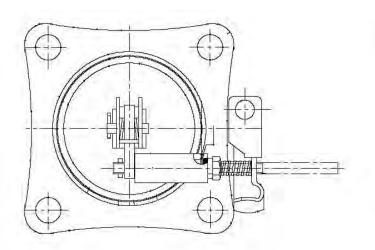
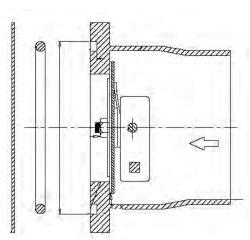


# **Flapper Valves**

Flapper valve, sometimes referred to as a hinge valve, has a 45° angle of rotation from full open to the shut-off position. Its reliability and proven performance make it widely used for oil-immersed power transformer applications with detachable radiators. These valves can be made of carbon steel and CF8 Cast Stainless (304 SS equivalent).





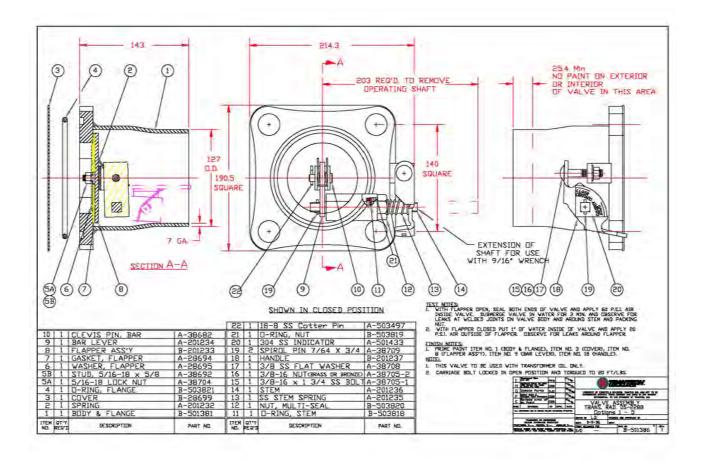






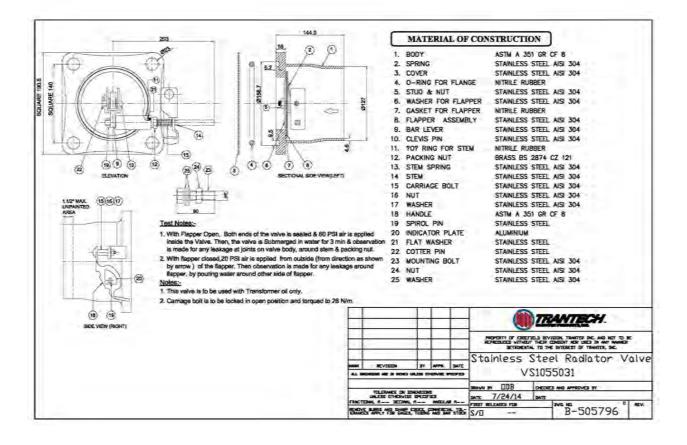
**Description:** Standard Carbon Flapper Valve (Painted Grey)

Part Number: VN105503C



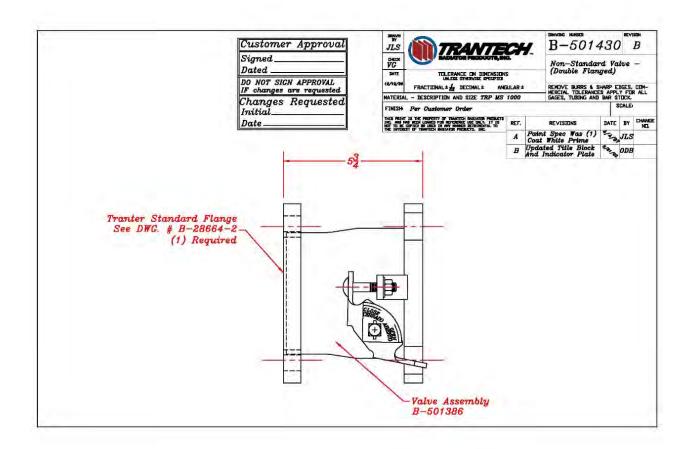
**Description:** Stainless Steel (CF8) Flapper Valve

Part Number: VS105503I (Un-painted) or VN105542 (Painted ANSI 70 Grey)



**Description:** Double Flanged Flapper Valve

Part Number: Various



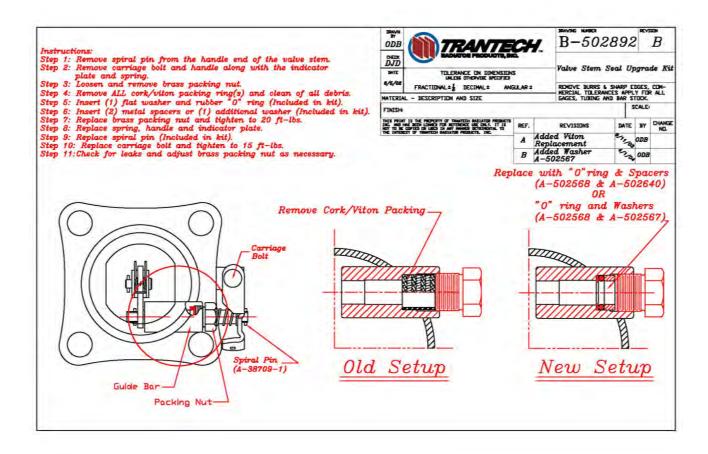
Double flanged flapper style valves can be made in a variety of configurations utilizing flanges to match your specific transformer type and connection flange. Configurations for most legacy transformers can be manufactured to suit your connection needs.



