



## KEYSTONE SERIES V30/V32 MARINE HIGH PERFORMANCE BUTTERFLY VALVES

Keystone marine high performance butterfly valves offer effective, bi-directional sealing across a wide spectrum of service conditions



### FEATURES AND BENEFITS

- Factory testing of every valve a full shutoff rating insures tight shutoff.
- Series V30/V32 valve is designed according to JIS valve and flange standards.
- Actuator mounting flange conforms to ISO 5211.
- Elastomer seat design provides positive sealing.
- One-piece thru shaft provides maximum strength and stability.
- Blowout resistant shaft is standard on all valves for increased safety.
- Integrally cast disc position stop accurately locates the disc into the seat, achieving maximum seat and seal life.
- NBR and FKM seats provide bi-directional drop-tight closure. Other seat materials available on special request.
- Seat replacement is fast and simple.
- Series V30/V32 is third party type approved for various shipping class.
- Seat retention design allows for use on end-of-line service.
- Disc taper pins are tangentially positioned to provide low stresses during operation.
- Double offset disc minimizes seat wear providing long life durability.
- Packing seal protects the valve from exposure to external materials.
- Inset seat retaining ring remains evenly loaded regardless of any pipe line stresses and flange tightening force.
- Series V32 lug body version offers an economical lightweight choice for applications where flange valves are considered.

### GENERAL APPLICATION

- Shipbuilding
- Ship side valve
- Cargo oil system in the tanker
- Fuel oil and diesel oil system
- Water ballast system
- Sea water system
- Fresh water system
- Other system where applicable

### TECHNICAL DATA

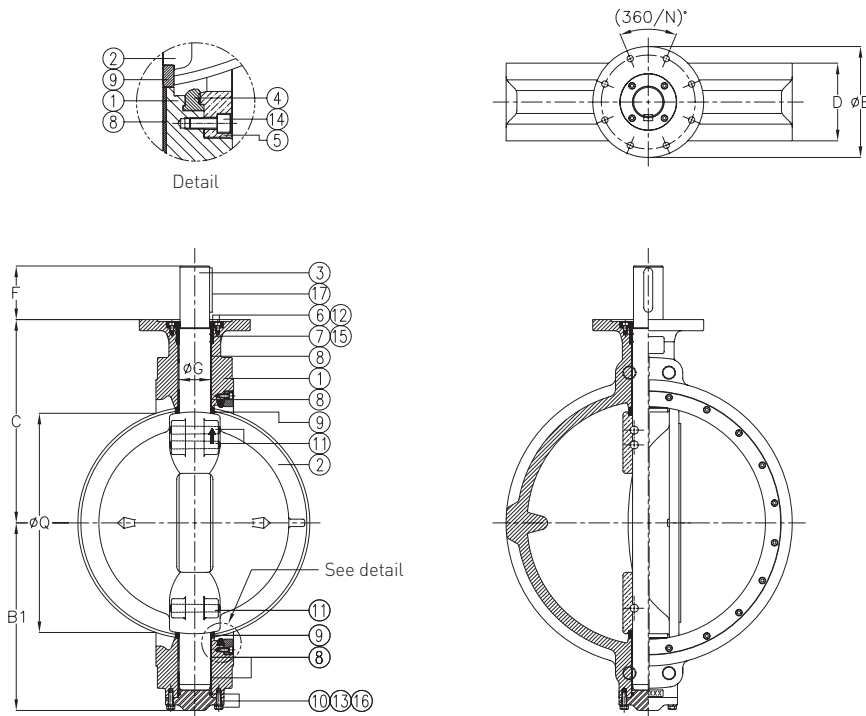
Pressure:	10/16 kg/cm <sup>2</sup> (150/230 psi)
Temperature*:	-40°C to 170°C (-40°F to 338°F)
Size:	DN 50 to DN 900 (NPS 2 to NPS 36)
Flange accommodation*:	JIS 10K/16K KS 10K/16K
Face to face:	JIS F7480 KS V7490

\* For ASME Class 150 and PN 10/16, consult your local Emerson representative.

\* Working temperature: according to JIS F7480.

