

CHEXTER™

CHECK VALVES



Mueller Steam Specialty™

CHEXTER™ FITS YOUR APPLICATION, PROFITABLY



Commercial Construction

CHEXTER™ Check Valves are economically used in chilled and hot water air conditioning systems, refrigeration and other piping and plumbing lines in multiple-story buildings, shopping centers and institutions. CHEXTER™ meets General Services Administration requirements. Low-cost, lightweight



Industrial and Marine

CHEXTER™ check valves meet rigid requirements in all kinds of industrial and marine piping systems. Typical uses are on oxygen systems, boiler feed lines, water filtration, centrifugal pump and compressor systems, loading dock lines, ship air conditioning systems and other gas and liquid applications. The CHEXTER™ is approved for use by the U.S. Navy, the U.S. Coast guard, U.S. Air force and N.A.S.A.



Utilities

CHEXTER™ check valves are used on gas and liquid pipelines from the well to city distribution systems. CHEXTER™ meets all utility industry requirements for performance, giving water, gas and compressed air lines positive backflow protection.



Process Industries

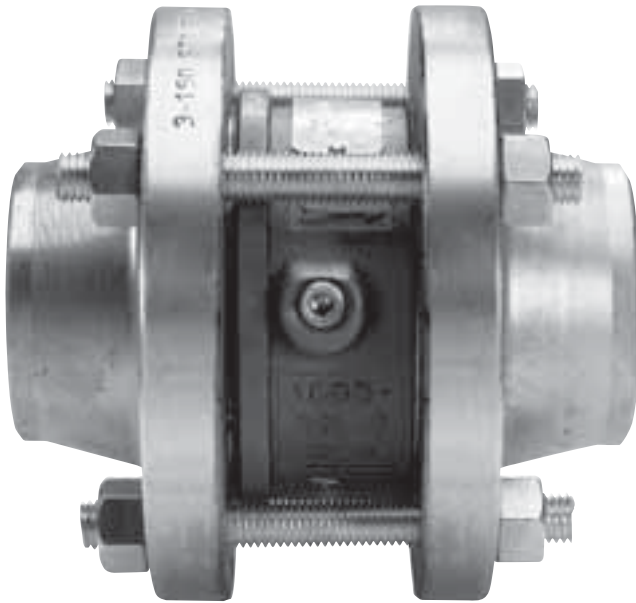
CHEXTER™ check valves effectively handle corrosive flows in all types of process plants including refineries, chemical and petrochemical, textile, paint, plastics, food processing, paper and pulp, mining and explosives. A broad combination of metal trims allows quick selection of the right valve for the application.

WHY YOU SHOULD CHOOSE CHEXTER™

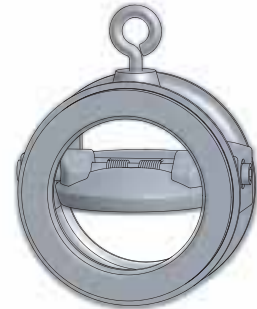
The CHEXTER™ check valve is a self-actuating valve that responds automatically to changes and pressure and flow within a system. Its slim face-to-face dimension saves space by allowing the valve to fit in close piping arrangements. There is only one moving part, the eccentrically mounted, contoured disc that opens at very low differential pressure. It also adapts to all flow conditions and closes prior to reverse flow in the system, thereby preventing water hammer. The eccentric mounting and contoured design yield flow coefficients much higher than most check valves. Interchangeable and field-replaceable parts allow for a variety of seating options that include metal-to-metal, PTFE, Viton® and Buna-N.

The CHEXTER™ valve is your Heavy-Duty, High-Flow, Long-Lasting choice for many industries and applications.

Space-Saving CHEXTER™ Fits Snugly Between Line Flanges.



CHEXTER™ available complete with companion flanges, studs, nuts and gaskets, fully assembled as unit.



UPSTREAM END, DISC OPEN



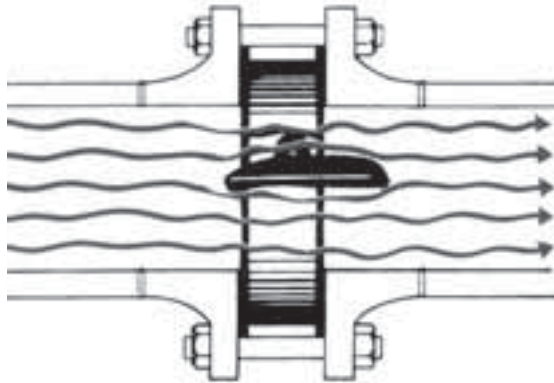
DOWNSTREAM END, DISC CLOSED

NON-SLAM SEALING TO PREVENT REVERSE FLOW



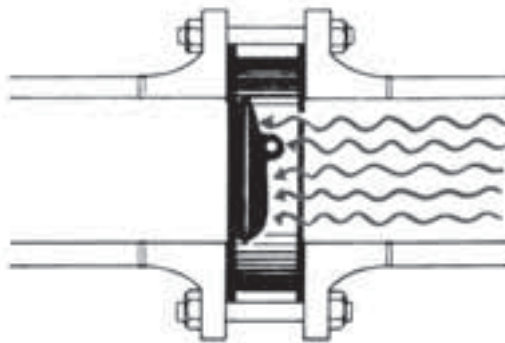
- Raised face and flat face valves in 2–36"
- Ring type joint face valves in 2–24"
- Many types of metals and trims available
- Replaceable seal ring
- Slim body design
- Silent operation
- Low pressure drop
- Horizontal or vertical upflow services
- Lightweight, easy to install
- For gases and liquids

OPERATION



Valve Open

The contoured disc of the CHEXTER™ lifts easily off the seat to open the valve. The airfoil design of the disc allows it to “float” on the flow. Rugged disc stops built into the body position the disc for optimum flow characteristics. The large body cavity helps minimize flow restriction. The valve functions smoothly and silently in both horizontal and vertical up-flow lines.



Valve Closed

The CHEXTER™ disc has definite design advantages: it is counterweighted, spring-loaded, and mounted eccentrically. As flow decreases, the disc starts closing and seals before reverse flow takes effect. Back pressure against the disc moves it across the soft seal into the metal seat for tight shut off.

