

ISO 22435:2007-09 (E)

Gas cylinders - Cylinder valves with integrated pressure regulators - Specification and type testing

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols and terminology	4
5	Design requirements	4
5.1	General	4
5.2	Description	5
5.3	Materials	5
5.4	Pressure indicators	6
5.5	Filling connection	6
5.6	Cylinder connection	6
5.7	Outlet connection	6
5.8	Outlet pressure for acetylene	7
5.9	Flow control valve (flow controller)	7
5.10	Pressure adjusting device	7
5.11	Filtration	7
5.12	Main shut-off valve	7
5.13	Flow and pressure performance for regulators without flow metering devices	7
5.14	Pressure relief valve	8
5.15	Leakage	8
5.16	Mechanical strength	8
5.17	Resistance to ignition	9
5.18	Requirement for VIPR with flow metering devices	9
5.19	Constructional requirements	9
5.20	Valve operating device	9
6	Test methods	10
6.1	General	10
6.2	Documentation	11
6.3	Number of test samples	11
6.4	Test sequence	12
6.5	Test method for mechanical strength	13
6.6	Test methods for flow and pressure performance for regulators without flow metering devices	13
6.7	Test method for relief valve	21
6.8	Pressure retention of the low-pressure side of the pressure regulator	21
6.9	Test method for flowmeter mechanical strength	22
6.10	Test method for accuracy of VIPR with flowmeter	22
6.11	Test method for accuracy of VIPR with flowmeter and with fixed orifices	22
6.12	Test methods for leakage	22
6.13	Test method for operating and loosening torques	23
6.14	Test method for endurance of the main shut-off mechanism	23
6.15	Test method for endurance of the non-return valve	25

6.16	Test method for ignition	25
6.17	Test method for resistance to acetylene decomposition	26
6.18	Test method for flame resistance of the valve operating device	26
7	Marking	29
8	Instructions	29
	Annex A (normative) Valve impact test	30
	Annex B (informative) Endurance test	32
	Bibliography	36