

DIN EN ISO 28781:2010-12 (E)

Petroleum and natural gas industries –Drilling and production equipment –Subsurface barrier valves and related equipment (ISO 28781:2010);English version EN ISO 28781:2010

Contents

Page

| | |
|---|----|
| Foreword..... | 4 |
| Introduction | 5 |
| 1 Scope | 6 |
| 2 Normative references | 6 |
| 3 Terms and definitions | 7 |
| 4 Abbreviated terms | 12 |
| 5 Functional requirements | 12 |
| 5.1 General..... | 12 |
| 5.2 Functional characteristics | 14 |
| 5.3 Well parameters | 15 |
| 5.4 Operational parameters | 15 |
| 5.5 Environmental compatibility..... | 15 |
| 5.6 Compatibility with related well equipment..... | 16 |
| 5.7 Optional requirements | 16 |
| 6 Technical specification | 16 |
| 6.1 General..... | 16 |
| 6.2 Technical characteristics | 17 |
| 6.3 Design criteria | 17 |
| 6.4 Materials | 18 |
| 6.5 Performance envelope | 19 |
| 6.6 Design documentation | 19 |
| 6.7 Design verification..... | 20 |
| 6.8 Design validation | 20 |
| 6.9 Design changes | 20 |
| 6.10 Functional test | 21 |
| 7 Supplier/manufacturer requirements..... | 21 |
| 7.1 General..... | 21 |
| 7.2 Documentation..... | 21 |
| 7.3 Product identification | 23 |
| 7.4 Quality requirements..... | 23 |
| 7.5 Material documentation | 25 |
| 7.6 Additional processes | 25 |
| 7.7 Traceability | 25 |
| 7.8 Quality controls..... | 25 |
| 7.9 Shear device validation..... | 28 |
| 7.10 Assembly and functional test..... | 29 |
| 7.11 Manufacturing nonconformities | 29 |
| 8 Handling, storage and preparation for transport | 29 |
| 9 Repair/redress..... | 30 |
| Annex A (informative) Applications overview | 31 |
| Annex B (normative) Validation requirements for subsurface barrier valves | 34 |
| Annex C (normative) Functional testing | 42 |
| Annex D (normative) Validation requirements for subsurface-barrier-valve tools | 44 |
| Annex E (normative) Performance envelopes | 46 |
| Annex F (informative) Alternate barrier liquid leakage test acceptance criteria | 48 |
| Annex G (informative) Debris-settling design validation | 49 |
| Annex H (informative) Closure while flowing slurry test | 51 |
| Bibliography..... | 52 |