Calculation of Air Consumption

To convert depth to atmospheres:
Depth / $atm's + 1atm = ATA's$
Example:
66ft. $/33 = 2atm's$ (gauge) (+) 1(air) = 3ATA's
To calculate your Denth Consumption Rate:
$\frac{10 \text{ calculate your Depth Consumption Rate.}}{\text{PSL used / Time - Depth Consumption Rate (DCR)}$
$\frac{\mathbf{D}}{\mathbf{E}} = \mathbf{D} = \mathbf{D} + \mathbf{E} $
$\frac{\text{Example.}}{225 \text{ min} - 75 \text{ min} (\text{DCB})}$
ZZSPSI/S IIIII / SpSI/IIIII (DCK)
To calculate Surface Air Consumption rate:
DCR / atm s = Surface Air Consumption rate. (SCR)
Example:
75psi / 3atm = 25psi/min (SAC)
To Calculate air use for a future dive:
Sac Rate (X) $ATA's = DCR$ then
Pressure available $/ DCR = Est.$ bottom time.
Example:
$25\text{psi/min}(SAC) \times 3ATA's = 75\text{psi/min}(DCR)$
3000nsi / 75nsi = 40min Bottom time estimated
*There are many variables, which could and probably will effect the accuracy of this estimate
A I WAYS CHECK VOLD PRESSURE CALLER!
ALWAIS CHECK TOOK TRESSORE DAUGE:
Calculating Atmospheres from depth:
What is the number of atmospheres absolute $(ATA's)$ if a diversis in 122ft, of water
what is the number of atmospheres absolute (ATA s) if a diver is in 152it. of water.
What number of ATA's is 80ft.?
What number ATA's is if a diver is in 29ft?
Calculating DCR
• A diver is in 66ft of water and used 1800psi in 20minutes. What is his DCR?
A diver is in 132ft. of water and uses 2400psi in 12minutes. What is his DCR?
A diver is in 80ft. of water & uses 1600psi of air in 15 minutes. What is her DCR?
Air Consumption Problems
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What is SAC rate for a diver who uses 2400pci of air at 00ft in 20min 2
what is SAC rate for a diver who uses 2400psi of air at 99ft, in 20min.
What is the SAC rate for a diver who uses 1200psi in 10 minutes at 132ft.?
• What is the SAC rate for a diver who uses 800psi in 40psi at 33ft?
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