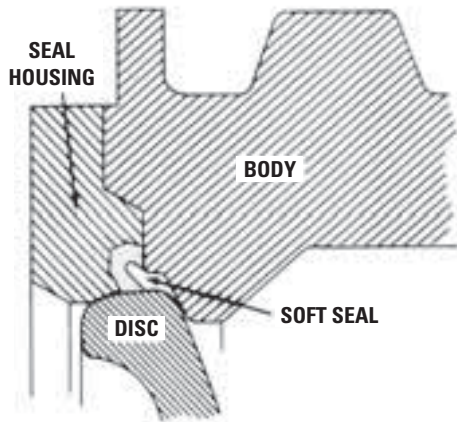
C_v Values

C_v is defined as, the GPM of water @ 60°F flowing through the product at a pressure drop of 1psig. CHEXTER™ Check Valves should be sized to allow for 1/2-1psi pressure drop through the valve for optimum service at minimum flow conditions. Any calculated value that gives a pressure drop of less than 1/2psi should not be considered valid since this indicates that the disc is not fully open and the C_v value listed is for a fully opened disc. For differential pressure of less than 1/2psi the Chexter can be used if the springs are removed.

C_v Values

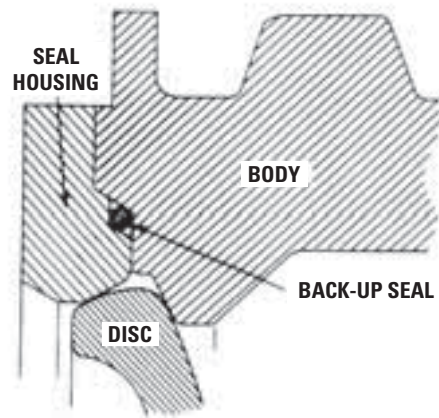
LINE SIZE		CV VALUE	LINE SIZE		CV VALUE
<i>in.</i>	<i>mm</i>		<i>in.</i>	<i>mm</i>	
2	51	90	12	305	4,500
2½	64	175	14	356	5,000
3	76	250	16	406	8,000
4	102	500	18	457	10,000
5	127	790	20	508	13,000
6	152	1125	24	610	25,000
8	203	2000	30	762	40,000
10	254	3100	36	914	60,000

SEAL HOUSING DESIGN AND TRIM



Combination Soft Seal and Metal Seat-Seal*

In this method, the disc impinges on the soft seal and the metal seat of the valve. The soft seal effects tight shut-off and the metal seat assumes the full pressure load against the disc, resulting in the secondary metal-to-metal seal.



Metal-to-Metal Seat-Seal*

In this method, the disc impinges on the metal seal housing. A metal face seal is provided between the seal housing and valve body. A Viton "A" back-up "O" Ring is provided as a weather seal. For temperature limits, refer to Pressure-Temperature charts for corresponding metals, page 13-14.

Replaceable Disc Seal

Routine examination and maintenance are recommended on an approximate yearly basis. The soft, resilient seal ring for CHEXTER™ Check Valve discs may be inserted by hand on location when valve is removed from the line. No bonding is required. When the valve is assembled, the seal ring is locked into position. Only one ring is required. To install a new seal, simply separate the CHEXTER™ body from the seal housing, clean the ring groove, insert a new ring and reassemble the valve.



Buna-N Seal (Standard on Type A, D & DE)

Buna-N seal ring is standard on CHEXTER™. Services from -20°F (-28°C) to +250°F (+121°C).



Teflon® Seal (Standard on Type AC, C & E)

An excellent seal ring for corrosive flows and other types of services. Virgin white Teflon is used. Services from -65°F (-54°C) to +450°F (+232°C).



Viton Seal (Alternate)

An excellent alternative for use in corrosive and high temperature applications. Services from -40°F (-40°C) to +400°F (+205°C).

NOTE: Other disc seal ring materials available on request.

STANDARD CHEXTER™ MATERIALS

Standard CHEXTER™ Materials

MAJOR VALVE PARTS	TYPE A	TYPE AC	TYPE AF	TYPE C	TYPE D	TYPE DE	TYPE E
Body	Carbon Steel	Carbon Steel	Carbon Steel	316 S.S.	Cast Iron	Cast Iron	Alum-Bronze
Seal Housing	Carbon Steel	316 S.S.	410 S.S.	2-30"	Cast Iron	Alum-Bronze	Alum-Bronze
Disc	Ductile Iron	316 S.S.	410 S.S.	2-12"	Ductile-Iron	Alum-Bronze	Alum-Bronze
Seal	Buna-N	Teflon®	Metal-to-Metal	2-12"	Buna-N	Buna-N	Teflon
Hinge Pin: 2-14"	316 S.S.	316 S.S.	316 S.S.	2-24"	316 S.S.	316 S.S.	316 S.S.
Hinge Pin: 16-36"	416 S.S.	316 S.S.	416 S.S.	2-24"	416 S.S.	416 S.S.	316 S.S.
Spring: 2-14"	Inconel®	Inconel	Inconel	Inconel	Inconel	Inconel	Inconel
Spring: 16-36"	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.
Spring Pin: 16-36" (only)	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.	316 S.S.

NOTES:

- (1) Ductile Iron Discs are electroless nickel plated and heat treated for strength and corrosion resistance, per Mil-C-26074, Class II.
- (2) CHEXTER™ parts are phosphate treated where applicable.
- (3) Discs for Types A, AF and D valves are 316 SS in 2", 2½", 3" and 4" line sizes.
- (4) Extra wear resistance for Hinge Pin is provided by chrome plating.
- (5) Types AC, C, and E are suitable for NACE MR 01-75 applications, only if an Inconel X-750 spring is used.

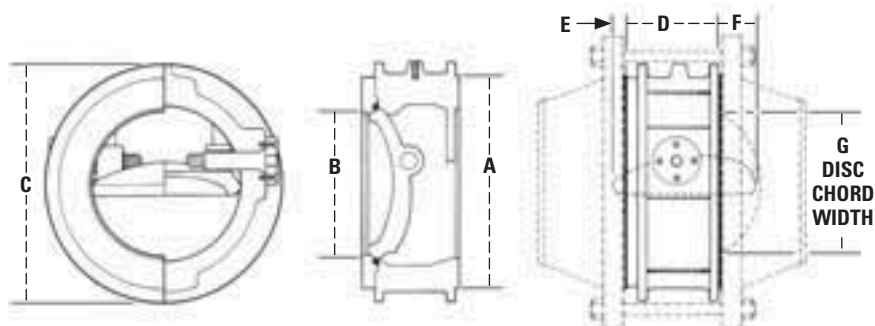
NOTE: CHEXTER™ in 16-36" line sizes are furnished standard with 2 springs unless otherwise specified.

