



# VALVES

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Valves

## Additional Valves Options Available

Contact TYCO for more information



General notes: It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data is not exceeded. Always read and understand the installation constructions. Never remove any piping components nor correct or modify any piping deficiencies without first depressurizing and draining the system. Material should be verified to be compatible for the specific application.

## Model JPL 39109S Butterfly Valves



For detailed Listing and Approval information see pages 101 - 108 or contact Tyco Fire Protection Products.



### SPECIFICATIONS

#### Max Working Pressure

- 12,1 Bar (175 psi)

#### Body

- Ductile iron ASTM A-395

#### Bushing

- PTFE Bronze sintered on steel

#### Disc

- Ductile iron / EPDM coating

#### Control Shaft & Spindle

- Stainless Steel AISI-420

#### Retainer Plug

- Plated Steel ASTM A-283 Gr B

#### O-Ring

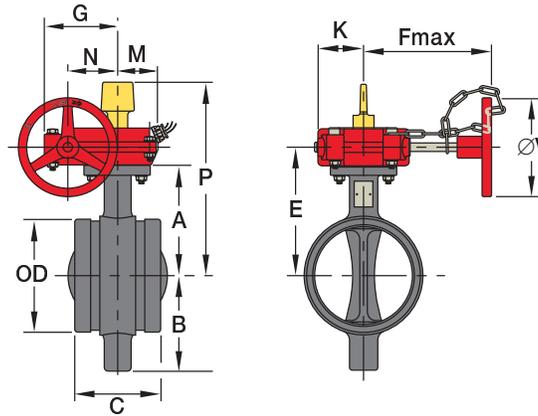
- Nitrile NBR

#### Locking Ring

- Spring Steel

#### Performance

- Contact Tyco Technical Services



Part Number		Pipe Size		Dimensions mm In.										Approx. Weight kg Lbs.	
With Switch	Without Switch	Nominal mm In.	O.D. mm In.	A	B	C	E	F	G	K	M	N	P		ØV
39109SC060	39109S060	50 2	60.3 2.375	100 3.94	77.5 3.05	81 3.19	130 5.12	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	227 8.94	150 5.91	8.4 18.5
39109SC073	39109S073	65 2-1/2	73.0 2.875	105 4.13	82 3.23	97 3.82	135 5.31	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	232 9.13	150 5.91	9.5 20.9
39109SC076	39109S076	65 76.1mm	76.1 3.000	105 4.13	82 3.23	97 3.82	135 5.31	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	232 9.13	150 5.91	9.5 20.9
39109SC089	39109S089	80 3	88.9 3.500	112 4.41	90 3.54	97 3.82	142 5.59	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	232 9.13	150 5.91	9.9 21.8
39109SC114	39109S114	100 4	114.3 4.500	135 5.31	107 4.21	116 4.57	165 6.50	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	239 9.41	150 5.91	11.6 25.6
39109SC139	39109S139	125 139.7mm	139.7 5.500	147 5.79	121 4.76	148 5.83	177 6.97	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	262 10.31	150 5.91	14.8 32.6
39109SC141	39109S141	125 5	141.3 5.563	147 5.79	121 4.76	148 5.83	177 6.97	208 8.19	111 4.37	75 2.95	60 2.36	75 2.95	262 10.31	150 5.91	14.8 32.6
39109SC165	39109S165	150 165.1mm	165.1 6.500	180 7.09	150 5.91	148 5.83	210 8.27	215 8.46	111 4.37	75 2.95	60 2.36	75 2.95	274 10.79	225 8.86	18.2 40.1
39109SC168	39109S168	150 6	168.3 6.625	180 7.09	150 5.91	148 5.83	210 8.27	215 8.46	111 4.37	75 2.95	60 2.36	75 2.95	274 10.79	225 8.86	18.2 40.1
39109SC219	39109S219	200 8	219.1 8.625	204 8.03	172 6.77	133 5.24	234 9.21	215 8.46	111 4.37	75 2.95	60 2.36	75 2.95	274 10.79	225 8.86	20.5 45.2
39109SC273	39109S273	250 10	273.1 10.750	250 9.84	233 9.17	159 6.26	301 11.85	276 10.87	179 7.05	138 5.43	104 4.09	132 5.20	307 12.09	300 11.81	46.3 102.1
39109SC324	39109S324	300 12	323.9 12.750	275 10.83	258 10.16	165 6.50	326 12.83	276 10.87	179 7.05	138 5.43	104 4.09	132 5.20	307 12.09	300 11.81	55.0 121.3

\* = for valves without switch replace SC by S.

