
SERIES 762

BRAY SLURRYSHIELD® BIDIRECTIONAL KNIFE GATE VALVES

TECHNICAL SALES MANUAL



Bray®

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THE HIGH PERFORMANCE COMPANY

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OVERVIEW

OVERVIEW

The Bray Series 762 Heavy-duty Slurry Valve, equipped with advanced Bray SlurryShield Technology, ensures exceptional performance and reliability. It effectively prevents media buildup that often prevents other knife gates from reliable isolation and provides bidirectional positive isolation, showcasing excellence in valve technology and making it the preferred choice for demanding industrial applications.

- > Bidirectional, 100% drop-tight positive isolation for the most aggressive slurries.
- > Robust design suitable for up to 100% solids.
- > SlurryShield Technology maximizes service life and minimizes discharge during cycling.
- > Self-cleaning design keeps sealing surfaces free from obstructions.
- > Gate is completely removed from process while full open, extending gate life and preventing jamming due to scaling.
- > Packing-less design does not require constant inspection or tightening.
- > Field-repairable without the need for special tools.

EXCLUSIVE SLURRYSHIELD TECHNOLOGY

Industry Leading Materials & Processing

- > Strictly controlled materials and formulations.
- > Precision molding process ensures higher tensile strength, resilience, and durometer for extended service life.
- > 100% tested and validated at pressure and temperature.

Unique Fully Encapsulated J-Ring

- > Enhances material rebound extends life and minimizes discharge
- > Provides superior sleeve strength for critical applications



INDUSTRIES

- > Mining & Mineral Processing
- > Power
- > Pulp & Paper
- > Alumina
- > Chemical
- > Cement

MEDIA

- > Light Slurries
- > Medium Slurries
- > Abrasive Slurries
- > High Concentration Slurries
- > Slurries with Large Particle Size
- > Scaling & Cementing Slurries
- > Acidic Slurries
- > Process Water
- > Fly Ash
- > Lime Slurry

APPLICATIONS

Mining

- > Primary & Secondary Milling
- > Primary & Secondary Cyclone
- > Flotation Cell
- > Thickener
- > Filter Pump
- > Slurry Transport
- > Leaching
- > Tailings
- > Paste
- > Positive Isolation

HPAL/POX

- > Autoclave App.
- > Process Pumps

Power

- > Flue Gas Desulfurization
- > Fly Ash
- > Bottom Ash
- > Scrubber Isolation
- > Pump Isolation

Pulp & Paper

Alumina

- > Digestion
- > Filter Press
- > Precipitation
- > Residue

Chemical

Cement

TECHNICAL DATA

SPECIFICATIONS

Size Range	NPS 3 to 48	
	DN 80 to 1200	
Body Style	Two Piece Bolted Flanged	
Pressure Rating	SS 316 Gate	Duplex 2205 Gate
	NPS 3-24 100psi DN 80-600 7 bar	NPS 3-18 232psi DN 80-450 16 bar
	NPS 26-42 75psi DN 650-1050 5 bar	NPS 20-24 150psi DN 500-600 10bar
	NPS 48 50psi DN 1200 3 bar	NPS 26-42 100psi DN 650-1050 7bar
		NPS 48 75psi DN 1200 5bar
		17-4PH Stainless Steel Gate
		NPS 3-16 300psi DN 80-400 20 bar
		NPS 18-24 232psi DN 450-600 16 bar
		NPS 26-42 100psi DN 650-1050 7 bar
		NPS 48 75psi DN 1200 5 bar
Drilling¹	ASME B16.5 CL150	
	ASME B16.47 CL150	
	AS 2129 Table D & E	
	DIN PN 10 & PN16	
Face to Face	Per Industry Standard.	
Certification	Canadian CRN PED Category I Module A (Group 2 liquids) ATEX	
Design Standard	Manufacturer Standard	
Testing Standard	Manufacturer Standard ²	

NOTES

1 Other drillings on request.

2 762 valves are elastomer sleeved slurry valves and MSS SP-81 and MSS SP-151 does not apply.
The valves are tested for bi-directional, zero leakage across the sleeves.

STANDARD CONSTRUCTION

Body	DI NPS 3 to 28 DN 80 to 700
	WCB NPS 30-48 DN 750 to 1200
Gate	316
Sleeve	Natural Rubber
Stem	Stainless Steel
Gland Plate	Carbon Steel
Secondary Seal	EPDM
Topworks	Steel

TECHNICAL DATA

GATE OPTIONS

304, 317 Stainless Steel
SAF 2507 Duplex
SAF 2205 Duplex
17-4PH Stainless Steel
Hastelloy® C
Monel®
Titanium

BODY OPTIONS

Carbon Steel (WCB)
CF3M Stainless Steel
Ductile Iron
SAF 2507 Duplex
SAF 2205 Duplex
Nylon 11 Coating

SLEEVE OPTIONS



Natural Rubber	-60 to 176°F
	-51 to 80°C
Buna-N	-34 to 194°F
	-36 to 90°C
EPDM-HT*	-65 to 302°F
	-54 to 150°C

* Exposure to continuous elevated temperatures will result in premature aging of the elastomer.
¹ Do not operate the valve if the media in the line is frozen.

FEATURES & BENEFITS

FEATURES

Series 762 is a bidirectional heavy duty slurry valve, designed for demanding high pressure slurry applications. Twin elastomer sleeves and push-through gate design facilitate self-cleaning and prevent media build up.

The durable ductile iron body is offered in a two-piece bolted flange style. When fully open, the valve is full bore, offering no resistance to line media.

- 1** Upper and lower protective stem cover is standard in all models, increasing cycle life in dirty/dusty environments.
- 2** Fully encapsulated J-ring providing sleeve reinforcement and memory assist, guaranteeing bidirectional zero leakage performance.
- 3** In the open position, the energized sleeves shield all metal components from direct contact with the flowing process media.
- 4** Gate available in a wide range of corrosion resistant alloys and coatings to suit the pressure rating and application.
- 5** The design provides unobstructed flow path, extending sleeve life and minimizing pressure drop across valve.
- 6** Flanged two-piece bolted body allows for easy maintenance and is drilled and tapped to country standards.
- 7** Optional bottom flush plate with tapped ports, allows for safe discharge of media and easy flush water connection.
- 8** Encapsulated sleeve retainers are standard on all sizes and are provided to ensure proper and uniform compression is maintained on the sleeves.



Series 762 Bidirectional Heavy Duty Slurry Valve

WHAT IS SLURRYGUARD™?

