

AWWA C517 ECCENTRIC PLUG VALVES



Intertek



VAHN-TECH International Inc., headquartered in Toronto, Canada is a unique company within the Flow Control Industry.

- ✦ 'vt' brand = high quality certified products (API, NSF, CSA, WRAS etc.)
- ✦ Valves, Actuators and Accessories – all 'vt' branded
- ✦ Width and Depth of Product Offerings
- ✦ Flexibility to customize products to customer needs
- ✦ Specialized user-friendly products including large sizes
- ✦ Quick Response
- ✦ Reduced Delivery times
- ✦ Efficient after sales service
- ✦ Competitive Pricing

VAHN-TECH International Inc. is a customer focused organization based on “Value-Add” and “Quality Service” principles. Achieving long term partnership with our customers and being their supplier of choice is our prime mission.

We develop, manufacture and market VAHN-TECH (vt) branded Valves, Actuators, Automatic Control Valves and Accessories for variety of Industrial Applications. Our product range includes:



Oil and Gas



Water and Sewage,
Desalination



Chemicals



Paper and Pulp



Irrigation



Power Plants



Various
Industrial Applications

We can supply all types of valves with following materials of construction like:

Ductile Iron, Cast Iron, Carbon Steel, Stainless Steel – SS304, SS304L, SS316, SS316L, Duplex Stainless Steel, Super Duplex, Alloy, Monel and Inconel with variety of seating and stem configurations.



License Number 60-1724



C US



Intertek

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RECTANGULAR PORT

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ROUND PORT

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Eccentric Plug Valves (Rectangular Port)

Features

✦ Plug

The plug is made of Ductile Iron and fully encapsulated with EPDM or NBR rubber, providing leakage tight sealing and making it suitable for vacuum working conditions. Thanks to the encapsulation, the plug is also fully protected against corrosion. The abrasive particles are prevented to enter the bearing area by compression between the rubber and the PTFE thrust gasket.

✦ Seat

An overlay with minimum 90% pure nickel is welded over the seat area for long term corrosion resistance and improved tightness over the plug valve life.

✦ Stem Seal

The stem seal design is self-adjusting. It is isolated from the plug stem and external torque device and is unaffected by pressure variations.

✦ Torque

The rubber encapsulated plug sealing surface matches the nickel alloy seat and the plug stem located in body and bonnet, making relative position of upper and lower stem towards sealing surface unchanged. It ensures continuous low torque operation.

✦ Flow

The port design with improved internal contours gives high capacity straight through flow in the full open position. It reduces the turbulences and pressure drop and increase the capacity for immersed solids in the medium.

✦ 100% Port Area

The rectangular port eccentric plug valves offer a 100% port area to provide high capacity flow.

✦ Durability

High strength ductile iron body used for lowering the weight and improving long term durability.

✦ Corrosion Resistance

All iron parts are coated inside & outside with fusion bonded epoxy for corrosion resistance per AWWA C550.

✦ Bearing

Bearings are permanently lubricated, oil impregnated sintered SS316.



Flange



Mechanical Joint

Eccentric Plug Valves (Rectangular Port)