# Flapper Valve Repair and Replacement Parts

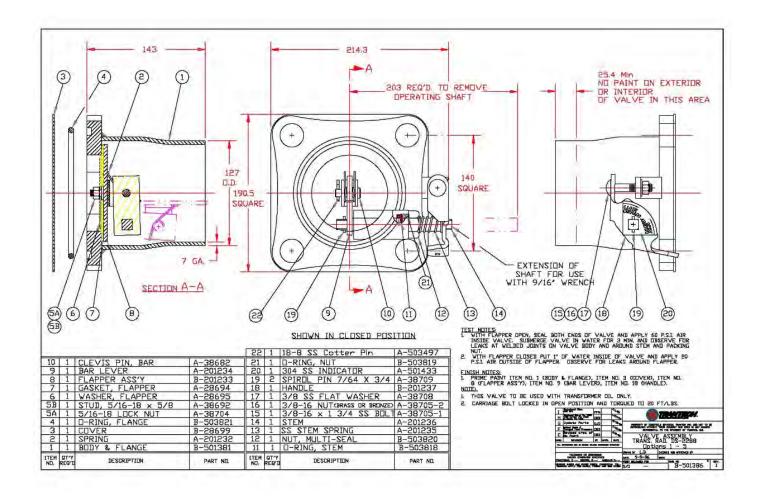
Description: Standard Flapper Valve – Stem Seal Repair Kit

Part Number: VSSKIT



The valve stem upgrade/repair kit provides everything needed to replace the valve stem packing on all models of Tranter / Trantech flapper valve assemblies. Viton stem O-rings are also available in place of Buna-N materials.





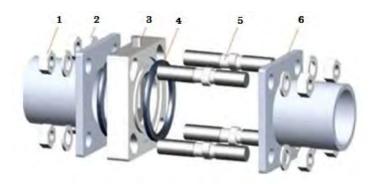
Part Number	Description	Drawing No.		
HWV3/4KIT	3/4" HARDWARE KIT - ZINC PLATED	N/A		
HWV3/4KITSS	3/4" HARDWARE KIT - STAINLESS	N/A		
HWV5/8KIT	5/8" HARDWARE KIT - ZINC PLATED	N/A		
HWVA12	BRASS PACK NUT	B-503821		
HWVA15	BOLT 3/8 X 1 3/4	A-38705-1		
HWVA16	NUT 3/8 SILICONE BRONZE	A-38705-2		
HWVA17	WASHER 3/8 SS	A-38708		
HWVA5A	NUT 5/16 CONELOK	A-38704		
VA10	CLEVIS PIN	A-38682		
VA13	SS STEM SPRING	A-201235		
VA14	STEM	A-201236		
VA18	HANDLE	B-201237		
VA19	SPIROL PIN	A-38709		
VA2	TORSION SPRING	A-201232		
VA20	OPEN/CLOSE INDICATOR PLATE	A-501433		
VA21	O-RING WASHER	A-502567		
VA22	COTTER PIN	A-503497		
VA3	COVER PLATE	B-28699		
VA6	FLAPPER WASHER	A-28695		
VA8	FLAPPER ASSEMBLY	B-201233		
VA9	BAR LEVER	A-201234		
VASPCR	SPACER	A-502640		
VN11	PACKING O-RING	A-502568		
VN4A	O-RING	B-503821		
VN7	FLAPPER GASKET	A-28694		
HWVA12SS	STAINLESS PACKING NUT	B-503821		
VV7	VITON GASKET	A-28694		
VV11	VITON STEM O-RING	A-501410		
VV21	VITON STEM O-RING - OLD STYLE	A-502568		
VV4B	VITON FLANGE O-RING	B-503821		



## **Butterfly Valves**

Butterfly valve, sometimes referred to as the sandwich or disc valve, has a 90° angle of rotation from full open to the shut-off position and a relatively short length and overall height, which enables it to open and shut off in a faster manner. Its reliability and proven performance make it widely used for oil-immersed power transformer applications such as detachable radiators, pumps, coolers and piping for oil conservators. Butterfly valve use in the transformer industry chiefly comprises of vacuum-type butterfly valves and hard seal butterfly valves. These valves can be made of various materials such as cast iron, ductile cast iron, brass, carbon steel and stainless steel.

## Typical Butterfly Valve Installation Method



- 1. Nut HDG Coating
- 2. Washer HDG Coating
- 3. Valve
- 4. Seal
- 5. HDG Shoulder Bolt
- 6. Radiator Flange







Sizes: DN40, DN50, DN80, DN100, DN125, DN150, DN200, DN250, DN300, DN350

NPS (1.1/2", 2", 3", 4", 5".8", 10" 12", 14")

Material: Cast Iron, Ductile Iron, Steel ASTM A36, Brass, Stainless steel 304

Type connection: Wafer / Sandwich Style

Bolt Circle / PCD: ANSI, JIS, DIN, EN/BS, GOST, GB, IS etc.

Application: Power transformers Fluid: Transformer Oil Leak test: 100% tested before packing.

Coating: Fusion Bonded coating ANSI 70 Gray or as per required by customer.

