

**OPERATING TORQUE AT  
DIFFERENT  $\Delta P$  FOR BFV  
MODEL - 91 & 91L**

REF.NO.	BFTS0019	03 REV.NO.
DATE	08 APR 2005	
SHEET	01	OF 01



100%  $\Delta P$  ( FOR CLASS - 150 VALVES ) = 20 bar  
 100%  $\Delta P$  ( FOR CLASS - 300 VALVES ) = 50 bar

**A) WITH 'PTFE' SEAL (TORQUE IN 'Nm')**

VALVE SIZE	0 TO 50% $\Delta P$		100% $\Delta P$	
	CLASS 150	CLASS 300	CLASS 150	CLASS 300
50	30	61	35	68
65	34	68	40	80
80	40	79	49	89
100	59	108	69	128
125	85	158	103	195
150	128	236	157	295
200	275	501	314	569
250	334	608	451	814
300	451	814	628	1138
350	638	1148	1207	2178
400	873	1580	1570	2845
450	1128	2060	2100	3826
500	1374	2502	2698	4905
600	2306	4219	3924	7358

- NOTE : 1) FOR REINFORCED PTFE. SEAT MULTIPLY ABOVE VALUE BY 1.25 FACTOR.  
 2) FOR SIZING POWER OPERATORS. MULTIPLY THE TORQUE VALUE BY MINIMUM SAFETY FACTOR OF 1.3 FOR CLEAN SERVICE, HOWEVER SAFETY FACTOR SHOULD BE CONSIDERED DEPENDING ON THE SERVICE CONDITIONS.  
 3) FOR IN FREQUENT OPERATION. INCREASE BY 20%  
 4) VARIATION FOR TORQUE VALUES  $\pm 10\%$ .

**B) WITH METAL - TO - METAL SEATING & FIRE - SAFE VALVES (TORQUE IN 'Nm')**

VALVE SIZE	0 TO 50% $\Delta P$		100% $\Delta P$	
	CLASS 150	CLASS 300	CLASS 150	CLASS 300
50	74	101	78	110
65	81	146	88	160
80	89	162	93	177
100	108	196	133	245
125	156	300	190	360
150	196	358	241	442
200	373	677	452	824
250	501	903	618	1128
300	913	1648	1236	2237
350	1050	1894	1540	2796
400	1236	2227	1933	3532
450	1697	3061	3002	5445
500	2472	4464	3728	6769
600	3699	6671	5935	10791

- NOTE : 1) FOR REINFORCED PTFE. SEAT MULTIPLY ABOVE VALUE BY 1.25 FACTOR. (FIRE SAFE DESIGN)  
 2) FOR SIZING POWER OPERATORS. MULTIPLY THE TORQUE VALUE BY MINIMUM SAFETY FACTOR OF 1.3 FOR CLEAN SERVICE, HOWEVER SAFETY FACTOR SHOULD BE CONSIDERED DEPENDING ON THE SERVICE CONDITIONS.  
 3) FOR IN FREQUENT OPERATION. INCREASE BY 20%  
 4) VARIATION FOR TORQUE VALUES  $\pm 10\%$ .

PREPARED BY :

APPROVED BY :