

 LARSEN & TOUBRO LIMITED Coimbatore	Engineering Procedure Valve Operating Torque Single Piece Ball Valve		Ref	LTF-EP-32	
			Rev / ECN	1	B063
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1.0 Scope

This procedure describes the requirement of operating torque of Single Piece Ball Valves

2.0 1P Ball Valves

2.1 The torque values indicated are the maximum for Pressure indicated

Pressure Rating: Class 150				Pressure Rating: Class 300			
Valve Size	Bore	Torque Values , Nm		Valve Size	Bore	Torque Values , Nm	
		10 bar	20 bar			25 bar	50 bar
DN 15	FB	5	5	DN 15	FB	5	5
DN 20	RB	5	5	DN 20	RB	5	5
DN 25	RB	10	12	DN 25	RB	12	15
DN 40	RB	16	18	DN 40	RB	18	22
DN 50	RB	26	38	DN 50	RB	32	40
DN 65	RB	42	48	DN 65	RB	50	60
DN 80	RB	80	90	DN 80	RB	95	100
DN 100	RB	140	145	DN 100	RB	150	160
DN 150	RB	160	165	DN 150	RB	180	190

FB - Full Bore; RB - Regular Bore

2.2 The torque values with no pressure shall be equal or less than values at 10 bar

2.3 The torque values are for clean line fluid, for Virgin PTFE seats and at room temperature

2.4 For RPTFE and MaXseal 1, multiply above values by 1.3

2.5 For PEEK, multiply above values by 2.5

2.6 No Safety Factor included. For Actuator Valve, a factor of 1.3 recommended

2.7 The values are break torques (Close to Open)

Run Torque: 60% of break torque

Reseat Torque: 75% of break torque (Open to Close)

Prepared by	DM	Checked by	RM	Approved by	RM
Date	30.11.2009	Date	30.11.2009	Date	30.11.2009

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2.8 Torque Multiplication Factor based on frequency of operation

Frequency	Multiplication Factor
Day or more	1.0
Week or more	1.3
Month or more	1.4
Four months or more	1.5

Value reverts to normal after first operation.

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