# KEYSTONE SERIES V30/V32 MARINE HIGH PERFORMANCE BUTTERFLY VALVES

## SERIES V30 VALVE DATA - WAFER



## PARTS LIST

Item	Description
1	Body
2	Disc
3	Shaft
4	Seat
5	Seat retaining ring
6	Packing seal cover
7	Packing seal
8	Bearing
9	Spacer
10	Bottom cover
11	Disc taper pin
12	Hex socket screw
13	Hex bolt and washer
14	Hex socket screw
15	O-ring (packing seal)
16	O-ring (bottom cover)
17	Key

## DIMENSIONS (mm)

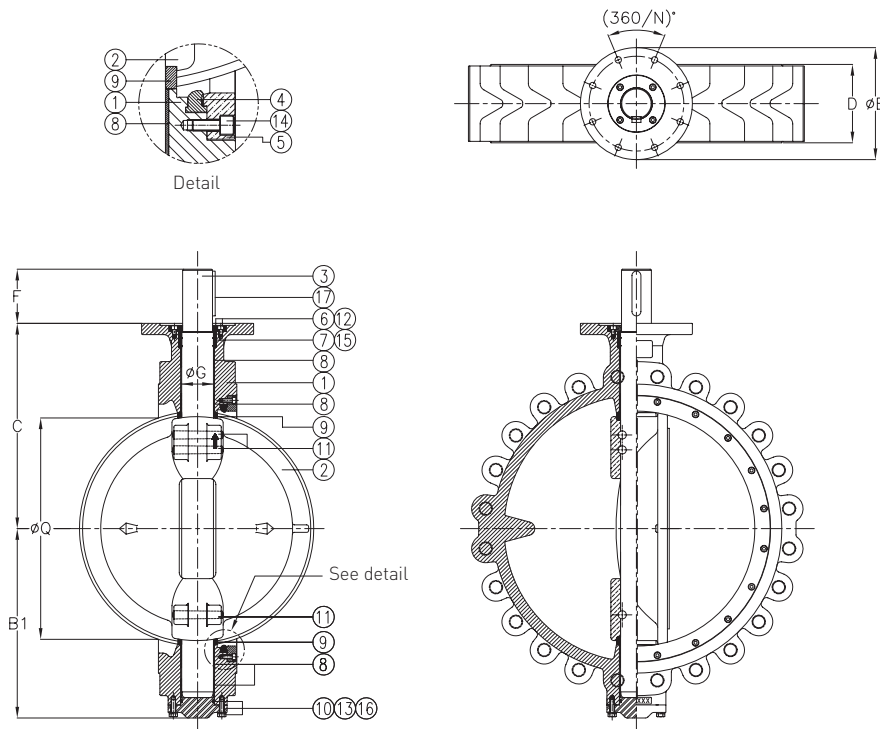
Valve size		Top plate data							Weight			
NPS	DN	B1	C	D	ØE	F	ØG	ØQ	B.C.D.	Hole no.	Hole dia.	kg
2	50	94	140	55	90	40	16	35	70	4	9	8
2½	65	104	150	55	90	40	16	61	70	4	9	8
3	80	119	162	62	90	40	18	64	70	4	9	9
4	100	132	175	65	125	40	20	81	102	4	11	13
5	125	154	197	70	125	40	22	110	102	4	11	19
6	150	172	215	90	125	40	25	120	102	4	11	27
8	200	193	247	100	150	60	30	176	125	4	13	37
10	250	238	287	110	150	60	35	226	125	4	13	61
12	300	268	316	110	175	75	40	276	140	4	17	73
14	350	318	352	120	175	75	45	300	140	4	17	96
16	400	354	389	130	210	85	50	346	165	4	21	132
18	450	395	424	150	210	85	55	395	165	4	21	189
20	500	424	452	160	210	85	60	441	165	4	21	220
22	550	463	503	170	300	100	65	514	254	8	17	273
24	600	488	528	200	300	100	70	563	254	8	17	344
26	650	522	563	210	300	100	75	619	254	8	17	394
28	700	553	595	220	300	120	80	671	254	8	17	449
30	750	583	625	230	300	120	85	721	254	8	17	537
32	800	616	663	240	350	120	90	772	298	8	21	620
34	850	641	688	240	350	120	95	823	298	8	21	678
36	900	667	715	240	350	120	100	851	298	8	21	770

## NOTES

1. Valve size shown is the DN 650 (NPS 26).
2. 'Q' is the disc chordal dimension at face of valve for disc clearance into pipe fitting or equipment.
3. The valve dimensions are for reference only. For detailed information, please consult factory.
4. Bottom cover, bolts and nuts are not required on sizes below DN 350 (NPS 14).
5. Valve dimensions and weights are for 16K rating standard.