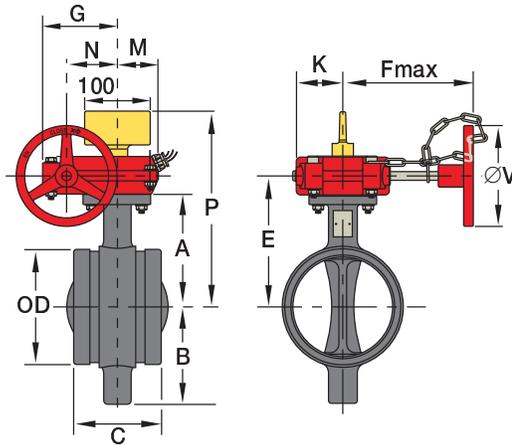
Note: recommended for mounting with GRINNELL G-FIRE Rigid couplings working temperature range is -15°C to 80°C (5°F to 176°F)

Option: Silicon free valves for automotive industry. Because of the special grease, the agency approvals do not apply.



## Model JPL 39109A Butterfly Valves APCAD Approved

**10**  
YEAR  
LIMITED  
WARRANTY



### SPECIFICATIONS

#### Body

- Ductile iron ASTM A-395

#### Bushing

- PTFE Bronze sintered on steel

#### Disc

- Ductile iron / EPDM coating

#### Control Shaft & Spindle

- Stainless Steel AISI-420

#### Retainer Plug

- Plated Steel ASTM A-283 Gr B

#### O-Ring

- Nitrile NBR

#### Locking Ring

- Spring Steel

#### Performance

- Contact Tyco Technical Services

Valves

Part Number	Pipe Size		Max Work Pressure Bar psi	Dimensions mm In.											Approx. Weight kg Lbs.
	Nominal mm In.	O.D. mm In.		A	B	C	E	F	G	K	M	N	P	ØV	
39109AC060	50	60.3	16.0	100	77.5	81	130	208	111	75	60	75	226	150	8.4
	2	2.375	230	3.94	3.05	3.19	5.12	8.19	4.37	2.95	2.36	2.95	8.90	5.91	18.5
39109AC076	65	76.1	16.0	105	82	97	135	208	111	75	60	75	231	150	9.5
	76.1mm	3.000	230	4.13	3.23	3.82	5.31	8.19	4.37	2.95	2.36	2.95	9.09	5.91	20.9
39109AC089	80	88.9	16.0	112	90	97	142	208	111	75	60	75	238	150	9.9
	3	3.500	230	4.41	3.54	3.82	5.59	8.19	4.37	2.95	2.36	2.95	9.37	5.91	21.8
39109AC114	100	114.3	16.0	135	107	116	165	208	111	75	60	75	261	150	11.6
	4	4.500	230	5.31	4.21	4.57	6.50	8.19	4.37	2.95	2.36	2.95	10.28	5.91	25.6
39109AC139	125	139.7	16.0	147	121	148	177	208	111	75	60	75	273	150	14.8
	139.7mm	5.500	230	5.79	4.76	5.83	6.97	8.19	4.37	2.95	2.36	2.95	10.75	5.91	32.6
39109AC168	150	168.3	16.0	180	150	148	210	215	111	75	60	75	306	225	18.2
	6	6.625	230	7.09	5.91	5.83	8.27	8.46	4.37	2.95	2.36	2.95	12.05	8.86	40.1
39109AC219	200	219.1	16.0	204	172	133	234	215	111	75	60	75	330	225	20.5
	8	8.625	230	8.03	6.77	5.24	9.21	8.46	4.37	2.95	2.36	2.95	12.99	8.86	45.2
39109AC273	250	273.1	10.0	250	233	159	301	276	179	138	104	132	417	300	46.3
	10	10.750	145	9.84	9.17	6.26	11.85	10.87	7.05	5.43	4.09	5.20	16.42	11.81	102.1
39109AC324	300	323.9	10.0	275	258	165	326	276	179	138	104	132	442	300	55.0
	12	12.750	145	10.83	10.16	6.50	12.83	10.87	7.05	5.43	4.09	5.20	17.40	11.81	121.3

Note: recommended for mounting with GRINNELL G-FIRE Rigid couplings  
working temperature range is -18°C to 80°C (-0.4°F to 176°F)

## Model BFV-N G-FIRE Butterfly Valves Groove x Groove

Tech Data Sheet: TFP1510

**10**  
YEAR  
LIMITED  
WARRANTY

The Model BFV-N Grooved End Butterfly Valves are indicating type valves designed for use in fire protection systems where a visual indication is required as to whether the valve is open or closed. They are used, for example, as system, sectional, and pump water control valves. They have cut groove inlet and outlet connections that are suitable for use with grooved end pipe couplings that are listed and approved for fire protection systems.



