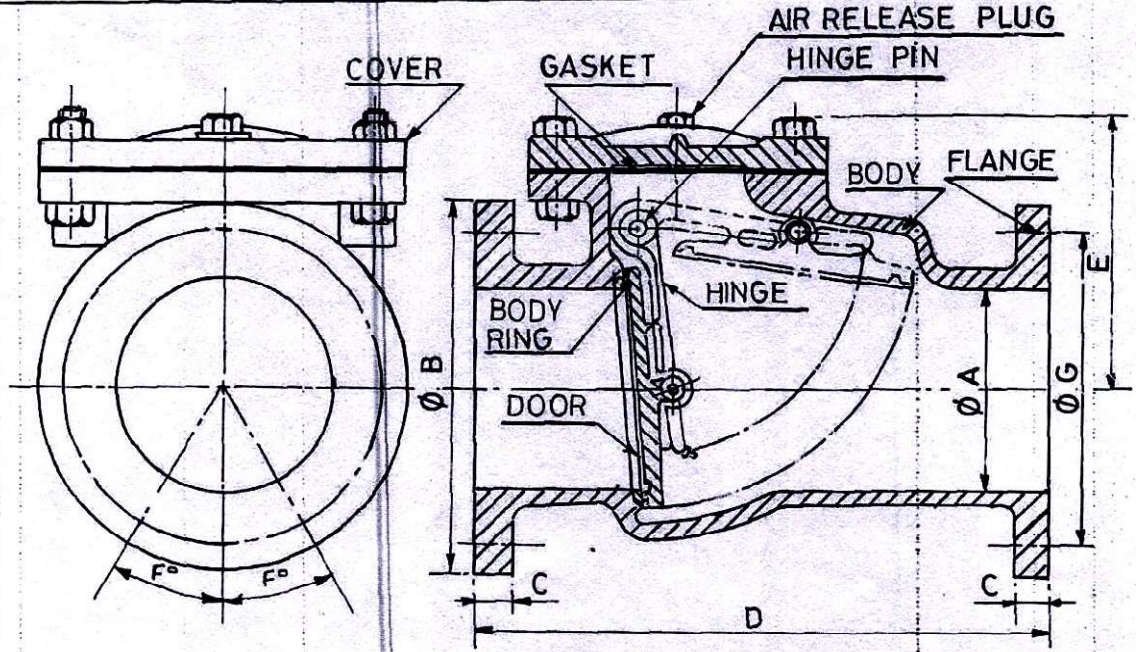


PRODUCT STANDARD
REFLUX VALVE

TR 24003 V
PAGE 1 OF 3

C
TRANSFORMER DIVISIONAL STANDARDS



STYLE	SIZE 'A'	B	C	D	E	F	Ø G P.C.D	NO. OF HOLES	HOLES DIA.	WT. OF FLAP MAX.
ST 603361	100	215	20	300	165	45	180	4	18	
ST 603362	150	285	22	400	200	22½	240	8	23	
	200	340	25	500	245	22½	295	8	23	
	250	395	26	600	300	15	350	12	23	

DESCRIPTION -

CAST IRON BODY WITH FLANGED ENDS FOR HORIZONTAL MOUNTING HAVING SOLID -
-GUN METAL RENEWABLE RINGS. RUBBER OR LEATHER FACED BOORS ARE NOT ACCEPTABLE, THE VALVE TO BE FITTED WITH ONE AIR RELEASE BRASS PLUG ON TOP.
BACK OF THE FLANGES TO BE SPOT FACED/ MACHINED FOR PROPER SEALING OF NUTS. ALL PLUGS TO BE OF COLLAR TYPE WITH NYLON WASHERS. HOLES DRILLED ON FLANGES TO BE OFF CENTRE. AN ARROW SHALL BE CAST ON VALVE BODY TO INDICATE THE DIRECTION OF FLOW.
NORMAL FLOW 1.53 - 1.83 METRES / SEC.