Features: With lock or without, round or square in any size, sealed stem cap

#### Metal to metal seal butterfly valves

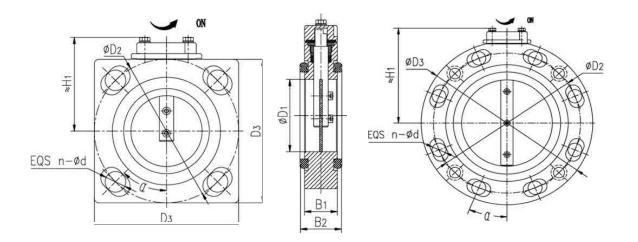
Hard sealed butterfly valves that incorporates a precision machined metallic seal structure. Compared with elastic sealed butterfly valve, metallic sealed butterfly valves can adapt to a higher working temperature, as well as enjoying a longer service life. Because it is very difficult to get full seal without leakage, if pressure tests are performed on this type of valves, you must seal up one end of the butterfly valve before the operation of vacuum-pumping or pressurization. Maximum allowable leakage through flap disc is less than 20cc/minute @ 3m head.





This valve is supplied complete with a unique sealed stem cover cap to insure no leakage at the valve stem area. All valve seal caps are casted aluminum with open and closed indication stamps. These are also incorporated with visual labels for the open and closed positions. Valves can be supplied with padlock features as well.

## **Assembly Drawing**



Size	Part #	D1	D2	D3	B1	B2	H1	D	n=Ød
40	DFBQ-40	40	85	90	32	36	69	45°	4-14mm
50	DFBQ-50	50	125	125	32	39	86.5	45°	4-14mm
	DFBQ-80- 1	80	150	150	36	46	99.5	45°	4-23mm
80	DFBQ-80-	80	160	160	36	46	104.5	45°	4- <b>Ø</b> 19
100	DFBQ-100	100	180	220	40	46	129.5	<b>22</b> .5°	8- <b>Ø1</b> 9
125	DFBQ-125	125	200	235	46	54	139.5	22.5°	8- <b>Ø</b> 19
150	DFBQ-150	150	240	280	46	54	162.5	22.5°	8- <b>Ø</b> 23
200	DFBQ-200	200	295	335	46	54	190.5	22.5°	8-Ø 23
250	DFBQ-250	250	350	395	50	58	225.5	<b>1</b> 5°	12-Ø23
300	DFBQ-300	300	400	445	60	68	263.5	11.25°	16- <b>Ø</b> 24
350	DFBQ-350	350	460	500	70	78	291.5	11.25°	16- <b>Ø</b> 24



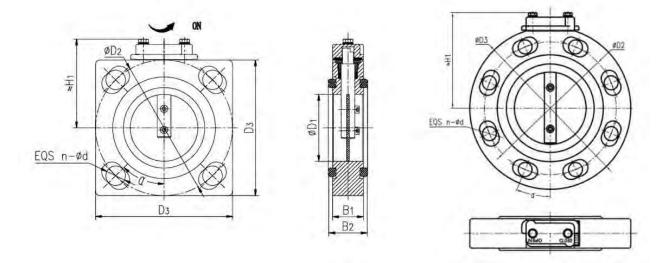
#### Vacuum butterfly valves

This product is designed to be vacuum tight and allow no-leakage at 0.6 MPa or 87 psig when in the shut position. Operating temperatures between -40°C and +135°C. All valves are 100% pressure tested before packaging and inspected for repetitive operation. The pressure drop across the valve opening is minimal due to the laminar unrestricted oil flow across the sealing disc.



This valve is supplied complete with a unique sealed stem cover cap to insure no leakage at the valve stem area. All valve seal caps are casted aluminum with open and closed indication stamps. These are also incorporated with visual labels for the open and closed positions. Valves can be supplied with padlock features as well.

#### **Assembly Drawing**





Size	Part #	D1	D2	D3	B1	B2	Н1	D	n=Ød
40	DFQ-40	40	85	90	32	36	69	45°	4-14mm
50	DFQ-50	50	125	125	32	39	86.5	45°	4-14mm
	DFQ-80-1	80	150	150	36	46	99.5	45°	4-23mm
80	DFQ-80- 3	80	160	160	36	46	104.5	45°	4-Ø19
100	DFQ-100	100	180	220	40	46	129.5	22.5°	8-Ø19
125	DFQ-125	125	200	235	46	54	139.5	22.5°	8-Ø19
150	DFQ-150	150	240	280	46	54	162.5	22.5°	8- Ø23
200	DFQ-200	200	295	335	46	54	190.5	22.5°	8-Ø 23
250	DFQ-250	250	350	395	50	58	225.5	15°	12-Ø23
300	DFQ-300	300	400	445	60	68	263.5	11.25°	16-Ø24
350	DFQ-350	350	460	500	70	78	291.5	11.25°	16- Ø24

## Aluminum vacuum butterfly valves

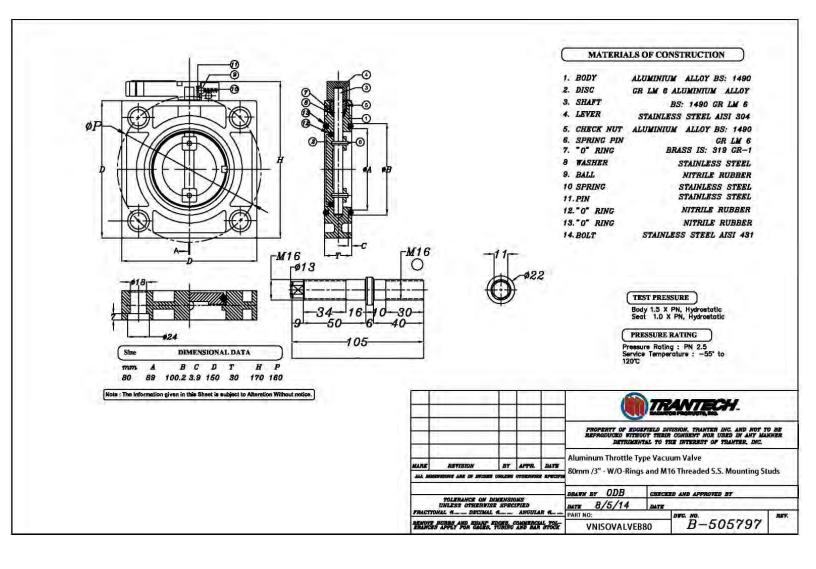
This cast aluminum valve is designed to be vacuum tight and allow no-leakage at 0.6 MPa or 87 psig when in the shut position. Operating temperatures between -40°C and +120°C. All valves are 100% pressure tested before packaging. This valve features a thumb actuated handle design and is supplied with 4 x M16 SS mounting studs and O-rings.





