

Sharpe® Series 25

Flanged, ASME Check Valve Datasheet



25114
ASME Class 150
Cast Carbon Steel



25116
ASME Class 150
Cast Stainless Steel



25314
ASME Class 300
Cast Carbon Steel



25316
ASME Class 300
Cast Stainless Steel



25614
ASME Class 600
Cast Carbon Steel

ASME Class 150 Flanged Cast Steel Check Valve Sharpe® Series 25114



Design Features

- Bolted Cover
- Swing Type
- Integral Seat

Applicable Standards

- Steel valves: ANSI B16.34
- Face to face: ANSI B16.10
- End flanges: ANSI B16.5
- Butt-weld ends: ANSI B16.25
- Inspection and test: API 598
- NACE: MR-0175

Technical Information

Size (In.)	Weight* (Lbs.)	Cracking Pressure* (psi)
2	37	0.09
2-½	53	0.07
3	62	0.06
4	93	0.06
6	119	0.07
8	150	0.07
10	260	0.08
12	394	0.08
14	666	0.08
16	884	0.09
18	1124	0.09
20	1407	0.07
22	1581	0.07
24	2562	0.06

Temperature (°F)	Working Pressure (psi)
-20 to 100	285
200	260
300	230
400	200
500	170
600	140
650	125
700	110
750	95
800	80
850	65
900	50
950	35
1000	20

Note:

*For Reference Only



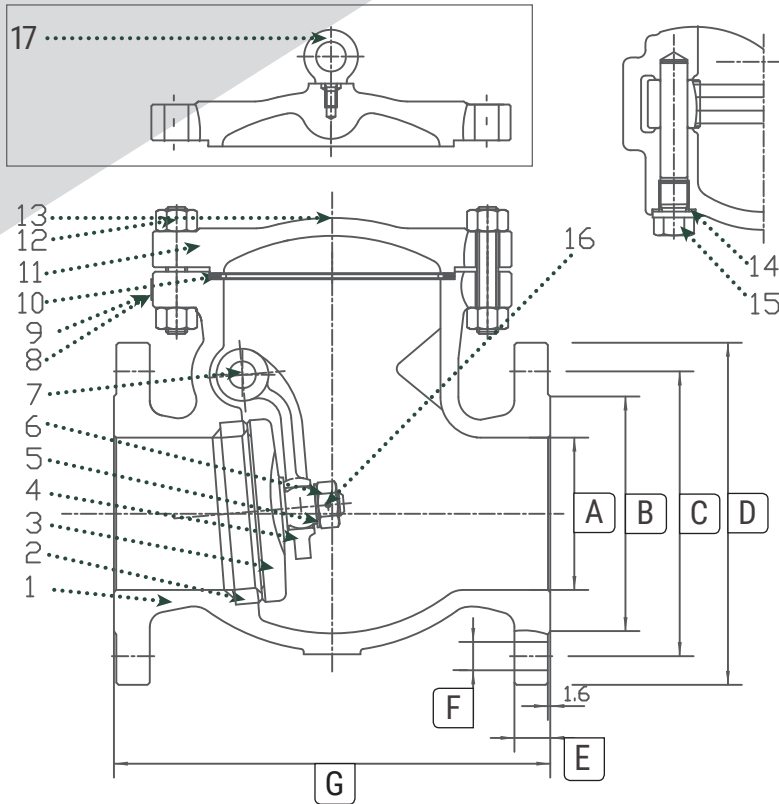
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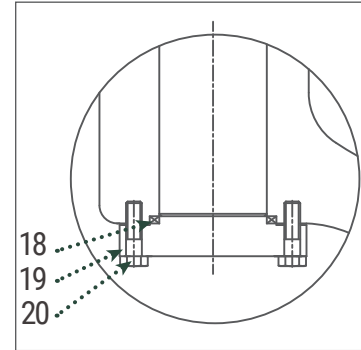


ASME Class 150 Flanged Cast Steel Check Valve Sharpe® Series 25114

4" & Above



24" – 30"



Parts & Materials

No.	Part Name	Materials
1	Body	Carbon Steel A216 - WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Hinge	Carbon Steel A216
5	Gasket	A276 410
6	Nut	A276 410
7	Pin	A276 410
8	Rivit	304 Stainless Steel
9	Name Plate	304 Stainless Steel
10	Gasket	F304 & Flexible Graphite
11	Cover	Carbon Steel A216 - WCB
12	Bolt	B7 Steel A193
13	Nut	2H Steel A194
14	Gasket	Soft Iron
15	Plug	410 Stainless Steel
16	Pin	304 Stainless Steel
17	Eyebolt	Carbon Steel
18	Gasket	F304 & Flexible Graphite
19	Bolt	Carbon Steel
20	Gland	Carbon Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	Num of Bolt Holes
2	2.00	3.62	4.75	6.00	0.62	0.75	8.00	4
2-½	2.50	4.12	5.50	7.00	0.68	0.75	8.50	4
3	3.00	5.00	6.00	7.50	0.75	0.75	9.50	4
4	4.00	6.19	7.50	9.00	0.94	0.75	11.50	8
6	6.00	8.50	9.50	11.00	1.00	0.875	14.00	8
8	8.00	10.62	11.75	13.50	1.12	0.875	19.50	8
10	10.00	12.75	14.25	16.00	1.18	1.00	24.50	12
12	12.00	15.00	17.00	19.00	1.25	1.00	27.50	12
14	14.00	16.25	18.75	21.00	1.37	1.125	31.00	12
16	16.00	18.50	21.25	23.50	1.44	1.125	34.00	16
18	18.00	21.00	22.75	25.00	1.56	1.25	38.50	16
20	20.00	23.00	25.00	27.50	1.68	1.25	38.50	20
22	21.26	25.25	27.25	29.50	1.80	1.25	42.00	20
24	24.00	27.24	29.50	32.00	1.87	1.375	51.00	20

