

## Surface Air Consumption Rate - PSI

15/5 Air	90	105	120	135	150	165	180	195	210	225	240	255	270	
Depth	ATA	Surface Air Consumption Rate - SAC Rate												
0	1.00	12	14	16	18	20	22	24	26	28	30	32	34	36
		Depth Compensation Rate - DCR												
10	1.30	15.6	18.2	20.8	23.4	26.0	28.6	31.2	33.8	36.4	39.0	41.6	44.2	46.8
20	1.60	19.2	22.4	25.6	28.8	32.0	35.2	38.4	41.6	44.8	48.0	51.2	54.4	57.6
30	1.91	22.9	26.7	30.6	34.4	38.2	42.0	45.8	50.0	53.3	57.3	61.1	64.9	68.8
40	2.21	26.5	30.9	35.4	39.8	44.2	48.6	53.0	57.5	61.9	66.3	70.7	75.1	79.6
50	2.52	30.1	35.1	40.1	45.2	50.2	55.2	60.2	65.3	70.3	75.3	80.3	85.3	90.4
60	2.82	33.8	39.5	45.1	50.8	56.4	62.0	67.7	73.3	79.0	84.6	90.2	95.9	101.5
70	3.12	37.4	43.7	49.9	56.2	62.4	68.7	74.9	81.1	87.4	93.6	99.8	106.8	112.3
80	3.42	41.0	47.9	54.7	61.6	68.4	75.2	82.1	88.9	95.8	102.6	109.4	116.3	123.1
90	3.73	44.8	52.2	59.7	67.1	74.6	82.1	89.5	97.0	104.4	111.9	119.4	126.5	134.3
100	4.03	48.4	56.4	64.5	72.5	80.6	88.7	96.7	104.8	112.8	120.9	129.0	137.0	145.1
110	4.33	51.9	60.6	69.3	77.9	86.6	95.3	103.9	112.6	121.2	129.9	138.6	147.2	155.9
120	4.64	55.7	65.0	74.2	83.5	92.8	102.1	111.4	120.6	129.9	139.2	148.5	157.8	167.0
130	4.94	59.3	69.2	79.0	88.9	98.8	108.7	118.6	128.4	138.3	148.2	158.1	168.0	177.8
140	5.24	62.9	73.4	83.8	94.3	104.8	115.3	125.8	136.2	146.7	157.2	167.7	178.2	188.6

**Depth** is in feet. **ATA** is the absolute pressure in atmospheres.

**SAC** rate and **DCR** are in psi per minute. **PPM** is psi per minute.

**Directions:** The 15/5 air is how many psi you will need for a 5 minute safety stop at 15 feet based on your **SAC** rate. Find the depth you were at or are planning for in the depth column and move horizontally to the right. Next find your **SAC** rate and move vertically down to where they both meet. This is your **DCR**, the amount of psi per minute needed at depth.

**Formulas:** To determine **SAC** rate, use the formula with information from your last dive. Use the average depth of the dive. Your **SAC** rate is how many **PPM** you will need at the surface. Next, convert depth to **ATA** and then figure out your **DCR** using the formula. Your **DCR** is how many **PPM** you will need at your planned depth. You can then take the total useable air and divide it into your **DCR** to find out how many minutes you have at your planned depth.

**SAC Rate Formula:**

$$\frac{\text{Air Used}}{\text{Time}} \div \frac{D + 33}{33} = \text{SAC Rate}$$

**ATA Formula:**

$$\frac{\text{Depth} + 33}{33} = \text{ATA}$$

**DCR Formula:**

$$\text{SAC} \times \text{ATA} = \text{DCR}$$

**OR**

$$\frac{\text{Depth} + 1}{33} = \text{ATA}$$