

# DIN EN ISO 17292:2016-05 (E)

## Metal ball valves for petroleum, petrochemical and allied industries (ISO 17292:2015)

<b>Contents</b>		Page
<b>European foreword</b> .....		4
<b>Foreword</b> .....		5
<b>Introduction</b> .....		7
<b>1</b>	<b>Scope</b> .....	<b>8</b>
<b>2</b>	<b>Normative references</b> .....	<b>8</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>10</b>
<b>4</b>	<b>Pressure/temperature ratings</b> .....	<b>11</b>
4.1	Valve rating.....	11
4.2	Shell rating.....	11
4.3	Seat and seal rating.....	11
<b>5</b>	<b>Design</b> .....	<b>12</b>
5.1	Flow passageway.....	12
5.2	Body.....	12
5.2.1	Body wall thickness.....	12
5.2.2	Flanged ends.....	14
5.2.3	Butt-welding ends.....	14
5.2.4	Socket welding ends.....	15
5.2.5	Threaded ends.....	17
5.2.6	Body openings.....	17
5.2.7	Anti-static design.....	18
5.2.8	Anti-blow-out stem.....	18
5.2.9	Ball-stem construction.....	18
5.2.10	Ball construction.....	18
5.2.11	Operating means.....	18
5.2.12	Glands.....	19
5.2.13	End flange facing interruptions.....	19
5.2.14	Shell joints.....	20
5.2.15	Packing gland bolting.....	21
5.2.16	Fluid thermal expansion.....	21
<b>6</b>	<b>Materials</b> .....	<b>22</b>
6.1	Shell.....	22
6.2	Shell material repair.....	22
6.3	Trim.....	22
6.4	Identification plate.....	22
6.5	Bolting.....	22
6.6	Seals.....	22
6.7	Threaded plugs.....	22
6.8	Low temperature service.....	22
6.9	Hydrogen sulfide environment.....	22

<b>7</b>	<b>Marking</b> .....	<b>23</b>
	7.1 Legibility.....	23
	7.2 Body marking.....	23
	7.3 Ring joint marking.....	23
	7.4 Identification plate.....	23
	7.5 Special marking for unidirectional valves.....	24
<b>8</b>	<b>Testing and inspection</b> .....	<b>24</b>
	8.1 Pressure tests.....	24
	8.1.1 General.....	24
	8.1.2 Shell test.....	24
	8.1.3 Closure tightness test.....	25
	8.2 Inspection.....	26
	8.2.1 Extent of inspection.....	26
	8.2.2 Site inspection.....	26
	8.3 Examination.....	26
	8.4 Supplementary examination.....	26
<b>9</b>	<b>Preparation for despatch</b> .....	<b>27</b>
	<b>Annex A (informative) Information to be specified by the purchaser</b> .....	<b>28</b>
	<b>Annex B (informative) Identification of valve parts</b> .....	<b>30</b>
	<b>Bibliography</b> .....	<b>32</b>