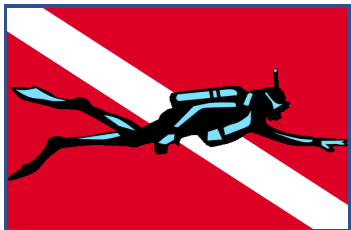


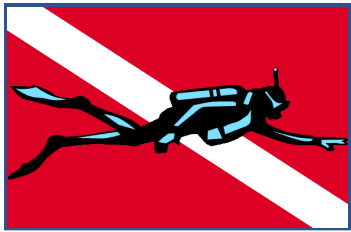
Buoyancy / Weight Management



Buoyancy Control



- **Benefits of Mastering Buoyancy:**
 - **Makes Dive More Relaxing and Enjoyable.**
 - **Saves Energy And Air – More Bottom Time!!**
 - **Essential for Photography – Even a GoPro.**
 - **Consistent Buoyancy Control is One of the Key Signs of Transition from a “New” Diver to an Experienced Diver.**



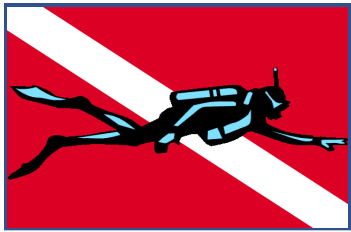
Buoyancy Calculations



Running Debate / Discussion on How Best to Calculate Weight Requirements:

- **Traditional:** Float at “Eye-Level” with no Air in BC While Holding Breath. Sink When you Exhale.
- **Base Calculation:** 7mm Wetsuit (Salt water)
10% of Weight + 3-5 lbs.
150 lbs= 15 + 4 = 19 lbs
- **Online Calculators.** Plethora with Options.....
- **More Recent:** Neutrally Buoyant at 15 ft Safety Stop with Empty BC with 500 lbs in Tank.
- **All Great Starting Points: But, Many Variables - New Equipment (BC/Wetsuit), Salt vs Fresh, Adding Items- Camera, Pony, Use of Trim Pockets, Etc**





PADI Peak Buoyancy Chart

TVSC

Basic Weighting Guidelines (Salt Water)

Exposure Suit Type

Swimsuit/dive skin
3 mm/1/16 in. one piece wet suit,
shorties, jump suits
5 mm/3/16 in. two piece wet suit
7 mm/1/4 in wet suit w/ hood & gloves
Neoprene dry suit
Shell dry suit, light undergarment
Shell dry suit, heavy undergarment

Start With

.5 - 2 kg/1 - 4 lbs
5 % of your body weight
10% of your body weight
10% of your body weight, + 1.5 - 3 kg/3 - 5 lbs
10% of your body weight, + 3 - 5 kg/7 - 10 lbs
10% of your body weight, + 1.5 - 3 kg/3 - 5 lbs
10% of your body weight, + 3 - 7 kg/7 - 14 lbs

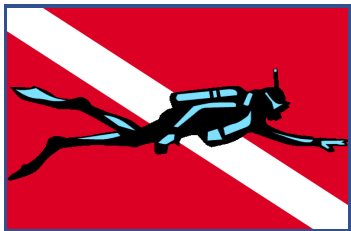
Salt/Fresh Water Change

Body Weight

45 - 56 kg/100 - 125 lbs
57-70 kg/126 - 155 lbs
71-85 kg/156 - 186 lbs
86-99 kg/187 - 217 lbs

Subtract (going to fresh)

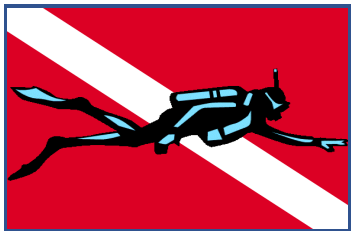
2 kg/4 lb
2.3 kg/5 lb
3 kg/6 lb
3.2 kg/7 lb



