

ISO 2503:2009-07 (E)

Gas welding equipment - Pressure regulators and pressure regulators with flow-metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPa)

| Contents | | Page |
|---|---|-------------|
| Foreword | | iv |
| 1 | Scope | 1 |
| 2 | Normative references | 2 |
| 3 | Terms and definitions | 2 |
| 4 | Symbols and abbreviated terms | 4 |
| 5 | Design requirements | 4 |
| 5.1 | Materials | 4 |
| 5.2 | Design and construction | 4 |
| 6 | Physical performance and operating characteristics | 7 |
| 6.1 | Pressures | 7 |
| 6.2 | Flow rates for pressure regulators without flow-metering devices | 7 |
| 6.3 | Equipment classes for pressure regulators without flow-metering devices | 7 |
| 6.4 | Pressure-relief valve | 9 |
| 6.5 | Operating-temperature range | 9 |
| 6.6 | Performance and operating characteristics | 9 |
| 7 | Marking | 11 |
| 7.1 | Pressure regulators without flow-metering devices | 11 |
| 7.2 | Pressure regulators with flow-metering devices | 11 |
| 8 | Instructions for use | 12 |
| 9 | Type-test procedure | 12 |
| 9.1 | General | 12 |
| 9.2 | Test samples and necessary documents | 13 |
| 9.3 | Test conditions | 13 |
| 9.4 | Units | 13 |
| 9.5 | Test for performance and operating characteristics of pressure regulators without flow-metering devices | 14 |
| 9.6 | Test for performance and operating characteristics of pressure regulator with flow-metering devices | 17 |
| 9.7 | Tests for mechanical resistance of pressure regulators or pressure regulator with a flow-metering device | 19 |
| 9.8 | Test for durability of markings | 23 |
| Annex A (informative) Pressure regulators | | 24 |
| Annex B (informative) Operating principles of pressure regulators with flow-metering devices | | 28 |
| Bibliography | | 30 |