SlurryGuard™ is a Bray exclusive “synergistic” coating that combines the advantages of an ultra-hard surface coating with the controlled infusion of polymers, dry lubricants, and other materials to provide an entirely new composite with improved properties to the base metal. It can be applied to a variety of products including gates, discs, balls, and other seating surfaces.

BENEFITS

- > Dramatically increase surface hardness
- > Resist corrosion, chemicals, and acids
- > Prevent abrasive wear and galling
- > Self-lubricating for extended wear
- > Provide superior mold release
- > Permanently dry-lubricated for very low COF (0.09)
- > Speed cleanup and sanitation maintenance
- > Eliminate sticking and product “hang-up”
- > Prevent galvanic corrosion with incompatible metals
- > Won't chip, peel or flake off like “paint-ons”



OVERVIEW

Wear Resistance - Hardness is up to Rc 68 (940 Vickers scale) — better than hard chrome plate. There is no degradation of fatigue strength. SlurryGuard™ also eliminates the likelihood of galling or seizing.

Corrosion Resistance - SlurryGuard™ “synergistic” coating is about 3 times better in corrosion resistance to chromium or standard electrolytic-nickel plated coatings (Based on ASTM B117 Salt Spray Testing). Good resistance to most common chemicals.

Friction - Surface is smooth and slippery. In some cases, the static friction decreases with an increase in load. SlurryGuard™ eliminates “stick-slip” and undesirable vibration of higher break-away friction.

Temperature - Exhibits high strength, toughness and self-lubricity down to -250°F (-157°C). Exhibits flexibility down to -110°F (-79°C). 850°F (454°C) is the maximum continuous operating temperature.

Non-stick Release Properties - Very few solid substances, even adhesives, adhesive-backed products or glues, will permanently adhere to the proprietary polymer-impregnated surface of a SlurryGuard™ coated part. Most substances, such as plastics, rubber or slurries, release easily.

Where is SlurryGuard™ used? - On a valve body, gate, stem, disc, or ball which then provides extreme wear resistance and adds self-lubricating properties. This coating resists corrosion, sticking, static buildup, friction, and galling plus lowers thrust or torque to actuate.

ACTUATOR OPTIONS | SHOWN IN RED



Direct Mounted Handwheel



Bevel Gear Operator



Double Acting Pneumatic Actuator



Hydraulic Actuator



Electric Actuator

ADDITIONAL ACCESSORIES | SHOWN IN RED



Handwheel Lock Out



Pneumatic Failsafe



Non-Rising Stem



Gate Guard



Manual Override



Chain Wheel



Mechanical Limit Switch



Proximity Sensor



Solenoid



Drain Plate

SERIES KCA LINEAR POSITION SENSOR

OVERVIEW

Bray's linear position sensor provides precise, continuous position monitoring through the full stroke of a linear actuator. It is designed for seamless integration with Bray's Knife Gate pneumatic actuator and can be easily retrofitted in the field.

HOW IT WORKS

The sensor operates via a cable actuated mechanism attached to the actuator's piston head. It detects the rotation of the draw cable through a contactless sensor system, which then calculates the linear travel and outputs the data as an analog current or voltage signal.

SPECIFICATIONS

Power Supply Range	12V DC to 32V DC
Recommend¹	> 24VDC standard > 110/120VAC is optional using external power supply
Operating Temp Range	-30°C to 100°C -22°F to 212°F
Analog Output	> 4 to 20 mA DC > 0 to 20 mA DC is optional
Applications	> On / Off > Modulating
Linear Tolerance	± 0.5%
Enclosure	Carbon Steel
Enclosure Rating	IP67

NOTES

1. The external power supply will be sourced from third party.

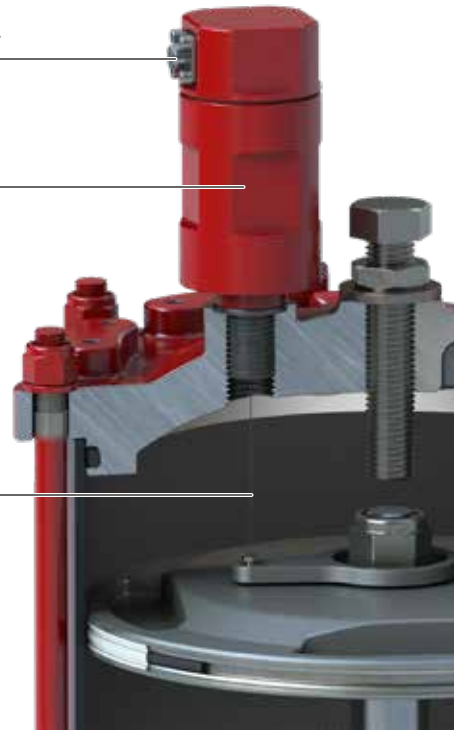
FEATURES AND BENEFITS

- 1 LEVERLESS:** Integrated sensor eliminates the need for traditional linkage devices.
- 2 DURABLE AND ROBUST:** Housing constructed with carbon steel with epoxy-based polyurethane coating.
- 3 REDUCED WIRING:** Simple wiring scheme is easier to maintain compared to traditional discrete switches.
- 4 PLUG AND PLAY:** Connects effortlessly via M12 connector.
- 5 PROTECTED FROM HOSTILE ENVIRONMENTS:** Fully encapsulated electronic components ensure long-term reliability and performance.
- 6 RELIABLE AND STABLE:** Designed to withstand high vibration and shock, with no loss of position on power down.
- 7 FAST AND EASY INSTALLATION:** Easily field retrofittable, and quick and easy installation on existing or legacy Bray linear actuator.