For detailed Listing and Approval information see pages 101 - 108 or contact Tyco Fire Protection Products.



### SPECIFICATIONS

#### Body & Disc

- Ductile iron conforming to ASTM A-536

#### Body Coating

- Polyamide

#### Disc Seal

- Grade EPDM "E" encapsulated rubber conforming to ASTM D-200

#### Upper & Lower Stem

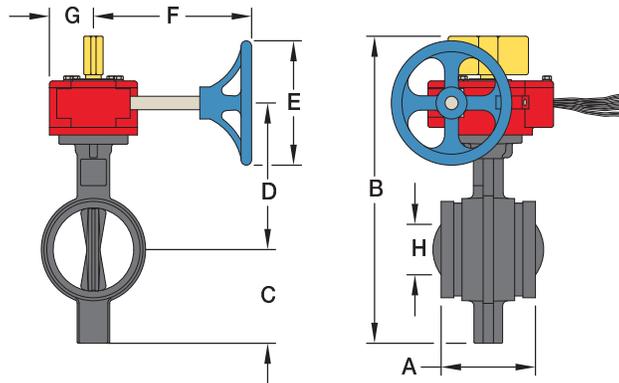
- Type 416 Stainless Steel conforming to ASTM 582

#### Lower Plug

- PVC

#### Performance

- Contact Tyco Technical Services



Part Number	Pipe Size		Max Work Pressure Bar psi	Dimensions mm In.								Approx. Weight kg Lbs.
	Nominal mm In.	O.D. mm In.		A	B	C	D	E	F	G	H	
59300F025N	65	73.0	20.7	98.0	297.4	83.0	137.9	152.4	198.4	63.5	0	10.0
	2-1/2	2.88	300	3.85	11.71	3.25	5.43	6.00	7.81	2.50	0	22
59300F076N	65	76.1	20.7	98.0	297.4	83.0	137.9	152.4	198.4	63.5	0	10.0
	76.1mm	3.000	300	3.85	11.71	3.25	5.43	6.00	7.81	2.50	0	22
59300F030N	80	88.9	20.7	98.0	311.1	90.0	144.2	152.4	198.4	63.5	0	10.4
	3	3.50	300	3.85	12.25	3.54	5.68	6.00	7.81	2.50	0	23
59300F040N	100	114.3	20.7	116.0	354.3	110.0	167.1	152.4	198.4	63.5	0	12.7
	4	4.50	300	4.56	13.95	4.35	6.58	6.00	7.81	2.50	0	28
59300F165N	150	165.1	20.7	149.0	439.7	151.0	212.0	152.4	198.4	63.5	17.0	18.6
	165.1mm	6.500	300	5.86	17.31	5.93	8.35	6.00	7.81	2.50	0.67	41
59300F060N	150	168.3	20.7	149.0	439.7	151.0	212.0	152.4	198.4	63.5	17.0	18.6
	6	6.63	300	5.86	17.31	5.93	8.35	6.00	7.81	2.50	0.67	41
59300F080N	200	219.1	20.7	134.0	487.7	174.0	236.0	152.4	198.4	63.5	148.8	24.1
	8	8.63	300	5.26	19.20	6.87	9.29	6.00	7.81	2.50	5.86	53
59300F100N	250	273.1	12.1	160.0	637.8	233.0	292.1	228.6	195.1	76.2	188.2	40.0
	10	10.75	175	6.29	25.11	9.17	11.50	9.00	7.68	3.00	7.41	88

Note: recommended for mounting with GRINNELL G-FIRE Rigid couplings maximum working temperature is 80°C (176°F).

## Model TMR Resilient-Seated Gate Valves Outside Screw & Yoke (OS&Y)

(Page 1 of 3)

Tech Data Sheet: TFP1540



Flange by Groove

Groove by Groove

Resilient-Seated Gate Valves are used in Fire Protection Systems for on/off operation. End connection configurations including Flange by Groove, and Groove by Groove are available.

