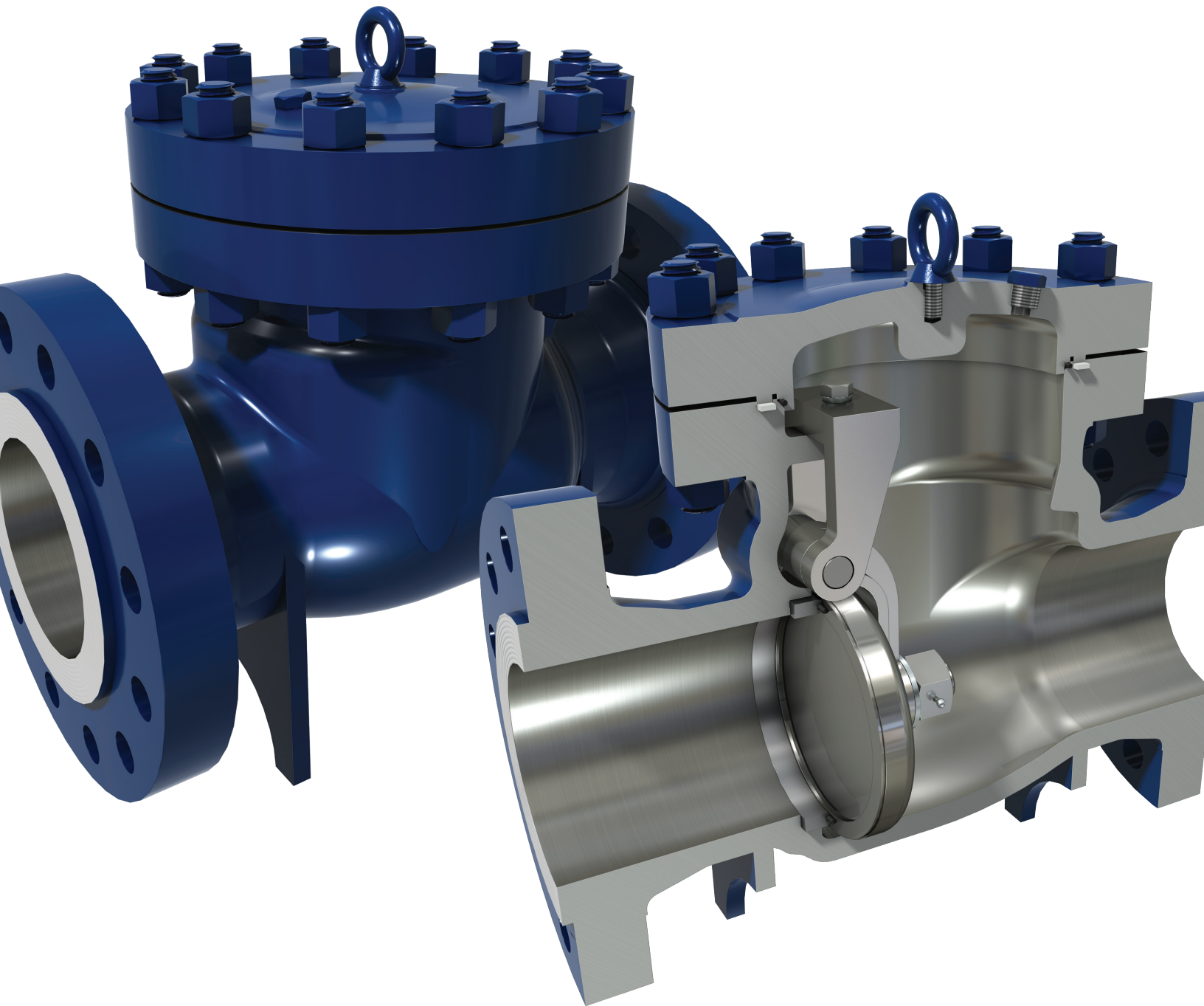




*Full Opening Swing*  
**CHECK VALVE - API 6D**





**Table of Contents:**

Manufacturing Range.....	3
Features & Benefits.....	4
Drawings .....	6
Sizes & Dimensions.....	8
Pressure / Temperature Reference.....	14
Flow Coefficients (Cv).....	14
How to Order.....	15

# 48/24 *Standard* WARRANTY

Meridian™ products feature an industry leading warranty of 48 months from date of shipment or 24 months from the date of start-up (whichever is sooner) for all Meridian™ brand API 6D check valves, flanged or buttweld trunnion ball valves, and floating ball valves.