Material Specifications

Cast Carbon Steel	A.S.T.M. A-216, Grade WCB
Wrought Steel	A.S.T.M. A-515, Grade 70
Cast Ductile Iron	A.S.T.M. A-536, Grade 65-45-12
Electroless Nickel Plating	Mil-C-26074 Class II
Cast 410 Stainless Steel	A.S.T.M. A-487 Grade CA-6NM (11 -13% chrome stainless steel)
Wrought 410 Stainless Steel	A.S.T.M. A-176, (Plate) Type 410
Wrought 416 Stainless Steel	A.S.T.M. A-582, (Bar) Type 416
Cast 316 Stainless Steel	A.S.T.M. A-351, Grade CF-8M
Wrought 316 Stainless Steel	A.S.T.M. A-167, (Plate) Type 316, A.S.T.M. A-276, (Bar) Type 316
Cast Aluminum-Bronze	A.S.T.M. B-148, Alloy 952
Wrought Aluminum-Bronze	A.S.T.M. B-169 (Plate) A.S.T.M. B-150, Grade 642 (Bar)
Cast Iron	A.S.T.M. A-126, Class B
Buna-N	A.S.T.M. D-2000, Grade 2 BG715, B14, E14, E34, F17
Teflon	Mil-P-19468 or AMS-3651 B
Inconel	A.S.T.M. B-166 [-450°F (-267°C) to +600°F (+315°C)]
Inconel-X	QQ-W-390a [to + 1100°F (+593°C)]
Viton "A"	Mil-R-83248 Class I & II

CHEXTER™ INSTALLATION DIMENSIONS

Raised Face and Flat Face Valves, 2-14" Sizes



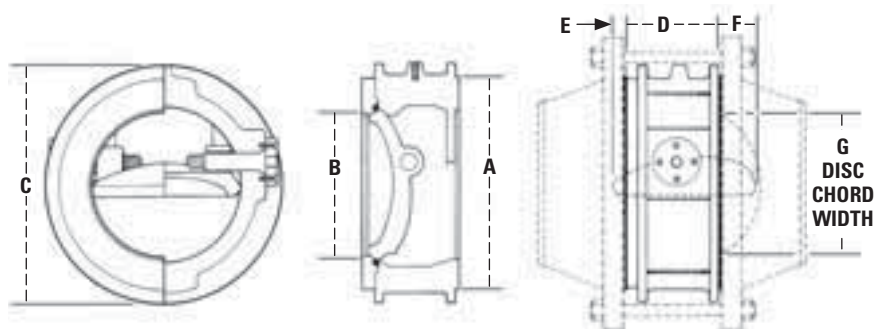
Installation Dimensions

LINE SIZE				C																		
		A		B	125 & 150 CLASS		250 & 300 CLASS		400 CLASS		600 CLASS		900 CLASS		D*		E		F		G	
in.	mm	in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2	51	3 ⁵ / ₈	92		Same Valve Fits Schedule 40 and 80 Line sizes	4 ⁵ / ₈	105	4 ³ / ₈	111	4 ³ / ₈	111	4 ³ / ₈	111	5 ⁵ / ₈	143	1 ¹ / ₂	38	0	0	1 ¹ / ₂	13	1 ⁵ / ₁₆
2 ¹ / ₂	64	4 ¹ / ₈	105	4 ⁷ / ₈		124	5 ¹ / ₈	130	5 ¹ / ₈	130	5 ¹ / ₈	130	-	-	1 ¹⁵ / ₁₆	49	1 ¹ / ₁₆	2	0 ⁹ / ₁₆	14	2 ⁷ / ₈	60
3	76	5	127	5 ³ / ₈		137	5 ⁷ / ₈	149	5 ⁷ / ₈	149	5 ⁷ / ₈	149	6 ⁵ / ₈	168	2 ¹ / ₈	54	1 ¹ / ₈	3	0 ³ / ₄	19	2 ⁷ / ₈	73
4	102	6 ³ / ₁₆	157	6 ⁷ / ₈		175	7 ¹ / ₈	181	7	178	7 ⁵ / ₈	194	8 ¹ / ₈	206	2 ³ / ₄	70	1 ¹ / ₈	3	1 ¹ / ₈	29	3 ³ / ₈	98
5	127	7 ⁹ / ₁₆	186	7 ³ / ₄		197	8 ¹ / ₂	216	8 ³ / ₈	213	9 ¹ / ₂	241	-	-	3 ¹ / ₂	89	7 ¹ / ₁₆	11	1 ³ / ₈	35	4 ¹ / ₁₆	103
6	152	8 ¹ / ₂	216	8 ³ / ₄		222	9 ⁷ / ₈	251	9 ³ / ₄	248	10 ¹ / ₂	267	11 ³ / ₈	289	4 ¹ / ₈	105	5 ¹ / ₈	16	1 ¹ / ₄	32	4 ¹⁵ / ₁₆	125
8	203	10 ⁵ / ₈	270	11		279	12 ¹ / ₈	308	12	305	12 ⁵ / ₈	321	14 ¹ / ₈	358	5 ³ / ₈	137	1	25	1 ⁵ / ₁₆	49	6 ⁷ / ₈	175
10	254	12 ³ / ₄	324	13 ³ / ₈		339	14 ¹ / ₄	362	14 ¹ / ₈	359	15 ³ / ₄	400	17 ¹ / ₈	435	6 ¹ / ₁₆	170	1 ¹ / ₂	38	2 ³ / ₈	60	6 ³ / ₈	213
12	304	15	381	16 ¹ / ₈		410	16 ⁵ / ₈	422	16 ⁵ / ₈	419	18	457	19 ⁵ / ₈	499	8	203	2 ¹ / ₁₆	52	7 ¹ / ₁₆	62	9 ³ / ₈	238
14	356	16 ¹ / ₄	413	17 ³ / ₄		451	19 ¹ / ₈	486	19	483	19 ³ / ₈	492	-	-	8 ³ / ₄	222	1 ¹ / ₂	38	2 ¹ / ₄	57	9 ¹ / ₄	235

*"D" dimensions (overall face-to-face) are for 125-600 Class.