The ductile Iron body weighs approximately 50% less than conventional cast iron valves, which allows easier handling on site and reduced shipping costs.

Valve components are either inherently corrosion-resistant or protected with fusion-bonded epoxy resin coating for a long, reliable service life and enhanced UV protection in exposed installations.

This valve is one of the lightest, most durable gate valves on the market today. Its design features and material selection criteria fulfill the need for a reliable, long life and easy to operate gate valve.

### SPECIFICATIONS

#### Max Working Pressure

FM - 16.0 bar (232 psi)

UL - 20.7 bar (300 psi)

#### Max Test Pressure

24.0 bar (348 psi)

Type Tested to 80 Bar (1,160 psi)

#### Flange

- ASME B16.1/ASME B16.42 EN 1092-2/ISO 7005-2 Drilled to ANSI 125/150, PN10/PN16,

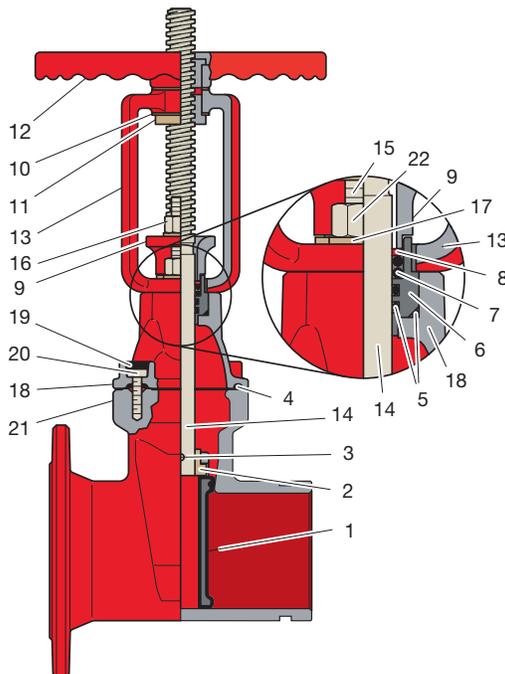
#### Performance

- Contact Tyco Technical Services



For detailed Listing and Approval information see pages 101 - 108 or contact Tyco Fire Protection Products.

Valves



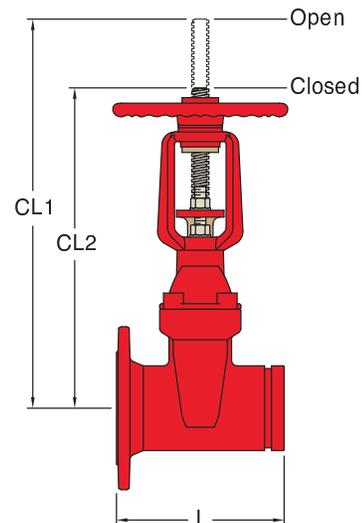
#### Valve Material Specifications

Item No.	Description	Material
1	Wedge, Rubber Encapsulated	Ductile Iron EN-GJS-450-10
2	Wedge Nut	Copper Alloy CW602N-H070
3	Stem Pin	Stainless Steel 1.4034
4	Sealing Gasket	EPDM
5	Sealing O Rings	NBR
6	Stem Guide	Copper Alloy CW602N-H070
7	Stem Gland	NBR
8	Compression Washer	Stainless Steel 1.4034
9	Top Gland	Ductile Iron EN-GJS-450-10
10	Bearings	Copper Alloy CW602N-H070
11	Top Nut	Copper Alloy CW602N-H070
12	Hand Wheel	Ductile Iron EN-GJS-450-10
13	Yoke	Ductile Iron EN-GJS-450-10
14	Stem	Stainless Steel 1.4034
15	Gland Stud	Carbon Steel
16	Gland Nut	Carbon Steel
17	Gland Washers	Carbon Steel
18	Bonnet Casting	Ductile Iron EN-GJS-450-10
19	Screw Grouting	Activated resin
20	Bonnet Screws	Carbon Steel
21	Body Casting	Ductile Iron EN-GJS-450-10
22	Yoke Hex Nut	Carbon Steel

# Model TMRT Resilient-Seated Gate Valves Outside Screw & Yoke Flange x Groove, PN16

(Page 2 of 3)

