
Performance Diver Protests Navy Ratings

Sixteen divers find reconfigured regulators satisfactory

If you were to rely on the information provided by some regulator distributors and manufacturers about what's important to regulator users, you'd become a student of pistons and diaphragms and pneumatic balances. It's the same way companies market high-tech items from cars to computers: intimidate us by talking over our heads, then sell us anything.

Over the years, we at *In Depth* have tried to plow through the snow job. Serious divers are going deeper, getting into tougher currents, and making more challenging dives. I don't need to know how my regulator is constructed, just as I don't study up on the way they put my car together. I just want to know that they'll perform when it counts.

Three axioms are important to understand:

1. The deeper you go, the more air it takes to fill your lungs when you inhale. Nearly all regulators can handle the low flow rates required at the surface. However, many regulators can't deliver the high flow rates you need at depth. Such design limitations can result in air starvation or uncomfortably high breathing resistance during hard inhalation.

2. As tank pressure falls, many regulators cannot compensate enough to maintain constant pressure at the second stage. This can cause breathing resistance to increase.

3. The harder you work, the more air your regulator must supply. As breathing rates go up,

so does the amount of air you inhale with each breath.

Virtually every regulator on the market will deliver air at 100 feet and 400 psi and get you through a current. However, combine these factors — 100 feet in a 3-knot downwelling current, with 400 psi (a possibility in the Galapagos, Cocos Island, even Cozumel) — and some regulators will not deliver without considerable resistance.

How can you know which brand is best? Only by strict scientific and independent laboratory testing, such as the

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tests carried out by the U.S. Navy. Any number of anecdotal reports — "Fifty divers dove my regulator in the toughest of conditions" — won't give you the answer.

So we describe and summarize U.S. Navy tests of commercial regulators whenever they become available. In our August and September issues, we reported that the US Divers Micra passed with flying colors while two regulators marketed by Performance Diver failed miserably.

After we published these results, Performance Diver president Michael Curry cried foul, saying that our article was unfair because the manufacturer had made changes in those regulators and they did not reflect the performance of the regulators distributed under the Performance Diver brand name. We agreed to publish Curry's response, which we have shortened and edited for clarity:

"The PDXL regulator models that were tested by the Navy were never offered for sale. After the test, the manufacturer changed the part that caused the regulator to fail. With our understanding that the test results were not public information, it seemed acceptable to use the same PDXL name for the revised models.

"The sequence of events is as follows:

- "1. The manufacturer has a long history of making regulators for sale under several popular brand names. We are contractually obligated not to disclose the manufacturer's name.

- "2. When we received the original prototypes of the PDXL regulators, we decided to have the Navy test them before we got the production models.

- "3. After we received the failing test results of the prototype regulators, we immediately contacted the manufacturer. They had already been informed that the second stage diaphragm caused the regulator not to breathe acceptably. They extensively tested reconfigured production models during 3,000 dives for

2,000 hours and reported as follows: 'Temperature of the water during these tests was 1-30°C. Medium diving depth 35-40 meters. Maximum depth 112 meters — but in this case using a blend, not pure air. The maximum depth with pure air has been 94 meters. Our regulators have been tested by amateurs, by divers with medium experience, and by coral fishers who, in Italy, normally work at 100 meters of depth with peaks to 112 meters. Our tests have been in salt water in various parts of the world, in lakes on the plain, in rivers, and in mountain lakes (altitude 1500 meters).'

"4. Even though we were told the PDXL production models would perform satisfactorily under dive conditions, our employees dove the reconfigured regulators and, in our opinion, confirmed that the breathability was good. We sent the 700 and 1000 series to 16 test divers around the country, including active instructors, commercial divers, and dive magazine personnel with thousands of dives in all. They were asked to note their personal reaction to breathability at various depths and in various positions, to evaluate general comfort, and to consider any other issue that might concern a diver. All respondents said both models were satisfactory. The only qualification was from a commercial diver who stated that the adjustable second stage of the PDXL 1000 did not adjust to the extremes like his commercial units, but was certainly safe and acceptable.

"5. The PDXL 1000 and PDXL 700 production models were first offered to our customers in the Spring 1994 issue of our catalog.

"6. Except for a new customer this week, I knew of no customer complaints about breathability.

Our recent survey on breathability yielded the following responses:

Excellent	56.4%
Good	37.6%
Average	4.0%
Poor	1.0%
No answer	1.0%

"7. Performance Diver is a reputable company that deals only with suppliers and manufacturers we know to be reputable. We qualify them for not only quality of their products, but also for their track record as manufacturers, their financial stability, and their willingness to stand behind their products.

"In summary, we never sold the regulator models that failed the U.S. Navy test. The models we are selling were reconfigured by the manufacturer to acceptable standards."

Although we usually avoid publishing what distributors say about their regulators without hard data, we agreed to Curry's request to clear up any possible misunderstanding. But when we

asked him to give us the name of the manufacturer, so we could verify the changes and obtain empirical data to support the claims to confirm that the PDXL 700 and the PDXL 1000 are indeed up to snuff, he responded that "because of our vendor agreements (which request us not to disclose their other branded customers), the additional information you requested can not be provided." He told us to refer to the above letter for information about the tests and reiterated that his customers were satisfied with the breathability of the PDXL regulators.

So although we have U.S. Navy independent empirical data that the USD Micra will get us out of a pickle in the Galapagos or Cozumel, we have no such data on the Performance Diver regulators, only the word of the distributor and some anecdotal data. Curry would serve his customers well by resubmitting the PDXL 700 and the PDXL 1000 for retesting to remove all doubt. ■

Carib Inn Misunderstood?

America Online lawsuit explained

In June a message appeared on America Online's scuba bulletin board accusing an instructor at the Carib Inn on Bonaire of using drugs: "Since I'm a little new to diving, needless to say diving with a stoned instructor was a little scary. . . . I won't mention his name but he is the only white instructor there." The message was signed "Jenny TRR."

Last month *In Depth* reported that Bruce Bowker, owner of the

Carib Inn, and John Joslin, the instructor, had asked a judge to force America Online to reveal Jenny TRR's real name so that they could sue the person for libel. Since then there has been much speculation generated on online services about the consequences of losing anonymity, freedom of speech, and millions of lawsuits arising from disagreements about what is being said on the Internet and similar services.