

The HangLine

Issue #09-02

Posted January 22nd, 2009



The year 2009 has DFP really looking hard at Rebreathers. In our first newsletter of the year we talked about new Rebreather technology. The Gang at DFP then sat down and tossed around what was new and what we liked and disliked (watch for HangLine Issue #09-03 where the Gang votes on their favourite unit). In 2008 DEMA once again introduced a myriad of units to the diving world. But where does one start when looking for that perfect unit? Our in-house rebreather expert Rob DeProy helped us out with a little 'How To' guide

when shopping for Rebreathers. Keep in mind Rob is paid by the Canadian Forces to dive CCR's in the harshest and most challenging environments.

Choosing a Rebreather

By Rob DeProy

Looking back at all of the Rebreathers I have dived as well as the other ones that friends dive I can say that there is not a perfect Rebreather out there for everyone, there is just too many things to consider and everyone's priorities are different. There are many things to consider and I will list the factors I feel are important to me but not in any particular order.

- ✓ What type of diving will I be doing? For me I mostly use air as a diluent but I do dive trimix on occasion so that would have to be considered.

- ✓ The duration of the dives. With a Rebreather you can stay longer and therefore you have to decide what size CO2 scrubber you want. For me I feel that dives in excess of 90-100 minutes are putting me in a situation where I am too cold to do anything underwater and therefore plan my dives to end before that time.
- ✓ ECCR {electronic} or MCCR {mechanical}? There are arguments for and against both but that is for another time. I am currently using an ECCR and love it!
- ✓ Front mounted Counter Lungs (CL) or rear? Front mounted seem to be more popular because it is generally easier to achieve a low work of breathing (WOB) although there a few rear mounted sets on the market that boast better WOB than most front mounted systems. For me I have had both and I prefer the front mounted ones for now.
- ✓ Integrated Decompression or just PPO2 monitoring? Again I have had both and prefer integrated deco. This adds some level of complication to the set but in my opinion gives you more flexibility in your diving. I do run an independent PPO2



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computer as a back up as well as the integrated one (for the record!)

✓ Cost!

- ✓ Redundancy, redundancy, redundancy (safety features)! This is a must but you also have to know when to say enough is enough. This will of course depend largely on the type of diving you are planning on doing (cave, wreck, deep, open water...). I am not a cave diver but do enjoy a good wreck penetration and the occasional deep trimix dive if there is something worth seeing.
- ✓ Customer service!!!! I can say without a doubt that you will have to send your set back for servicing/repairs at some point and you want a company that will give you good customer service!
- ✓ Type of scrubber material, right now there is two main systems you can use; loose fill or a pre packed cartridge system. The cartridge system seems to tolerate water better and has less chance of channeling as well you don't have to worry about how you pack it, but the down side is cost and availability. The loose fill is widely available and costs less and after proper instruction on filling it is simple.
- ✓ Can you modify it to fit your needs? I have modified my Rebreather and by doing so made it better for me. If you are stuck with using specific bottles or other equipment, then things like travel become more difficult.

I have given considerable thought to which set I would purchase if I was going to buy another one and I would have to say that the electronic Shearwater Megalodon with a constant mass flow valve installed would be the one. Why? Well there are many reasons {you'll have to wait for the next edition of the HangLine}.

After attending DEMA this year I saw a few things that looked like they have promise and could change the way we see Rebreathers in the future so I am going to play the waiting game. I did consider purchasing one this year at DEMA but could not justify one as my current Rebreather does everything I need for now and the near future so I will stick with my modified Evo and see what is around the corner. The Rebreather I currently own is an Evolution with the following options/modifications; Trimix, Temp Stick (scrubber monitor), and an after-market frame to allow any bottles to be used. As well I run a independent Shearwater that will soon also be tied into the Rebreather and in the near future I plan on purchasing a full face mask. I was at DEMA this year and was looking at getting into a new Rebreather but decided that the one I have now does everything I need after the modifications I have done to it. Besides I just could not justify the cost of getting the Meg and getting rid of my Evolution.

~Safe Diving

