



Ver. 01

## Technical Data & Specifications

### 82 & 83 Series RSBFV

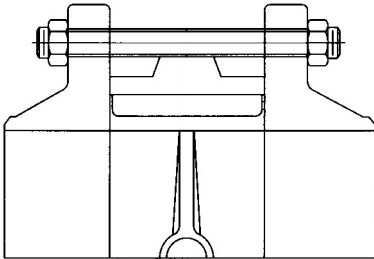




# FLANGE BOLTING DATA

## Wafer type valve

Recommended stud length for tightening J Flow Controls Wafer type valve between flanges.

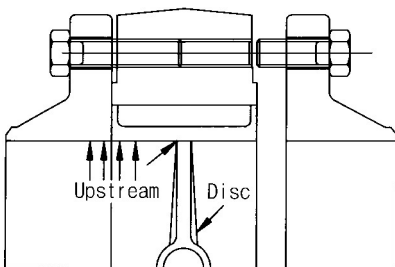


Valve size		JIS 10K flanges		DIN PN10 flanges		DIN PN16 flanges		ANSI 150 flanges	
mm	inch	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (inch)	N° studs
50	2"	M16 X 130	4	M16 X 130	4	M16 X 130	4	5/8" X 5-1/8"	4
65	2 1/2"	M16 X 130	4	M16 X 130	4	M16 X 130	4	5/8" X 5-1/8"	4
80	3"	M16 X 140	8	M16 X 140	4	M16 X 140	8	5/8" X 5-1/2"	4
100	4"	M16 X 150	8	M16 X 150	8	M16 X 150	8	5/8" X 5-1/2"	8
125	5"	M20 X 150	8	M16 X 150	8	M16 X 150	8	3/4" X 6-3/8"	8
150	6"	M20 X 160	8	M20 X 160	8	M20 X 160	8	3/4" X 6-3/8"	8
200	8"	M20 X 170	12	M20 X 170	8	M20 X 170	12	3/4" X 6-1/4"	8
250	10"	M22 X 190	12	M20 X 180	12	M24 X 190	12	7/8" X 7-1/2"	12
300	12"	M22 X 200	16	M20 X 190	12	M24 X 200	12	7/8" X 8-3/8"	12
350	14"	M22 X 220	16	M20 X 230	16	M24 X 220	16	1" X 8-3/4"	12
400	16"	M24 X 240	16	M22 X 230	16	M27 X 240	16	1" X 10"	16
450	18"	M24 X 250	20	M24 X 250	20	M27 X 250	20	1-1/8" X 11-1/8"	16
500	20"	M24 X 280	20	M24 X 250	20	M30 X 280	20	1-1/8" X 12"	20
600	24"	M30 X 300	24	M27 X 300	20	M33 X 300	20	1-1/4" X 13-13/16"	20

For pipe conveying oil, the flange needs 8 studs instead of 4.

## Lug type valve

Recommended screws length for tightening J Flow Controls Lug type valve between flanges



Valve size		JIS 10K flanges		DIN PN10 flanges		DIN PN16 flanges		ANSI 150 flanges	
mm	inch	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (inch)	N° studs
50	2"	M16 X 35	8	M16 X 35	8	M16 X 35	8	5/8" X 1-1/2"	8
65	2 1/2"	M16 X 35	8	M16 X 35	8	M16 X 35	8	5/8" X 1-1/2"	8
80	3"	M16 X 35	16	M16 X 35	8	M16 X 35	16	5/8" X 1-1/2"	8
100	4"	M16 X 40	16	M16 X 40	16	M16 X 40	16	5/8" X 1-3/4"	16
125	5"	M20 X 45	16	M16 X 45	16	M16 X 45	16	3/4" X 1-3/4"	16
150	6"	M20 X 45	16	M20 X 45	16	M20 X 45	16	3/4" X 2"	16
200	8"	M20 X 50	24	M20 X 50	16	M20 X 50	24	3/4" X 2-1/4"	16
250	10"	M22 X 55	24	M20 X 55	24	M24 X 55	24	7/8" X 2-1/4"	24
300	12"	M22 X 60	32	M20 X 60	24	M24 X 60	24	7/8" X 2-1/2"	24
350	14"	M22 X 60	32	M20 X 60	32	M24 X 60	32	1" X 2-1/2"	24
400	16"	M24 X 70	32	M24 X 70	32	M27 X 70	32	1" X 3-1/4"	32
450	18"	M24 X 80	40	M24 X 80	40	M27 X 80	40	1-1/8" X 3-1/4"	32
500	20"	M24 X 80	40	M24 X 80	40	M30 X 80	40	1-1/8" X 3-1/4"	40
600	24"	M30 X 90	48	M27 X 90	40	M33 X 90	40	1-1/4" X 3-1/2"	40

For pipe conveying oil, the flange needs 16 screws instead of 8.

