**Diving Equations**

**Working out amount of litres in a cylinder;**

**Cyl size x fill pressure**

**12ltr x 220bar =2640ltrs**

**Gas planning;**

**Surface air consumption (SAC) x depth in bar x duration in mins**

**25ltr per min\* x 35m (4.5) x 20mins = 2250ltrs**

**25 x 4.5 x 20 = 2250ltrs**

**\*use 25ltrs per min if you don’t know your rate**

 **Partial pressures;**

**Fraction of gas x pressure absolute**

**O2 in nitrox 32% (.32) x 35m depth in bar (4.5) = po2 1.44bar**

**.32 x 4.5 = 1.44**

**Max operating depth;**

**Partial pressure\* / fraction of o2**

**1.4 / nitrox 32% (.32) = max depth in bar 4.375 round down to 4.3bar (33m)**

**1.4 / .32 = 4.37bar (33m)**

**BSAC has a max po2 of 1.4 but it allows it to go to 1.44 for NO STOP DIVES using 32% and 36% give MOD of 35m and 30m respectively**