# KEYSTONE SERIES V30/V32 MARINE HIGH PERFORMANCE BUTTERFLY VALVES

## SERIES V32 VALVE DATA - LUG



## PARTS LIST

Item	Description
1	Body
2	Disc
3	Shaft
4	Seat
5	Seat retaining ring
6	Packing seal cover
7	Packing seal
8	Bearing
9	Spacer
10	Bottom cover
11	Disc taper pin
12	Hex socket screw
13	Hex bolt and washer
14	Hex socket screw
15	O-ring (packing seal)
16	O-ring (bottom cover)
17	Key

## DIMENSIONS (mm)

Valve size									Top plate data			Weight
NPS	DN	B1	C	D	ØE	F	ØG	ØQ	B.C.D.	Hole no.	Hole dia.	kg
2	50	94	140	55	90	40	16	35	70	4	9	8
2 ½	65	104	150	55	90	40	16	61	70	4	9	10
3	80	119	162	62	90	40	18	64	70	4	9	12
4	100	132	175	65	125	40	20	81	102	4	11	16
5	125	154	197	70	125	40	22	110	102	4	11	23
6	150	172	215	90	125	40	25	120	102	4	11	33
8	200	193	247	100	150	60	30	176	125	4	13	45
10	250	238	287	110	150	60	35	226	125	4	13	72
12	300	268	316	110	175	75	40	276	140	4	17	86
14	350	318	352	120	175	75	45	300	140	4	17	123
16	400	354	389	130	210	85	50	346	165	4	21	163
18	450	395	424	150	210	85	55	395	165	4	21	255
20	500	424	452	160	210	85	60	441	165	4	21	271
22	550	463	503	170	300	100	65	514	254	8	17	338
24	600	488	528	200	300	100	70	563	254	8	17	418
26	650	522	563	210	300	100	75	619	254	8	17	479
28	700	553	595	220	300	120	80	671	254	8	17	560
30	750	583	625	230	300	120	85	721	254	8	17	663
32	800	616	663	240	350	120	90	772	298	8	21	779
34	850	641	688	240	350	120	95	823	298	8	21	827
36	900	667	715	240	350	120	100	851	298	8	21	936

## NOTES

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## ACTUATOR SELECTION

Actuator	Figure	Description
Handle	F401	Leverlock
Gear	F420 to F430	Range of heavy duty gear operators available
Pneumatic	F89E	Double acting and spring return rack and pinion designs
Gear and pneumatic	F453/F89U	Dec clutchable gear unit provides manual override for the Keystone pneumatic actuator
Electric	EPI2	Compact electric actuators

## MATERIAL SELECTION

Part name	Material	ASME standard	JIS standard
Body	Cast iron	A126 Class B	G5501 FC200/FC250
	Ductile iron	A536 Grade 65-45-12	G5502 FCD400/FCD450
	Cast steel	A216 Grade WCB	G5101 SC480
Disc	Stainless steel	A351 Grade CF8/CF8M	G5121 SCS13A/SCS14A
	Al-bronze	B148-C95200	H5120 CAC701
	Ni-Al-bronze	B148-C95800	H5120 CAC703
Shaft	431 stainless steel	A276 Type 431	G4303 SUS431
Seat	NBR		
	FKM		
Seat retaining ring	Steel		
Bearing	RTFE/fiberglass epoxy		
Bottom cover	Steel		

## NOTE

Other materials or combination of materials are available on request.

## MODEL CODING SYSTEM

	Valve size (DN)	Figure number		Trim code	
Example:	080	-	V30	-	001
Trim code	Body	Disc	Shaft	Seat	
001	Cast iron	Al bronze	431SS	NBR	
002	Cast iron	304SS	431SS	NBR	
003	Cast iron	316SS	431SS	NBR	
004	Cast steel	Al bronze	431SS	NBR	
005	Cast steel	304SS	431SS	NBR	
006	Cast steel	316SS	431SS	NBR	
007	Cast iron	Al bronze	431SS	FKM	
008	Cast iron	304SS	431SS	FKM	
009	Cast iron	316SS	431SS	FKM	
010	Cast steel	Al bronze	431SS	FKM	
011	Cast steel	304SS	431SS	FKM	
012	Cast steel	316SS	431SS	FKM	

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