**"D" dimensions for 900 Class same as RTJ "D" dimensions on page 10.

Raised Face and Flat Face Valves, 16-36" Sizes



Installation Dimensions

LINE SIZE				C																
		A		B	125 & 150 CLASS		250 & 300 CLASS		400 CLASS		600 CLASS		D		E		F		G	
in.	mm	in.	mm		in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
16	406	18 ¹ / ₂	470		Same Valve Fits Schedule 40 and 80 Line sizes	20	508	21 ¹ / ₈	533	20 ⁷ / ₈	530	22	559	9 ¹ / ₄	235	11 ¹ / ₁₆	43	4 ⁵ / ₈	118	13 ³ / ₄
18	457	21	533	21 ¹ / ₄		540	23 ¹ / ₈	587	23	584	23 ³ / ₄	603	10 ³ / ₈	264	1 ¹ / ₂	38	5 ¹ / ₈	127	15 ¹ / ₂	394
20	508	23	584	23 ¹ / ₂		597	25 ¹ / ₈	638	24 ⁷ / ₈	632	26 ¹ / ₂	673	11 ¹ / ₄	286	2 ¹ / ₂	64	6 ¹ / ₈	156	17 ¹ / ₈	448
24	610	27 ¹ / ₄	692	27 ¹ / ₈		708	30 ¹ / ₈	765	29 ⁷ / ₈	759	30 ³ / ₄	781	12 ¹ / ₂	318	3 ¹ / ₄	83	6 ³ / ₄	172	20 ³ / ₄	527
30	762	33 ³ / ₄	857	34 ³ / ₈		873	37 ¹ / ₈	943	-	-	-	-	15 ¹ / ₂	394	5 ⁵ / ₈	143	8 ³ / ₁₆	208	26 ¹ / ₂	673
36	914	40 ¹ / ₄	1022	40 ⁷ / ₈		1038	-	-	-	-	-	-	18	457	5 ⁵ / ₁₆	135	12	304	33 ³ / ₄	844

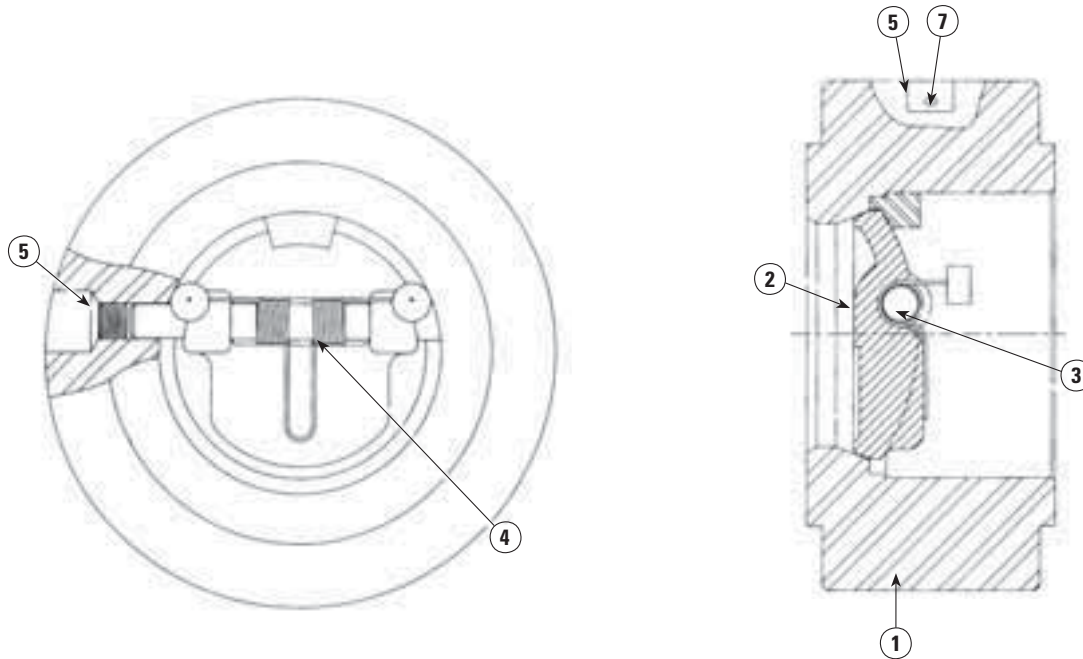
*"D" dimensions (overall face-to-face) are for 125-600 Class.

**"D" dimensions for 900 Class same as RTJ "D" dimensions on page 10.

CHEXTER™ UNIBODY VALVE

Raised Face & Ring Type Joint Styles 2-10" Sizes—Class 1500. 2-4" Sizes—2000/3000psi API

The unibody style CHEXTER™ valve is of a single piece body design and is available with metal-to-metal seats only. This type is recommended for higher pressure and/or temperature services. Body materials include carbon steel, alloy steel and stainless steel.



1500 Class RF & RTJ Valve Dimensions

LINE SIZE		OVERALL FACE TO FACE D		C DIAMETER AND RING NO		RING NO.
in.	mm	in.	mm	600/900 CLASS	in.	
2	51	2¾	70	5	127	R-24
2½	64	3¼	83	5	152	R-27
3	76	3¼	83	6¾	172	R-35
4	102	4	102	8	203	R-39
6	152	6¼	159	10	254	R-46
8	203	8⅞	206	12½	317	R-50
10	254	9¾	241	15¾	400	R-54
12	304	12	305	18½	470	R-58

Inches (Millimeters)

2000-3000psi API RTJ Valve Dimensions

LINE SIZE		OVERALL FACE TO FACE D		C DIAMETER AND RING NO			
in.	mm	in.	mm	2000psi	RING NO.	3000psi	RING NO.
in.	mm	in.	mm	in.	mm	in.	mm
2	51	2¾	70	4¼	108	5	127
3	76	3¼	83	5¾	146	6⅞	156
4	102	4¼	102	7¼	184	7¼	184

Inches (Millimeters)

Parts List

PART NO.	DESCRIPTION	NO. REQ'D
1	Body	1
2	Disc	1
3	Hinge Pin	1
4	Spring	1
5	Hex Socket Pipe Plug	2
6	Nameplate	1
7	Drive Screw	2

☐ Denotes recommended spare parts for one year operation.

STUD SELECTION FLAT FACE AND RAISED FACE VALVES

LINE SIZE	ANSI CLASS	STUD QUANTITY	STUD DIAMETER	STUD LENGTH
2"	125-150	4	5/8	4 ³ / ₄
	250-300	8	5/8	6
	900-1500	8	7/8	8 ¹ / ₂
	API 3000	8	7/8	8 ¹ / ₂
2 1/2"	125-150	4	5/8	6
	250-300	8	3/4	6 ¹ / ₄
	400-600	8	3/4	7
	900-1500	8	1	9 ¹ / ₂
3"	125-150	4	5/8	6
	250-300	8	3/4	7 ¹ / ₂
	900	8	7/8	8 ³ / ₄
	1500	8	1 ¹ / ₈	10 ¹ / ₂
4"	125-150	8	5/8	6 ¹ / ₂
	250-300	8	3/4	7 ¹ / ₂
	400-600	8	7/8	9
	900	8	1 ¹ / ₈	11
	1500	8	1 ¹ / ₄	12
5"	125-150	8	3/4	7 ¹ / ₂
	250-300	8	3/4	8 ³ / ₄
	400	8	7/8	9 ¹ / ₂
	600	8	1	10 ¹ / ₄

CHEXTER is available as a unit with studs, nuts, gaskets and companion flanges ready for installation.

