

# Transformer Oil Shut Off Valve

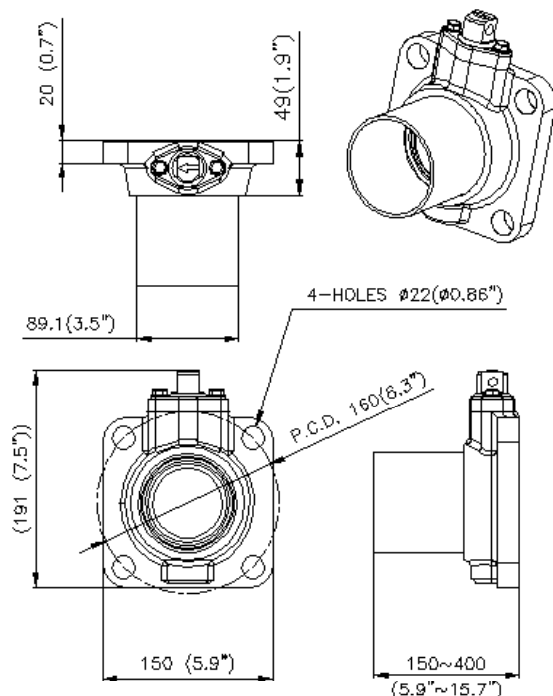
## Butterfly Valve for Power Transformers – Weld-On Type

### Part Name : BF80-Z00/ DN80

### Feature

- 3 Inch Weld-on Butterfly valve
- Forged Steel Body with 3" Steel Tube
- Overall length - 45mm to 400 mm
- 160mm Bolt Circle
- O-ring groove to fit standard 348 O-ring
- Brown VITON or Cold Temp NBR seals (disc, stem, and sealing O-ring)
- Cap with Safety sealing O-ring prevents leakage through stem
- ANSI 70 Gray Painted
- 50mm pipe end-not painted

### Dimensions



#### Options:

Pipe: length / Schedule 40~80

Seals : VITON or NBR

Hardware kit-(3/4-10x3 inch Bolts, nuts, washers Zinc Plated)

Galvanized Shipping Cover

Flange O-ring (Brown VITON or Cold Temp. NBR)



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### Operation of the BTX Valve

To open the valve:

- 1) Remove the two stainless steel M10 bolts and washers and set them aside for re installation
- 2) **Open the valve**
  - a. Using a 3/4" or adjustable wrench, place the wrench on the aluminum cap and rotate counterclockwise to open the valve.
  - b. Alternative, remove the cap and set aside, using adjustable wrench, rotate the shaft).

The shaft must move a full 180 degrees to open the valve. You will encounter a slight resistance at about 45 degrees when the operating disc unseats.

- 3) **Install the sealing cap**

Note the arrow on top of the sealing cap. It should be pointing at the "O" Open indicator. It will point to the position of the sealing disc in the valve body when it is installed. The cap can only fit on the shaft one way. Tighten the two M10 HHCS. Make sure that the sealing O-ring is still in position. The valve has a provision for padlocking. It will accept a long hasp 1/4 inch padlock placed through the hole in the sealing cap. **DO NOT OVERTIGHTEN.**

To close the valve:

- 1) Remove the two stainless steel M10 bolts and washers and set them aside for re installation
- 2) **Close the valve**
  - a. Using a 3/4" or adjustable wrench, place the wrench on the aluminum cap and rotate clockwise to close the valve.
  - b. alternative, remove the cap and set aside, using adjustable wrench, rotate the shaft. The shaft must move a full 180 degrees to close the valve. The valve will rotate easily toward the close position. You will feel a slight resistance when the valve totally closes. The movement is only about a 1/4" to seal. **DO NOT OVERTIGHTEN.** We recommend to tight the valve to 35 Ft/Lbs.