**Description:** Aluminum Throttle Vacuum Valve

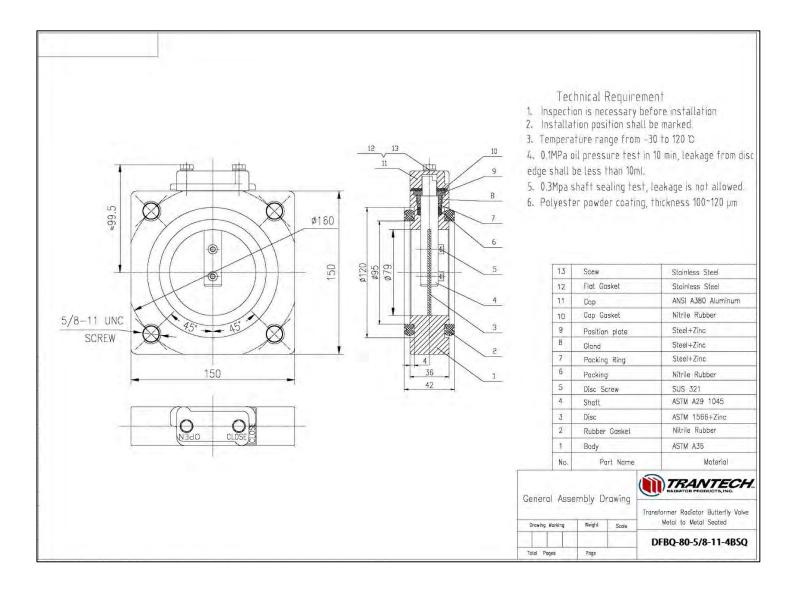
Part Number: VNISOVALVEB80



## **Specific OEM transformer butterfly valves**

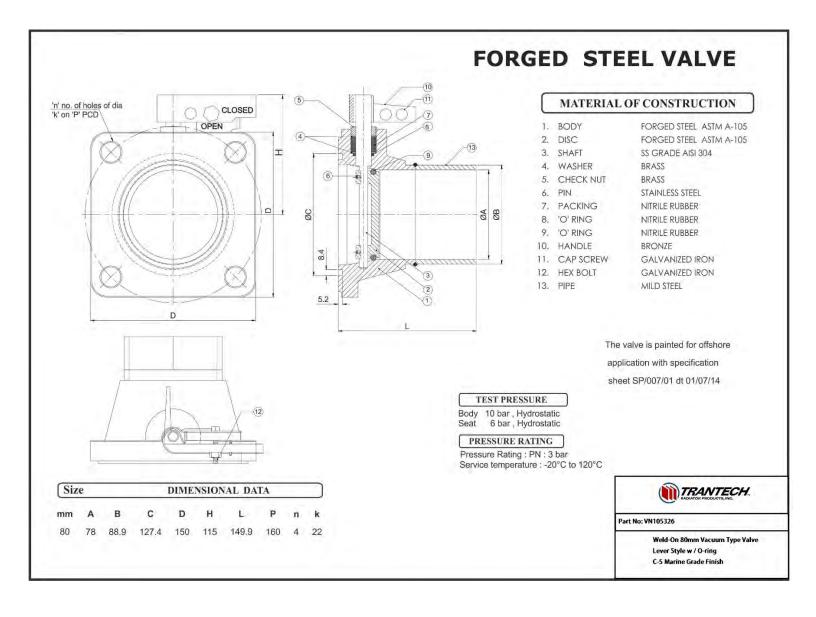
**Description:** Mitsubishi transformer style valve.