LINE SIZE	ANSI CLASS	STUD QUANTITY	STUD DIAMETER	STUD LENGTH
6"	125-150	8	3/4	8 ¹ / ₄
	250-300	12	3/4	9
	400	12	7/8	10 ¹ / ₄
	600	12	7/8	11 ¹ / ₄
	900	12	1	14 ¹ / ₄
	1500	12	1 ³ / ₈	17
8"	125-150	8	3/4	9 ¹ / ₂
	250-300	12	7/8	11 ¹ / ₄
	400	12	1	12 ³ / ₄
	600	12	1 ¹ / ₈	13 ¹ / ₂
	900	12	1 ³ / ₈	17 ¹ / ₂
10"	1500	12	1 ⁵ / ₈	19 ³ / ₄
	125-150	12	7/8	11 ¹ / ₂
	250-300	16	1	13 ¹ / ₄
	400	16	1 ¹ / ₈	14 ¹ / ₄
	600	16	1 ¹ / ₄	16
	900	16	1 ³ / ₈	19 ¹ / ₂
12"	1500	12	1 ⁷ / ₈	23 ¹ / ₂
	125-150	12	7/8	13 ¹ / ₄
	250-300	16	1 ¹ / ₈	15 ¹ / ₄
	400	16	1 ¹ / ₄	16 ¹ / ₄
	600	20	1 ¹ / ₄	17
14"	900	20	1 ³ / ₈	22 ³ / ₄
	1500	16	2	27
	125-150	12	1	14 ¹ / ₄
	250-300	20	1 ¹ / ₈	16
14"	400	20	1 ¹ / ₄	17 ¹ / ₂
	600	20	1 ³ / ₈	18 ¹ / ₂

LINE SIZE	ANS CLASS	STUD DIAMETER	LOCATING STUD*		REGULAR STUD	
			QUANTITY	LENGTH	QUANTITY	LENGTH
16"	125-150	1	4	6	14	15
	250-300	1 ¹ / ₄	4	7 ¹ / ₂	18	17 ¹ / ₄
	400	1 ³ / ₈	4	8 ¹ / ₂	18	18 ¹ / ₂
	600	1 ¹ / ₂	4	9 ¹ / ₄	18	20
18"	125-150	1 ¹ / ₈	4	7	14	16 ³ / ₄
	250-300	1 ¹ / ₄	4	8	22	18 ³ / ₄
	400	1 ³ / ₈	4	8 ¹ / ₂	22	20
	600	1 ⁵ / ₈	4	10 ¹ / ₄	18	21 ³ / ₄
20"	125-150	1 ¹ / ₈	4	7	18	18
	250-300	1 ¹ / ₄	4	8	22	20
	400	1 ¹ / ₂	4	9 ¹ / ₄	22	21 ¹ / ₂
	600	1 ⁵ / ₈	4	10 ¹ / ₄	22	22 ³ / ₄
24"	125-150	1 ¹ / ₄	4	8	18	21
	250-300	1 ¹ / ₂	4	9 ¹ / ₄	22	22 ¹ / ₄
	400	1 ³ / ₄	4	10 ¹ / ₂	22	23 ³ / ₄
	600	1 ⁷ / ₈	4	11 ³ / ₄	22	26
30"	125-150	1 ¹ / ₄	8	8	24	22 ¹ / ₂
36"	125-150	1 ¹ / ₂	8	9 ¹ / ₄	28	26 ³ / ₄

Locating studs and nuts are furnished.

NOTE: Studs, A.S.T.M. A-193, Grade B-7, Nuts, A.S.T.M. A-194, Grade 2

RING TYPE JOINT VALVES

600-900 CLASS RTJ & 900 CLASS RF Valve Dimensions

LINE SIZE		C DIAMETER AND RING NO			
		600/900 CLASS		RING NO.	
in.	mm	in.	mm		
2	51	2½	70	5 127.0	R-23/ R-24
2½	64	2¾	83	6 152.4	R-26/ R-27
3	76	3¼	83	6¼ 158.8	R-31
4	102	4	102	7¼ 184.2	R-37
6	152	6¼	159	10 254.0	R-45
8	203	8⅛	206	12¼ 311.2	R-49
10	254	9½	241	15¼ 387.4	R-53
12	304	11½	305	18½ 444.5	R-57

Inches (Millimeters)

RTF Valve Stud Selection

LINE SIZE	A.N.S.I. CLASS	STUD QUANTITY	STUD DIAMETER	STUD LENGTH
2"	600	4	5/8	7¼
	900-1500	8	7/8	8½
2 ½"	600	4	¾	7½
	900-1500	8	1	9
3"	600	4	¾	8¾
	900	8	7/8	9½
	1500	8	1⅛	10¾
4"	600	8	7/8	10¼
	900	8	1⅛	11½
	1500	8	1¼	12¼
6"	600	8	1	14
	900	8	1⅛	14½
8"	600	12	1⅛	16¾
	900	12	1¾	17½
10"	600	16	1¼	19¼
	900	16	1¾	19½
12"	600	20	1¼	21¼
	900	20	1¾	22¾

*When required, locating studs and nuts for valve are furnished.

API-RTJ Valve Stud Selection

LINE SIZE	A.N.S.I. CLASS	STUD QUANTITY	STUD DIAMETER	STUD LENGTH
2"	2000	8	5/8	7¼
	3000	8	7/8	8½
3"	2000	8	¾	8¾
	3000	8	7/8	9½
4"	2000	8	7/8	10¼
	3000	8	1⅛	11½

*When required, locating studs and nuts for valve are furnished.

