

Bata-Check® 903C/904C

Lightweight, Quick-Acting Check Valve

Outstanding Features

1. Lightweight and Compact

Lightweight and compact design that has never been realized in conventional swing check valves.

2. Alleviation from Water Hammer

Instant response by spring-biased dual plates that prevent water hammer.

3. Tight Sealing

Shock-resistance and tight sealing effect ensured by resilient seat.

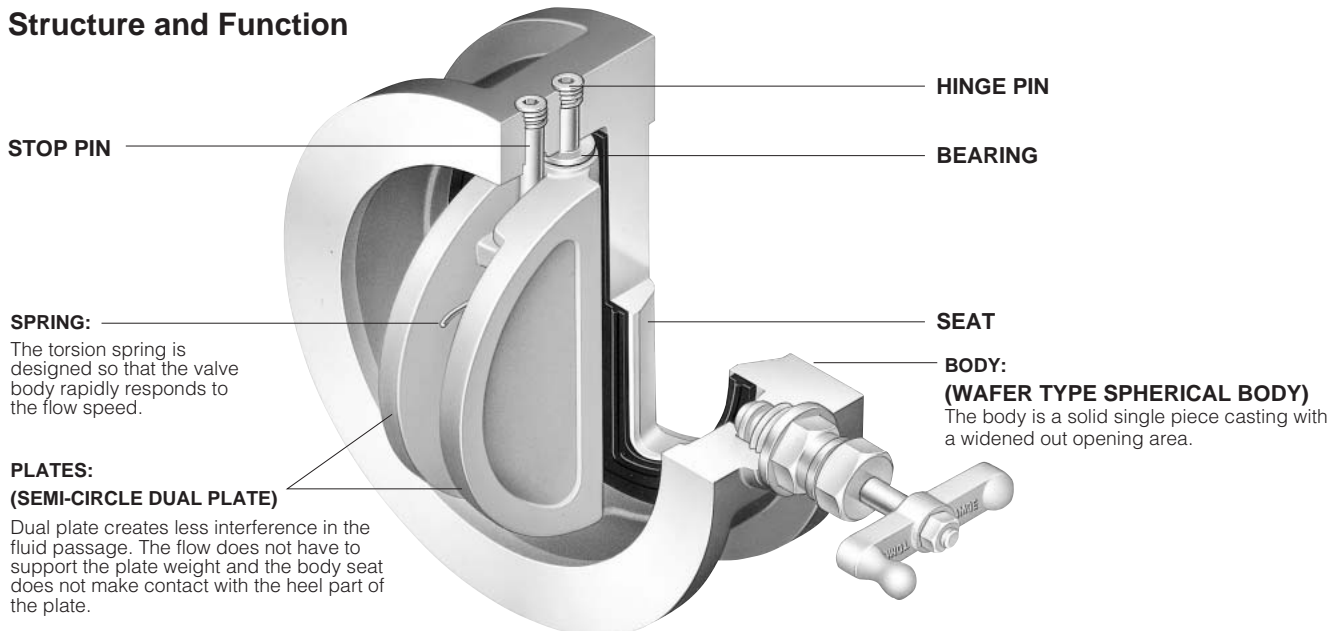
4. Free Installation Direction

Installed either horizontally or vertically in the piping.

5. Low Head Loss

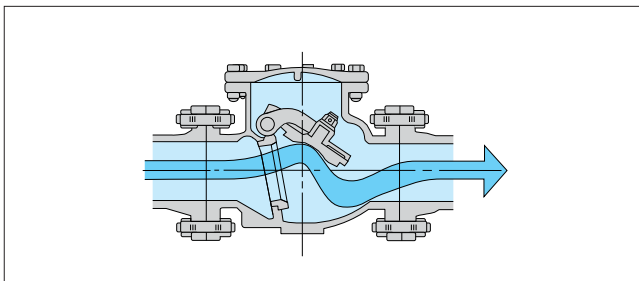
Opening area is expanded to the allowable limit and head loss of flow passage is less compared to similar dual type check valves.