M12 Connector

Linear Sensor

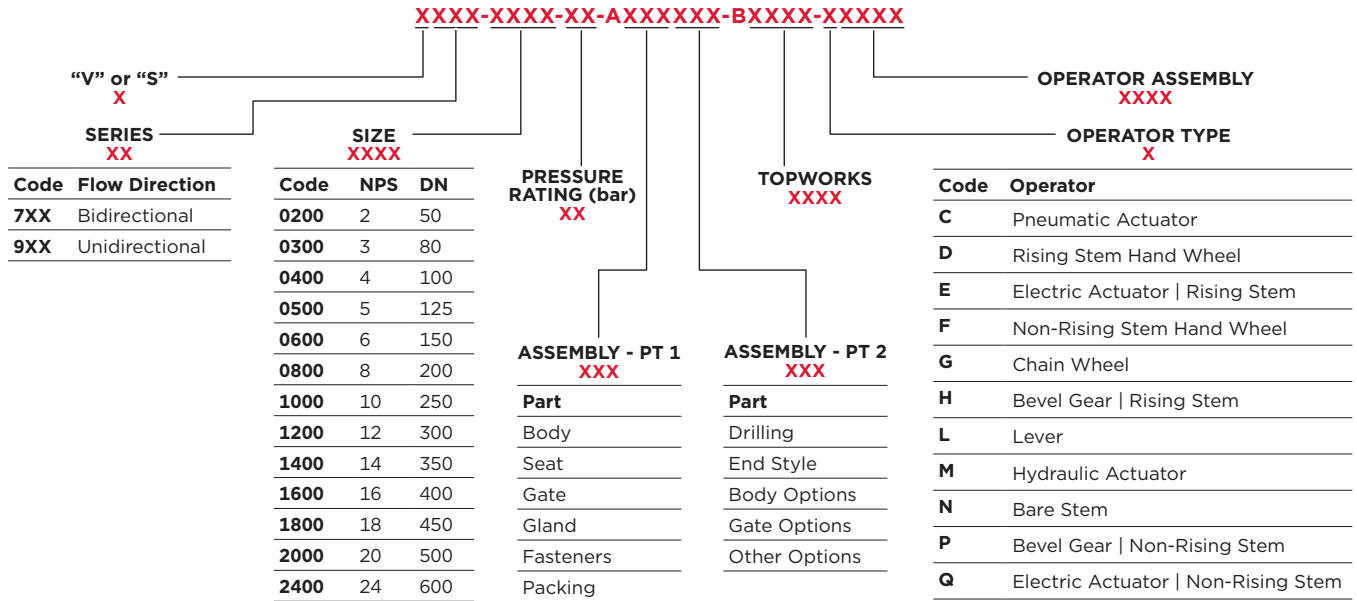
Stainless Steel
Linkage Cable



VALVE SELECTION

VALVE PART NUMBERING SYSTEM

Select one code from each category to build a complete valve order number.



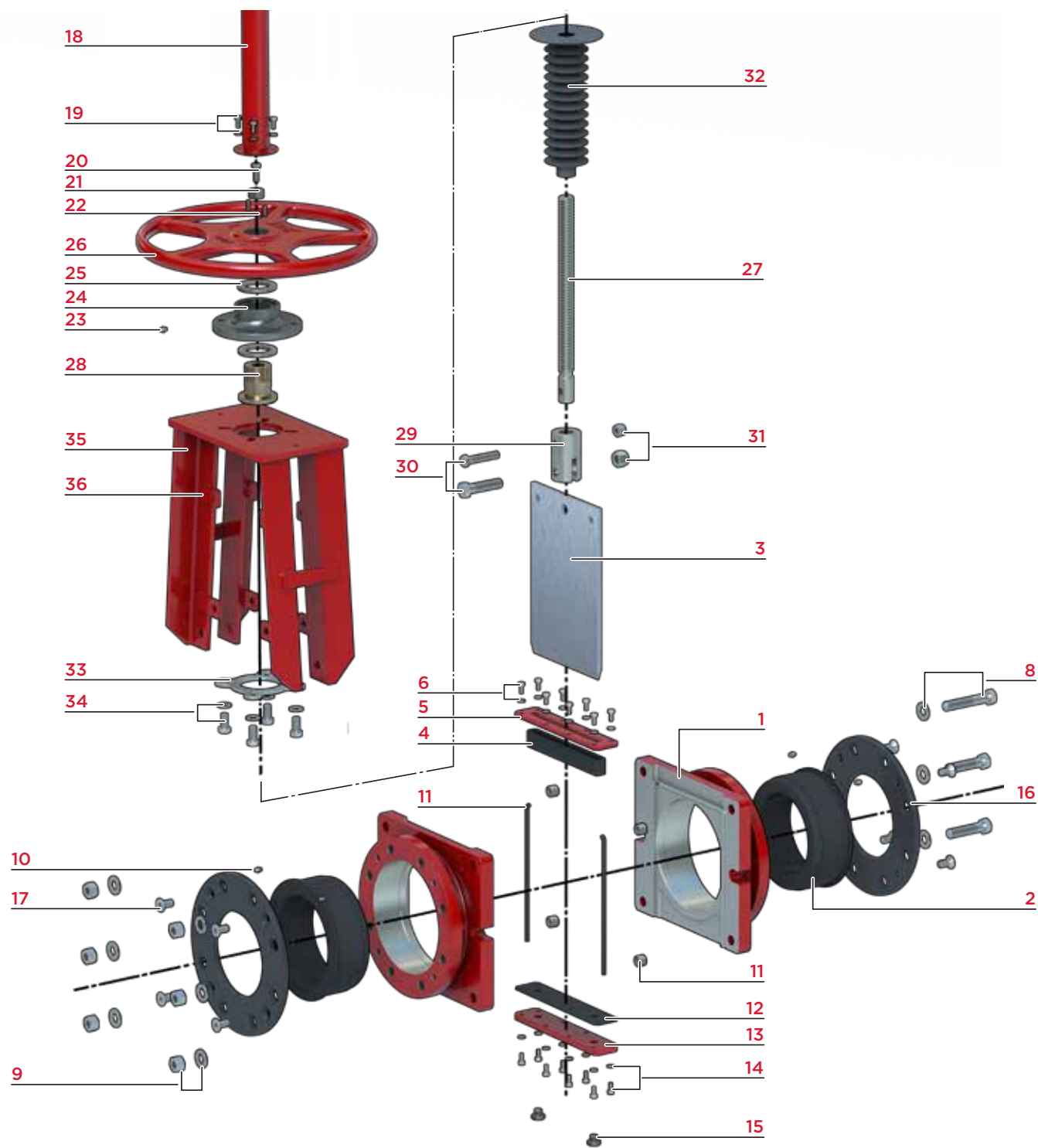
NOTES

- For a complete list of standard materials and descriptions, refer to MATERIALS OF CONSTRUCTION. Other materials are available, please contact Bray for additional information.
- No assigned code, assembly number is generated by Engineering configurator.