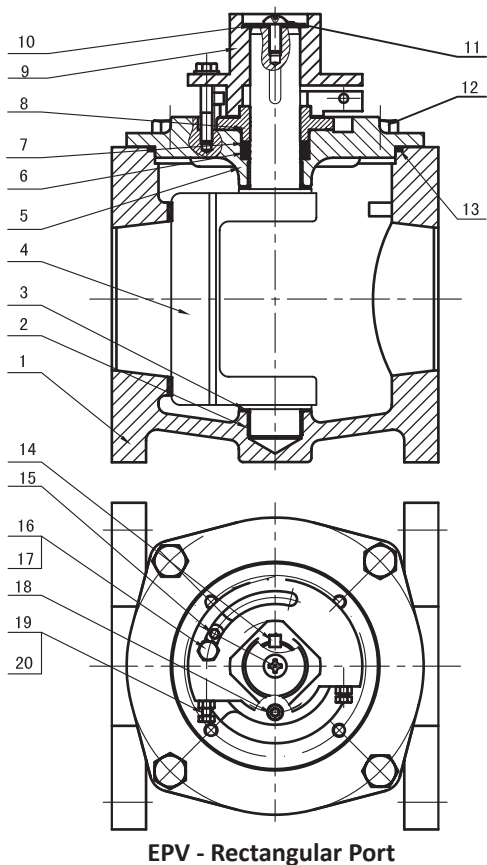
Design

Specifications		
Size Range	2" - 24" / DN50 - DN600	
Ratings	175 psi / 250 psi	
Design Standard	MSS SP-108 / AWWA C517	
Face-Face Standard	ANSI B16.10 / AWWA C111 / A21.11, ISO 7005-2 PN10 / PN16	
Flange Connection	MSS SP-108 / AWWA C517	
Connection Type	Flange	ANSI B16.1 Class 125 / 250 ANSI B16.5 Class 150
	Mechanical Joint	AWWA C111 / A21.11
Temperature Range	-10°C to 80°C	
Test & Inspection	MSS SP-108 / AWWA C517	
Applicable Medium	Drinking Water, Reclaimed Water, Hydrocarbon, Slurry and Sewage Treatment Plants	

Size		Cv Value	Torque (N.m)*	
NPS	DN		150 psi	250 psi
3"	80	865	98	126
4"	100	1120	120	150
6"	150	1930	500	625
8"	200	3040	700	845
10"	250	4450	1300	1490
12"	300	6170	1600	1820
14"	350	7390	2620	3400
16"	400	9680	4000	5200
18"	450	11800	4700	6000
20"	500	14300	6100	8000
24"	600	40200	9700	1200

* Not including safety factor.

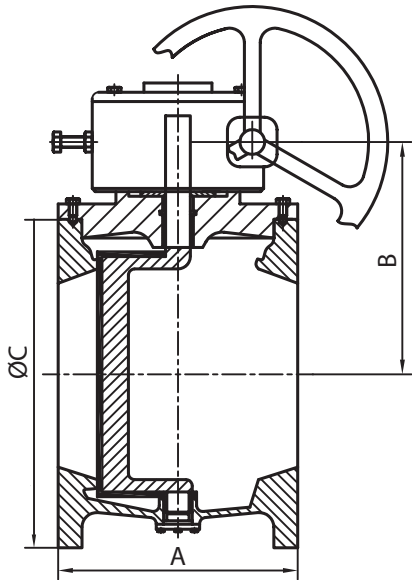
Parts List



No.	Part Destination	Material
1	Body	ASTM A536
2	Bushing	PTFE
3	Washer	PTFE
4	Plug	Ductile Iron + NBR / EPDM
5	Cover	ASTM A536
6	Combined Sealing Ring	Stainless Steel
7	Washer	ASTM A536
8	Packing Gland	ASTM A536
9	Operation Unit	NBR
10	Washer	Stainless Steel
11	Screw	Stainless Steel
12	Bolt	Stainless Steel
13	O-Ring	NBR
14	Key	Stainless Steel
15	Opening Bolt	Stainless Steel
16	Limited Bolt	Stainless Steel
17	Washer	Stainless Steel
18	Screw	Stainless Steel
19	Bolt	Stainless Steel
20	Nut	Stainless Steel

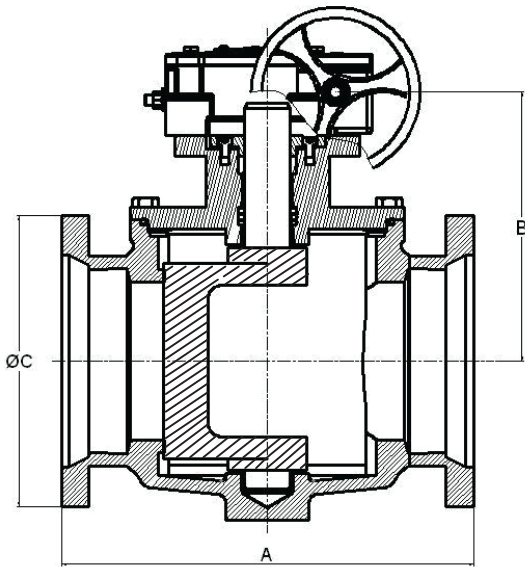
Eccentric Plug Valves (Rectangular Port)

Main Dimensions



Flange

Size		Main Dimension			Weight (kg)
NPS	DN	A	B	ØC	
3"	80	203.2	182	190.5	27
4"	100	228.6	199.5	228.6	34
6"	150	266.7	253.7	279.4	56
8"	200	292.1	314	342.9	87
10"	250	330.2	335.2	406.4	124
12"	300	355.6	372	482.6	175
14"	350	431.8	460.5	535	260
16"	400	451.0	569	597	327
18"	450	546.1	592	635	474
20"	500	596.9	613	700	626
24"	600	1066.8	632	815	1476



