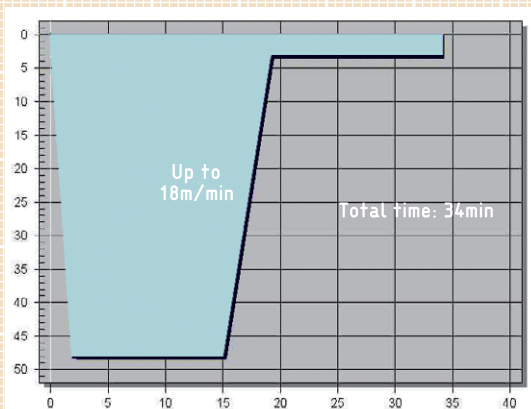# The SUUNTO deep stop RGBM algorithm

CLASSICAL HALDANE

Classical Haldane–type decompression calculation assumes that all gas is dissolved into the tissues, and remains dissolved as long as the maximum tissue tensions are not exceeded. Bubbles are assumed to form only when the ascent rate or the m–values are exceeded. As the pressure gradient is invertedly proportional to the surrounding pressure, the diver is brought as shallow as possible, as fast as possible, in order to maximise offgassing.

Doppler–studies however show, that microbubbles are present on all dives. Therefore the effects of free gas need also to be considered in decompression calculations.
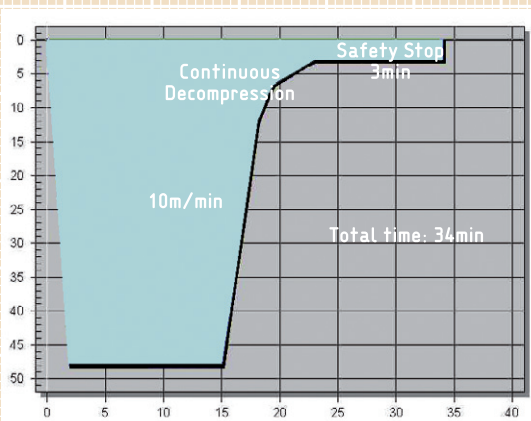
SUUNTO RGBM

The Suunto RGBM was designed to protect the recreational diver from the effects of micro–bubble build–up. It encorporates a bubble–factor based tracking system to adapt the decompression requirement based on conducted dive profiles. The maximum ascent rate is set to 10m/min. Continuous decompression provides maximum offgassing and a clean decompression curve. A 3min recommended safety stop is added to all dives deeper than 10m. Mandatory Safety stops are added to deal with adverse ascent rate violation. An extended surface interval is prompted when microbubbling is present.
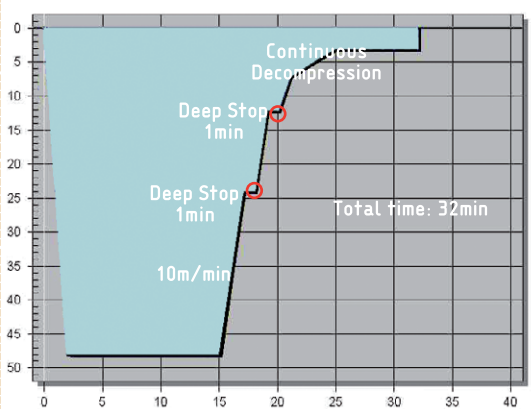
SUUNTO DEEP STOP RGBM

The Suunto Deep Stop RGBM algorithm increases microbubble suppression on deep dives even further by introducing iterative deep stops.

The first deep stop is placed at half the pressure difference between your maximum depth and the ceiling depth. Once the deep stop depth is attained, the next deep stop will again be introduced half–way to the ceiling, and so on. Once the ceiling depth is reached, continous decompression is employed for staging the end of the profile.

In the Suunto D9 and the Suunto Vytec DS the user can choose between the familiar Safety Stop providing Suunto RGBM, or the new Deep Stop RGBM.

SUUNTO