EXAMPLE

S-762-1600-16-A056431-B01110-H0052

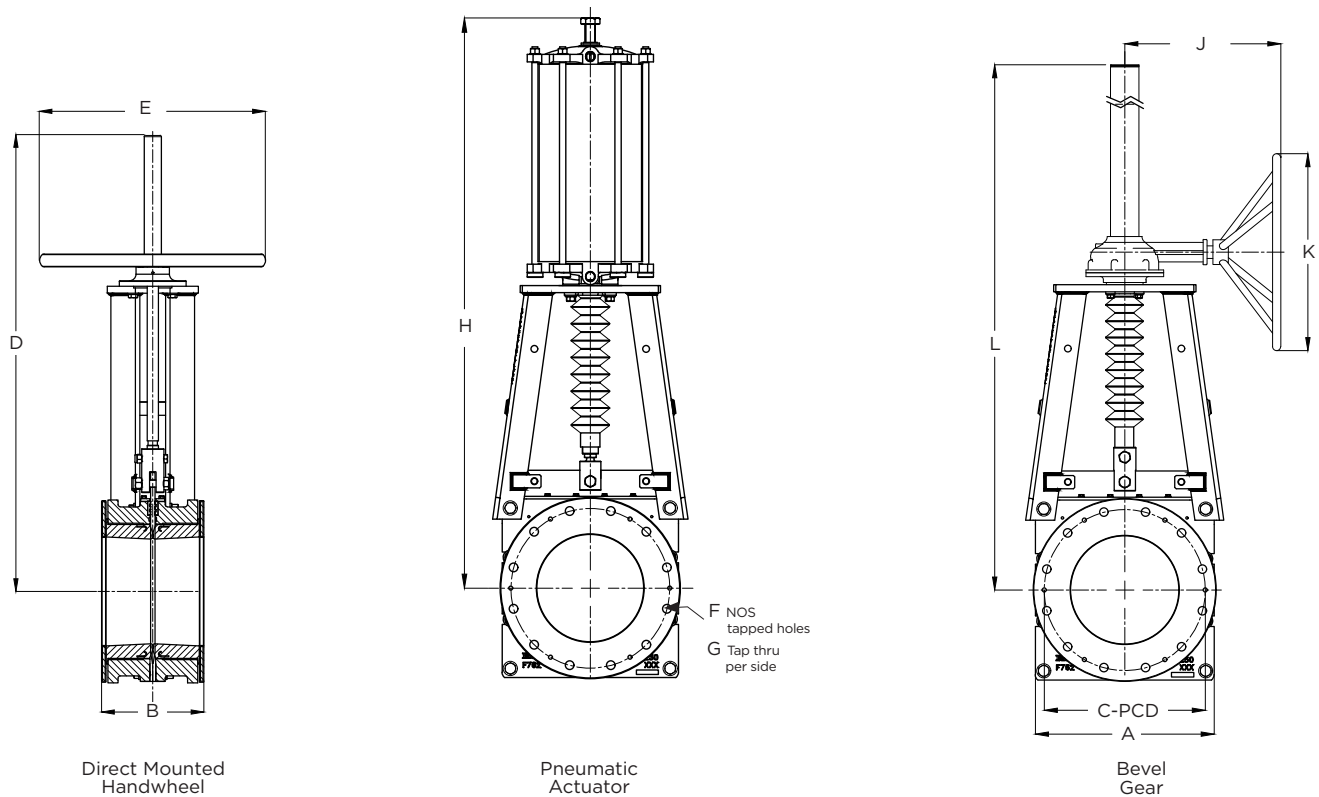
- > S762 Bi-Directional Slurry Valve
- > 16 inch (DN400)
- > 232 psi (16 bar) rated valve
- > Standard build assembly
- > Bevel Gear Operator



BILL OF MATERIALS & PARTS CALL OUT

Item	Description
1	Body
2	Sleeve
3	Gate
4	Secondary Seal
5	Gland Plate
6	Gland Plate Fasteners & Washers
7	Locating Bush
8	Body Mounting Bolt & Washer
9	Body Mounting Nut & Washer
10	Grease Nipple
11	Body O-Ring
12	Drain Plate Gasket (optional)
13	Drain Plate (optional)
14	Drain Plate Fasteners & Washers (opt.)
15	Drain Plug (optional)
16	Sleeve Retainer
17	Sleeve Retainer Screws
18	Stem Guard
19	Stem Guard Bolt & Nut
20	Travel Stop Fastener
21	Travel Stop
22	Grub Screws
23	Grease Nipple
24	Handwheel Assembly Housing
25	Thrust Bearing
26	Handwheel
27	Stem
28	Stem Nut
29	Clevis
30	Clevis Bolt
31	Clevis Lock Nut
32	Bellows
33	Bellows Flange
34	Bellows Mounting Fasteners
35	Superstructure/Tower Assembly
36	Lock Out Bracket

DIMENSION & WEIGHTS - NPS 3 to 24



DIMENSIONS (Inch)												WEIGHT (lb)		
NPS	A	B	CPCD	D	E	F	G	H	J	K	L	HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR
3	8.66	6.88	6.00	22.24	12	4	5/8"-11	24.80	8.86	11.81	26.77	83	90	88
4	10.04	6.88	7.50	23.94	12	8	5/8"-11	25.98	8.86	11.81	28.34	105	115	110
6	12.32	7.00	9.50	31.58	16	8	3/4"-10	34.02	9.45	11.81	35.43	165	156	168
8	13.98	7.28	11.75	36.93	20	8	3/4"-10	39.57	9.45	11.81	43.50	225	254	225
10	15.83	8.89	14.25	42.32	20	12	7/8"-9	44.88	10.24	11.81	49.60	297	370	298
12	19.09	10.15	17.00	--	--	12	7/8"-9	50.79	15.55	19.69	52.75	--	558	447
14	21.06	10.15	18.75	--	--	12	1"-8	58.46	15.55	19.69	67.52	--	783	595
16	23.43	11.02	21.25	--	--	16	1"-8	62.99	16.93	19.69	72.83	--	970	756
18	26.38	12.28	22.75	--	--	16	1-1/8"-7	68.50	18.11	19.69	79.13	--	1587	1146
20	28.35	14.13	25.00	--	--	20	1-1/8"-7	72.83	18.50	29.53	83.26	--	1905	1424
24	33.86	14.64	29.50	--	--	20	1-1/4"-7	87.70	21.26	39.37	100.59	--	2976	2088