MAXIMUM WORKING PRESSURE

Pressure-Temperature Ratings of Carbon Steel, 410 Stainless Steel CHEXTER™ as Determined From Class B 16.5

TEMPERATURE FAHRENHEIT (CELSIUS)		MAXIMUM, NON-SHOCK SERVICE PRESSURE – psi (Kg/cm2) CLASS SERIES											
		150 CLASS				300 CLASS				400 CLASS			
		CARBON STEEL		316 S.S.		CARBON STEEL		316 S.S.		CARBON STEEL		316 S.S.	
-20° to 100°	(-28.9° to 37.8°)	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>
		285	(20.04)	275	(19.33)	740	(52.02)	720	(50.62)	990	(65.60)	960	(67.49)
150	(65.6)	272	(19.12)	255	(17.93)	707	(49.70)	670	(47.10)	945	(66.43)	892	(62.71)
200	(93.3)	260	(18.28)	240	(16.87)	675	(47.45)	620	(43.59)	900	(63.27)	825	(58.00)
250	(121.1)	245	(17.22)	227	(15.96)	665	(46.75)	590	(41.46)	887	(62.34)	785	(55.19)
300	(148.9)	230	(16.17)	215	(15.11)	655	(46.05)	560	(39.37)	875	(61.51)	745	(52.37)
350	(176.7)	215	(14.41)	205	(14.41)	645	(45.34)	537	(37.75)	860	(60.45)	715	(50.26)
400	(204.4)	200	(14.06)	195	(17.71)	635	(44.64)	515	(36.20)	845	(59.40)	685	(48.16)
450	(232.2)	185	(13.01)	182	(12.79)	617	(43.38)	497	(34.94)	822	(57.79)	660	(46.40)

Locating studs and nuts are furnished.

NOTE: Studs, A.S.T.M. A-193, Grade B-7, Nuts, A.S.T.M. A-194, Grade 2

TEMPERATURE FAHRENHEIT (CELSIUS)		MAXIMUM, NON-SHOCK SERVICE PRESSURE – psi (Kg/cm2) CLASS SERIES							
		600 CLASS				900 CLASS			
		CARBON STEEL		316 S.S.		CARBON STEEL		316 S.S.	
-20° to 100°	(-28.9° to 37.8°)	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>
		1480	(104.04)	1440	(101.23)	2220	(157.07)	2160	(151.49)
150	(65.6)	1415	(99.47)	1340	(94.20)	2120	(147.04)	2010	(141.30)
200	(93.3)	1350	(94.91)	1240	(87.17)	2025	(142.36)	1860	(130.76)
250	(121.1)	1332	(93.64)	1180	(82.95)	2000	(140.60)	1770	(124.43)
300	(148.9)	1315	(92.44)	1120	(78.74)	1970	(138.49)	1680	(118.10)
350	(176.7)	1293	(90.90)	1075	(75.57)	1935	(136.03)	1610	(113.18)
400	(204.4)	1270	(89.28)	1030	(72.41)	1900	(133.57)	1540	(108.28)
450	(232.2)	1235	(86.82)	992	(69.74)	1850	(130.06)	1490	(104.75)

Unibody Style CHEXTER™

TEMPERATURE FAHRENHEIT (CELSIUS)		MAXIMUM, NON-SHOCK SERVICE PRESSURE – psi (Kg/cm2) CLASS SERIES							
		API 2000		API 3000		CLASS 1500			
						CARBON STEEL		316 S.S.	
-20° to 100°	(-28.9° to 37.8°)	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>	<i>psi</i>	<i>Kg/cm2</i>
		2000	(140.6)	3000	(210.9)	3705	(260.46)	3600	(253.08)
150	(65.6)	2000	(140.6)	3000	(210.9)	3540	(248.86)	3350	(235.51)
200	(93.3)	2000	(140.6)	3000	(210.9)	3375	(237.26)	3095	(217.58)
250	(121.1)	2000	(140.6)	3000	(210.9)	3325	(233.75)	2945	(207.03)
300	(148.9)	1955	(137.44)	2930	(205.98)	3280	(230.58)	2795	(196.49)
350	(176.7)	1905	(133.92)	2860	(201.06)	3225	(226.72)	2680	(188.40)
400	(204.4)	1860	(130.76)	2785	(195.79)	3170	(222.85)	2570	(180.67)
450	(232.2)	1810	(127.24)	2715	(190.86)	3080	(216.52)	2480	(174.34)
500	(260)	1735	(121.97)	2605	(183.13)	2995	(210.55)	2390	(168.02)
550	(287.7)	1635	(114.94)	2455	(172.59)	2865	(201.41)	2322	(163.24)
600	(315.5)	1540	(108.26)	2310	(162.39)	2735	(192.27)	2255	(158.53)
650	(343.3)	1430	(100.53)	2145	(150.79)	2685	(188.76)	2220	(156.07)

Locating studs and nuts are furnished.

NOTE: Studs, A.S.T.M. A-193, Grade B-7, Nuts, A.S.T.M. A-194, Grade 2

MAXIMUM WORKING PRESSURE

Pressure-Temperature Ratings of Aluminum-Bronze CHEXTER™* ASTM B148 Alloy 952

TEMPERATURE		MAXIMUM, NON-SHOCK SERVICE PRESSURE – psi (Kg/cm ²)			
FAHRENHEIT (CELSIUS)		150 CLASS		300 CLASS	
		<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>
-20° to 100°	(-28.9° to 37.8°)	195	(13.7)	515	(36.2)
150	(65.6)	165	(11.6)	430	(30.2)
200	(93.3)	155	(10.9)	400	(28.1)
250	(121.1)	145	(10.2)	385	(27.1)
300	(148.9)	140	(9.8)	370	(26.0)
350	(176.7)	140	(9.8)	365	(25.7)
400	(204.4)	140	(9.8)	365	(25.7)
450	(232.2)	140	(9.8)	360	(25.3)

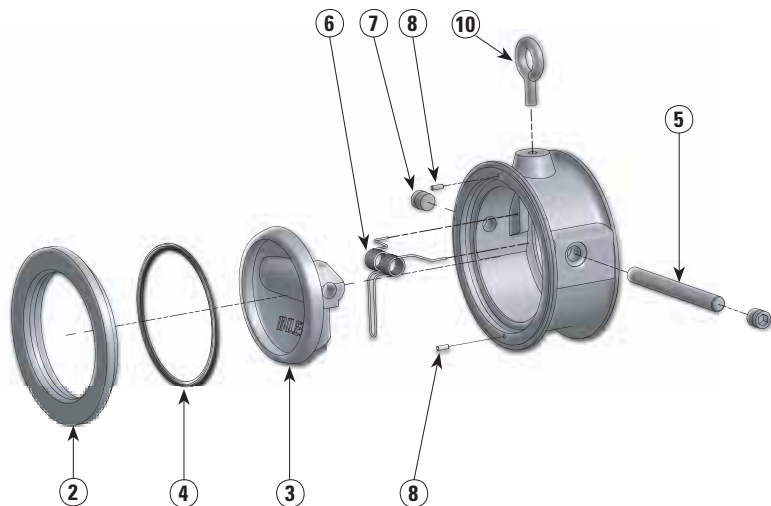
Pressure-Temperature Ratings of Cast Iron CHEXTER™* ASTM A126 Class B. 125 Class Flat Face Valve 250 Class Raised Face Valve