ASME Class 150 Flanged Cast Steel Check Valve **Sharpe® Series 25114**



How to order Series 25114

Example:

8

Size

25

Series

—

1

Class

1

Ends

4

Body Material

Suffixes & Options

Size	
2	12
2½	14
3	16
4	18
6	20
8	22
10	24

Series

25

Class	
1	150

Ends	
1	Flange
2	Butt-weld*

Body Material	
4	ASTM A216 Cast WCB Carbon Steel

Suffixes & Options

Note:

*POA.

Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user. We reserve the right to modify or improve the designs or specifications of any product at any time without notice.

ASME Class 150 Flanged Stainless Steel Check Valve Sharpe® Series 25116



Design Features

- Bolted Cover
- Swing Type
- Integral Seat

Applicable Standards

- Steel valves: ANSI B16.34
- Face to face: ANSI B16.10
- End flanges: ANSI B16.5
- Butt-weld ends: ANSI B16.25
- Inspection and test: API 598

Technical Information

Temperature (*F*)	Working Pressure (psi)	Size (In.)	Weight* (Lbs.)	Cracking Pressure* (psi)
-20 to 100	275	½	4	0.02
200	235	¾	4	0.02
300	215	1	6	0.02
400	195	1-½	10	0.02
500	170	2	17	0.02
600	140	2-½	26	0.03
650	125	3	32	0.02
700	110	4	62	0.03
750	95	5	83	0.03
800	80	6	104	0.03
850	65	8	168	0.03
900	50	10	296	0.04
950	35	12	431	0.06
1000	20	14	859	0.06
		16	1257	0.04
		18	1466	0.05
		20	1984	0.05
		24	2996	0.06

Note:

*Standard PTFE seals limited to 450°F,
over 450°F Fuse graphite.

Note:

*For Reference Only

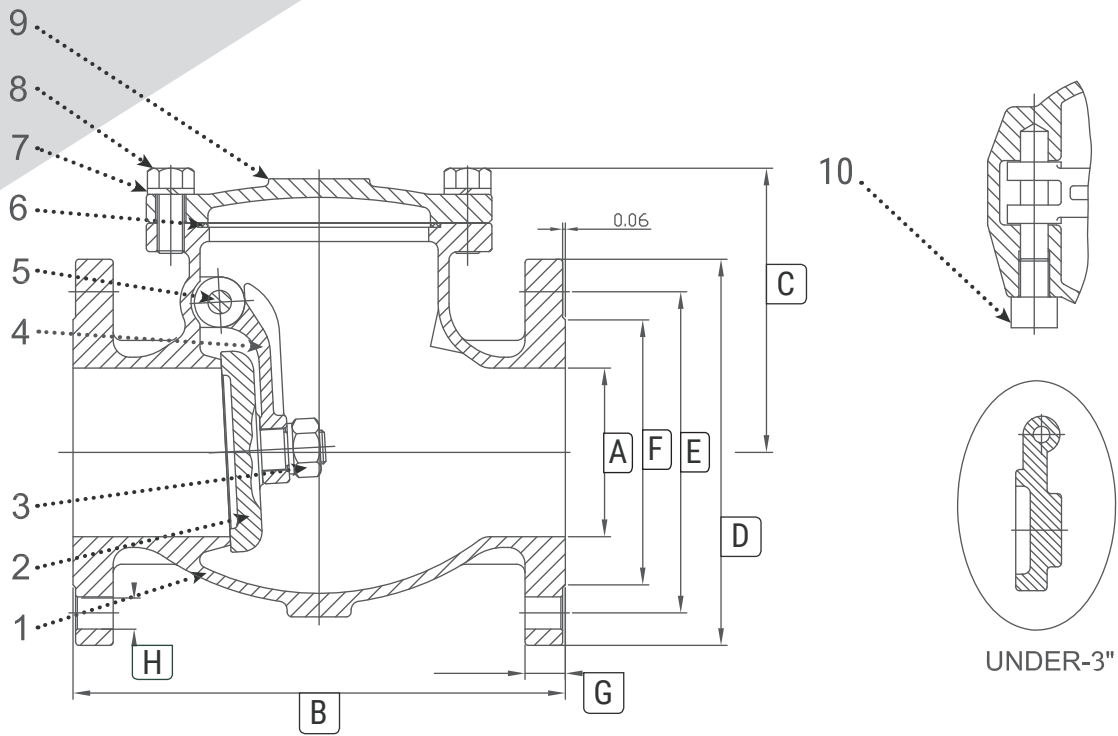


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ASME Class 150 Flanged Stainless Steel Check Valve Sharpe® Series 25116