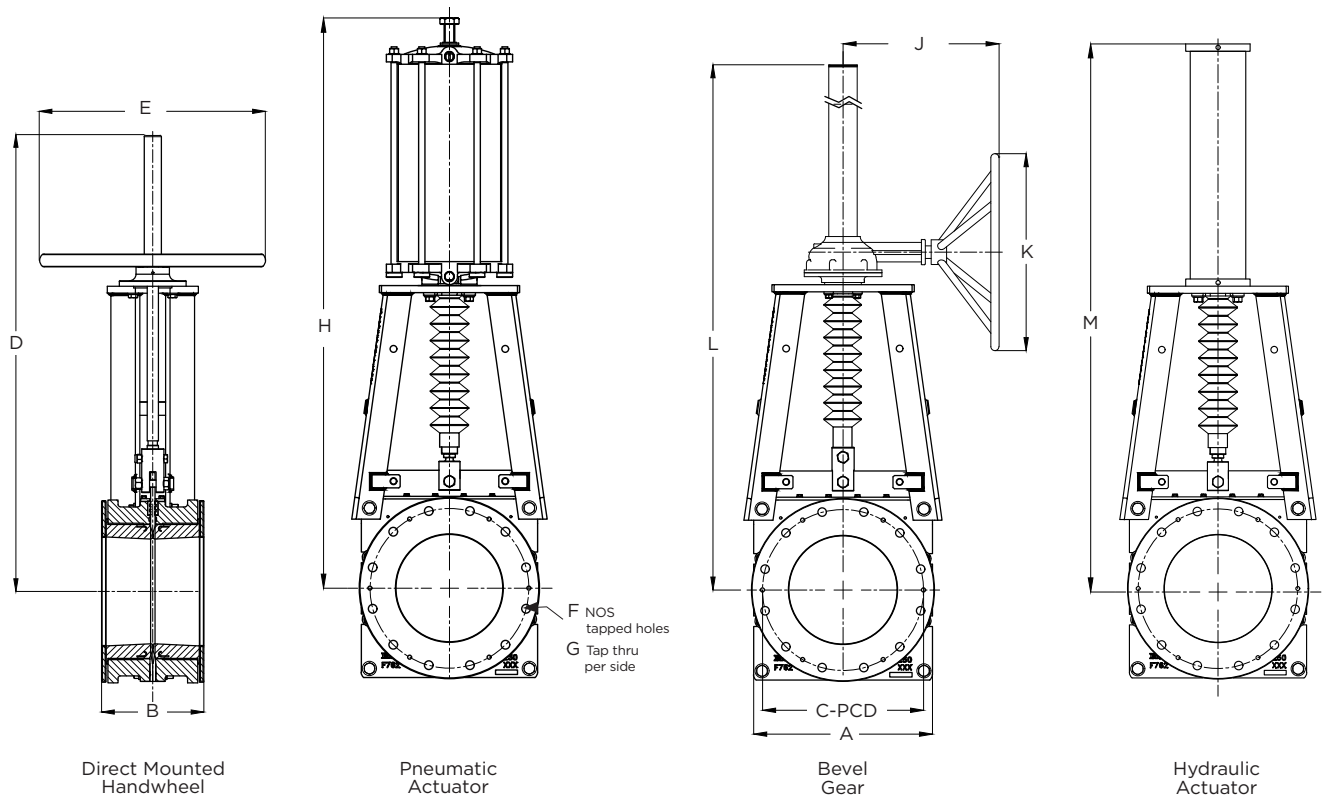
NOTES

1 Consult factory for hydraulic and electric actuator dimensions.

2 Dimensions are approximate and subject to change. Consult factory for certified drawings.

* In conformance with ASME B16.5, Class 150 for sizes NPS 3 (DN80) through NPS 24 (DN600) and per ASME B16.47 Series A for sizes > NPS 24.

DIMENSION & WEIGHTS - NPS 26 to 48



DIMENSIONS (Inch)													WEIGHT (lb)			
NPS	A	B	CPCD	D	E	F	G	H	J	K	L	M	HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR	HYD ACT.
26	35.43	14.37	31.75	--	--	24	1- $\frac{1}{4}$ "-8UN	108.27	21.26	31.50	94.49	99.80	--	2978	2079	#
28	35.43	14.80	34.00	--	--	28	1- $\frac{1}{4}$ "-8UN	108.27	21.26	31.50	94.49	99.80	--	3217	2317	#
30	39.37	15.55	36.00	--	--	28	1- $\frac{1}{4}$ "-8UN	117.72	23.43	29.53	109.06	111.22	--	5015	2998	#
32	39.37	16.18	38.50	--	--	28	1- $\frac{1}{2}$ "-8UN	117.72	23.43	29.53	109.06	111.22	--	5487	3470	#
36	46.46	18.50	42.75	--	--	32	1- $\frac{1}{2}$ "-8UN	132.87	27.36	39.37	122.83	126.38	--	6902	4820	#
38	46.46	18.50	45.25	--	--	32	1- $\frac{1}{2}$ "-8UN	132.87	27.36	39.37	122.83	126.38	--	7254	5172	#
42	53.15	21.10	49.50	--	--	36	1- $\frac{1}{2}$ "-8UN	150.59	30.51	31.50	140.75	144.09	--	8508	6411	#
48	60.04	21.10	56.00	--	--	44	1- $\frac{1}{2}$ "-8UN	168.50	30.51	31.50	160.64	162.01	--	10189	7975	#

NOTES

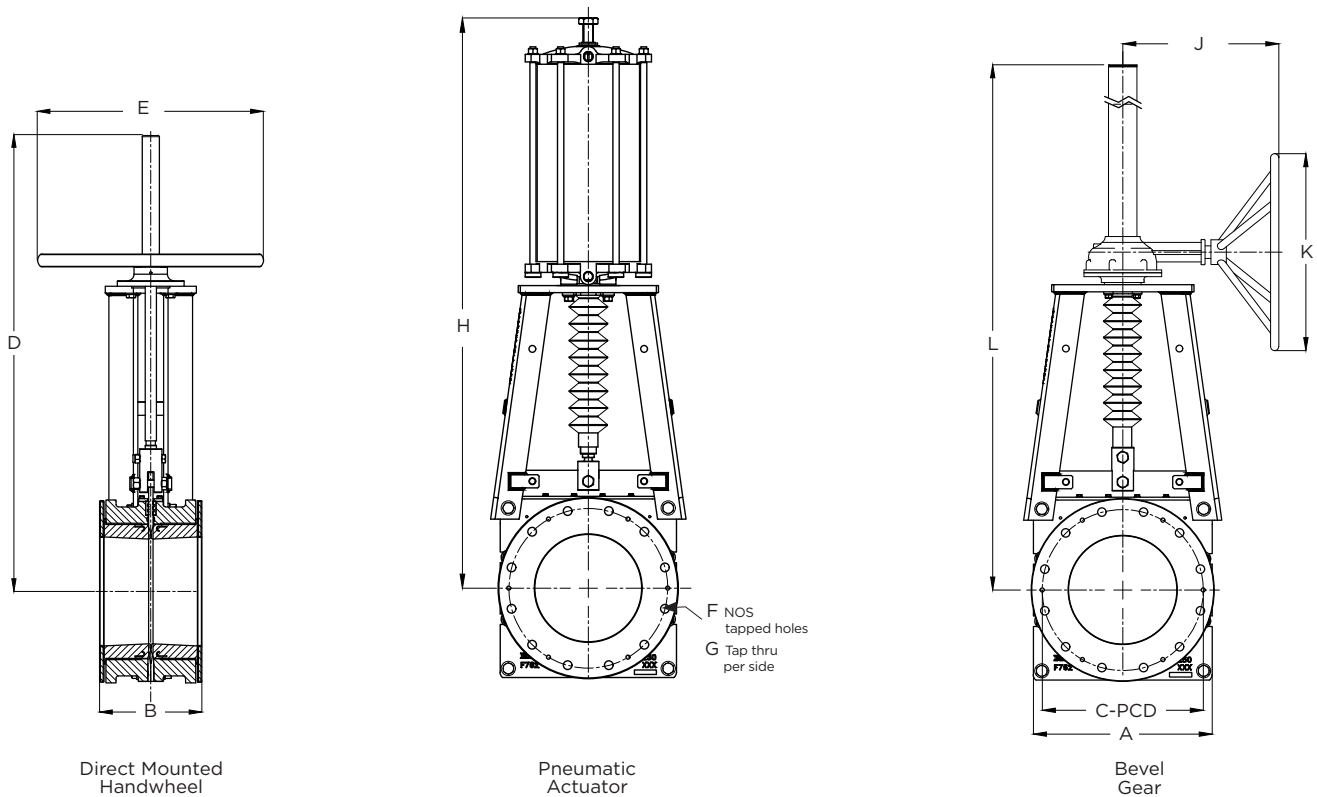
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Contact Engineering