Mechanical Joint

Size		Main Dimension			Weight (kg)
NPS	mm	A	B	ØC	
3"	80	292	182	195.3	28
4"	100	362	199.5	231.6	39
6"	150	400	253.7	282.4	65
8"	200	441.5	314	339.6	97
10"	250	492.3	335.2	396.7	138
12"	300	527	372	454	184
14"	350	622.3	460.5	514.4	278
16"	400	692.2	569	571.5	367
18"	450	743	592	628.6	510
20"	500	787.4	613	685.8	649
24"	600	1066.8	632	800	1395

Eccentric Plug Valves (Round Port)

Features

- ✦ Plug
The plug is spherical, forming a circular sealing with the body and improving its reliability.
- ✦ Torque
The spherical plug design allows reducing the friction during opening and closing cycles, therefore reducing the valve torque.
- ✦ Flow Dynamic
The round port design improves the flow dynamic with reduced Cv coefficient.
- ✦ Flow Path
Round port is full port 100% opening, allowing for passing of pipe cleaning tools.



Flange



Mechanical Joint

Design

Specifications		
Size Range	2" - 36" / DN50 - DN600	
Ratings	175 psi / 250 psi	
Design Standard	MSS SP-108 / AWWA C517	
Face-Face Standard	ANSI B16.10 / AWWA C111 / A21.11, ISO 7005-2 PN10 / PN16	
Flange Connection	MSS SP-108 / AWWA C517	
Connection Type	Flange	ANSI B16.1 Class 125 / 250 ANSI B16.5 Class 150
	Mechanical Joint	AWWA C111 / A21.11
Temperature Range	-10°C to 80°C	
Test & Inspection	MSS SP-108 / AWWA C517	
Applicable Medium	Drinking Water, Reclaimed Water, Hydrocarbon, Slurry and Sewage Treatment Plants	

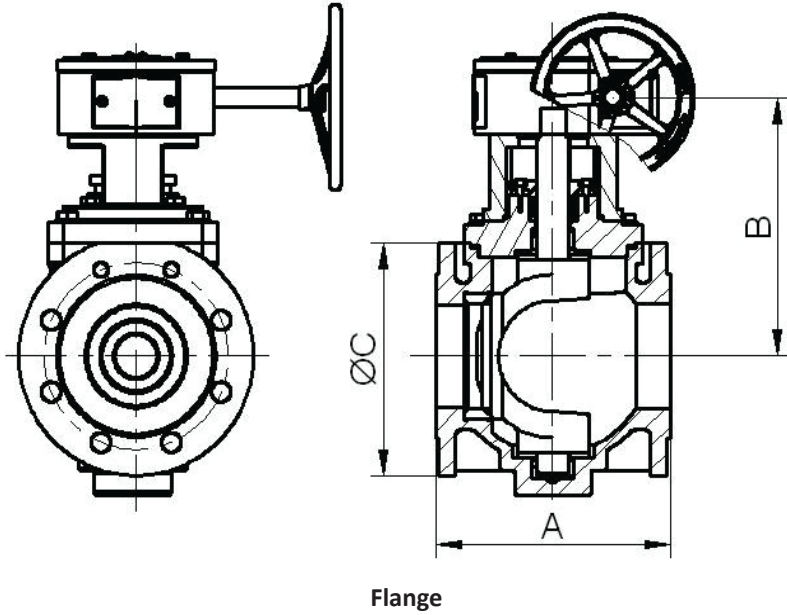
Size		Cv Value	Torque (N.m) ✦	
NPS	DN		150 psi	250 psi
2"	80	328	45	55
2 1/2"	100	485	62	80
3"	80	625	93	100
4"	100	1080	114	150
5"	150	1487	320	390
6"	150	2196	495	550
8"	200	3708	658	720
10"	250	5357	1215	1335
12"	300	8407	1536	1720

✦ Not including safety factor.

