

ISO 17879:2017-07 (E)

Gas cylinders - Self-closing cylinder valves - Specification and type testing

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Valve description	3
5	Valve design requirements	4
5.1	General	4
5.2	Materials	4
5.3	Valve connections	5
5.4	Mechanical strength	6
5.4.1	Resistance to hydraulic burst pressure	6
5.4.2	Resistance to mechanical damage	6
5.5	Valve operating mechanism	6
5.6	Leakage	6
5.7	Resistance to ignition	7
5.8	Resistance to acetylene flashback	7
5.9	Manufacturing tests and examinations	7
6	Type testing	8
6.1	General	8
6.2	Documentation	9
6.3	Test samples	9
6.4	Test report	10
6.5	Test temperatures	10
6.6	Test pressures	10
6.6.1	Valve burst test pressure	10
6.6.2	Valve test pressure	10
6.7	Test gases	11
6.7.1	Gas quality	11
6.7.2	Leak tightness tests	11
6.7.3	Endurance test	11
6.7.4	Oxygen pressure surge test	11
6.8	Test schedule	11
6.9	Hydraulic burst pressure test	13
6.10	Leak tightness tests	13
6.10.1	General	13
6.10.2	Internal leak tightness test	13
6.10.3	External leak tightness test	14
6.11	Endurance test	14
6.12	Visual examination	15
7	Marking	15
Annex A (normative)	Mechanical strength tests	16

Annex B (normative) Acetylene tests	19
Annex C (normative) Oxygen pressure surge test	20
Annex D (normative) Manufacturing tests and examinations	21
Bibliography	22