The Himalayan Facemask is available with two different oxygen reservoir volumes.

100ml for flow rates unto 4-lpm

200ml for flow rates unto 6-lpm

Contact us for further information - [enquiries@summitoxygen.com](mailto:enquiries@summitoxygen.com)



Himalayan Elite Regulator fitted to a Himalayan Summit Oxygen Cylinder

## Himalayan Elite Regulator

The 'Elite' regulator is made up of two main components, the 'reducer' and the 'flow selector', joined together by a reinforced hose.

**Himalayan Reducer** - Summit Oxygens Himalayan Reducer is incredibly light weighing in at only 180g. The purpose of the reducer is to step the pressure of the cylinder down to a manageable level for supply to the shoulder mounted 'flow selector'.

**Flow Selector** - The 'flow selector' allows the climber to change the flow rate from their shoulder. This offers savings in oxygen consumption due to its easy access. The flow rate can be turned up during strenuous sections of a route then immediately turned down when the ground eases.

**Flow Rates** - There are two versions of the flow selector available with the following flow settings.

4-lpm - 0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0 & 4.0

6-lpm - 0, 0.5, 1.0, 2.0, 3.0, 4.0, 5.0 & 6.0

**Security** - The 'reducer' is permanently attached to the 'flow selector' by a reinforced silicone hose. This silicone hose is reinforced by a nylon braid that gives it the strength it needs to hold the pressure it contains. It also gives protection against tearing. The hose is further protected against abrasion by an outer sheath. The hose also contains a steel cable to ensure that the 'reducer' and 'flow selector' can't be separated.

The facemask can be disconnected from the flow selector by way of the bayonet fitting. This allows a nasal cannula to be attached for sleeping, if required.



Flow Selector