N.B - For lug type valves with free holes use the same studs as referred in wafer type valve's table.

### End pipe service

Due to the particular seat perimeter, J Flow Controls Lug type butterfly valves can also be installed at the end of pipe.

That means on single flange service. In this case it is possible to remove downstream piping and make maintenance operations.

For this particular service weld neck or socket flanges are necessary. When valve is correctly installed on single flange by means of screws will have zero leakage, no fluid infiltrations between flange and seat.

We suggest not to use other types of flanges which would cause such infiltrations and make the seat slide into the body.

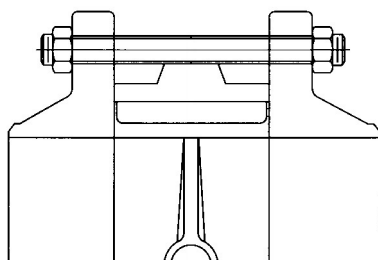
Lug type butterfly valves were expressly designed for this service. But they cannot intercept liquids with pressure over than 10.5bar. They are not suitable for gas or air lines on single flange service.

After having removed the downstream piping we suggest to protect the valve with a blind flange.

## FLANGE BOLTING DATA

### Wafer type valve

Recommended stud length for tightening  
J Flow Controls Wafer type valve between  
flanges.

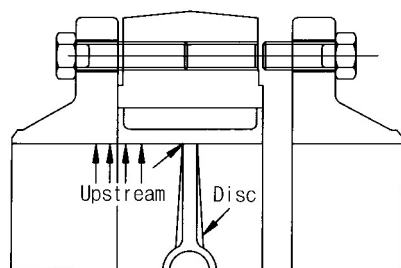


Valve size		JIS20K FLANGES		PN25 FLANGES		ANSI300 FLANGES		JIS30K FLANGES		PN40 FLANGES	
mm	inch	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (inch)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs
50	2"	M16 X 135	8	M16 X 135	4	5/8" X 5-3/8"	8	M16 X 135	8	M16 X 135	4
65	2 1/2"	M16 X 150	8	M16 X 150	8	3/4" X 5-7/8"	8	M20 X 150	8	M16 X 150	8
80	3"	M20 X 160	8	M16 X 160	8	3/4" X 6-3/8"	8	M20 X 160	8	M16 X 160	8
100	4"	M20 X 170	8	M20 X 170	8	3/4" X 6-3/4"	8	M22 X 170	8	M20 X 170	8
125	5"	M22 X 180	8	M24 X 180	8	3/4" X 7"	8	M22 X 180	8	M24 X 180	8
150	6"	M22 X 180	12	M24 X 180	8	3/4" X 7-1/8"	12	M24 X 180	12	M24 X 180	8
200	8"	M22 X 215	12	M24 X 215	12	7/8" X 8-1/2"	12	M24 X 215	12	M27 X 215	12
250	10"	M24 X 245	12	M27 X 245	12	1" X 9-5/8"	16	(M30 X 3) X 245	12	M30 X 245	12
300	12"	M24 X 265	16	M27 X 265	16	1-1/8" X 10-3/8"	16	(M30 X 3) X 265	16	M30 X 265	16
350	14"	(M30 X 3) X 300	16	M30 X 300	16	1-1/8" X 11-3/4"	20	(M30 X 3) X 300	16	M33 X 300	16
400	16"	(M30 X 3) X 325	16	M33 X 325	16	1-1/4" X 12-3/4"	20	(M36 X 3) X 325	16	M36 X 325	16
450	18"	(M30 X 3) X 345	20	M33 X 345	20	1-1/4" X 13-5/8"	24	-	-	-	-
500	20"	(M30 X 3) X 365	20	M33 X 365	20	1-1/4" X 14-3/8"	24	-	-	-	-
600	24"	(M36 X 3) X 415	24	M36 X 415	20	1-1/2" X 16-1/4"	24	-	-	-	-

For pipe conveying oil, the flange needs 8 studs instead of 4.

