RAJEEV & Company
(An ISO 9001:2015 Company)
Manufacturers Of **KAVAATA BALL VALVES**
(423, Nazar Camp Cross 3, Main Road, Vadgaon, Belagavi, INDIA 590005)

Breakaway Torque values of Kavaata Ball Valves

Breakaway Torque values determine the force required in N-m to open or close a valve. This value is important to determine the size of the Actuator to be chosen in case of actuation of the valve. There are various factors which affect the torque, such as size of the valve, seats, media and service. The details of torque values for Kavaata Valves are as given below. It has to be however noted that the values are indicative and may vary in practice.

FORGED CARBON STEEL (REDUCED BORE)

TORQUE Nm	SIZE				
	15RB	20RB	25RB	40RB	50RB
	1.57	1.57	3.15	9.32	15.7

INVESTMENT CAST 2 WAY BALL VALVES (FULL BORE)

FLANGED/ SCREWED/ SOCKET WELD ENDS

TORQUE Nm	SIZE							
	15FB	20FB	25FB	40FB	50FB	80FB	100FB	150FB
	2.35	3.15	7.5	15.7	19.62	75	120	250

INVESTMENT CAST 3 WAY BALL VALVES (FULL BORE)

FLANGED/ SCREWED

TORQUE Nm	SIZE									
	15FB	20FB	25FB	40FB	50FB	65FB	80FB	100FB	150FB	200FB
	8	10	15	25	35	60	90	120	350	430

Note:

1. The above torque values are for valves with PTFE seats.
2. Multiply the values by approximately 1.5 to arrive at values for GFT seats.
3. Please use the appropriate media and service factors given below to arrive at actuator size

Media Factors	Multiplier
Clean, particle free, non lubricating (water, alcohol etc)	1
Clean, particle free, lubricating (oils, hydraulics etc)	0.8
Slurries, heavily corroded and contaminated systems	2
Gas or saturated steam, clean and wet	1
Gas or superheated steam, clean and dry	1.3
Gas, dirty unfiltered	1.5

Service Factors*	Multiplier
Simple on and off	1
Throttling	1.2
Positioner Control	1.5
Once per day Operations	1.2
Once every two days or a "Plant Critical" operation	1.5

Design Factors	Multiplier
Spring Return Actuator	0.8
All other Actuators	1

Torque Determination Example:
Breakaway Torque X Design Factor X Media Factor X Service Factor = Sizing Torque

Source: * Sharpe Valves EB-2001 Rev 11/06 Page 8