Tech Data Sheet: TFP1540



Valves

Part Number	Valve Size		Dimensions mm <i>In.</i>			Turns to Open	Approx. Weight kg <i>Lbs</i>
	Nominal mm <i>In.</i>	O.D. mm <i>In.</i>	L	CL1	CL2		
TMRT0060T	50	60.3	178	395	332	12	12.5
	2	2.375	7.00	15.55	13.07		27.6
TMRT0076T	65	76.1	190	410	228	16	14.0
	76.1mm	3.000	7.48	16.14	8.98		30.9
TMRT0089T	80	88.9	203	480	380	20	16.5
	3	3.500	8.00	18.90	14.96		36.4
TMRT0114T	100	114.3	229	573	450	20	23.0
	4	4.500	9.00	22.56	17.72		50.7
TMRT0139T	125	139.7	254	638	508	25	28.0
	139.7mm	5.500	10.00	25.12	20.00		61.7
TMRT0168T	150	168.3	267	750	592	25	40.0
	6	6.625	10.50	29.53	23.31		88.2
TMRT0219T	200	219.1	292	956	748	34	65.0
	8	8.625	11.50	37.64	29.45		143.3
TMRT0273T	250	273.1	330	1175	888	42	110.0
	10	10.750	13.00	46.26	34.96		242.6
TMRT0324T	300	323.9	356	1318	1005	50	135.0
	12	12.750	14.00	51.89	39.57		297.7

See Valve Specifications on page 58

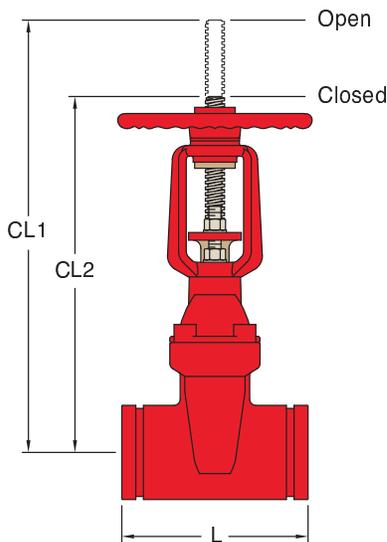
## Model TMRG Resilient-Seated Gate Valves Outside Screw & Yoke Groove x Groove

(Page 3 of 3)

Tech Data Sheet: TFP1540



Valves



Part Number	Valve Size		Dimensions mm <i>In.</i>			Turns to open	Approx. Weight kg <i>Lbs</i>
	Nominal mm <i>In.</i>	O.D. mm <i>In.</i>	L	CL1	CL2		
TMRG0060G	50 2	60.3 2.375	178 7.00	395 15.55	332 13.07	12	11.5 25.4
TMRG0073G	65 2½	73.0 2.875	190 7.50	410 16.14	338 13.31	16	12.0 26.5
TMRG0076G	65 76.1mm	76.1 3.000	190 7.48	410 16.14	228 8.98	16	12.0 26.5
TMRG0089G	80 3	88.9 3.500	203 8.00	480 18.90	380 14.96	20	14.0 30.9
TMRG0114G	100 4	114.3 4.500	229 9.00	573 22.56	450 17.72	20	20.0 44.1
TMRG0139G	125 139.7mm	139.7 5.500	254 10.00	638 25.12	508 20.00	25	25.0 55.1
TMRG0141G	125 5	141.3 5.563	254 10.00	638 25.12	508 20.00	25	25.0 55.1
TMRG0165G	150 165.1mm	165.1 6.500	267 10.51	750 29.53	592 23.31	25	36.0 79.4
TMRG0168G	150 6	168.3 6.625	267 10.50	750 29.53	592 23.31	25	36.0 79.4
TMRG0219G	200 8	219.1 8.625	292 11.50	956 37.64	748 29.45	34	50.0 110.3
TMRG0273G	250 10	273.1 10.750	330 13.00	1175 46.26	888 34.96	42	100.0 220.5
TMRG0324G	300 12	323.9 12.750	356 14.00	1318 51.89	1005 39.57	50	125.0 275.6

See Valve Specifications on page 58

# Model TMPT-P & TMPG-P Non Rising Stem Resilient-Seated Gate Valves

(Page 1 of 2)

*Tech Data Sheet: TFP1545*


Resilient-Seated Gate Valves with Vertical and Cross Wall Indicators are used in fire protection systems for on/off operation. End connection configurations including Flange by Groove, and Groove by Groove are available.

The ductile iron body weighs approximately 50% less than conventional cast iron valves, which allows easier handling on site and reduced shipping costs.