Buoyancy Goals



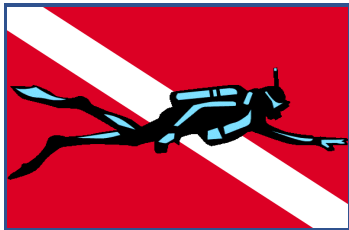
- **Buoyancy Goals:**
 - **Be able to “Gently Float Down” from the Surface to your desired depth. (Drift Dive Option????)**
 - **Able to achieve Neutral Buoyancy at any depth with MINOR Additions/Deletions of Air.**
 - **Have “RIGHT” Buoyancy at any depth if you are Neutrally Buoyant and can change depth by Inhaling and Exhaling.**
 - **Achieved Buoyancy allows you to maintain a stable body orientation (Use of Trim Pockets)**



Record Buoyancy Data



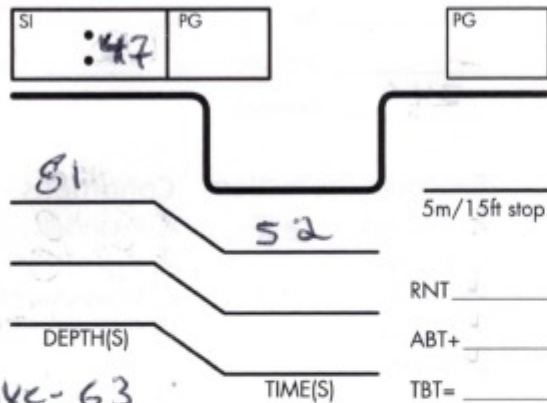
- **As you work out your buoyancy in differing environments – recommend that you record your data.**
 - **Logbook.**
 - **With your Dive Gear.**
 - **With Your Dive Checklist**
 - **Other**



Salt Water - Cooler



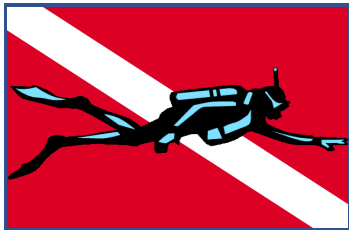
Dive No. _____ Date 19 MAR 21 Visibility 40-50 m ft
 Location SCARFACE



Temperature _____ Air kg
 Surface 73 lbs
 Bottom _____

Exposure Protection Conditions
 Wet suit Fresh Salt
 Dry suit Shore/Boat
 Hood Waves/Surf/Surge
 Gloves Current/Drift
 Boots

Computer Dive 1770R Start psi/bar 3452 Time In 1608
 RDP/eRDP_{ML} Dive _____ End psi/bar 972 Time Out _____
 Rebreather Dive YELBICAL 6mm + SA Pod - 1.31 025m - 33%
 Open-circuit or rebreather diluent: Air/EANx 38 % Start _____ bar/psi End _____ bar/psi
 (Rebreather only): Oxygen _____ % Start _____ bar/psi End _____ bar/psi
 Open-circuit bailout (rebreather): Air/EANx _____ % Start _____ bar/psi End _____ bar/psi
4 Bars Scrubber Time: Start _____ used _____ remaining _____

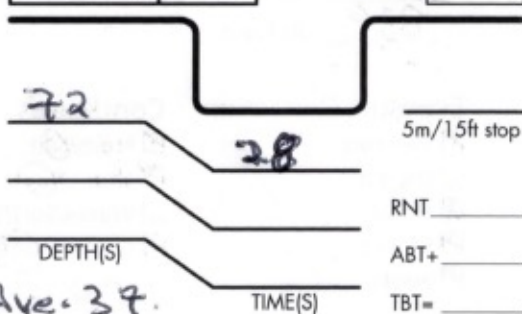


Fresh Water



Dive No. _____ Date 18 Aug 21 Visibility 50+ m ft
 Location Blue Grotto

SI : PG PG



Temperature _____ Air kg
 Surface 8 lbs
 Bottom 69

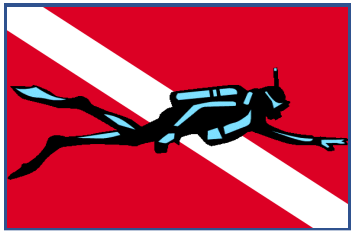
Exposure Protection Conditions
 Wet suit Fresh/Salt
 Dry suit Shore/Boat
 Hood Waves/Surf/Surge
 Gloves Current/Drift
 Boots