### Lug type valve

Recommended screws length for tightening  
J Flow Controls Lug type valve between  
flanges



Valve size		JIS20K FLANGES		PN25 FLANGES		ANSI300 FLANGES		JIS30K FLANGES		PN40 FLANGES	
mm	inch	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (inch)	N° studs	Studs Dia and length (mm)	N° studs	Studs Dia and length (mm)	N° studs
50	2"	M16 X 40	16	M16 X 40	8	5/8" X 1-1/2"	16	M16 X 40	16	M16 X 40	8
65	2 1/2"	M16 X 45	16	M16 X 45	16	3/4" X 1-3/4"	16	M20 X 45	16	M16 X 45	16
80	3"	M20 X 50	16	M16 X 50	16	3/4" X 1-3/4"	16	M20 X 50	16	M16 X 50	16
100	4"	M20 X 55	16	M20 X 55	16	3/4" X 2-1/4"	16	M22 X 55	16	M20 X 55	16
125	5"	M22 X 60	16	M24 X 60	16	3/4" X 2-1/4"	16	M22 X 60	16	M24 X 60	16
150	6"	M22 X 60	24	M24 X 60	16	3/4" X 2-1/2"	24	M24 X 60	24	M24 X 60	16
200	8"	M22 X 75	24	M24 X 75	24	7/8" X 2-7/8"	24	M24 X 75	24	M27 X 75	24
250	10"	M24 X 85	24	M27 X 85	24	1" X 3-1/4"	32	(M30 X 3) X 85	24	M30 X 85	24
300	12"	M24 X 95	32	M27 X 95	32	1-1/8" X 3-1/2"	32	(M30 X 3) X 95	32	M30 X 95	32
350	14"	(M30 X 3) X 110	32	M30 X 110	32	1-1/8" X 4-1/4"	40	(M30 X 3) X 110	32	M33 X 110	32
400	16"	(M30 X 3) X 120	32	M33 X 120	32	1-1/4" X 4-3/4"	40	(M36 X 3) X 120	32	M36 X 120	32
450	18"	(M30 X 3) X 130	40	M33 X 130	40	1-1/4" X 5-1/4"	48	-	-	-	-
500	20"	(M30 X 3) X 140	40	M33 X 140	40	1-1/4" X 5-1/2"	48	-	-	-	-
600	24"	(M36 X 3) X 155	48	M36 X 155	40	1-1/2" X 6-1/4"	48	-	-	-	-

For pipe conveying oil, the flange needs 16 screws instead of 8.

N.B - For lug type valves with free holes use the same studs as referred in wafer type valve's table.

#### End of pipe service

Due to the particular seat perimeter, J Flow Controls Lug type butterfly valves can also be installed at the end of pipe.

That means on single flange service. In this case it is possible to remove downstream piping and make maintenance operations.

For this particular service weld neck or socket flanges are necessary. When valve is correctly installed on single flange by means of screws will have zero leakage, no fluid infiltrations between flange and seat.

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Lug type butterfly valves were expressly designed for this service. But they cannot intercept liquids with pressure over than 10.5bar. They are not suitable for gas or air lines on single flange service.

After having removed the downstream piping we suggest to protect the valve with a blind flange.



# BOLTING TORQUE

## Recommended Bolt Tightening Torques

Ft Lbs.

Valve Size	Connection Bolt Size	Minimum	Maximum	
150 Class	2"	5/8"	20	60
	2 1/2"	5/8"	20	60
	3"	5/8"	20	60
	4"	5/8"	20	60
	5"	3/4"	30	100
	6"	3/4"	30	100
	8"	3/4"	30	100
	10"	7/8"	50	200
	12"	7/8"	50	200
	14"	1"	70	250
	16"	1"	70	250
	18"	1 1/8"	100	350
	20"	1 1/8"	100	350
24"	1 1/4"	150	450	

Ft Lbs.

Valve Size	Connection Bolt Size	Minimum	Maximum	
300 Class	2"	5/8"	20	60
	2 1/2"	3/4"	30	100
	3"	3/4"	30	100
	4"	3/4"	30	100
	5"	3/4"	30	100
	6"	3/4"	30	100
	8"	3/4"	50	200
	10"	1"	70	250
	12"	1 1/8"	100	350
	14"	1 1/8"	100	350
	16"	1 1/4"	150	450
	18"	1 1/4"	150	450
	20"	1 1/4"	150	450
	24"	1 1/2"	200	600

# J Flow Controls BUTTERFLY VALVE WEIGHT LIST

## STANDARD "WAFER" TYPE BUTTERFLY VALVE

(unit : kg)