TEMPERATURE		MAXIMUM, NON-SHOCK SERVICE PRESSURE – psi (Kg/cm ²)											
FAHRENHEIT (CELSIUS)		125 CLASS						250 CLASS					
		2 – 12"		14 – 24"		30" UP		2 – 12"		14 – 24"		30" UP	
		<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>	<i>psi</i>	<i>Kg/cm²</i>
-20° to 150°	(-28.9° to 65.6°)	200	(14.1)	150	(10.5)	150	(10.5)	500	(35.2)	300	(21.1)	300	(21.1)
200	(93.3)	190	(13.4)	135	(9.5)	115	(8.1)	460	(32.3)	280	(19.7)	250	(17.6)
225	(107.2)	180	(12.7)	130	(9.1)	100	(7.0)	440	(30.9)	270	(19.0)	225	(15.8)
250	(121.1)	175	(12.3)	125	(8.8)	85	(6.0)	415	(29.2)	260	(18.3)	200	(14.1)
275	(135.0)	170	(12.0)	120	(8.4)	65	(4.6)	395	(27.8)	250	(17.6)	175	(12.3)
300	(148.9)	165	(11.6)	110	(7.7)	50	(3.5)	375	(26.4)	240	(16.9)	150	(10.5)
325	(162.8)	155	(10.9)	105	(7.4)	—	—	355	(25.0)	230	(16.2)	125	(8.8)
353	(178.3)	150	(10.5)	100	(7.0)	—	—	335	(23.6)	220	(15.5)	100	(7.0)
375	(190.6)	145	(10.2)	—	—	—	—	315	(22.1)	210	(14.8)	—	—
406	(207.8)	140	(9.8)	—	—	—	—	290	(20.4)	200	(14.1)	—	—
425	(218.3)	130	(9.1)	—	—	—	—	270	(19.0)	—	—	—	—
450	(232.2)	125	(8.8)	—	—	—	—	250	(17.6)	—	—	—	—

*Companion Flanges should be similar material.

1. 353°F (MAX) to reflect the temperature of saturated steam @ 125psig.
2. 406°F (MAX) to reflect the temperature of saturated steam @ 250psig.

PARTS LIST 2-14" SIZES

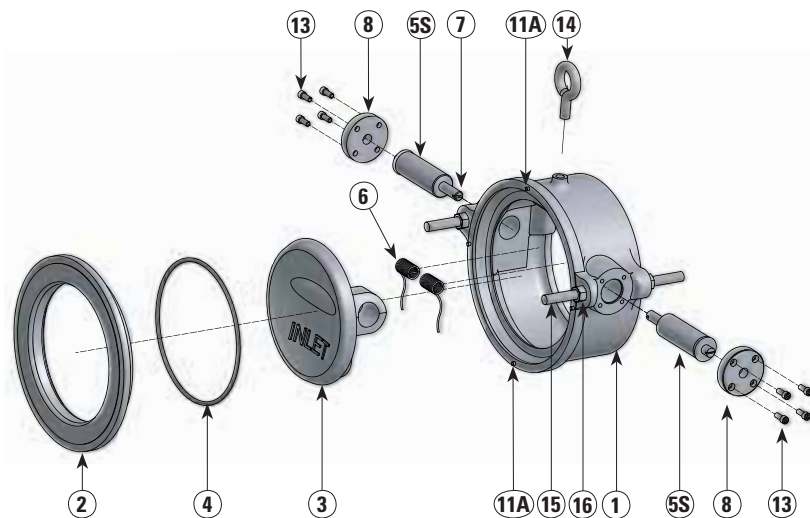


Parts List

PART NO.	DESCRIPTION	NO. REQ'D
1	Body	1
2	Seal Housing (for Combination Seal)	1
2A*	Seal Housing (for Metal-to-Metal Seal)	1
3	Disc	1
4	Soft Seal (for Part No. 2)	1
5	Hinge Pin	1
6	Spring	1
7	Hex Socket Pipe Plug	2
8	Roll Pin	2
9*	Back-up Viton "A" "O" Ring	1
10	Eye Bolt (8" thru 14")	1

*Use only on metal-to-metal seat valves (not shown). □ Denotes recommended spare parts for one year operation.

PARTS LIST 16-36" SIZES



Parts List

PART NO.	DESCRIPTION	NO. REQ'D
1	Body	1
2	Seal Housing (for Combination Seal)	1
2A*	Seal Housing (for Metal-to-Metal Seal)	1
3	Disc	1
4	Soft Seal (for Part No. 2)	1
5S	Hinge Pin (slotted for Spring)	2
6	Springs	2
7	Spring Pin	2
8	Hinge Pin Flange	2
11A	Roll Pin	4
12*	Back-up Viton "A" "O" Ring	1
13	Cap Screw, Socket Head	8
14	Eye Bolt	1
15	Locating Stud (16-24")	4
15A	Locating Stud (30")	8
16	Hex Nut (16-24")	4
16A	Hex Nut (30")	8

NOTE: All CHEXTER 16-36" are furnished standard with 2 springs.

*Use only on metal-to-metal seat valves (not shown).

□ Denotes recommended spare part(s) for one year operation. Prices on application.

CHEXTER™ SELECTION TABLE

CHEXTER™ Selection Guide (by Catalog No.)