## MERIDIAN™ API 6D CHECK VALVE MANUFACTURING RANGE

(Size in inches)

Size	ASME 150	ASME 300	ASME 600	ASME 900	ASME 1500	ASME 2500
2	●	●	●	●	●	●
3	●	●	●	●	●	●
4	●	●	●	●	●	●
6	●	●	●	●	●	●
8	●	●	●	●	●	●
10	●	●	●	●	●	●
12	●	●	●	●	●	●
14	●	●	●	●	●	●
16	●	●	●	●	●	●
18	●	●	●	●	●	●
20	●	●	●	●	●	●
24	●	●	●	●	●	●
30	●	●	●	●	●	
36	●	●	●	●		
40	●	●	●	●		
42	●	●	●	●		
48	●	●	●	●		
50	●	●				
54	●	●				
56	●	●				
60	●	●				

“●” denotes Meridian™’s standard design.

“●” denotes larger sizes that are available on request, please contact Meridian for details.

# MERIDIAN™ KEY FEATURES AND BENEFITS

## GENERAL FEATURES

- Firesafe design
- Standard valves meet NACE
- Full-port piggable
- In-line repairable
- Bleed Plug on cover (to confirm pressure relief prior to servicing)
- Support feet on 6" and larger
- Lifting eye bolts on 4" and larger
- Suitable for horizontal and vertical (flow-up) installation. Engineering review of process conditions required for vertical installation.
- Raised boss provided for optional drain plug
- Standard document package BS/EN 10204-3.1
- All O-rings are AED (anti-explosive decompression) design

## COVER FEATURES

- Independent dual cover seals (non-pressure seal design)
- Pressure seal cover standard for larger/high pressure valves
  - 10" and larger ASME 1500
  - 8" and larger ASME 2500

## OPTIONAL FEATURES

- External lever arm and weight (design changes apply, additional information available on request)
- Tapped drain plug

## SEAT DESIGN FEATURES

- Full stainless steel seat (ASTM A182 F316)
- Forged steel disc (cast for sizes >4") with 316 overlay on sealing area
- Replaceable O-ring in seat (see image "B" on next page) protected from upstream flow
- Dovetail groove to keep O-ring firmly in place
- Threaded in replaceable seat

## CERTIFICATION & TESTING

Design Standard:	API 6D
	CSA Z245.15
Face to Face:	ASME B16.10
Flange:	ASME B16.5
Marking:	MSS SP-25
Inspection:	API 598
Pressure & Temp.:	ASME B16.34
Quality:	MSS SP-55
Fire Safe Design:	ISO 10497
Sour:	NACE MR 0175
	ISO 15156
Pressure Testing:	API 6D

## MERIDIAN™ "CHECKPOINT"

### Critical Control Point Check System

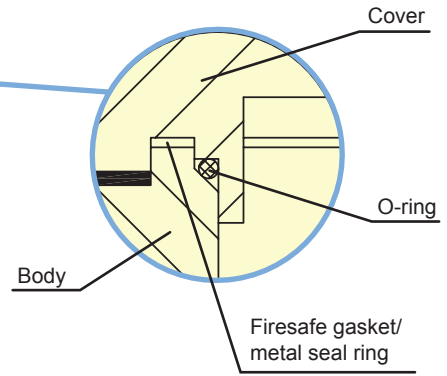
Our internal manufacturing and process quality system leverages "critical control point" data to provide a high level of quality and manufacturing control. Key components of the CHECKPOINT process include:

- A database that links CHECKPOINT manufacturing plant input to a specific valve serial number.
- Visual review and/or inspection and sign-off at each stage in the process.
- Checklist / traveler for each valve / component in production that tracks its progress from raw material to finished product.
- Ability to monitor CHECKPOINT data remotely.



### INDEPENDENT DUAL COVER SEALS

For valves not using a pressure seal design, the primary seal is an o-ring supported by a firesafe 316 SS spiral wound graphite gasket (150 - 600 ASME) or a metal seal ring.



### BLEED PLUG

Allows confirmation of pressure relief prior to servicing.

### SS SEAT WITH O-RING

Threaded in, replaceable seat is full stainless steel with an o-ring tucked out of the flow. Forged steel disc (cast for sizes >4") has a 316 SS weld overlay on the sealing area.

### BOSS

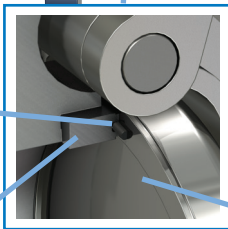
For optional drain plug.