The fully encapsulated EPDM ductile iron wedge ensures drop-tight sealing.

Valve components are either inherently corrosion-resistant or protected with fusion-bonded epoxy resin coating for a long, reliable service life and enhanced UV protection in exposed installations.

This valve is one of the lightest, most durable gate valves on the market today. Its design features and material selection criteria fulfill the need for a reliable, long life and easy to operate gate valve.

These valves are available with either Vertical Indicators for underground water supplies or Cross Wall Indicators for interior water systems. Both indicators provide external visual indication of the open or shut valve condition as well as a locking mechanism to secure a particular wedge position.



Flange by Groove

Groove by Groove

## SPECIFICATIONS

### Max Working Pressure

FM - 16.0 bar (232 psi)

UL - 20.7 bar (300 psi)

### Max Test Pressure

24.0 bar (348 psi)

Type Tested to 80 Bar (1,160 psi)

### Flange

- ASME B16.1/ASME B16.42 EN 1092-2/ISO 7005-2
- Drilled to ANSI 125/150 or PN10/PN16

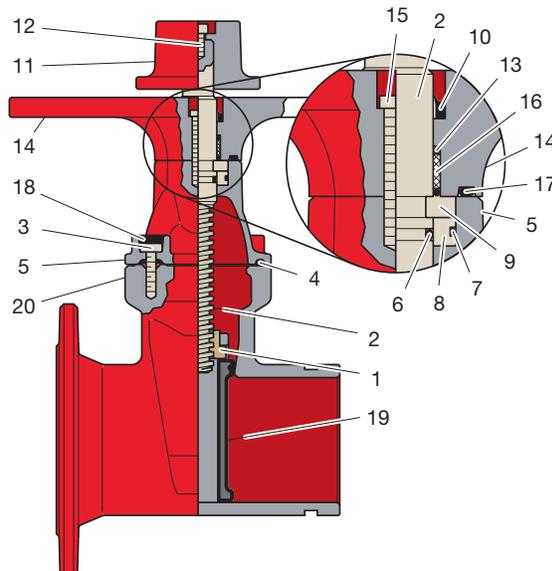
### Performance

- Contact Tyco Technical Services



For detailed Listing and Approval information see pages 101 - 108 or contact Tyco Fire Protection Products.

Valve Material Specifications			
Item No.	Description	Qty	Material
1	Wedge Nut	1	Bronze
2	Stem	1	Stainless
3	Bonnet Screw	4	Black Oxide Carbon Steel
4	Sealing Gasket	1	EPDM
5	Bonnet	1	FBE Coated Ductile Iron
6	Sealing O-Ring	1	NBR
7	Sealing O-Ring	1	NBR
8	Stem Ring	1	Stainless Steel
9	Stem Bearing	1	Bronze
10	Dust Guard	1	EPDM
11	Top Cap	1	FBE Coated Ductile Iron
12	Cap Screw	1	Black Oxide Carbon Steel
13	Sealing O-Ring	2	NBR
14	Indicator Flange	1	FBE Coated Ductile Iron
15	Indicator Top Screw	2	Black Oxide Carbon Steel
16	Bushing	1	Nylon
17	Sealing O-Ring	1	NBR
18	Screw Grouting	1	Activated Resin
19	Wedge	1	EPDM Coated Ductile Iron
20	Body	1	FBE Coated Ductile Iron

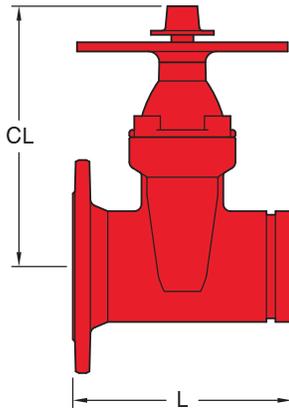


Valves

## Model TMPT-P Resilient-Seated Gate Valves Flange x Groove ANSI Class #150 & PN16

(Page 2 of 2)