Part Number: DFQ-80-5/8-11-4BSQ



**Description:** Weld-On 80mm vacuum type valve for various ABB, VT, Delta Star and others.

Part Number: VN105326

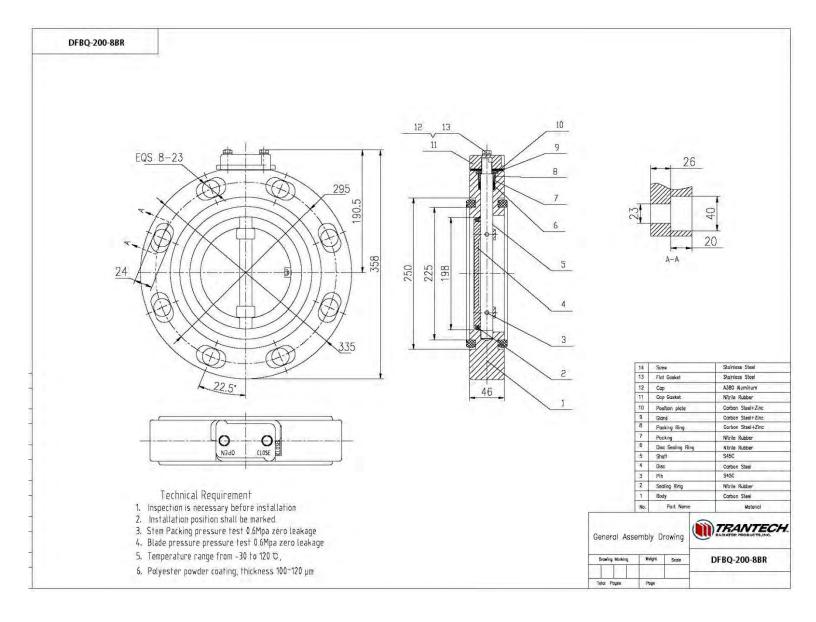




#### Legacy transformer butterfly valves

**Description:** Westinghouse transformer replacement valve for 200mm/8"

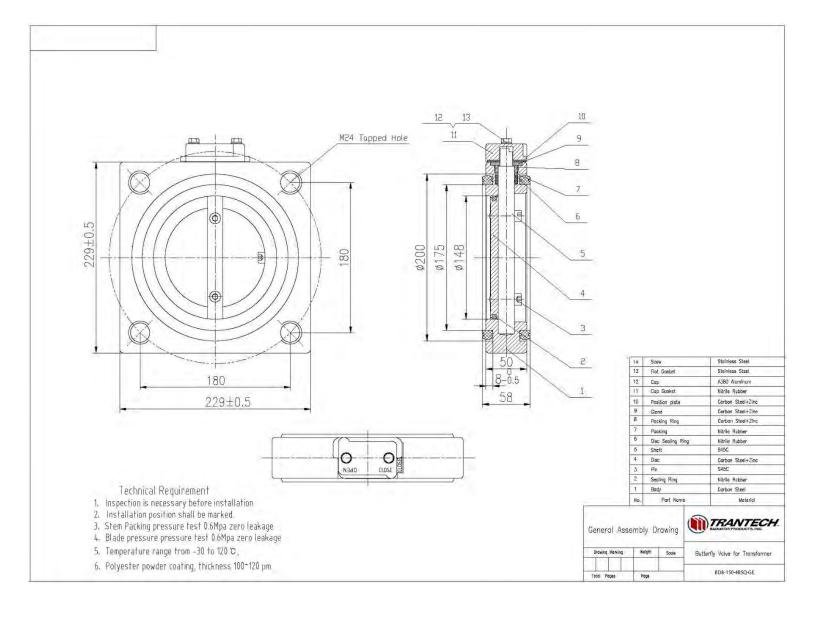
Part Number: DFBQ-200-8BR





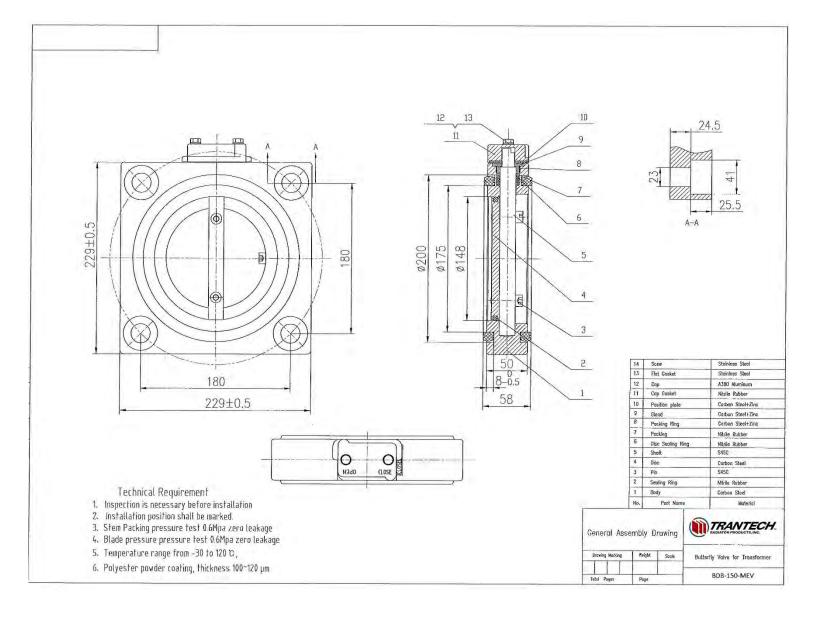
Description: GE transformer replacement valve for 150MM/6" square style

Part Number: BDB-150-4BSQ-GE



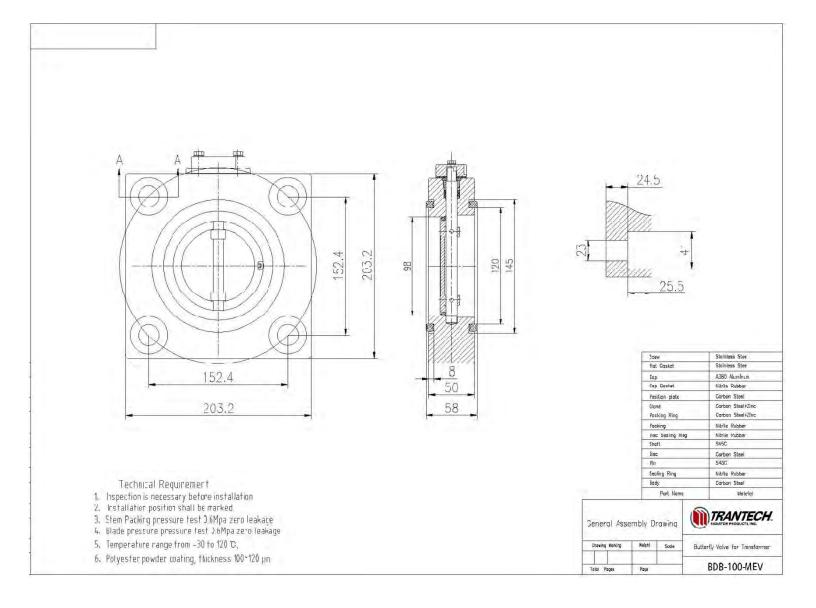
Description: GE transformer replacement valve for 150MM/6" square w/ stud recess

