DIN EN ISO 10434:2020-12 (E)

Bolted bonnet steel gate valves for the petroleum, petrochemical and allied industries (ISO 10434:2020)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **8**

4 Pressure/temperature ratings ... **9**

5 Design ... **10**
5.1 Body wall thickness ... 10
5.2 Bonnet wall thickness ... 11
5.3 Body dimensions ... 12
5.3.1 Flanged ends ... 12
5.3.2 Butt-welding ends ... 13
5.3.3 Body seats ... 15
5.4 Bonnet dimensions ... 16
5.5 Bonnet-to-body joint ... 17
5.6 Gate ... 18
5.7 Yoke ... 19
5.8 Stem and stem nut ... 19
5.9 Packing and packing box ... 21
5.10 Bolting ... 22
5.11 Operation ... 22
5.12 Auxiliary connections ... 23

6 Materials ... **25**
6.1 Materials other than trim materials ... 25
6.2 Trim materials ... 26
6.3 Welding for fabrication and repair ... 28

7 Testing, inspection and examination ... **29**
7.1 Pressure tests ... 29
7.1.1 General ... 29
7.1.2 Shell test ... 29
7.1.3 Closure tightness test ... 29
7.1.4 Optional backseat tightness test ... 31
7.1.5 Optional closure tightness test ... 31
7.1.6 Fugitive emission testing ... 31
7.2 Inspection ... 32
7.2.1 Extent of inspection ... 32
7.2.2 Site inspection ... 32
7.3 Examination ... 32
7.4 Supplementary examination ... 32

8 Marking ... **32**
8.1 Legibility ... 32
8.2 Body marking ... 33

8.2 Body marking 33
8.3 Ring joint marking 33
8.4 Identification plate marking 33
8.5 Special marking for unidirectional valves 33
9 Preparation for despatch **34**
Annex A (informative) **Information to be specified by the purchaser** **35**
Annex B (informative) **Identification of valve terms** **36**
Annex C (informative) **Valve material combinations** **38**
Bibliography **42**