TEST PRESSURE FOR -
BODY AND SEAT - 20 KG/CM² AND 10 KG/CM² RESP.

TR 24003V

REVISIONS

Issued AKG	Issued by TRE.(STDS)	
Appd. S. PANKAJ	Date 10/12/16 D.O.	
CHANGES TO BE APPD. BY DIVISIONAL STDS. ENGINEER ONLY.	DISTRIBUTION	STY.
	TRE	1
	COX	1
	TRP	1

BHARAT HEAVY ELECTRICALS LTD.
UNIT: JHANSI



Scale

TR 24003 V

BHEL

PRODUCT STANDARD TRANSFORMER

TR 24003V

REFLUX VALVE

PAGE 2 OF 3

REF

Application

Valves shall be suitable for use in circulation line of transformer oil to IS 335 at 90°C. As such the swing of the valve to be of light weight construction, so that it offers minimum resistance to normal flow and does not check or hinder the flow of oil by transformer oil pump.

The weight of the flap must be such that full opening is available at oil velocity of 1.53 metres/sec. The cooling of the transformer will be considerably affected if the Reflux valve does not allow specified flow.

Construction

Configuration and construction of valve to be generally as per Fig.3 of IS : 5312 (Part 1).

The dimensions and shapes of the body, door, cover etc. shall be suitable to ensure that the area for flow passage at any cross section in the valve is not less than the area of the nominal bore of the valve. Further, design of the valve to be such that hinge pin can be removed from either end. Both ends of hinge pin shall be provided with suitable brass plugs and nylon washers.

Material

Material of body and cover etc. to be of CI not less than Gr. 20 or IS : 210. Rings of body and door to be of leaded B.M. 15 IS : 318 Gr. 1. Hinge and door pins etc. to be of H.T. brass bar to IS : 320 alloy 1. Gasket material shall be oil resistant nitrile rubber and shall cover full face of the top flange.

Pressure Drop

Valves to be pressure drop tested and pressure drop across the valve shall be less than 0.3 metres of oil column i.e. 36 p. s. i. at normal flow.

Painting

Inside of the valve to be properly cleaned and painted with transformer oil resistant red oil proof enamel. Out side of the valve to be painted with two coats of anti-corrosive primer paint to IS 2074 and followed by two coats of full glossy finishing paint of light grey shade to 631 or IS : 5. All hardware used outside shall be passivated, zinc plated and passivated (125 Micron thickness).

Blanking : All valves shall be properly blanked with steel blanking plates and gaskets before despatch.

TR 24003V

REVISIONS

DISTRIBUTION	Qty
TRE	15
TAM	10
BHEL DRAWING	6

APPD. *Sanjay Ponka*

TR 24003V

PREPARED BY *Sanjay* ISSUED BY *TRE/STOS* DATE *10/12/16*

BHEL

PRODUCT STANDARD TRANSFORMER

TR 24003

REFLUX VALVE

PAGE 3 OF 3

REF.

TEST CERTIFICATE

VALVES SHALL BE SERIAL NUMBERED, TEST CERTIFICATES FOR HYDRAULIC PRESSURE TEST AND PRESSURE DROP TESTS SHALL BE FURNISHED FOR EACH VALVE.

INFORMATION TO BE FURNISHED ALONGWITH OFFER

- 1) DRAWING SHOWING CONSTRUCTIONAL DETAILS ALONGWITH MATERIAL USED FOR DIFFERENT COMPONENTS OF THE VALVE.
- 2) WEIGHT OF THE DOOR AND HINGS ASSY.