- 3) **Install the sealing cap**

Note the arrow on top of the sealing cap. It should be pointing at the "C" Closed indicator. It will point to the position of the sealing disc in the valve body when it is installed. The cap can only fit on the shaft one way. Tighten the two M10 HHCS. Make sure that the sealing O-ring is still in position. The valve has a provision for padlocking. It will accept a long hasp 1/4 inch padlock placed through the hole in the sealing cap.

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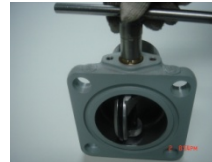
### Disassembly of Valve

- Pict. 1. Unfasten bolts(8) using 13mm spanner and remove cap(9+4+8)
- Pict. 2. Unfasten packing nut using Spanner Socket (not included)
- Pict. 3. Using a pliers, pull the shaft out of the forged steel body.
- Pict. 4. To replace the seal on the operating disc, roll the sealing ring out of the groove and discard it.
- Pict. 5. Take new sealing ring and roll it into the groove. Make sure that the sealing ring is not twisted and the flats of the ring are against the aluminum sides. .
- Pict. 6. Prepare shaft, washer and packing before you put shaft into disc and body. Put the first brass washer on shaft followed by the packing (Tapered end toward disc), and put second brass washer. Place disc back into the valve body and slide the operating shaft that already prepared through the forged body and into the disc. The shaft should easily slide through. If you have a lot of resistance, check to make sure that the disc is properly aligned in the valve body- **DO NOT FORCE THE SHAFT INTO THE DISC.** When replacing the stem seal make sure that the tapered end is pointed toward the operating disc.
- Pict. 7 Thread the packing nut into the body. Tighten the packing nut to 10 Ft/Lbs. Operate the valve a few times to make sure that it is moving freely
- Pict. 8. Make sure it closes correctly. Do not force the disc to close. Maximum torque 35 Ft/Lbs
- Pict. 9 Fasten bolts using 13mm spanner. Check the O-ring bottom of the cap to make sure the O-ring is in place before you fasten the bolt.

Pict 1



Pict 2



Pict 3



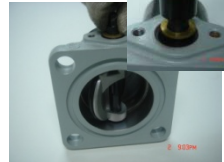
Pict 4



Pict 5



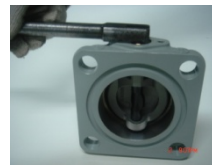
Pict 6



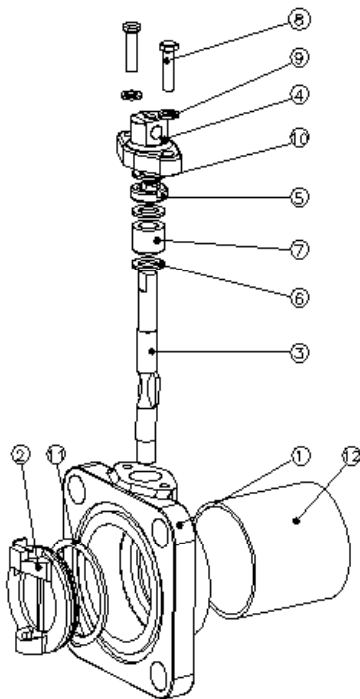
Pict 7



Pict 8



Pict 9



1	BODY	1	Forged steel	BK-BF80-Z01
2	DISC	1	Cast Aluminum	BK-BF80-A02
3	SHAFT	1	Black oxide steel shaft	BK-BF80-A03
4	O-S CAP	1	Aluminum	BK-BF80-A04
5	PACKING NUT	1	Brass	BK-BF80-A05
6	WASHER	2	Brass	BK-BF80-A06
7	PACKING	1	NBR or VITON	BK-BF80-A07
8	HEX BOLT	2	Stainless steel	M8X25L
9	S WASHER	2	Stainless steel	
10	O-RING	1	VITON or NBR	G30
11	PACKING	1	NBR or VITON	BK-BF80-A16
12	PIPE	1	Steel Pipe	BK-BF80-A08
NO	PART NAME	Q'TY	MATERIAL	PART NO

  
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