### SEAT O-RING

### SEAT

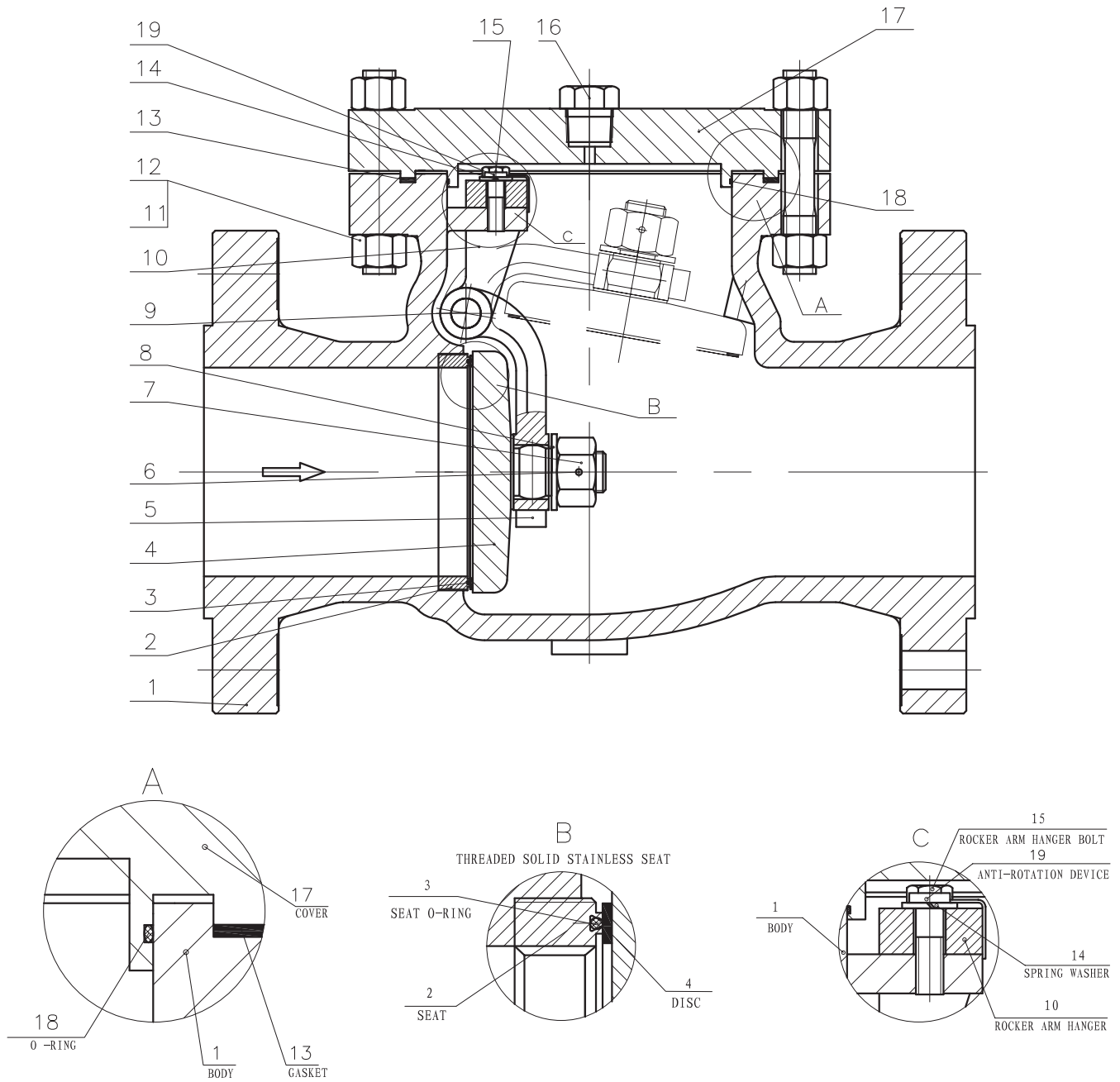
### DISC

B



# CROSS SECTIONAL DRAWING

## API 6D Check Valve Bolted Bonnet Design



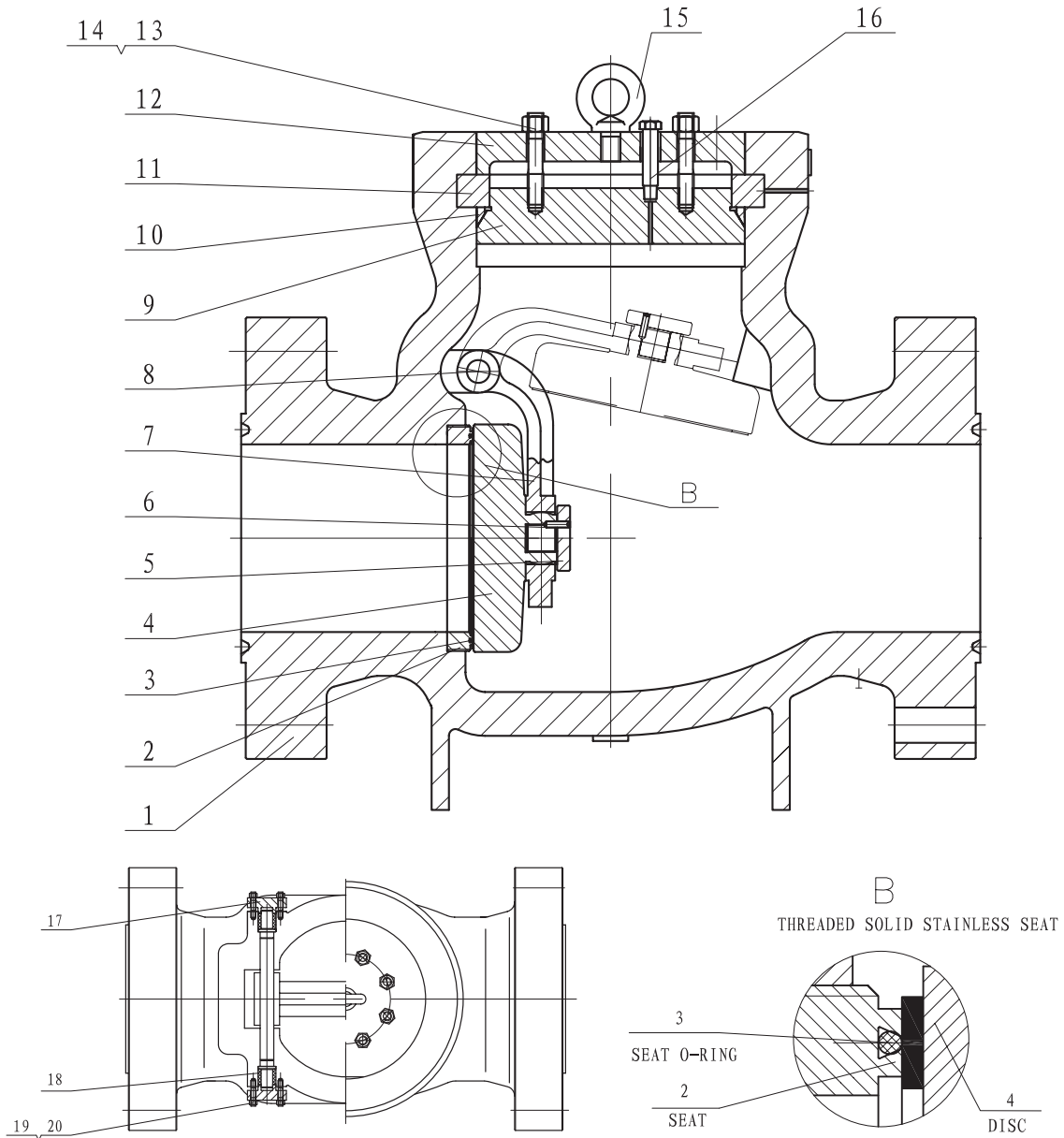
ITEM	DESCRIPTIONS
1	BODY
2	SEAT
3	SEAT O-RING
4	DISC
5	ROCKER ARM
6	COTTER PIN
7	NUT

ITEM	DESCRIPTIONS
8	WASHER
9	HINGE PIN
10	ROCKER ARM HANGER
11	NUT
12	STUD
13	SPIRAL WOUND GASKET

ITEM	DESCRIPTIONS
14	SPRING WASHER
15	ROCKER ARM HANGER BOLT
16	PLUG (NPT)
17	COVER
18	O-RING
19	ANTI-ROTATION DEVICE

# CROSS SECTIONAL DRAWING

API 6D Check Valve  
 Pressure Seal Bonnet Design  
 Range: 10" & Larger ASME 1500  
 8" & Larger ASME 2500