Structure and Function



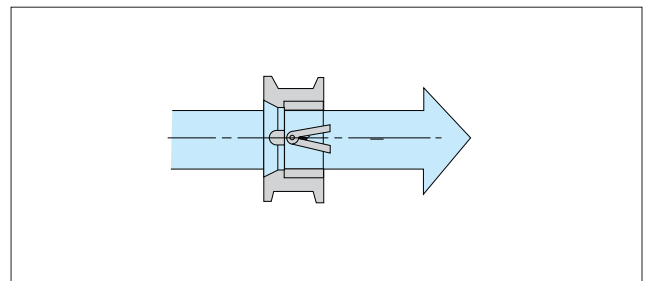
Comparison Between Wing Check Valve and Bata Check

Swing Check Valve



1. Plate stroke is long.
2. Face to Face dimension is long.
3. Slow response
4. Difficult to install vertically.

Bata Check (wafer check valve)



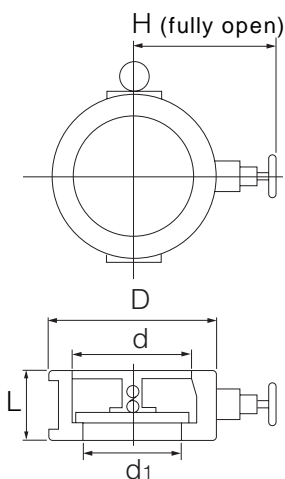
1. Plate stroke is short
2. Lightweight and compact due to wafer type body.
F. to F. dimension is reduced to about 1/4 and weight is about 1/5.
3. Maintenance-free due to simple structure.

Standard specifications	
Size	50mm to 300mm
Face to face	TOMOE dimension
Flange accommodation	JIS 10kgf/cm ² , ANSI 125 Lbs
Max working pressure	0.98 Mpa
Temperature	Min. - 20 degrees C, Max. +80 degrees C (NBR) + 120 degrees C (EPDM)
Test pressure	Body hydrostatic test : 1.47 Mpa Seat hydrostatic test : 1.08 Mpa

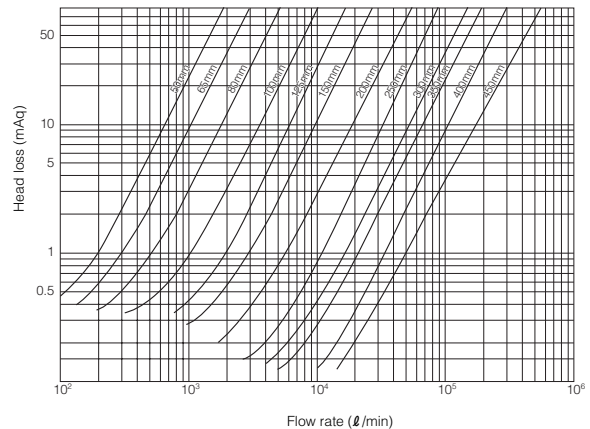
Spring selection criteria	
Spring type	Bata check conditions of use 1.0 MPa type.
Low torque spring	Parallel piping in which gas (compressible liquid) or liquid line pressure is between 0.05 and 0.10 MPa or up-flow line in which fluid flows from bottom to top.
Standard torque spring	Parallel piping in which liquid line pressure is between 0.1 and 0.7 MPa or up-flow line in which fluid flows from bottom to top.
High torque spring	Liquid line pressure is 0.7 MPa or higher or down-flow lines in which fluid flows from top to bottom. *Please use a high torque spring in the pump outlet regardless of the pressure.

903C principal dimensions

Nominal size		Dimension (mm)					Approx. Mass (kg)
mm	inch	d	D	d ₁	L	H	
50	2	62	101	42	56	157	2.4
65	2 1/2	73	121	48	56	162	3.4
80	3	89	131	63	60	170	3.9
100	4	115	156	82	66	184	5.5
125	5	142	187	110	70	200	8
150	6	168	217	128	76	213	10
200	8	220	267	174	95	239	17
250	10	273	330	218	108	286	28
300	12	324	375	260	144	309	44



Head loss vs. Flow



904C principal dimensions

Nominal size		Dimension (mm)					Approx. Mass (kg)
mm	inch	d	D	d ₁	L	H	
50	2	62	101	42	56	174	2.1
65	2 1/2	73	121	48	56	161	2.7
80	3	89	131	63	60	169	3.2
100	4	115	156	82	66	185	4.3
125	5	142	187	110	70	198	6.3
150	6	168	217	128	76	211	9.1
200	8	220	267	174	95	237	14.8
250	10	273	330	218	108	298	27.5
300	12	324	375	260	144	323	42