DIMENSION & WEIGHTS - DN 80 to 600



DIMENSIONS (mm)												WEIGHT (kg)		
DN	A	B	CPCD	D	E	F	G	H	J	K	L	HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR
80	220	175	152.4	565	300	4	5/8"-11	630	225	300	680	38	41	40
100	255	175	190.5	608	300	8	5/8"-11	660	225	300	720	48	52	50
150	313	178	241.3	802	400	8	3/4"-10	864	240	300	900	75	71	76
200	355	185	298.5	938	500	8	3/4"-10	1005	240	300	1105	102	115	102
250	402	226	362	1075	500	12	7/8"-9	1140	260	300	1260	135	168	135
300	485	258	431.8	--	--	12	7/8"-9	1290	395	500	1340	--	253	203
350	535	258	476.3	--	--	12	1"-8	1485	395	500	1715	--	355	270
400	595	280	539.8	--	--	16	1"-8	1600	430	500	1850	--	440	343
450	670	312	577.9	--	--	16	1-1/8"-7	1740	460	500	2010	--	720	520
500	720	359	635	--	--	20	1-1/8"-7	1850	470	750	2115	--	864	646
600	860	372	749.3	--	--	20	1-1/4"-7	2230	540	1000	2555	--	1350	947

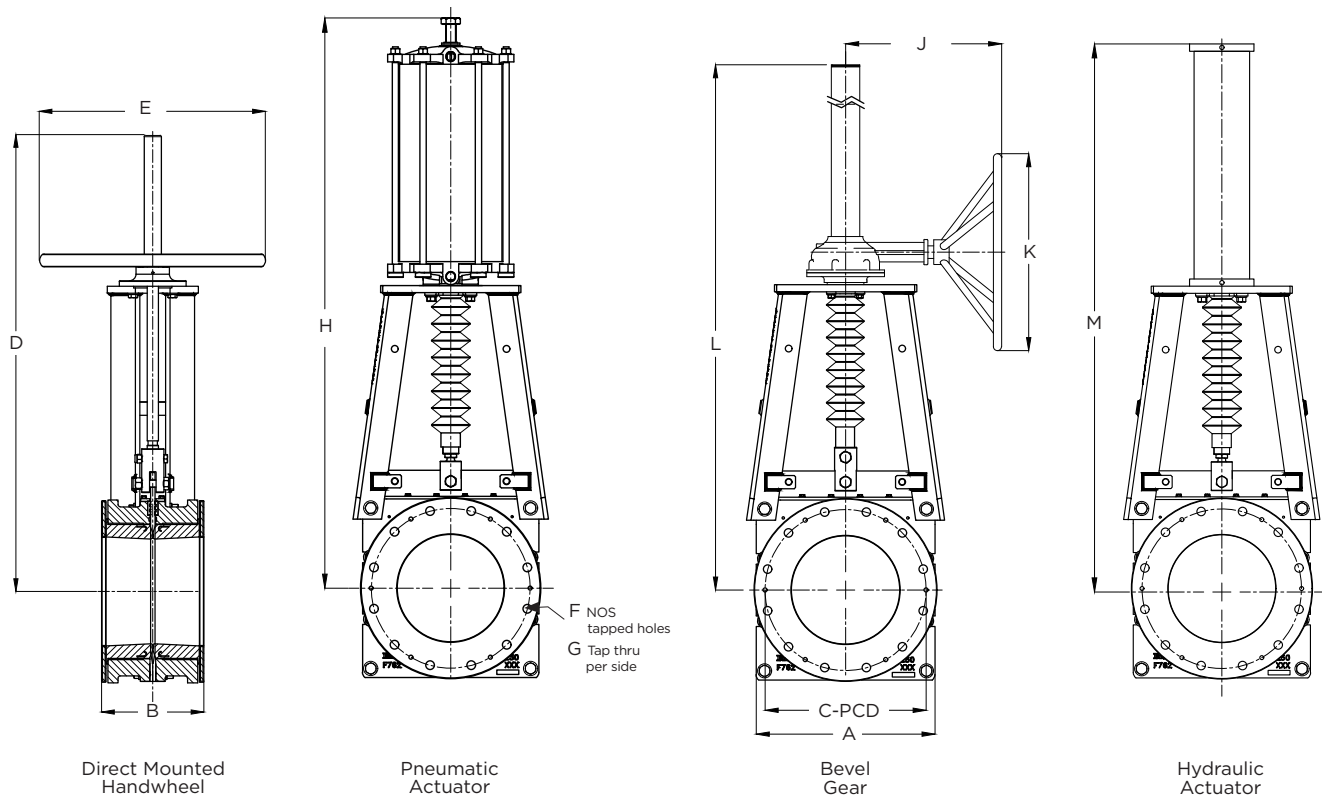
NOTES

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* In conformance with ASME B16.5, Class 150 for sizes NPS 3 (DN80) through NPS 24 (DN600) and per ASME B16.47 Series A for sizes > NPS 24.