ITEM	DESCRIPTIONS
1	BODY
2	SEAT
3	SEAT O-RING
4	DISC
5	DISC RETAINER
6	DISC RETAINER SCREW
7	ROCKER ARM

ITEM	DESCRIPTIONS
8	HINGE PIN
9	PRESSURE SEAL COVER
10	SEAL RING
11	SEGMENT RING
12	BONNET
13	STUD
14	NUT

ITEM	DESCRIPTIONS
15	EYEBOLT
16	PLUG (NPT)
17	GLAND
18	PACKING
19	STUD
20	NUT



## API 6D CHECK VALVE SIZES & DIMENSIONS

### 150 ASME 2" TO 60"

Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
20	2	49	203	-	154	75	21
150		1.93	7.99		6.06	2.95	46.30
20	3	74	241	-	184	95	30
150		2.91	9.49		7.24	3.74	66.14
20	4	100	292	-	253	115	48
150		3.94	11.50		9.96	4.53	105.82
20	6	150	356	-	295	170	112
150		5.91	14.02		11.61	6.69	246.92
20	8	201	495	-	417	205	148
150		7.91	19.49		16.42	8.07	326.28
20	10	252	622	-	460	230	219
150		9.92	24.49		18.11	9.06	482.81
20	12	303	698	-	516	270	336
150		11.93	27.48		20.31	10.63	740.75
20	14	334	787	-	540	268	370
150		13.15	30.98		21.26	10.55	815.70
20	16	385	914	-	620	298	542
150		15.16	35.98		24.41	11.73	1194.89
20	18	436	978	-	690	318	750
150		17.17	38.50		27.17	12.52	1653.45
20	20	487	978	-	720	350	900
150		19.17	38.50		28.35	13.78	1984.14
20	24	589	1295	-	871	408	1200
150		23.19	50.98		34.29	16.06	2645.52
20	26	633	1295	-	925	435	*
150		24.92	50.98		36.42	17.13	
20	28	684	1448	-	1050	463	*
150		26.93	57.01		41.34	18.23	
20	30	735	1524	-	1005	493	2190
150		28.94	60.00		39.57	19.41	4828.07
20	32	779	1727	-	1136	530	*
150		30.67	67.99		44.72	20.87	
20	36	874	1956	-	1182	640	*
150		34.41	77.01		46.54	25.20	
20	40	976	1981	-	1191	725	*
150		38.43	77.99		46.89	28.54	
20	42	1020	2032	-	1377	725	*
150		40.16	80.00		54.21	28.54	
20	48	1166	2083	-	1442	876	*
150		45.91	82.01		56.77	34.49	
20	50	1200	*	-	*	*	*
150		47.24					
20	54	1312	*	-	*	*	*
150		51.65					
20	56	1360	*	-	*	*	*
150		53.54					
20	60	1458	*	-	*	*	*
150		57.40					



## API 6D CHECK VALVE SIZES & DIMENSIONS

### 300 ASME 2" TO 60"

Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
50	2	49	267	-	167	82.5	30
300		1.93	10.51		6.57	3.25	66.14
50	3	74	318	-	208	105	56
300		2.91	12.52		8.19	4.13	123.46
50	4	100	356	-	272	127.5	86
300		3.94	14.02		10.71	5.02	189.60
50	6	150	444	-	321	190	156
300		5.91	17.48		12.64	7.48	343.92
50	8	201	533	-	429	220	242
300		7.91	20.98		16.89	8.66	533.51
50	10	252	622	-	477	255	355
300		9.92	24.49		18.78	10.04	782.63
50	12	303	711	-	533	290	550
300		11.93	27.99		20.98	11.42	1212.53
50	14	334	838	-	571	293	538
300		13.15	32.99		22.48	11.54	1186.07
50	16	385	864	-	659	325	754
300		15.16	34.02		25.94	12.80	1662.27
50	18	436	978	-	693	355	935
300		17.17	38.50		27.28	13.98	2061.30
50	20	487	1016	-	742	388	1155
300		19.17	40.00		29.21	15.28	2546.31
50	24	589	1346	-	910	458	1408
300		23.19	52.99		35.83	18.03	3104.08
50	26	633	1346	-	*	*	*
300		24.92	52.99				
50	28	684	1499	-	1026	518	*
300		26.93	59.02		40.39	20.39	
50	30	735	1594	-	*	*	*
300		28.94	62.76				
50	32	779	1778	-	*	*	*
300		30.67	70.00				
50	36	874	2083	-	1090	680	*
300		34.41	82.01		42.91	26.77	
50	40	976	2250	-	1433	750	*
300		38.43	88.58		56.42	29.53	
50	42	1020	*	-	*	*	*
300		40.16					
50	48	1166	*	-	*	*	*
300		45.91					
50	50	1200	*	-	*	*	*
300		47.24					
50	54	1312	*	-	*	*	*
300		51.65					
50	56	1360	*	-	*	*	*
300		53.54					
50	60	1458	*	-	*	*	*
300		57.40					

## API 6D CHECK VALVE SIZES & DIMENSIONS

### 600 ASME 2" TO 48"

Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
100	2	49	292	295	180	82.5	34
600		1.93	11.50	11.61	7.09	3.25	74.96
100	3	74	356	359	219	105	59
600		2.91	14.02	14.13	8.62	4.13	130.07
100	4	100	432	435	303	137.5	103
600		3.94	17.01	17.13	11.93	5.41	227.07
100	6	150	559	562	339	200	222
600		5.91	22.01	22.13	13.35	7.87	489.42
100	8	201	660	663	468	220	402
600		7.91	25.98	26.10	18.43	8.66	886.25
100	10	252	787	790	524	285	613
600		9.92	30.98	31.10	20.63	11.22	1351.42
100	12	303	838	841	589	310	737
600		11.93	32.99	33.11	23.19	12.20	1624.79
100	14	334	889	892	670	303	944
600		13.15	35.00	35.12	26.38	11.93	2081.14
100	16	385	991	994	715	343	1300
600		15.16	39.02	39.13	28.15	13.50	2865.98
100	18	436	1092	1095	786	373	1760
600		17.17	42.99	43.11	30.94	14.69	3880.10
100	20	487	1194	1200	845	408	2200
600		19.17	47.01	47.24	33.27	16.06	4850.12
100	24	589	1397	1407	1024	470	3350
600		23.19	55.00	55.39	40.31	18.50	7385.41
100	26	633	1448	1461	1218	508	*
600		24.92	57.01	57.52	47.95	20.00	
100	28	684	1600	1613	*	*	*
600		26.93	62.99	63.50			
100	30	735	1651	1664	*	*	*
600		28.94	65.00	65.51			
100	32	779	*	*	*	*	*
600		30.67					
100	36	874	2083	*	1600	747	*
600		34.41	82.01		62.99	29.41	
100	40	976	*	*	*	*	*
600		38.43					
100	42	1020	2096	*	1781	860	*
600		40.16	82.52		70.12	33.86	
100	48	1166	*	*	3110	980	*
600		45.91			122.44	38.58	