Parts & Materials (Sizes ½" — 14")

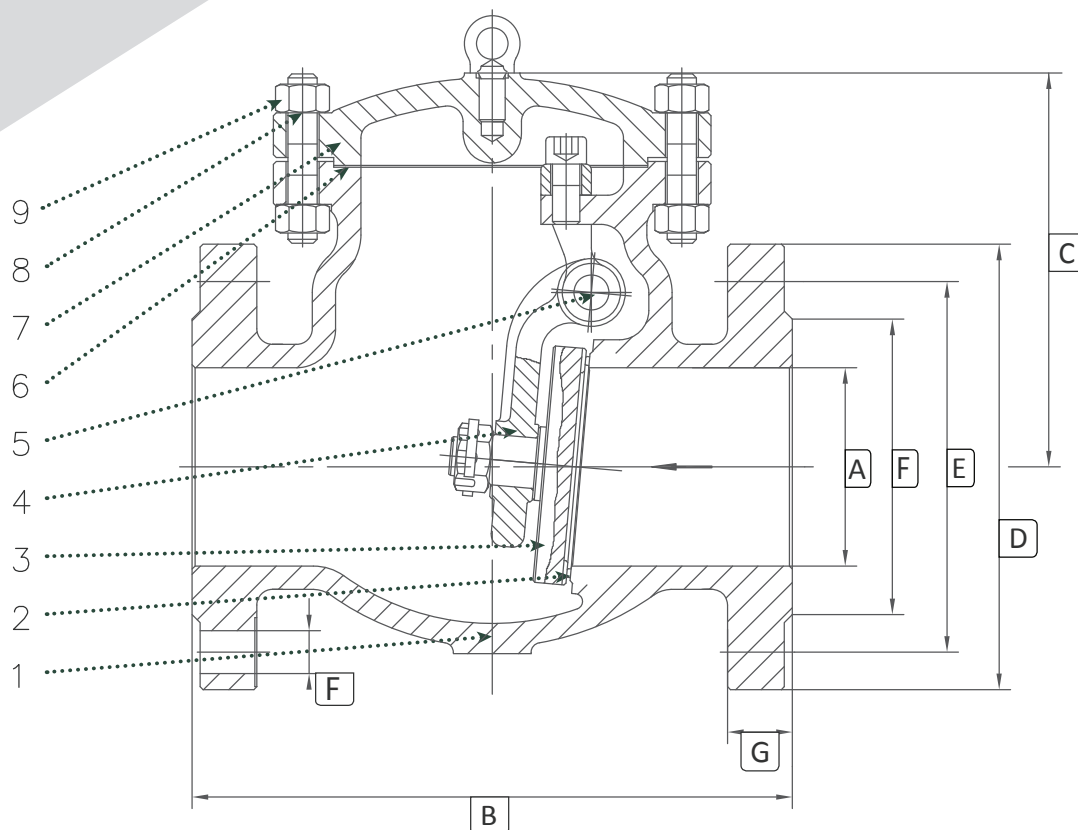
No.	Part Name	Material
1	Body	316 Stainless Steel - CF8M
2	Disc	316 Stainless Steel - CF8M
3	Nut	316 Stainless Steel
4	Arm Hinge	316 Stainless Steel
5	Hinge Pin	316 Stainless Steel
6	Gasket	RTFE (Grafoil + 300 series Stainless Steel*)
7	Washer	304 Stainless Steel
8	Bolt	304 Stainless Steel
9	Cover	316 Stainless Steel - CF8M
10	Bolt	304 Stainless Steel

*Optional

Dimensions (Inches)

Size	A	B	C	D	E	F	G	H	Num of Bolt Holes
½	0.59	4.25	2.00	3.50	2.38	1.38	0.43	0.625	4
¾	0.79	4.62	2.13	3.88	2.75	1.69	0.43	0.625	4
1	0.98	5.00	2.52	4.25	3.12	2.00	0.43	0.625	4
1-½	1.57	6.50	2.95	5.00	3.88	2.88	0.56	0.625	4
2	1.97	7.99	3.82	6.00	4.75	3.62	0.62	0.75	4
2-½	2.56	8.50	4.37	7.00	5.50	4.12	0.69	0.75	4
3	3.15	9.49	4.72	7.50	6.00	5.00	0.75	0.75	4
4	3.94	11.50	6.38	9.00	7.50	6.19	0.94	0.75	8
5	4.92	13.00	7.05	10.00	8.50	7.31	0.94	0.88	8
6	5.90	14.02	7.99	11.00	9.50	8.50	1.00	0.88	8
8	7.87	19.49	9.29	13.50	11.75	10.62	1.12	0.88	8
10	9.84	24.49	11.90	16.00	14.25	12.75	1.19	1.00	12
12	11.81	27.48	13.40	19.00	17.00	15.00	1.25	1.00	12
14	13.27	30.98	15.16	21.00	18.75	16.26	1.38	1.125	12

