Scuba School

EN 250: What is it and Why is it Stamped on my Regulator?

EN250:2000 Respiratory equipment – Open Circuit Self Contained Compressed Air Diving Apparatus* – *Requirements, Testing and Marking is a European normative standard that was published in the year 2000, and Regulators must be independently tested to ensure they meet these minimum requirements. The purpose of this European Standard is to ensure a minimum level of safe operation for apparatus down to a maximum depth of 50 metres (164ft).

If you're not sure what EN 250 means, you're not alone!

You may never have noticed the unobtrusive lettering on your first stage, except to point out that it isn't the serial number and move on.

So, what is it and what does it say about your regulator?

Manufacturers and consumers alike expect regulators to perform to certain specifications. If you purchase a travel regulator, you expect it to deliver a good performance under the conditions it was created for- in warmer water. However, most travel regulators are not designed to dive in all conditions; there are temperature limitations on many of them that would keep you from using them in Great Lake diving or under ice. Conversely, there are regulators that are diveable in more difficult situations such as high current or ice diving. But what exists to objectively test these regulators to ensure that they all perform under these specifications and conditions?

Enter the EN 250 rating. This exists to ensure that your regulator will perform well in every environment and condition for which it is advertised. It is given by a third-party testing facility (also designated on the regulator). EN 250 is an assurance that your regulator can deliver quality breathing performance beyond the recreational depth limit. In 2013, they plan to release a new rating requirement: EN250A. This rating ensures that your primary and your octo will simultaneously breathe easily under the same testing conditions. So, here are a few markings to reference on your regulator if you're not sure what yours is meant to do.

1. <10 degrees C/50 Degrees F: Regulators marked with that designation should not be used in cold water. In other words, your local quarry during the summer may be fine, but don't take it in Lake Michigan

2. EN250: Your regulator is designed to operate to 165 ft and below 50 degrees F with unchanged breathing performance in the first and second stage. The octo will not perform to the same specifications and its use is not recommended below 100 ft.

3. EN250A: Your regulator is designed to operate to 165 ft and below 50 degrees F with unchanged breathing performance in the first and second stage as well as the octo.

4. CE0078 (or some variation) is the stamp of the center that tested the regulator.

Additional Markings and Abbreviations (EN250A)

1. Demand regulators which are not designed for cold water use are marked with '>10°C' on both the Second Stage Demand Valve and First Stage Pressure Reducer.
2. Demand valves which are intended to be used with an Octopus, shall be marked with EN250 followed by an 'A'. EN250A.
3. You may also see the use of a; symbol (Octopus) which also indicates that Apeks First Stage pressure reducers are suitable with two second stage demand valves and for use as an escape device by more than one user at the same time.
4. If a demand valve is marked with EN250A, this demand regulator is suitable, tested and intended to be used in water temperatures below 10°C (50°F) and configured with an Octopus.
5. If a demand regulator is marked with EN250A >10°C, this demand valve is suitable, tested and intended to be used in water temperatures above 10°C (50°F) and configured with an Octopus.
6. If a demand valve is only marked with EN250 and not followed by an 'A' or the (Octopus) symbol is not shown, then it will not be suitable for use with an Octopus and is not intended for use as an escape device by more than one user at the same time, also known as an Octopus.
7. You will also see CE0098. This denotes the identification number of the Notified body who has independently certified and examined your product.
8. A serial number can also be found, usually comprising of eight characters, on both the first stage pressure reducer and second stage demand valve.
9. A hose can also be marked with the maximum working pressure of that particular type of hose, EN250 and can also include a serial number specific to that hose.

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