Part Number: BDB-150-MEV



Description: GE transformer replacement valve for 100MM/4" square w/ stud recess

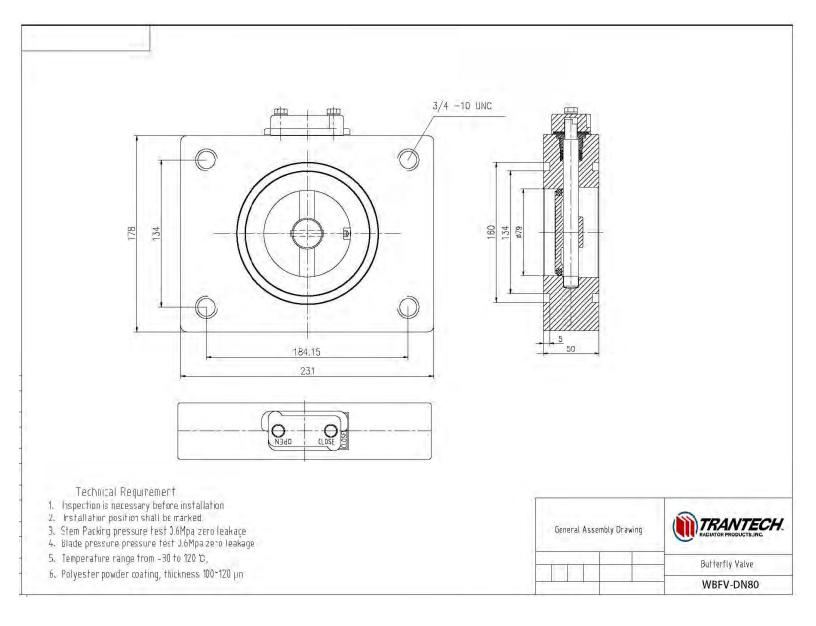
Part Number: BDB-100-MEV





**Description:** Westinghouse transformer replacement valve - Rectangular

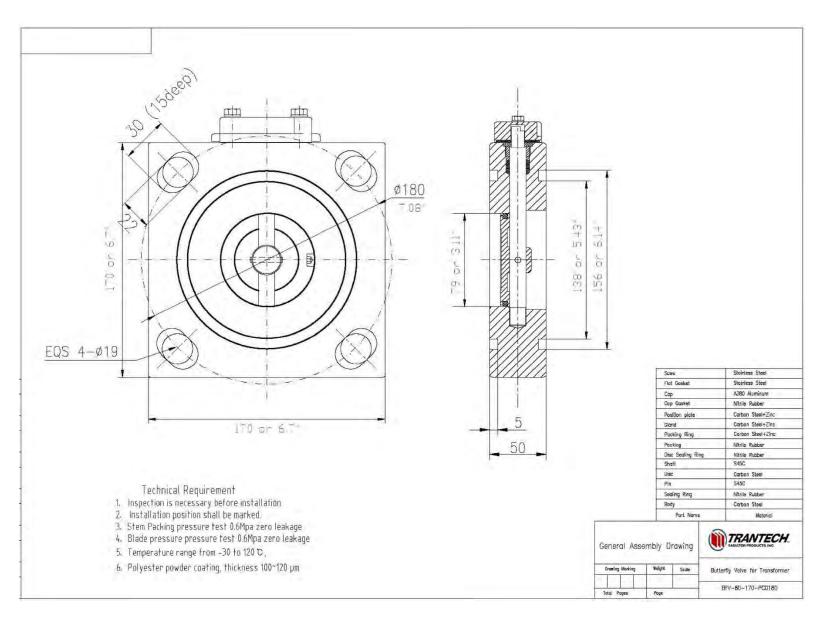
Part Number: WBFV-DN80





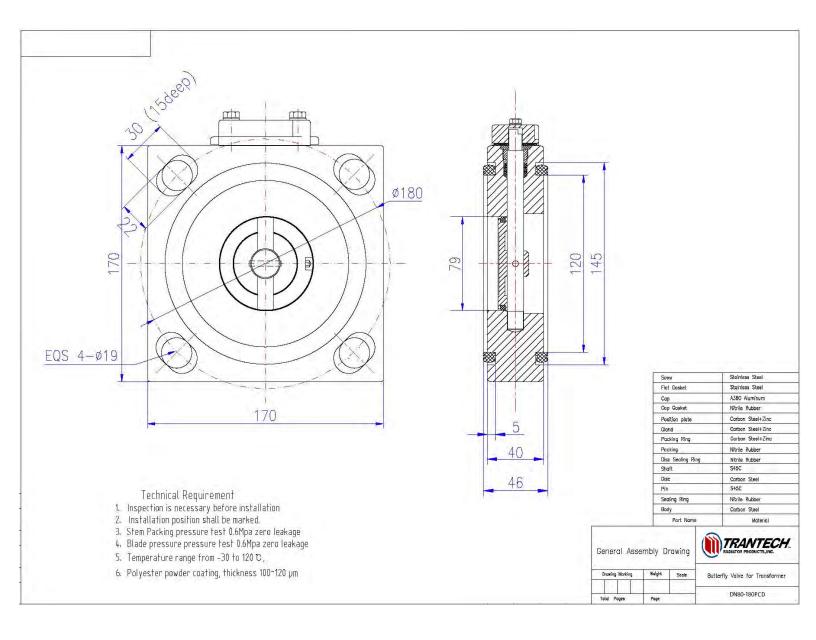
Description: Ferranti Packard, VA Tech, and Siemens transformer replacement valve