## API 6D CHECK VALVE SIZES & DIMENSIONS

### 900 ASME 2" TO 48"

Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
150	2	49	368	371	206	107.5	70
900		1.93	14.49	14.61	8.11	4.23	154.32
150	3	74	381	384	246	120	120
900		2.91	15.00	15.12	9.69	4.72	264.55
150	4	100	457	460	337	175	168
900		3.94	17.99	18.11	13.27	6.89	370.37
150	6	150	610	613	459	220	353
900		5.91	24.02	24.13	18.07	8.66	778.22
150	8	201	737	740	557	225	770
900		7.91	29.02	29.13	21.93	8.86	1697.54
150	10	252	838	841	*	*	*
900		9.92	32.99	33.11			
150	12	303	965	968	*	*	*
900		11.93	37.99	38.11			
150	14	322	1029	1039	685	320	1220
900		12.68	40.51	40.91	26.97	12.60	2689.61
150	16	373	1130	1140	720	353	1350
900		14.69	44.49	44.88	28.35	13.90	2976.21
150	18	423	1219	1232	*	393	*
900		16.65	47.99	48.50		15.47	
150	20	471	1321	1334	723	428	*
900		18.54	52.01	52.52	28.46	16.85	
150	24	570	1549	1568	1018	520	*
900		22.44	60.98	61.73	40.08	20.47	
150	26	617	*	*	*	*	*
900		24.29					
150	28	665	*	*	*	*	*
900		26.18					
150	30	712	*	*	*	*	*
900		28.03					
150	32	760	*	*	*	*	*
900		29.92					
150	36	855	*	*	*	*	*
900		33.66					
150	40	*	*	*	*	*	*
900							
150	42	1006	2100	*	1363	865	*
900		39.61	82.68		53.66	34.06	
150	48	1149	2540	*	1511	945	*
900		45.24	100.00		59.49	37.20	

## API 6D CHECK VALVE SIZES & DIMENSIONS

### 1500 ASME 2" TO 30"

Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

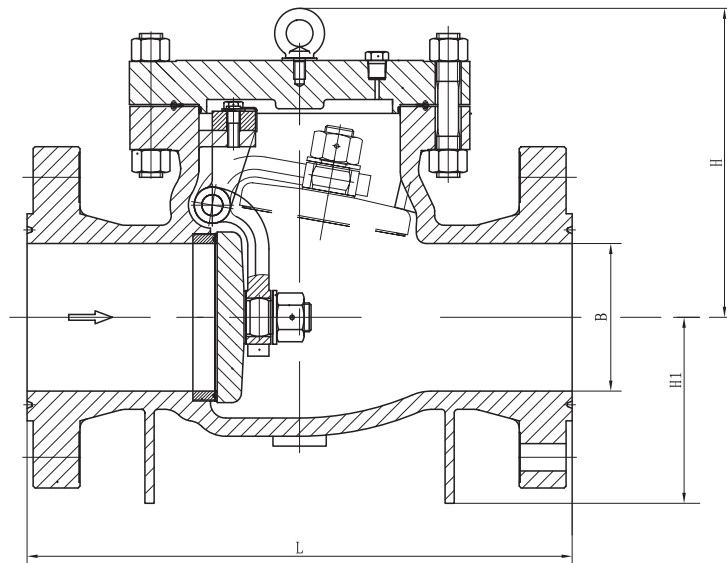
PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
250	2	49	368	371	219	107.5	80
1500		1.93	14.49	14.61	8.62	4.23	176.37
250	3	74	470	473	284	132.5	148
1500		2.91	18.50	18.62	11.18	5.22	326.28
250	4	100	546	549	345	185	235
1500		3.94	21.50	21.61	13.58	7.28	518.08
250	6	144	705	711	*	*	*
1500		5.67	27.76	27.99			
250	8	192	832	842	*	*	*
1500		7.56	32.76	33.15			
250	10	239	991	1001	650	320	825
1500		9.41	39.02	39.41	25.59	12.60	1818.80
250	12	287	1130	1146	725	360	1221
1500		11.30	44.49	45.12	28.54	14.17	2691.82
250	14	315	1257	1276	770	375	1415
1500		12.40	49.49	50.24	30.31	14.76	3119.51
250	16	360	1384	1406	*	*	*
1500		14.17	54.49	55.35			
250	18	406	1537	1559	*	*	*
1500		15.98	60.51	61.38			
250	20	454	1664	1686	*	*	*
1500		17.87	65.51	66.38			
250	24	546	1943	1971	*	*	*
1500		21.50	76.50	77.60			
250	26	594	*	*	*	*	*
1500		23.39					
250	30	686	*	*	*	*	*
1500		27.01					