DIMENSION & WEIGHTS - DN 650 TO 1200



DIMENSIONS (mm)													WEIGHT (kg)			
DN	A	B	CPCD	D	E	F	G	H	J	K	L	M	HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR	HYD ACT.
650	900	365	806.4	--	--	24	1-3/4"-8UN	2750	540	800	2400	2535	--	1351	943	#
700	900	376	863.6	--	--	28	1-3/4"-8UN	2750	540	800	2400	2535	--	1459	1051	#
750	1000	395	914.4	--	--	28	1-3/4"-8UN	2990	595	750	2770	2825	--	2275	1360	#
800	1000	411	977.9	--	--	28	1-3/2"-8UN	2990	595	750	2770	2825	--	2489	1574	#
900	1180	470	1085.8	--	--	32	1-3/2"-8UN	3375	695	1000	3120	3210	--	3131	2186	#
950	1180	470	1149.4	--	--	32	1-3/2"-8UN	3375	695	1000	3120	3210	--	3290	2346	#
1050	1350	536	1257.3	--	--	36	1-3/2"-8UN	3825	775	800	3575	3660	--	3859	2908	#
1200	1525	536	1422.4	--	--	44	1-3/2"-8UN	4280	775	800	4070	4115	--	4622	3618	#

NOTES

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2 Dimensions are approximate and subject to change. Consult factory for certified drawings.

* In conformance with ASME B16.5, Class 150 for sizes NPS 3 (DN80) through NPS 24 (DN600) and per ASME B16.47 Series A for sizes > NPS 24.

Contact Engineering

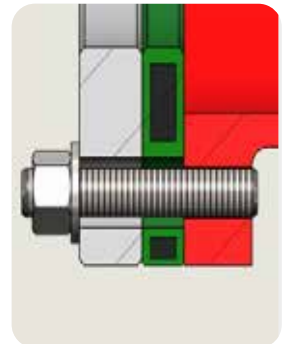
STEM & MOUNTING DATA (10 BAR)

Valve Size						Number of Turns	
Inch	mm	ISO Mounting	Stroke	Stem Diameter - Inch	TPI	Handwheel	Gear
03	80	F10, F12	122	0.75	6	29	72
04	100	F10, F12	130	0.75	6	31	77
06	150	F10, F12	198	1	5	39	117
08	200	F10, F12	250	1	5	49	148
10	250	F10, F12	300	1	5	59	177
12	300	F12, F14	358	1.5	4	56	169
14	350	F12, F14, F16	415	1.5	4	65	196
16	400	F14, F16, F25	455	1.5	4	72	233
18	450	F14, F16, F25	495	1.75	4	78	253
20	500	F14, F16, F25, F30	535	1.75	4	84	274
24	600	F16, F25, F30	660	2	4	104	364
26	650	F16, F25, F30	715	2.25	3	113	791
28	700	F16, F25, F30	715	2.25	3	113	791
30	750	F20, F25, F30	822	2.5	3	97	1229
32	800	F20, F25, F30	822	2.5	3	97	1229
36	900	F25, F30	966	2.75	3	114	1444
38	950	F25, F30	966	2.75	3	114	1444
40	1000	F25, F30	1140	3.5	2	90	4104
42	1050	F25, F30	1140	3.5	2	90	4104
48	1200	F30, F35	1315	3.5	2	104	5179

ANSI 150 - STUD & NUT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Stud-Size, Inch	Stud Qty	*Washer & Nut Qty	Thread Depth, Inch	Thread Depth, mm
03	80	5/8-11 X 3.25	8	8	0.55	14
04	100	5/8-11 X 3.25	16	16	0.75	19
06	150	3/4- 10 X 3.5	16	16	0.87	22
08	200	3/4- 10 X 3.75	16	16	0.91	23
10	250	7/8 - 9 X 4	24	24	0.91	23
12	300	7/8 - 9 X 4	24	24	1.06	27
14	350	1- 8 X 5	24	24	1.46	37
16	400	1- 8 X 5	32	32	1.22	31
18	450	1-1/8 -7 X 5.25	32	32	1.5	38
20	500	1-1/8 -7 X 5.5	40	40	1.38	35
24	600	1-1/4 -7 X 6.5	40	40	2.03	51.5
26	650		48	48	1.81	46
28	700		56	56	1.81	46
30	750		56	56	2.17	55
32	800		56	56	2.17	55
36	900		64	64	2.17	55
38	950		64	64	2.17	55
40	1000		72	72	1.97	50
42	1050		72	72	2.36	60
48	1200		88	88	2.36	60

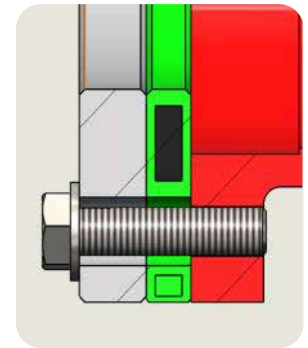
*Type B Wide Washer included



ANSI 150 - BOLT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Bolt-Size	Bolt Qty	*Washer Qty	Thread Depth, inch	Thread Depth, mm
03	80	5/8-11 X 2.25	8	8	0.55	14
04	100	5/8-11 X 2.5	16	16	0.75	19
06	150	3/4- 10 X 2.75	16	16	0.87	22
08	200	3/4-10 X 2.75	16	16	0.91	23
10	250	7/8 - 9 X 3	24	24	0.91	23
12	300	7/8 - 9 X 3.25	24	24	1.06	27
14	350	1- 8 X 3.75	24	24	1.46	37
16	400	1- 8 X 3.75	32	32	1.22	31
18	450	1-1/8 -7 X 4	32	32	1.5	38
20	500	1-1/8 -7 X 4.5	40	40	1.38	35
24	600	1-1/4 -7 X 5	40	40	2.03	51.5
26	650		48	48	1.81	46
28	700		56	56	1.81	46
30	750		56	56	2.17	55
32	800		56	56	2.17	55
36	900		64	64	2.17	55
38	950		64	64	2.17	55
40	1000		72	72	1.97	50
42	1050		72	72	2.36	60
48	1200		88	88	2.36	60

