

DIN EN 13942:2005-07 (E)

Petroleum and natural gas industries - Pipeline transportation systems - Pipeline valves (ISO 14313:1999 modified); English version EN 13942:2003

Contents

Explanatory Note	4
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	9
4 Symbols and abbreviations	11
4.1 Symbols	11
4.2 Abbreviations	11
5 Valve types and configurations	12
5.1 Valve types	12
5.2 Valve configurations.....	13
6 Design	25
6.1 Pressure and temperature rating	25
6.2 Sizes	25
6.3 Face-to-face and end-to-end dimensions.....	26
6.4 Minimum-bore full-opening valves	38
6.5 Valve operation	39
6.6 Pigging	39
6.7 Valve ends	39
6.8 Pressure relief	39
6.9 Bypass, drain and vent connections	40
6.10 Handwheels and wrenches (levers)	40
6.11 Locking devices	40
6.12 Position indicators.....	40
6.13 Operators and stem extensions	41
6.14 Sealant injection	41
6.15 Lifting lugs.....	41
6.16 Actuators	41
6.17 Drive trains	41
6.18 Stem retention	42
6.19 Fire safety	42
6.20 Anti-static device	42
6.21 Design documents.....	42
6.22 Design document review.....	42
7 Materials	42
7.1 Material specification	42
7.2 Service compatibility	42
7.3 Forged parts	43
7.4 Welding ends.....	43
7.5 Toughness test requirements.....	43
7.6 Bolting.....	44
7.7 Sour service.....	44
8 Welding	44
8.1 Qualifications	44
8.2 Impact testing.....	44
8.3 Hardness testing.....	45

9	Quality control.....	46
9.1	General.....	46
9.2	Measuring and test equipment.....	46
9.3	Qualification of inspection and test personnel.....	47
9.4	NDE of repair welding.....	47
10	Pressure testing.....	47
10.1	General.....	47
10.2	Stem backseat test.....	48
10.3	Hydrostatic shell test.....	48
10.4	Hydrostatic seat test.....	49
10.5	Draining.....	51
11	Marking.....	51
11.1	Requirements.....	51
11.2	Marking example.....	54
12	Storage and shipping.....	55
12.1	Painting.....	55
12.2	Corrosion prevention.....	55
12.3	Openings.....	55
13	Documentation.....	55
Annex A (informative) Purchasing guidelines.....		56
Annex B (normative) Supplementary NDE requirements.....		58
Annex C (normative) Supplementary test requirements.....		61
Annex D (normative) Supplementary documentation requirements.....		64
Bibliography.....		65