Part Number: BFV-80-170-PCD180 (Large O-Ring)



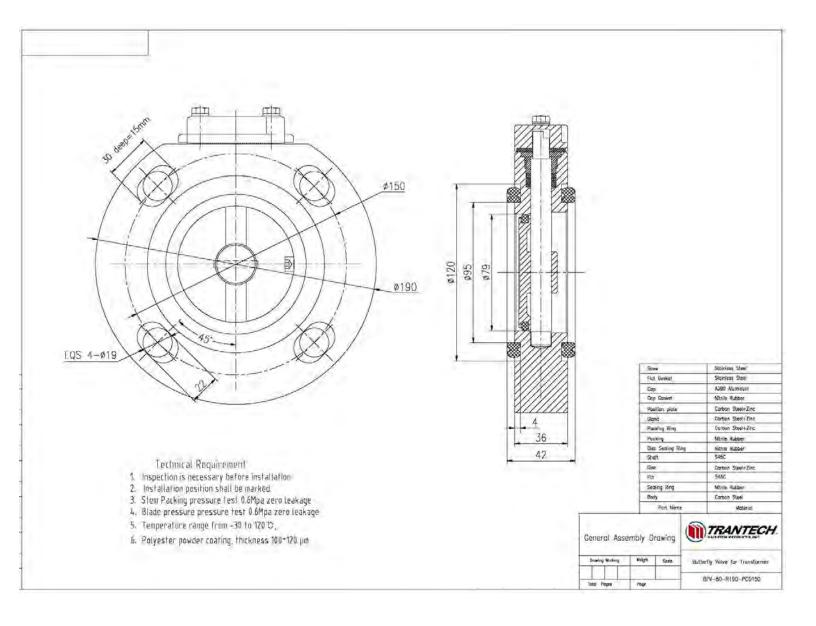
Description: Ferranti Packard, VA Tech, and Siemens transformer replacement valve

Part Number: DN-80-180PCD



**Description:** Various European designed transformers

Part Number: BFV-80-R190-PCD150



### Valves and Flanges for custom and specialty applications

Trantech has the unique ability to design valves and flanges for new applications and replacements on legacy units. Working with our customers to replace legacy valves is something that we specialize in. We offer various base materials and coatings as well as improvements to older designs. If you have a new application for design or development, we will be glad to help you with this need also. We can assist with vales, flanges, valve spacers, hardware and more. Contact our engineering department for assistance.







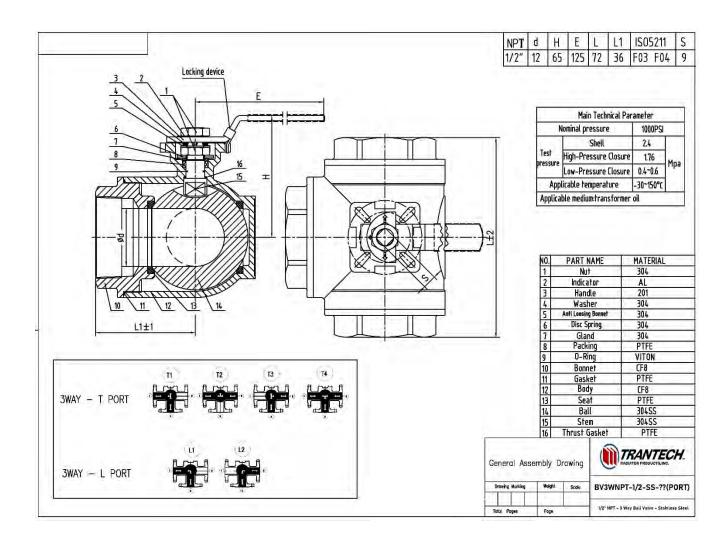
# **Other Valves and Sampling Devices**

**Description:** 3 Way Ball Valves – Stainless Steel **Part Numbers:** BV3WNPT-1/2-SS-? (Port Type)

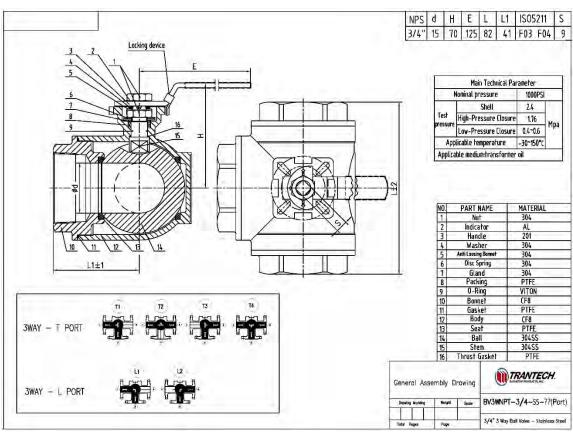
BV3WNPT-3/4-SS-? (Port Type) BV3WNPT-1-SS-? (Port Type)

