

# SURFACE AIR CONSUMPTION

## *Example Calculation*

Say you have a 12-liter tank with 200 bars in it.

That's 12 times 200, or 2,400 liters of usable air.

Let's say on your last dive your average depth was 10 metres, and you used 150 bars in 45 minutes.

So 12 liters times 150 bars means you used 1,800 liters of air, and 1,800 divided by 45 minutes means your rate was 40 liters a minute.

But you were 10 metres down, where the pressure is 2 atmospheres absolute (ATAs), so you need to halve that 40 liter-per-minute rate to determine that you were breathing the equivalent of 20 liters a minute at the surface; this is your SAC, or surface air consumption rate.

If you normally breathe 20 liters a minute, and you start a dive with 2,400 liters of air, then you've got 120 minutes' worth of air at the surface (2,400 divided by 20 equals 120). This will last you 60 minutes at 10 metres, where the pressure is twice what it is at the surface, but it will last only 30 minutes at 30 metres, where the pressure is four times what it is at the surface.