Computer Dive 1770R Start psi/bar 2982 Time In 0925
 RDP/eRDP_{ML} Dive End psi/bar 1886 Time Out 0953
 Rebreather Dive

80AL 6MM + 6SA Open-circuit or rebreather diluent: Air/EANx 21 % Start _____ bar/psi End _____ bar/psi

(Rebreather only): Oxygen _____ % Start _____ bar/psi End _____ bar/psi
 Open-circuit bailout (rebreather): Air/EANx _____ % Start _____ bar/psi End _____ bar/psi

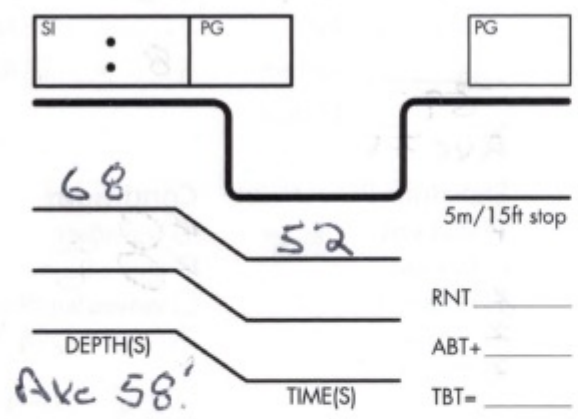
2 Bars Scrubber Time: Start _____ used _____ remaining _____



Salt Water - Warmer



Dive No. _____ Date 23 Aug 21 Visibility 50+ f m ft
 Location MG 111



Temperature Weight
 _____ Air kg
 Surface 10 lbs
83° Bottom
 Ave - 84°

Exposure Protection Conditions
 Wet suit Fresh/Salt
 Dry suit Shore/Boat
 Hood Waves/Surf/Surge
 Gloves Current/Drift
 Boots

Computer Dive 1770R

Start psi/bar 3172 Time In 0925

RDP/eRDP_{ML} Dive _____

End psi/bar 868 Time Out 1017

Rebreather Dive
BL 100AL 3mm + BSA

Po2 - 1.16 O2 SAT - 18%

Open-circuit or rebreather diluent: Air/EANx 38 %

Start _____ bar/psi End _____ bar/psi

(Rebreather only): Oxygen _____ %

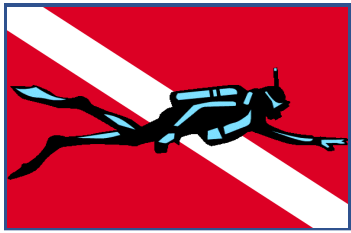
Start _____ bar/psi End _____ bar/psi

Open-circuit bailout (rebreather): Air/EANx _____ %

Start _____ bar/psi End _____ bar/psi

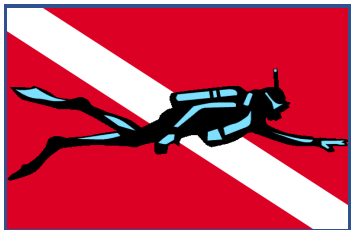
3 BARS

Scrubber Time: Start _____ used _____ remaining _____



Discussion





Test Buoyancy!!!!



- **Regardless of How You Calculate Your Base Weight Requirements:**
 - **GET IN THE WATER AND TWEAK YOUR BUOYANCY!!**
- **Preferably BEFORE heading to the Ocean or on the BIG Trip.**
- **Preferably in the Same Environment (Salt vs Fresh) and with all the Same Equipment.**
- **If Unable to do Pre-Check before trip, at Destination try to conduct a Buoyancy Check before Main Dives.**