*Type B Wide Washer included

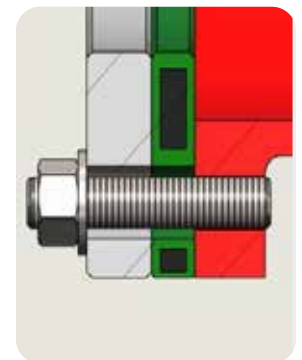


AS2129 TABLE D AUSTRALIAN FLANGE STANDARD - STUD & NUT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Bolt-Size	Bolt Qty	*Washer Qty	Thread Depth, inch	Thread depth, mm
03	80	M16 X 65	8	8	0.55	14
04	100	M16 X 65	8	8	0.75	19
06	150	M16 X 70	16	16	0.87	22
08	200	M16 X 70	16	16	0.91	23
10	250	M20 X 75	16	16	0.91	23
12	300	M20 X 85	24	24	1.06	27
14	350	M24 X 105	24	24	1.46	37
16	400	M24 X 100	24	24	1.22	31
18	450	M24 X 110	24	24	1.5	38
20	500	M24X 120	32	32	1.38	35
24	600	M27 X 135	32	32	2.03	51.5

*Standard Metric Flat Washer included

Companion Flange Thickness "T6" has been considered from AS2129 Tables D&E

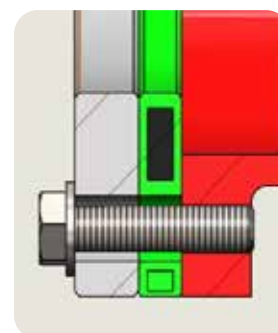


AS2129 TABLE D AUSTRALIAN FLANGE STANDARD - BOLT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Bolt-Size	Bolt Qty	*Washer Qty	Thread Depth, inch	Thread Depth, mm
03	80	M16 X 45	8	8	0.55	14
04	100	M16 X 45	8	8	0.75	19
06	150	M16 X 50	16	16	0.87	22
08	200	M16 X 50	16	16	0.91	23
10	250	M20 X 55	16	16	0.91	23
12	300	M20 X 60	24	24	1.06	27
14	350	M24 X 80	24	24	1.46	37
16	400	M24 X 70	24	24	1.22	31
18	450	M24 X 85	24	24	1.5	38
20	500	M24 X 90	32	32	1.38	35
24	600	M27 X 105	32	32	2.03	51.5

*Standard Metric Flat Washer included

Companion Flange Thickness "T6" has been considered from AS2129 Tables D&E

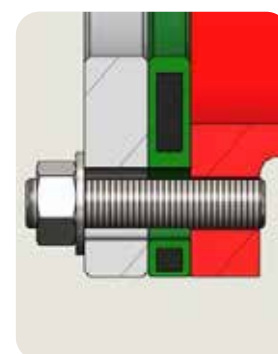


AS2129 TABLE E AUSTRALIAN FLANGE STANDARD - STUD & NUT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Stud Size	Stud Qty	*Washer & Nut Qty	Thread Depth, inch	Thread Depth, mm
03	80	M16 X 65	8	8	0.55	14
04	100	M16 X 70	16	16	0.75	19
06	150	M20 X 80	16	16	0.87	22
08	200	M20 X 85	16	16	0.91	23
10	250	M20 X 85	24	24	0.91	23
12	300	M24 X 100	24	24	1.06	27
14	350	M24 X 115	24	24	1.46	37
16	400	M24 X 115	24	24	1.22	31
18	450	M24 X 125	32	32	1.5	38
20	500	M24X 130	32	32	1.38	35
24	600	M30 X 155	32	32	2.03	51.5

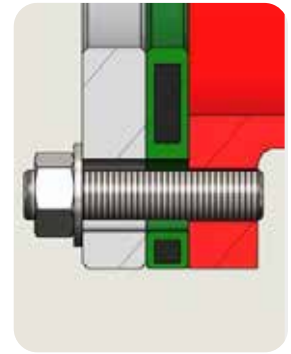
*Standard Metric Flat Washer included

Companion Flange Thickness "T6" has been considered from AS2129 Tables D&E



AS2129 TABLE E AUSTRALIAN FLANGE STANDARD - BOLT SIZING FOR STANDARD FLANGES

Valve Size						
Inch	mm	*Bolt-Size	Bolt Qty	*Washer Qty	Thread Depth, inch	Thread Depth, mm
03	80	M16 X 45	8	8	0.55	14
04	100	M16 X 50	16	16	0.75	19
06	150	M20 X 55	16	16	0.87	22
08	200	M20 X 60	16	16	0.91	23
10	250	M20 X 65	24	24	0.91	23
12	300	M24 X 70	24	24	1.06	27
14	350	M24 X 90	24	24	1.46	37
16	400	M24 X 85	24	24	1.22	31
18	450	M24 X 95	32	32	1.5	38
20	500	M24 X 105	32	32	1.38	35
24	600	M30 X 125	32	32	2.03	51.5



*Standard Metric Flat Washer included
Companion Flange Thickness "T6" has been considered from AS2129 Tables D&E

Most sizes of Series 762 are provided as standard with elastomer-encapsulated sleeve retainers. These retainers evenly transmit the flange load to the valve. Additional gaskets are not required. The recommended tightening torques are provided below. For metallic flanges, the standard torque is recommended. For FRP, HDPE, or rubberlined flanges, use the tightening torque for "FRP" flanges.

RECOMMENDED FLANGE TIGHTENING TORQUE

Valve Size		Total Number of Holes	Bolt/Stud Size (S)	Flange Thickness (F) mm	Raised Face Height (R) mm	Flange Hole Depth Including Retainer Flange Thickness (B)		Tightening Torque for Standard Flange		Tightening Torque for FRP flange	
NPS	DN					in	mm	ft-lb	N-m	ft-lb	N-m
3	80	Refer to the Flange Standard				0.98	25.0	40	54	25	34
4	100					1.02	26.0	40	54	25	34
6	150					1.18	30.0	70	95	49	66
8	200					1.18	30.0	70	95	49	66
10	250					1.18	30.0	110	150	65	88
12	300					1.18	30.0	110	150	65	88
14	350					1.49	38.0	170	230	100	136
16	400					1.49	38.0	170	230	100	136
18	450					1.69	43.0	240	325	140	190
20	500					1.97	50.0	240	325	140	190
24	600					1.97	50.0	345	467	200	271
26	650					2.76	70	345	467	200	271
28	700					2.95	75	345	467	200	271
30	750					3.29	83	345	467	200	271
32	800					3.62	92	610	827	320	434
34	850					2.99	76	610	827	320	434
36	900					3.39	86	610	827	320	434
38	950					3.39	86	610	827	320	434
40	1000					3.39	86	610	827	320	434
42	1050					3.78	96	610	827	320	434
48	1200					3.78	96	610	827	320	434
54	1350					3.78	96	1000	1355	600	443

With F= Flange thickness, R=Raised face height and B=Blind hole depth. Bolt/stud lengths: Blind hole tapped bolt length = F+R+B

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