## API 6D CHECK VALVE SIZES & DIMENSIONS

### 2500 ASME 2" TO 24"

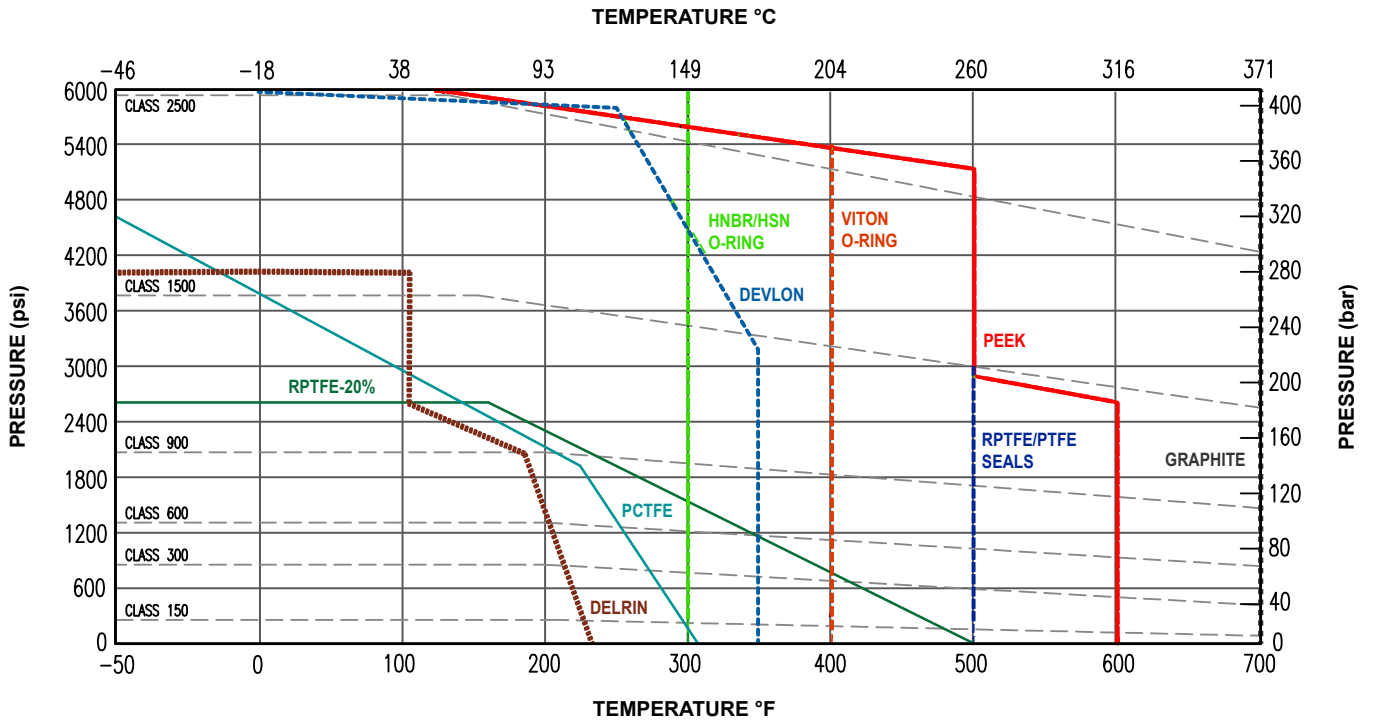
Size in inches. Dimensions in mm and inches. Weights in kilograms and pounds.

PN ASME	SIZE	B	L-RF	L-RTJ	H	H1	Weight
	in	mm in	mm in	mm in	mm in	mm in	kg lb
420	2	42	451	454	261	117.5	145
2500		1.65	17.76	17.87	10.28	4.63	319.67
420	3	62	578	584	358	155	330
2500		2.44	22.76	22.99	14.09	6.10	727.52
420	4	87	673	683	*	*	*
2500		3.43	26.50	26.89			
420	6	131	914	927	*	*	*
2500		5.16	35.98	36.50			
420	8	179	1022	1038	*	*	*
2500		7.05	40.24	40.87			
420	10	223	1270	1292	*	*	*
2500		8.78	50.00	50.87			
420	12	265	1422	1444	*	*	*
2500		10.43	55.98	56.85			
420	14	292	*	*	*	*	*
2500		11.50					
420	16	333	*	*	*	*	*
2500		13.11					
420	18	374	*	*	*	*	*
2500		14.72					
420	20	419	*	*	*	*	*
2500		16.50					
420	24	*	*	*	*	*	*
2500							



**NOTE:** Drawing applies to data on pages 8-13.  
Please contact Meridian for specific and current drawings and data.  
\* Confirmation at time of order or upon request.