Tech Data Sheet: TFP1545



Part Number		Valve Size		Face to face (L) mm In.	Centre Height (CL) mm In.	Approx. Weight kg Lbs
PN16 (ISO 7005-2)	ANSI (Class #150)	Nominal mm In.	O.D. mm In.			
TMPT-100-114-1	TMPT-100-114-3	100 4	114.3 4.500	229 9.00	332 13.07	25 55.1
TMPT-150-165-1	TMPT-150-165-3	150 165.1mm	165.1 6.500	267 10.50	436 17.17	38 83.8
TMPT-150-168-1	TMPT-150-168-3	150 6	168.3 6.625	267 10.50	436 17.17	38 83.8
TMPT-200-219-1	TMPT-200-219-3	200 8	219.1 8.625	292 11.50	520 20.47	61 134.5
TMPT-250-273-1	TMPT-250-273-3	250 10	273.1 10.750	330 13.00	620 24.41	92 202.8
TMPT-300-324-1	TMPT-300-324-3	300 12	323.9 12.750	356 14.00	670 26.38	119 262.4

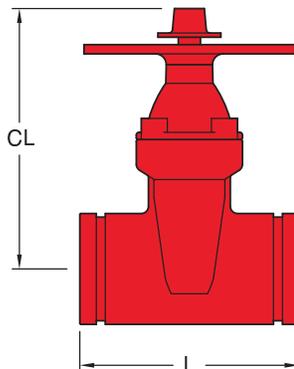
See Valve Specifications on page 61

Valves

## Model TMPG-P Resilient-Seated Gate Valves Groove x Groove

(Page 2 of 2)

Tech Data Sheet: TFP1545



Part Number	Valve Size		Face to face (L) mm In.	Centre Height (CL) mm In.	Approx. Weight kg Lbs
	Nominal mm In.	O.D. mm In.			
TMPG-100-114-4	100 4	114.3 4.500	229 9.00	332 13.07	22 48.5
TMPG-150-165-4	150 165.1mm	165.1 6.500	267 10.50	436 17.17	34 75.0
TMPG-150-168-4	150 6	168.3 6.625	267 10.50	436 17.17	34 75.0
TMPG-200-219-4	200 8	219.1 8.625	292 11.50	520 20.47	56 123.5
TMPG-250-273-4	250 10	273.1 10.750	330 13.00	620 24.41	82 180.8
TMPG-300-324-4	300 12	323.9 12.750	356 14.00	670 26.38	107 235.9

See Valve Specifications on page 61

## Model CV-1 G-FIRE Grooved Check Valves

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*Tech Data Sheet: TFP1550*

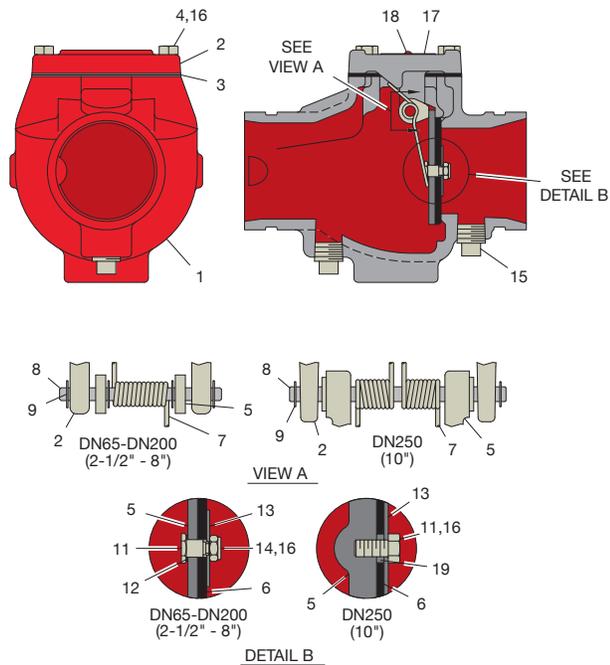

The Model CV-1 Check Valve is a compact and rugged swing-type unit that allows water flow in one direction and prevents flow in the opposite direction. A resilient elastomer seal facing on the spring-loaded clapper ensures a leak-tight seal and non-sticking operation. The Model CV-1 Check Valves are designed to minimize water hammer caused by flow reversal.



For detailed Listing and Approval information see pages 101 - 108 or contact Tyco Fire Protection Products.