ASME Class 150 Flanged Stainless Steel
Check Valve
Sharpe® Series 25116



Dimensions (Sizes 16" – 24")

Size	A	B	C	D	E	F	G	H	Num of Bolt Holes
16	15.24	34.00	1.44	23.50	21.25	18.25	1.44	1.125	24
18	17.24	38.50	1.56	25.00	22.75	21.00	1.56	1.25	24
20	19.25	38.50	1.69	27.50	25.00	23.00	1.69	1.25	24
24	23.27	51.00	1.88	32.00	29.50	27.25	1.88	1.25	24

Parts & Materials

No.	Part Name	Material
1	Body	316 Stainless Steel - CF8M
2	Seal Facing	316 Stainless Steel - CF8M
3	Disc	316 Stainless Steel - CF8M
4	Hinge	316 Stainless Steel
5	Hinge Pin	316 Stainless Steel
6	Gasket	RTFE (Grafoil + 316 SS*)
7	Cover	316 Stainless Steel - CF8M
8	Cover Bolt	B8 Stainless Steel
9	Cover Nut	Grade 8 Nut

*Optional

ASME Class 150 Flanged Stainless Steel Check Valve Sharpe® Series 25116



How to order Series 25116

Example:

3	25	-	1	1	6	
Size	Series		Class	Ends	Body Material	Suffixes & Options

Size	Series	Class	Ends	Body Material	Suffixes & Options
½ 6	25	1 150	1 Flange	6 ASTM A351 Cast CF8M SS†	G Grafoil - Stainless Bonnet gasket*
¾ 8			2 Butt-weld*		
1 10					
1-½ 12					
2 14*					
2-½ 16*					
3 18*					
4 20*					
5 24*					

† Closest cast equivalent to wrought 316 SS

Note:

*POA.

Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user.
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ASME Class 300 Flanged Cast Steel Check Valve Sharpe® Series 25314



Design Features

- Bolted Cover
- Swing Type
- Integral Seat

Applicable Standards

- Steel valves: ANSI B16.34
- Face to face: ANSI B16.10
- End flanges: ANSI B16.5
- Butt-weld ends: ANSI B16.25
- Inspection and test: API 598
- NACE: MR-0175

Technical Information

Temperature (*F)	Working Pressure (psi)	Size (In.)	Weight* (Lbs.)	Cracking Pressure* (psi)
-20 to 100	740	2	49	0.09
200	680	2-½	66	0.07
300	655	3	90	0.06
400	635	4	132	0.06
500	605	6	185	0.06
600	570	8	238	0.06
650	550	10	406	0.08
700	530	12	657	0.08
750	505	14	937	0.08
800	410	16	1499	0.09
850	320	18	1852	0.08
900	230	20	2359	0.09
950	135	22	2601	0.10
1000	65	24	3497	0.11

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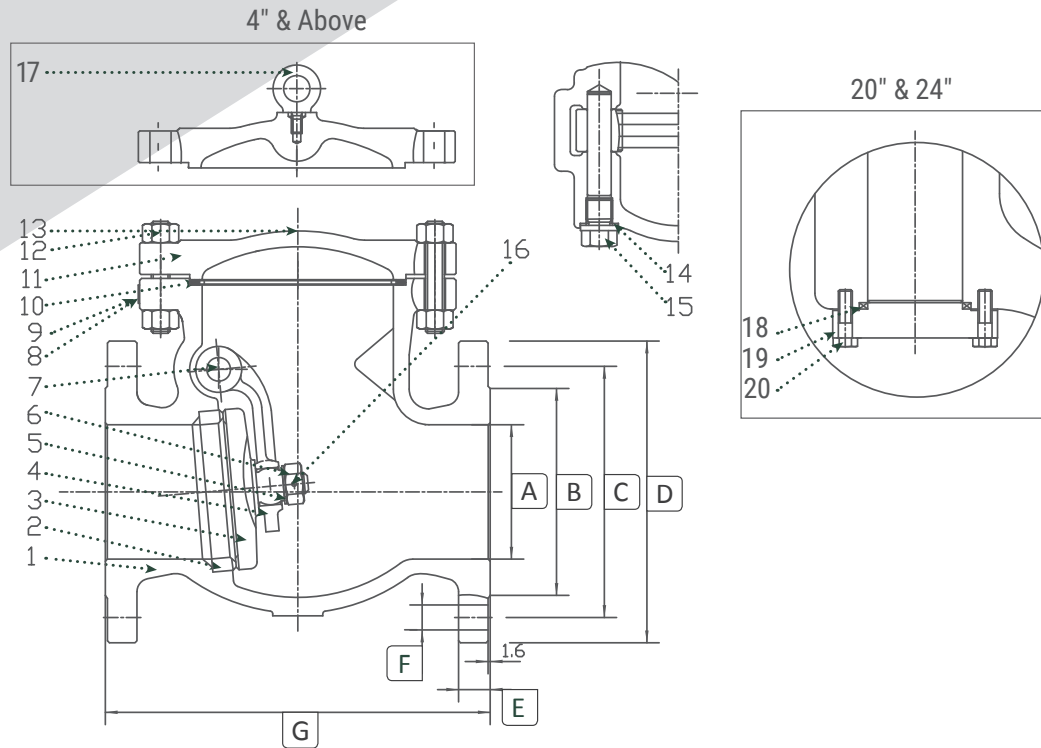
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ASME Class 300 Flanged Cast Steel Check Valve Sharpe® Series 25314



