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**Gas cylinders — Cylinder valves with  
integrated pressure regulators —  
Specification and type testing —  
Amendment 1**

*Bouteilles à gaz — Robinets de bouteilles avec détendeur intégré —  
Spécifications et essais de type — Amendement 1*



Reference number  
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Amendment 1 to ISO 22435:2007 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*.

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# Gas cylinders — Cylinder valves with integrated pressure regulators — Specification and type testing — Amendment 1

Page 9, 5.17.2

Replace the text with the following:

VIPRs for acetylene shall pass the acetylene decomposition test described in 6.17.

Page 26, 6.17

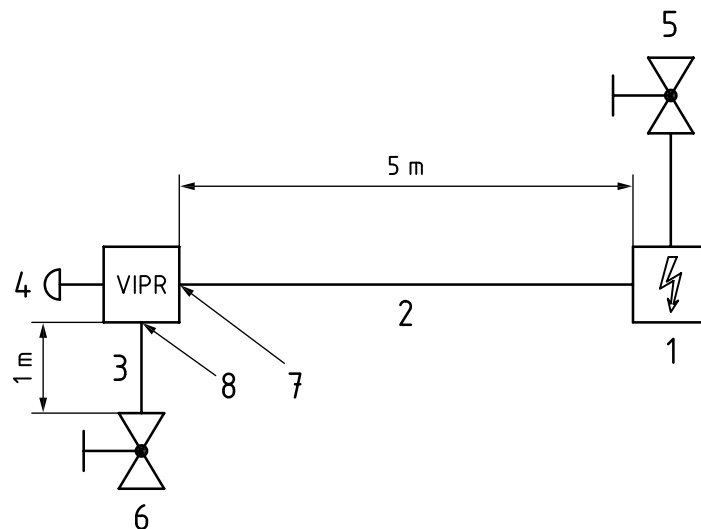
Replace the subclause with the following:

## 6.17 Decomposition test method for VIPRs for acetylene

Three samples of the VIPR shall be tested under the conditions of a decomposition of acetylene.

If the VIPR has one or more pressure gauge(s), the test shall be performed without removing them. If the VIPR has a pressure relief device, the test shall be performed without removing it.

The test system (see Figure 7) shall be constructed in a way to resist the respective test conditions.



### Key

- 1 ignition source
- 2 inlet tube
- 3 outlet tube
- 4 low pressure side
- 5 filling valve
- 6 stop valve
- 7 VIPR filling port
- 8 VIPR inlet connection

**Figure 7 — Test system for acetylene decomposition test**

The length of the inlet tube connected to the filling connection of the VIPR shall be 5 m. The length of the outlet tube connected to the cylinder connection (at cylinder neck thread) of the VIPR shall be 1 m. The internal diameter of both tubes shall be 12 mm.

The configuration of the test sample including the filling device (if specified by the manufacturer) shall be the same as when a cylinder is being filled according to the manufacturer's filling instruction. Before testing, the whole test assembly shall be leak tested with nitrogen at 25 bar. The completely assembled test system shall be purged with acetylene for 1 min. Thereafter the stop valve shall be closed and then filled with acetylene up to the test pressure of 25 bar. Then the filling valve of the test assembly shall be closed.

The test should be carried out at  $20 \pm 5$  °C. If the temperature at the test assembly is outside this range, the pressure shall be corrected according to the ideal gas law. Consequently the test shall be carried out at low temperatures with a lower initial pressure and at high temperatures with a higher initial pressure. For safety reasons the minimum temperature for carrying out the test is 5 °C.

The acetylene decomposition is then started by means of a fused wire or by melting a wire as part of the ignition source. Afterwards it shall be checked whether a detonation has occurred. If no detonation has occurred, the test procedure has to be re-done.

The test sample shall withstand the test, without permanent visual deformation or rupture. No flame shall exit the test sample. No part shall be ejected. A destruction of inner parts is permitted.

*Rename the number of figures as follows:*

- Figure 7 *becomes* Figure 8,
- Figure 8 *becomes* Figure 9,
- Figure 9 *becomes* Figure 10, and
- Figure 10 *becomes* Figure 11.

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