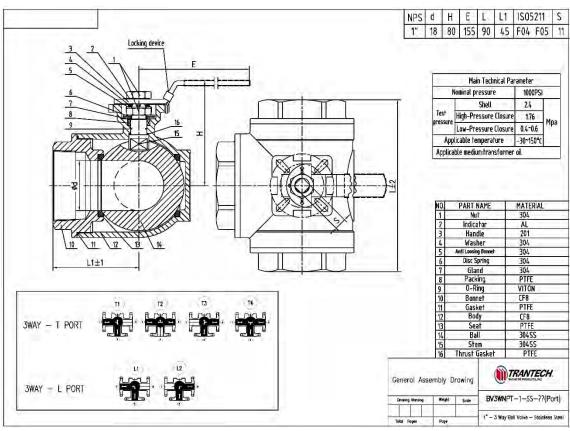
3 Way Ball Valve in "T" or "L" Port" Material: Stainless Steel or Brass













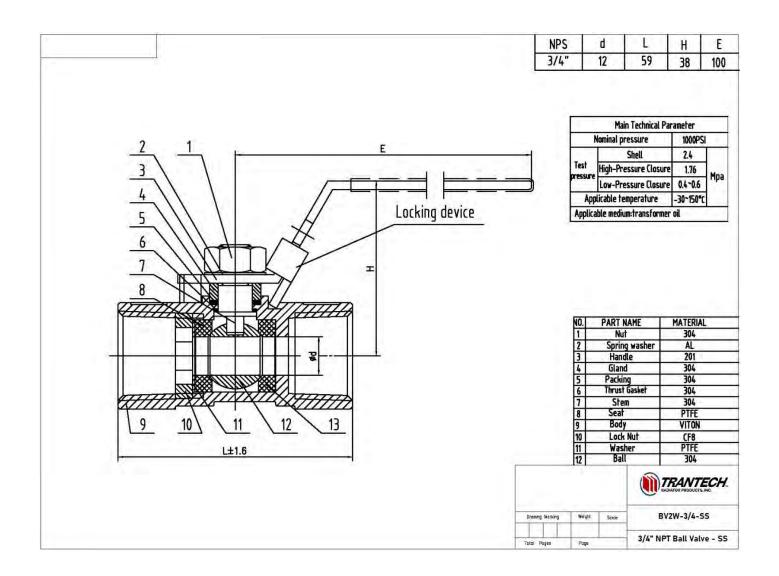
**Description:** 2 Way Ball Valves – Stainless Steel

Part Numbers: BV2W-3/4-SS

2 Way Ball Valve w/ Handle Locking Device

Material: Stainless Steel or Brass







**Description:** Globe Valve with Oil Sampling Device

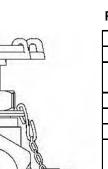
Part Numbers: GVSD-1-B, GVSD-1-SS, GVSD-2-B and GVSD-2-SS

Globe Valve 1" & 2" with Oil Sampling Device Device Material: Stainless Steel , Brass.

The advantage of our oil sampling device:

- Installed with the globe drain valve, taking oil samples is more convenient
- 2. With protective cover, keeps sampling area clean and safe.
- 3. Reduces air entering into the transformer during oil sampling.
- 4. Increases the accuracy of your oil samples utilizing this method.
- 5. Can be directly mounted on your transformer or radiators.

Notice: Please make sure the transformer tank is under positive pressure at the sampling site before you take oil samples.





Part No:	Description	Material and Specifications
1	Valve Body	Forged Brass or CF8 SS
2	Handle Nut	Brass or SS w/ Loctite 290 applied
3	Disc	Teflon
4	Stem	Brass or SS
5	Hand Wheel	
		Brass or SS w/ Loctite and Viton "O"
6	Packing Nut	Ring/Teflon Washer
7	Disc Nut	Brass or SS w/ Loctite 290 applied
8	Drain Fitting	Brass or SS w/ Viton "O" Ring
9	3/8" Sampler	Brass or SS
10	Chain	Brass



**Description:** Oil Sampling Device

Part Numbers: SD-1/2-B, SD-3/8-B, SD-1/2-SS, SD-3/8-SS

Oil Sampling Device sizes 3/8" or 1/2"

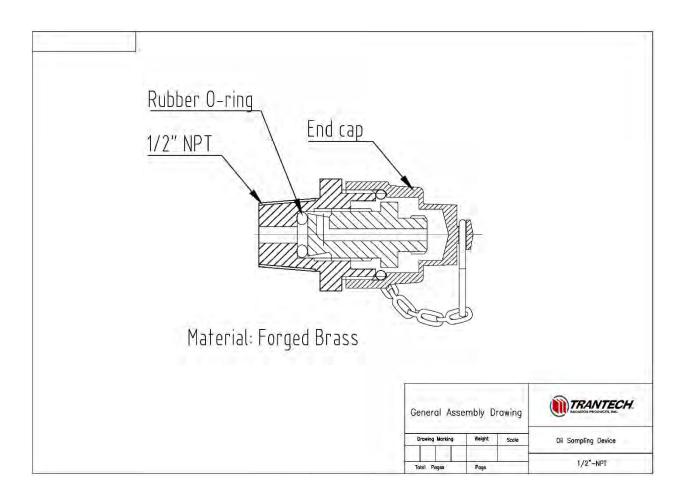
Device Material: Brass or Stainless Steel

The advantages of our oil sampling device:

- 1. Supplied with protective cover to keep sampling area clean and safe.
- 2. Reduces air entering into the transformer during oil sampling.
- 3. Increases the accuracy of your oil samples utilizing this method.
- 4. NPT threading for various uses.
- Can be used with flange, ball valve or globe valve applications that have NPT female threads.

Notice: Please make sure the transformer tank is under positive pressure at the sampling site before you take oil samples.









For more information and assistance please contact the Trantech Sales / Engineering Dept.

sales@trantechradiators.com

Phone: 803-637-3166