Parts & Materials

No.	Part Name	Material
1	Body	Carbon Steel A216- WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Hinge	Carbon Steel A216
5	Gasket	A276 410
6	Nut	A276 410
7	Pin	A276 410
8	Rivit	304 Stainless Steel
9	Name Plate	304 Stainless Steel
10	Gasket	F304 & Flexible Graphite
11	Cover	Carbon Steel A216 - WCB
12	Bolt	B7 Steel A193
13	Nut	2H Steel A194
14	Gasket	Soft Iron
15	Plug	410 Stainless Steel
16	Pin	304 Stainless Steel
17	Eyebolt	Carbon Steel
18	Gasket	F304 & Flexible Graphite
19	Bolt	Carbon Steel
20	Gland	Carbon Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	Num of Bolt Holes
2	2.01	3.62	5.00	6.50	0.87	0.75	10.51	8
2-½	2.52	4.12	5.88	7.50	1.00	0.875	11.50	8
3	2.99	5.00	6.62	8.25	1.12	0.875	12.52	8
4	4.02	6.19	7.88	10.00	1.25	0.875	14.02	8
6	5.98	8.50	10.62	12.50	1.44	0.875	17.48	12
8	7.99	10.62	13.00	15.00	1.62	1.00	20.98	12
10	10.00	12.75	15.25	17.50	1.88	1.125	24.49	16
12	12.01	15.00	17.75	20.50	2.00	1.25	28.00	16
14	13.27	16.25	20.25	23.00	2.12	1.25	33.00	20
16	15.24	18.50	22.50	25.50	2.25	1.375	34.00	20
18	17.24	21.00	24.75	28.00	2.38	1.375	38.50	24
20	19.25	23.00	27.00	30.50	2.50	1.375	40.00	24
24	23.27	27.25	32.00	36.00	2.75	1.625	53.00	24

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Example:

4

Suffixes & Options

Suffixes & Options

Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user. We reserve the right to modify or improve the designs or specifications of any product at any time without notice.

ASME Class 300 Flanged Stainless Steel Check Valve Sharpe® Series 25316



Design Features

- Bolted Cover
- Swing Type
- Integral Seat

Applicable Standards

- Steel valves: ANSI B16.34
- Face to face: ANSI B16.10
- End flanges: ANSI B16.5
- Butt-weld ends: ANSI B16.25
- Inspection and test: API 598

Technical Information

Temperature (*F*)	Working Pressure (psi)	Size (In.)	Weight* (Lbs.)	Cracking Pressure* (psi)
-20 to 100	720	½	6	0.06
200	620	¾	8	0.04
300	560	1	12	0.03
400	515	1-½	21	0.04
500	480	2	32	0.03
600	450	2-½	45	0.03
650	440	3	56	0.03
700	435	4	101	0.04
750	425	6	178	0.03
800	420	8	221	0.03
850	420	10	847	0.05
900	415	12	990	0.06
950	385	14	1499	0.06
1000	365	16	1852	0.06
		18	2260	0.07
		20	2901	0.09
		24	4321	0.09

*Standard PTFE seals limited to 450°F,
over 450°F use graphite.