Size	80			80-SR		
	Bare Shaft	W/ Lever	W/ Gear	Bare Shaft	W/ Lever	W/ Gear
2"	3.21	3.83	6.61	3.50	4.12	6.90
2.5"	4.20	4.82	7.60	4.14	4.76	7.54
3"	4.36	4.98	7.76	4.27	4.89	7.67
4"	5.82	6.44	9.28	5.24	5.86	8.70
5"	6.66	7.28	10.12	7.31	7.93	10.77
6"	8.72	9.34	12.34	7.66	8.80	12.42
8"	12.06	14.08	18.76	13.90	15.92	20.60
10"	22.32	24.34	29.50	21.16	23.18	28.34
12"	28.58	30.60	38.16	27.46	29.48	37.04
14"	38.56	-	48.00	43.11	-	52.55
16"	48.32	-	58.66	78.42	-	89.04
18"	77.72	-	88.34	86.37	-	96.71
20"	99.52	-	123.06	119.08	-	142.62
24"	184.45	-	207.99	198.45	-	221.99

## STANDARD "LUG" TYPE BUTTERFLY VALVE

(unit : kg)

Size	81			81-SR		
	Bare Shaft	W/ Lever	W/ Gear	Bare Shaft	W/ Lever	W/ Gear
2"	3.62	4.24	7.02	3.46	4.08	6.86
2.5"	4.32	4.94	7.72	4.33	4.95	7.73
3"	5.62	6.24	9.02	4.64	5.26	8.04
4"	8.20	8.82	11.66	6.98	7.60	10.44
5"	8.80	9.42	12.26	8.95	9.57	12.41
6"	10.72	11.34	14.34	9.50	10.12	13.12
8"	13.48	15.50	20.18	14.64	16.66	21.34
10"	24.92	26.94	32.10	24.58	26.60	31.76
12"	32.64	34.66	42.22	36.60	38.62	46.18
14"	41.06	-	50.50	43.11	-	52.55
16"	74.69	-	85.31	88.54	-	98.88
18"	82.26	-	92.60	90.26	-	100.88
20"	113.41	-	136.95	124.75	-	148.29
24"	216.46	-	240.00	207.90	-	231.44

## 150 CLASS HIGH PERFORMANCE BUTTERFLY VALVE

(unit : kg)

Size	Wafer -150			Lug type -150		
	Bare Shaft	W/ Lever	W/ Gear	Bare Shaft	W/ Lever	W/ Gear
2"	4.6	5.2	8.0	4.7	5.3	8.1
2.5"	4.7	5.3	8.1	4.8	5.4	8.2
3"	4.8	5.4	8.2	4.9	5.5	8.3
4"	6.8	7.4	10.3	8.3	8.9	11.7
5"	8.5	9.1	12.0	10.5	11.1	13.9
6"	10.2	10.9	13.9	12.4	13.0	16.0
8"	16.2	18.2	22.9	18.6	20.6	25.3
10"	25.2	27.2	32.4	31.4	33.4	38.5
12"	34.7	36.7	44.3	43.5	45.6	53.1
14"	81.9	-	91.4	85.6	-	95.0
16"	108.5	-	118.8	114.4	-	124.7
18"	157.8	-	168.4	165.5	-	176.2
20"	167.7	-	191.3	177.4	-	201.0
24"	289.1	-	312.6	301.5	-	325.1

## 300 CLASS HIGH PERFORMANCE BUTTERFLY VALVE

(unit : kg)

Size	Wafer Type - 300			Lug Type - 300		
	Bare Shaft	W/ Lever	W/ Gear	Bare Shaft	W/ Lever	W/ Gear
2"	4.6	5.2	8.0	4.7	5.3	8.1
2.5"	4.7	5.3	8.1	4.8	5.4	8.2
3"	4.8	5.4	8.2	4.9	5.5	8.3
4"	6.8	7.4	10.3	8.3	8.9	11.7
5"	8.5	9.1	12.0	10.5	11.1	13.9
6"	10.2	10.9	13.9	12.4	13.0	16.0
8"	16.2	18.2	22.9	18.6	20.6	25.3
10"	25.2	27.2	32.4	31.4	33.4	38.5
12"	34.7	36.7	44.3	43.5	45.6	53.1
14"	81.9	-	91.4	85.6	-	95.0
16"	108.5	-	118.8	114.4	-	124.7
18"	157.8	-	168.4	165.5	-	176.2
20"	167.7	-	191.3	177.4	-	201.0
24"	289.1	-	312.6	301.5	-	325.1



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