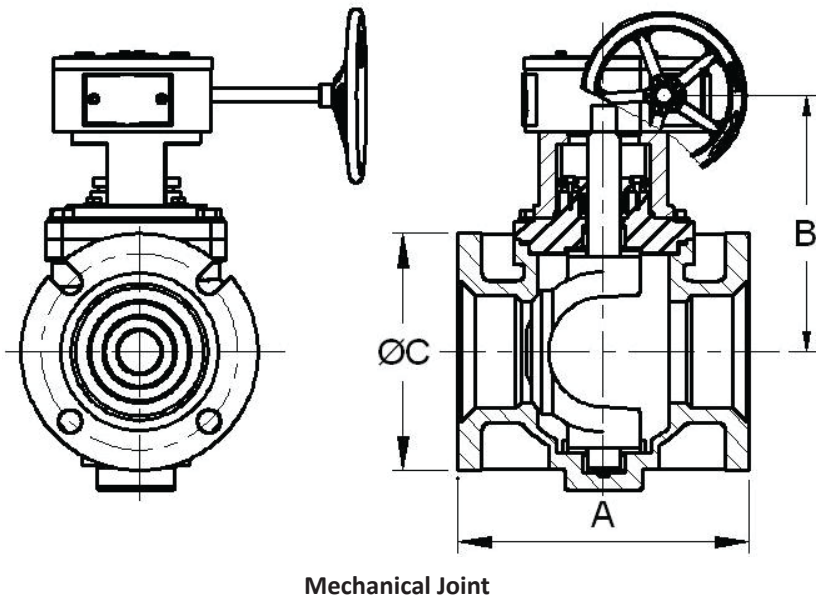
✦ VAHN-TECH International Inc. reserves the right to change the technical data without prior notice.

Eccentric Plug Valves (Round Port)

Main Dimensions



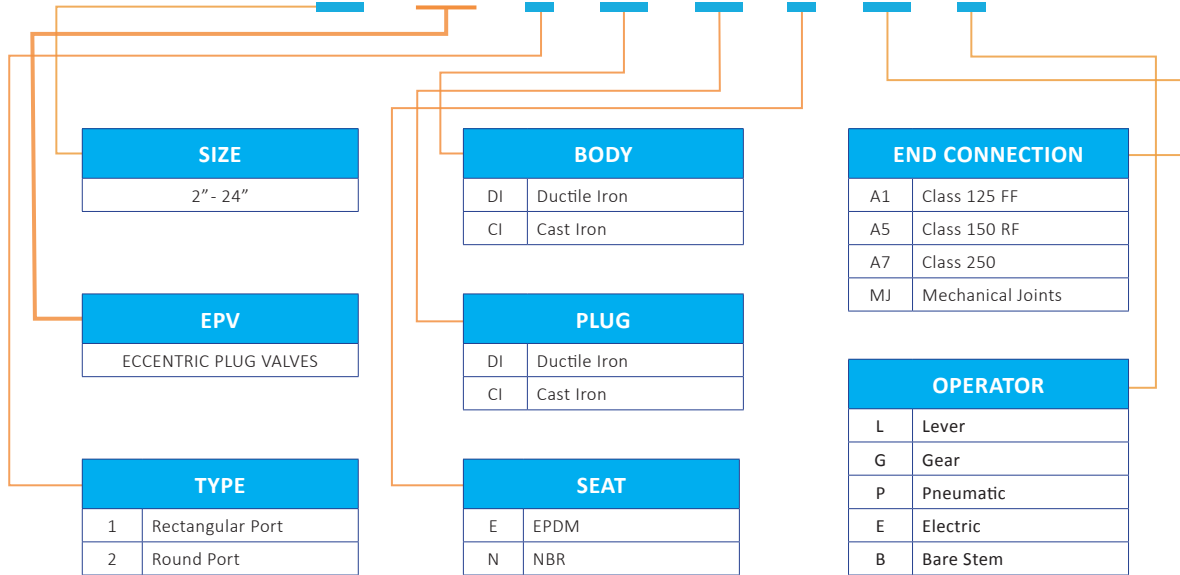
Size		Main Dimension			Weight (kg)
NPS	DN	A	B	ØC	
2"	80	178	182	165	26
2 1/2"	100	190	210	185	30
3"	80	203	227	200	35
4"	100	229	254	230	38
5"	125	254	278	254	54
6"	150	267	304	285	72
8"	200	292	358	345	125
10"	250	330	405	406	181
12"	300	356	444	485	239



Size		Main Dimension			Weight (kg)
NPS	DN	A	B	ØC	
3"	80	292	182	195.3	28
4"	100	362	199.5	231.6	39
6"	150	400	253.7	282.4	65
8"	200	441.5	314	339.6	97
10"	250	492.3	335.2	396.7	138
12"	300	527	372	454	184

PRODUCT SELECTION

VT - XX - EPV - X - XX - XX - X - XX - X





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