*For Reference Only

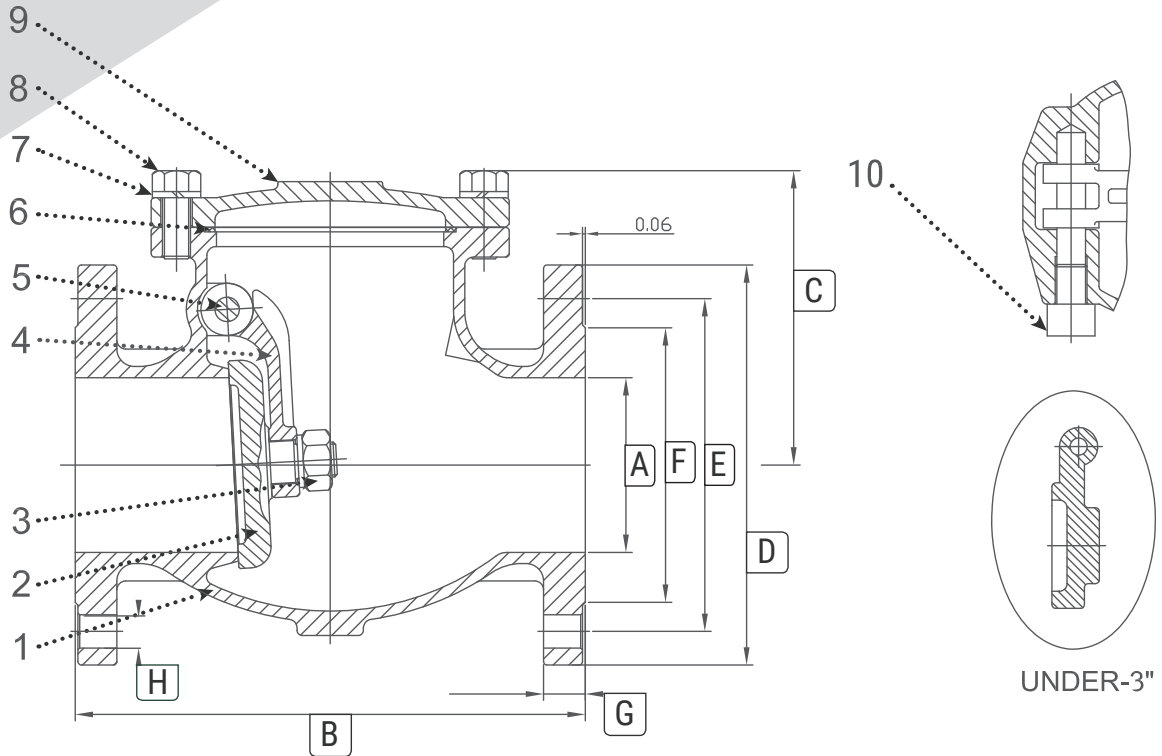


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ASME Class 300 Flanged Stainless Steel Check Valve Sharpe® Series 25316



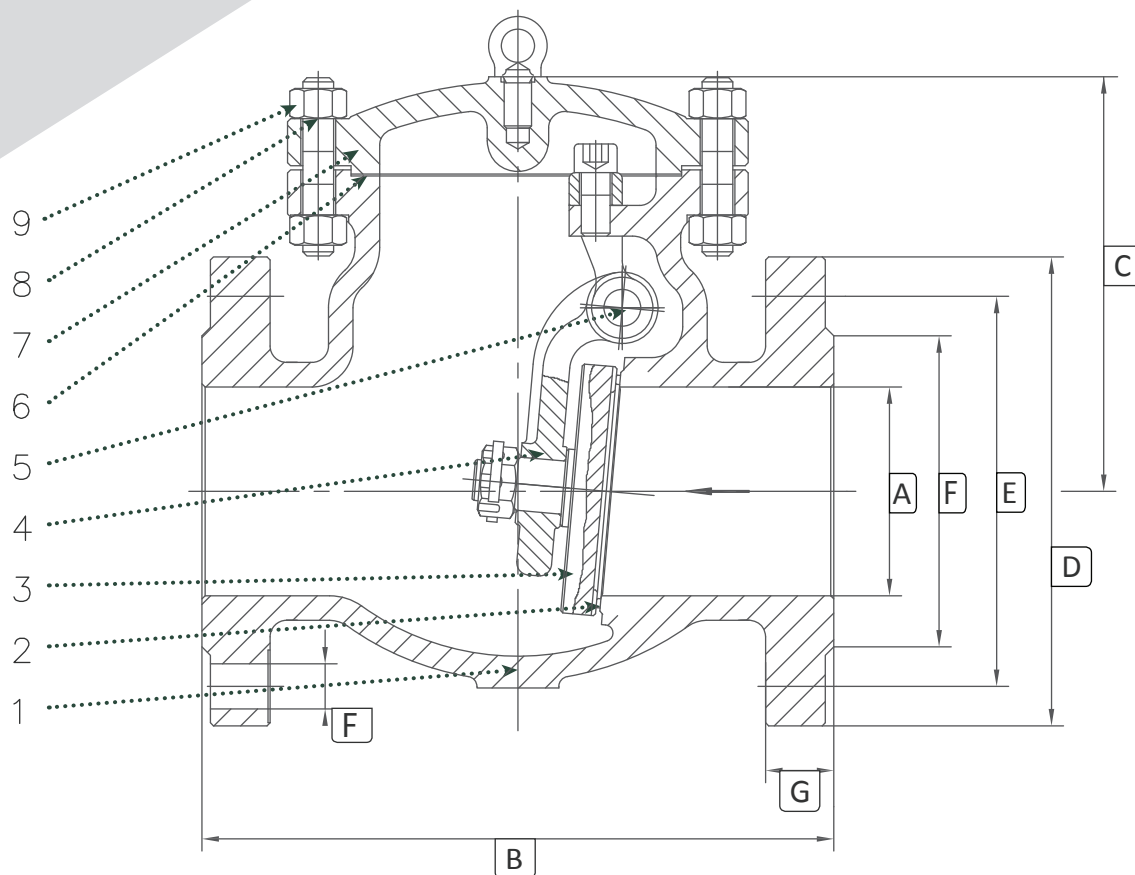
Parts & Materials

No.	Part Name	Material
1	Body	316 Stainless Steel - CF8M
2	Disc	316 Stainless Steel - CF8M
3	Nut	316 Stainless Steel
4	Arm Hinge	316 Stainless Steel
5	Hinge Pin	316 Stainless Steel
6	Gasket	Grafoil + 300 series Stainless Steel
7	Washer	304 Stainless Steel
8	Bolt	304 Stainless Steel
9	Cover	316 Stainless Steel - CF8M
10	Bolt	304 Stainless Steel

