

### Torque Required to Close Manual Valves in FT.LB (Rubber Sleeves)

Torque is defined by Red Valve as the rotational force required to overcome the resistance of Valve Sleeve and line pressure to close the Sleeve.

Torque ÷ 1/2 handwheel radius = force required at rim of handwheel to turn.

Turns to Close*	Valve Size	Working Pressure (psi)						
		10	25	50	75	100	125	150
7.5	1"	7	7	5	8	8	8	9
10.5	1.5"	11	11	12	12	13	13	13
9	2"	18	19	20	21	22	24	25
11	2.5"	23	24	26	28	30	31	33
13	3"	28	30	32	35	37	40	42
17	4"	46	50	55	61	66	72	77
10.5	5"	59	64	72	81	90	98	107
12.5	6"	90	100	116	131	147	163	179
16.5	8"	141	160	192	224	256	288	320
<b>Bevel Gear Actuator Recommended</b>	20.5	180	210	260	311	370	411	421
	24.5	221	264	337	409	481	553	577

\*Due to natural variability in sleeves, an additional turn/partial turn may be needed for drop-tight shutoff.