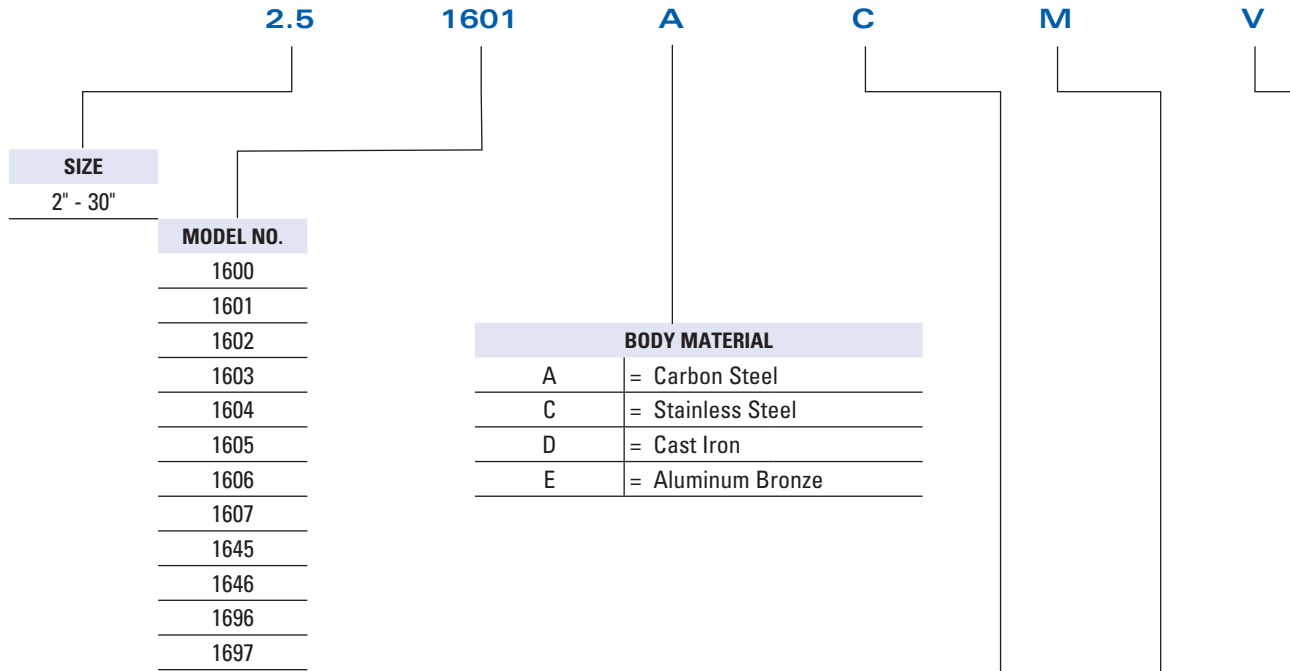
CATALOG NO.	TYPE	RATING	FACING	SIZE RANGE	BODY MATERIAL
1600	D	125 Class	RF	2-36"	Cast Iron
1601	A	150 Class	RF	2-30"	Carbon Steel
1601	C	150 Class	RF	2-12"	Stainless Steel
1601	E	150 Class	RF	2-12"	Aluminum-Bronze
1602	D	250 Class	RF	2-24"	Cast Iron
1603	A	300 Class	RF	2-24"	Carbon Steel
1603	C	300 Class	RF	2-12"	Stainless Steel
1603	E	300 Class	RF	2-12"	Aluminum-Bronze
1604	A	400 Class	RF	2-24"	Carbon Steel
1605	A	600 Class	RF	2-24"	Carbon Steel
1605	C	600 Class	RF	2-12"	Stainless Steel
1606	A	900 Class	RF	2-12"	Carbon Steel
1606	C	900 Class	RF	2-12"	Stainless Steel
1607	A	1500 Class	RF	2-4"	Carbon Steel
1645	A	600 Class	RTJ	2-12"	Carbon Steel
1645	C	600 Class	RTJ	2-12"	Stainless Steel
1646	A	900 Class	RTJ	2-12"	Carbon Steel
1646	C	900 Class	RTJ	2-12"	Stainless Steel
1696	A	2000 Lb. API	RTJ	2-4"	Carbon Steel
1697	A	3000 Lb. API	RTJ	2-4"	Carbon Steel

CHEXTER™ Selection Guide (by Body Material)

CATALOG NO.	TYPE	RATING	FACING	SIZE RANGE	BODY MATERIAL
1601	E	150 Class	RF	2-12"	Aluminum-Bronze
1603	E	300 Class	RF	2-12"	Aluminum-Bronze
1600	D	125 Class	RF	2-36"	Cast Iron
1602	D	250 Class	RF	2-24"	Cast Iron
1601	A	150 Class	RF	2-30"	Carbon Steel
1603	A	300 Class	RF	2-24"	Carbon Steel
1604	A	400 Class	RF	2-24"	Carbon Steel
1605	A	600 Class	RF	2-24"	Carbon Steel
1606	A	900 Class	RF	2-12"	Carbon Steel
1607	A	1500 Class	RF	2-4"	Carbon Steel
1645	A	600 Class	RTJ	2-12"	Carbon Steel
1646	A	900 Class	RTJ	2-12"	Carbon Steel
1696	A	2000 Lb. API	RTJ	2-4"	Carbon Steel
1697	A	3000 Lb. API	RTJ	2-4"	Carbon Steel
1601	C	150 Class	RF	2-12"	Stainless Steel
1603	C	300 Class	RF	2-12"	Stainless Steel
1605	C	600 Class	RF	2-12"	Stainless Steel
1606	C	900 Class	RF	2-12"	Stainless Steel
1645	C	600 Class	RTJ	2-12"	Stainless Steel
1646	C	900 Class	RTJ	2-12"	Stainless Steel

HOW TO ORDER CHEXTER™ CHECK VALVES

EXAMPLE:



PLEASE NOTE	
<i>Model Numbers have significance:</i>	
First two digits	Model
16	CHEXTER™ Valve
Third Digit	Facing
0	RF Facing
4	RTJ Facing
9	API dimensions
Fourth Digit	Class
0	125
1	150
2	250
3	300
4	400
5	600
6	900, API 2000
7	1500, API 3000

BODY MATERIAL	
A	= Carbon Steel
C	= Stainless Steel
D	= Cast Iron
E	= Aluminum Bronze

TRIM MATERIAL (BLANK IF STANDARD)	
TRIM = SEAL HOUSING, DISC, SEAL	
C	= 316 SS, PTFE Seal
E	= Aluminum Bronze, Buna-N Seal
F	= 410 SS (13 Cr), Metal-to-metal Seal

SEALS (BLANK IF STANDARD)	
B	= Buna-N (Standard on all but Aluminum Bronze)
T	= PTFE (Standard on SS bodies, SS trim, Aluminum Bronze)
M	= Metal-to-metal
V	= Viton®

OTHER OPTIONS	
N	= No Springs
SX	= Special Spring (specify material, etc. with text)
V	= Vented Disc (Thermal Expansion Relief)
X	= Other (Specify with text)

TRADEMARKS:

- Viton® is a trademark of DuPont Performance Elastomers, L.L.C.
- Teflon® is a trademark of E. I du Pont de Nemours and Company Corporation
- Inconel® is a trademark of Inco Alloys International, Inc.

**Complete Mueller Steam Specialty Representative
information available at:**

www.muellersteam.com



A Watts Water Technologies Company



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