Dimensions (Sizes ½"—8")

Size	A	B	C	D	E	F	G	H	Num of Bolt Holes
½	0.59	5.98	2.40	3.75	2.62	1.38	0.56	0.625	4
¾	0.79	7.01	2.41	4.62	3.25	1.69	0.62	0.75	4
1	0.98	7.99	3.11	4.88	3.50	2.00	0.69	0.75	4
1-½	1.57	9.49	3.66	6.12	4.50	2.88	0.81	0.875	4
2	1.97	10.51	5.00	6.50	5.00	3.62	0.88	0.75	8
2-½	2.56	11.50	5.67	7.50	5.88	4.12	1.00	0.875	8
3	3.15	12.52	6.06	8.25	6.62	5.00	1.12	0.875	8
4	3.94	14.02	7.71	10.00	7.88	6.19	1.25	0.875	8
6	5.90	17.48	9.06	12.50	10.62	8.50	1.44	0.875	12
8	7.87	20.98	10.43	15.00	13.00	10.62	1.62	1.00	12

ASME Class 300 Flanged Stainless Steel Check Valve Sharpe® Series 25316



Parts & Materials

No.	Part Name	Material
1	Body	316 Stainless Steel - CF8M
2	Seal Facing	316 Stainless Steel
3	Disc	316 Stainless Steel - CF8M
4	Hinge	316 Stainless Steel
5	Hinge Pin	316 Stainless Steel
6	Gasket	Grafoil + 304 Stainless Steel
7	Cover	316 Stainless Steel - CF8M
8	Cover Bolt	B8 Stainless Steel
9	Cover Nut	Grade 8 Nut

Dimensions (Sizes 10"—24")

Size	A	B	C	D	E	F	G	H	Num of Bolt Holes
10	9.84	24.50	1.88	17.50	12.76	15.25	1.88	1.125	16
12	11.81	28.00	2.00	20.50	15.00	17.75	2.00	1.25	16
14	13.27	33.00	2.12	23.00	16.26	20.25	2.12	1.25	20
16	15.24	34.00	2.25	25.50	18.50	22.50	2.25	1.375	20
18	17.24	38.50	2.38	28.00	20.98	24.75	2.38	1.375	24
20	19.25	40.00	2.50	30.50	22.99	27.00	2.50	1.375	24
24	23.27	53.00	2.75	26.00	27.28	32.00	2.75	1.625	24

ASME Class 300 Flanged Stainless Steel Check Valve **Sharpe® Series 25316**



How to order Series 25316

Example:

3

Size

25

Series

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Class

1

Ends

6

Body Material

Suffixes & Options

Size		Series	Class		Ends		Body Material	Suffixes & Options
½	8*	25	3	300	1	Flange	ASTM A351	
¾	10*				2	Butt-weld*	6 Cast CF8M SS†	
1	12*							
1-½	14*							
2	16*							
2-½	18*							
3	20*							
4	24*							
6	-							

Note:

*POA

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ASME Class 600 Flanged Stainless Steel Check Valve Sharpe® Series 25614



Design Features

- Bolted Cover
- Swing Type
- Integral Seat

Applicable Standards

- Steel valves: ANSI B16.34
- Face to face: ANSI B16.10
- End flanges: ANSI B16.5
- Butt-weld ends: ANSI B16.25
- Inspection and test: API 598
- NACE: MR-0175

Technical Information

Temperature °F	Working Pressure psi	Size (In.)	Weight* (Lbs.)	Cracking Pressure* (psi)
-20 to 100	1480	2	79	0.09
200	1360	2-½	108	0.07
300	1310	3	99	0.06
400	1265	4	185	0.06
500	1205	6	362	0.06
600	1135	8	441	0.08
650	1100	10	794	0.09
700	1060	12	1299	0.10
750	1015	14	1713	0.10
800	825	16	2238	0.10
850	640	18	2976	0.11
900	460	20	3858	0.11
950	275	22	4674	0.12
1000	170	24	5556	0.12

Note:

*For Reference Only



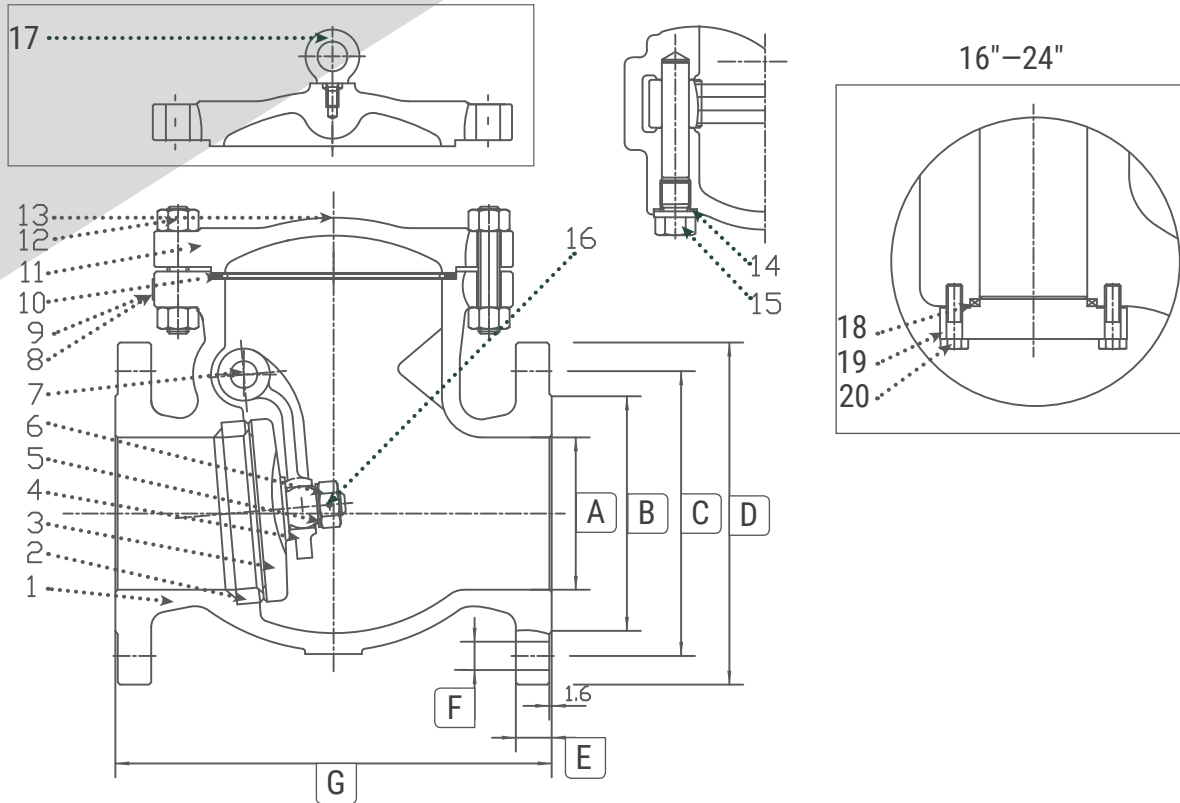
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ASME Class 600 Flanged Cast Steel Check Valve Sharpe® Series 25614

4" & Above



Parts & Materials

No.	Part Name	Material
1	Body	Carbon Steel A216 - WCB
2	Seat	A105 & STL.6
3	Disc	A105 & 410 Stainless Steel
4	Hinge	Carbon Steel A216
5	Gasket	A276 410
6	Nut	A276 410
7	Pin	A276 410
8	Rivet	304 Stainless Steel
9	Name Plate	304 Stainless Steel
10	Gasket	F304 & Flexible Graphite
11	Cover	Carbon Steel A216 - WCB
12	Bolt	B7 Steel A193
13	Nut	2H Steel A194
14	Gasket	Soft Iron
15	Plug	410 Stainless Steel
16	Pin	304 Stainless Steel
17	Eyebolt	Carbon Steel
18	Gasket	F304 & Flexible Graphite
19	Bolt	Carbon Steel
20	Gland	Carbon Steel

Dimensions (Inches)

Size	A	B	C	D	E	F	G	Num of Bolt Holes
2	2.00	3.62	5.00	6.50	1.00	0.75	11.50	8
2-½	2.50	4.12	5.88	7.50	1.12	0.875	13.00	8
3	3.00	5.00	6.62	8.25	1.25	0.875	14.00	8
4	4.00	6.19	8.50	10.75	1.50	1.00	17.00	8
6	6.00	8.50	11.50	14.00	1.88	1.125	22.00	12
8	8.00	10.62	13.75	16.50	2.19	1.25	26.00	12
10	9.76	12.75	17.00	20.00	2.50	1.375	31.00	16
12	11.73	15.00	19.25	22.00	2.62	1.375	33.00	20
14	13.35	16.25	20.75	23.75	2.75	1.50	35.00	20
16	14.76	18.50	23.75	27.00	3.00	1.625	39.00	20
18	16.50	21.00	25.75	29.25	3.25	1.75	43.00	20
20	18.27	23.00	28.50	32.00	3.50	1.75	47.00	24
24	22.00	27.25	33.00	37.00	4.00	2.00	55.00	24

ASME Class 600 Flanged Cast Steel
Check Valve
Sharpe® Series 25614



How to order Series 25614

Example:

3	25	-	6	1	4	
Size	Series		Class	Ends	Body Material	Suffixes & Options
Size	Series		Class	Ends	Body Material	Suffixes & Options
2	12*		6	1	4	
2-½	14*		600	Flange	ASTM A216	
3	16*			Butt-weld*	Cast WCB	
4	18*				Carbon Steel	
6	20*					
8*	22*					
10*	24*					

Note:
*POA.
Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user.
We reserve the right to modify or improve the designs or specifications of any product at any time without notice.

About ASC Engineered Solutions

ASC Engineered Solutions is defined by quality—in its products, services and support. With more than 1,400 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF® and SprinkFLEX®. With headquarters in Commerce, CA, and Exeter, NH, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.



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