

## **Engineering Procedure**

Valve Operating Torque
Three Piece Ball Valve

Ref	LTF-EP-30			
Rev / ECN	0			
Date	30.09.2009			
Page	Page 1 of 2			

## 1.0 SCOPE:

This procedure describes the requirement of operating torque of Three Piece Ball Valves.

## 2.0 Ball Valves:

2.1 The torque values indicated are the maximum for Pressure indicated.

		TORQUE VALUES , Nm				
VALVE SIZE BORE	PTFE SEAT				POLYFILL	
	10 bar	20 bar	40 bar	69 bar	103 bar	
DN 8	FB	5.0	5.0	5.5	6.5	8.0
DIN 6	RB	5.0	5.0	5.5	6.5	8.0
DN 10	FB	5.0	5.0	5.5	6.5	8.0
DN 10	RB	5.0	5.0	5.5	6.5	8.0
DN 1E	FB	5.0	5.0	5.5	6.5	8.0
DN 15	RB	5.0	5.0	5.5	6.5	8.0
DN 20	FB	8.0	8.0	9.0	11.0	13.0
DIN 20	RB	5.0	5.0	5.5	6.5	8.0
DN 25	FB	9.0	9.0	11.0	16.0	21.0
DIN 25	RB	8.0	8.0	9.0	11.0	13.0
DN 22	FB	16.0	16.0	23.0	34.0	54.0
DN 32	RB	9.0	9.0	11.0	16.0	21.0
DN 40 ──	FB	16.0	16.0	23.0	34.0	54.0
	RB	13.0	13.0	16.0	22.0	28.0
DN 50	FB	24.0	24.0	38.0	54.0	75.0
טניאוט –	RB	16.0	16.0	23.0	34.0	54.0

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 Polyfill, multiply above values by 1.1
- 2.5 For PEEK, multiply above values by 2.25,
- 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	30.09.2009	Date	30.09.2009	Date	30.09.2009

Form No.: DR-010-R1



Engineering Procedure
Valve Operating Torque
Three Piece Ball Valve

Ref	LTF-EP-30		
Rev / ECN	0	1	
Date	30.09.2009		
Page	Page 2 of 2		

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.

Prepared by	DM	Checked by	RM	Approved by	RM
Date	30.09.2009	Date	30.09.2009	Date	30.09.2009

Form No.: DR-010-R1