Valve Material Specifications			
Item No.	Description	Material	Qty.
1	Body	Ductile Iron	1
2	Cap	Ductile Iron	1
3	Gasket	Synthetic Fibre	1
4	Hex Cap Screw	Steel, Zinc Plated	AR
5	Clapper	Stainless Steel or Ductile Iron	1
6	Seal Facing	EPDM Grade "E"	1
7	Spring	Stainless Steel	1
8	Hinge Shaft	Stainless Steel	1
9	Retaining Ring	Stainless Steel	AR
10	Washer	Teflon	2
11	Retention Bolt	Stainless Steel	1
12	Seal Ring	Neoprene	1
13	Retaining Disc	Stainless Steel	1
14	Locknut	Stainless Steel	1
15	Plug-1/2"-14 NPT	Cast Iron	2
16	Adhesive	Thread Sealer	AR
17	Nameplate	Aluminium	1
18	Rivet	Steel	2
19	Spacer	Stainless Steel	1



## Model CV-1 G-FIRE Grooved Check Valves

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### SPECIFICATIONS

#### Valve Assembly Finish

- Red, non-lead paint

#### Max Working Pressure

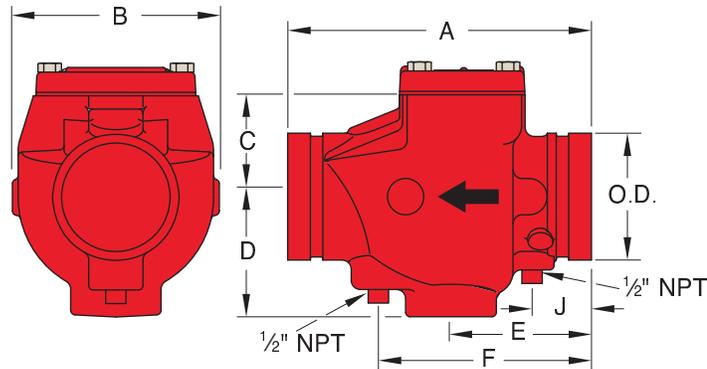
- 20,7 bar (300 psi)

#### Clapper

- 50 - 200mm (2" - 8") - Stainless Steel,  
250mm (10") - Ductile iron

#### Performance

- Contact Tyco Technical Services



Valves

Part Number	Pipe Size		Dimensions mm In.							Approx. Weight kg Lbs
	Nominal mm In.	O.D. mm In.	A mm In.	B mm In.	C mm In.	D mm In.	E mm In.	F mm In.	J mm In.	
595900020	50	60.3	171.5	111.3	64.8	65.3	82.3	120.7	41.5	4.1
	2	2.375	6.75	4.38	2.55	2.57	3.25	4.75	1.62	9.0
595900025	65	73.0	203.2	147.3	86.6	86.4	98.6	152.4	43.2	4.5
	2-1/2	2.875	8.00	5.80	3.41	3.40	3.88	6.00	1.70	10.0
595900076	65	76.1	203.2	147.3	86.6	86.4	98.6	152.4	43.2	4.5
	76.1mm	3.000	8.00	5.80	3.41	3.40	3.88	6.00	1.70	10.0
595900030	80	88.9	212.6	146.3	91.4	86.4	98.6	152.4	43.2	5.0
	3	3.500	8.37	5.76	3.60	3.40	3.88	6.00	1.70	11.0
595900040	100	114.3	245.6	171.2	117.1	92.2	115.1	181.1	46.7	11.3
	4	4.500	9.63	6.74	4.61	3.63	4.56	7.13	1.84	25.0
595900139	125	139.7	266.7	190.5	134.4	106.7	124.5	193.0	48.3	13.2
	139.7mm	5.500	10.50	7.50	5.29	4.20	4.90	7.60	1.90	29.0
595900050	125	141.3	266.7	190.5	134.4	106.7	124.5	193.0	48.3	13.2
	5	5.563	10.50	7.50	5.29	4.20	4.90	7.60	1.90	29.0
595900165	150	165.1	292.1	204.4	146.1	114.3	127.0	193.0	37.6	21.3
	165.1mm	6.500	11.50	8.05	5.75	4.50	5.00	7.60	1.48	47.0
595900060	150	168.3	292.1	204.4	146.1	114.3	127.0	193.0	37.6	21.3
	6	6.625	11.50	8.05	5.75	4.50	5.00	7.60	1.48	47.0
595900080	200	219.1	355.6	260.4	196.9	142.7	138.4	213.4	58.9	29.9
	8	8.625	14.00	10.25	7.75	5.62	5.45	8.40	2.20	66.0
595900100	250	273.0	457.2	330.2	259.3	162.1	190.5	266.7	76.2	49.4
	10	10.750	18.00	13.00	10.21	6.38	7.50	10.50	3.00	109.7
595900120	300	323.9	533.4	362.7	287.2	7.26	193.5	269.7	69.9	68.0
	12	12.750	21.00	14.28	11.31	184.4	7.62	10.62	2.75	151.0