## REFERENCE PRESSURE/TEMPERATURE CHART



Please consult ASME B16.34 for specific body material pressure / temperature ratings. The above chart is for reference only, please call for specific / additional seat and seal technical information if required.

## CV VALUES

SIZE	150#	300#	600#	900#	1500#	2500#
2	91	91	76	65	60	48
2.5	154	154	129	110	102	82
3	211	211	176	151	139	111
4	380	380	317	272	251	201
5	571	571	476	408	377	301
6	845	854	704	604	557	446
8	1507	1507	1256	1077	993	795
10	2360	2360	1967	1686	1555	1244
12	3403	3403	2836	2431	2242	1794

**Notes:**

- Larger size data available on request.
- Flow coefficient Cv is the volume (in US gallons) of water at 60°F that will flow per minute through a valve with a pressure drop of 1 psi across the valve.

# HOW TO ORDER

## ORDERING FIGURE NUMBER CHART

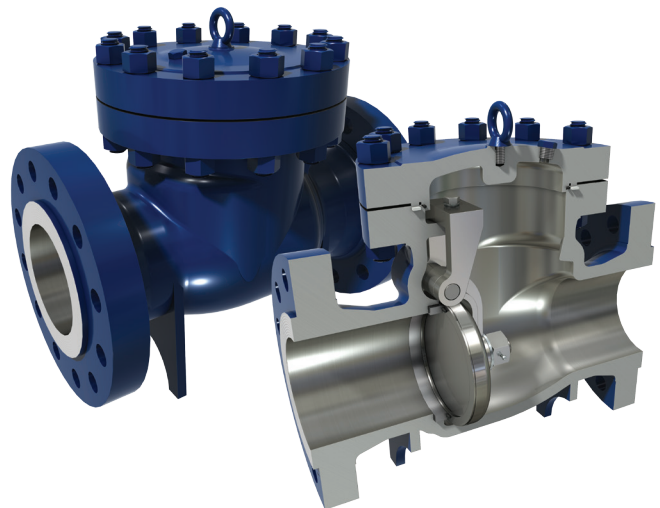
SF*														
+														
2	+	3	+	R	+	L	+	C	+	E	+	A	+	B
Size	Pressure Class	End Connection	Service	Body Material	**Clapper Overlay	Seal Material	Seat Type							
2 - 2" 3 - 3" 4 - 4" 6 - 6" 8 - 8" 10 - 10" 12 - 12" 16 - 16" Etc.	1 = 150 3 = 300 6 = 600 9 = 900 15 = 1500 25 = 2500 A2 = 2000 API A3 = 3000 API A5 = 5000 API	B = BW J = RTJ R = RF X = Special	L = Low Temp. NACE N = Regular Temp. NACE B = Standard (sweet) X = Special	C = A352 LCC A = A216 WCB E = A351 CF8M X = Special	E = A182 F316 Y = Special disc + special overlay X = Special overlay	A = HNBR/ Graphite (150-600#) B = HNBR/ A182 F316 (900-2500#) V = Viton GFLT/ Graphite X = Special	B = Threaded Replaceable							

Notes: \* Please add the SF, for "swing type, full bore" to the front of the figure number.

- \*\* Standard disc materials are:
1. A216 WCB for regular temp. valve larger than NPS 4
  2. A352 LCC for low temp. valve larger than NPS 4
  3. A105N for regular temp. valve NPS 4 or smaller
  4. A350 LF2 for low temp. valve NPS 4 or smaller.

Example valve figure number: **SF23RLCEAB**

*This code represents a swing check, full bore, 2" 300# ASME, raised face end connection, low temp. NACE valve with a A352 LCC body, A350 LF2 clapper with A182 F316 overlay, HNBR/Graphite seals and a threaded replaceable seat type.*







To learn more about Meridian™ please visit our website at:  
[www.meridianvalve.ca](http://www.meridianvalve.ca)

Meridian™ is a registered trademark of Walseley Industrial Canada Inc. (Walseley Industrial)  
The contents hereof are confidential and proprietary. Any unauthorized reproduction or disclosure, in whole or in part, is strictly prohibited.  
The material in this catalogue is for general information only, may not reflect the most current product information and is not guaranteed to be complete and may not be used or relied upon for specific performance data or for the purposes of material selection or determining suitability without first consulting Walseley Industrial. Walseley Industrial reserves the right to change this information without notice. Walseley Industrial expressly disclaims any and all liability or damages arising or resulting from the use of or reliance upon the information in this catalogue.