DRGNO 95 TR 20003

TR 24003

REVISIONS

DISTRIBUTION	

APPD BY *Sonjay Raina*

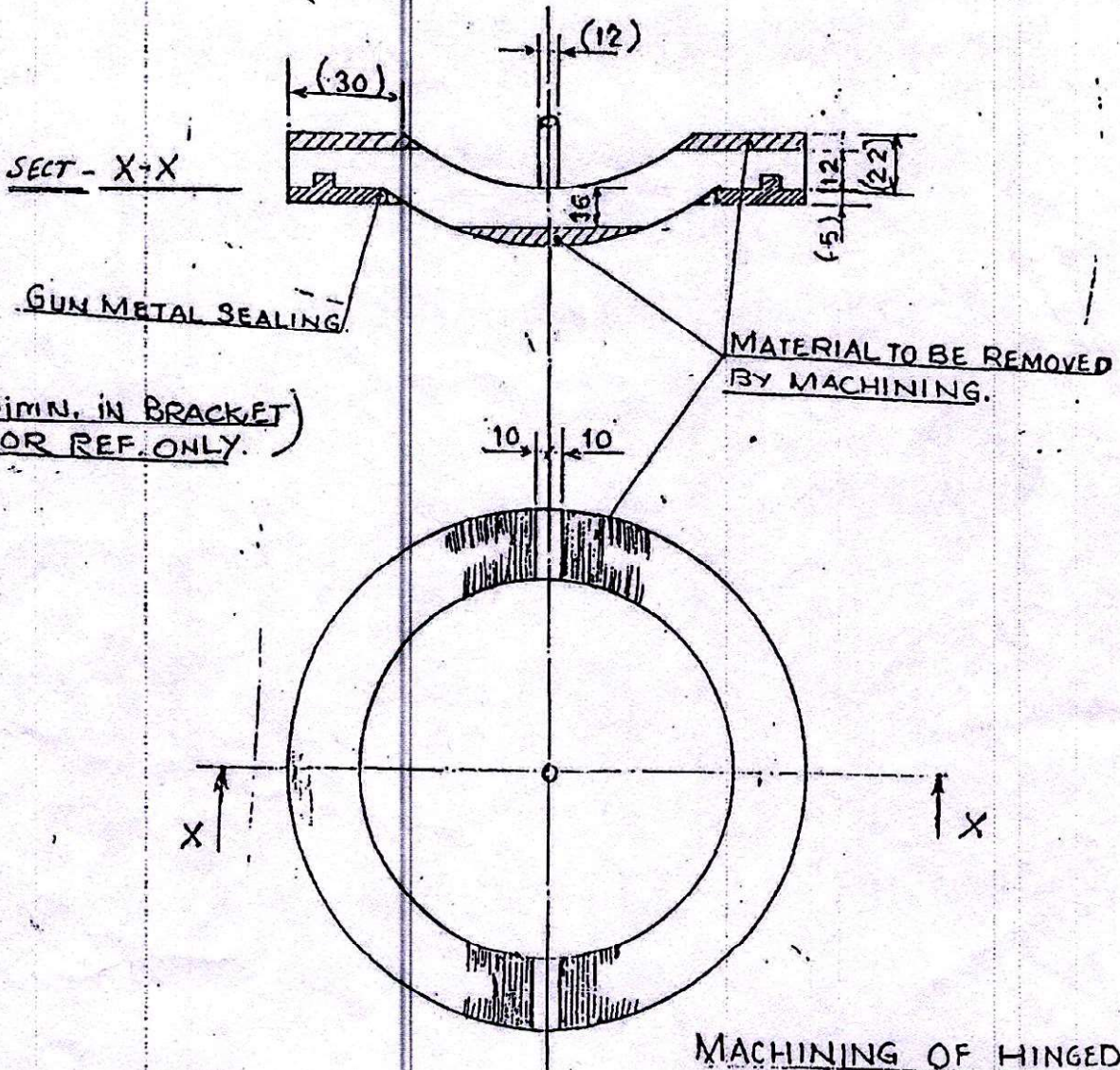
PREPARED BY

ISSUED BY

TR/STD

10/12/16

ANNEXURE-TO TR 24003V
150 NB NON RETURN VALVE



(DIMN. IN BRACKET)
FOR REF. ONLY.

MACHINING OF HINGED
DOOR (VANE) OF 150 NB
NON RETURN VALVE.

Debarho
2/3/90

9/10/90
2.3.90

Sigamwal
2/3/90

27.1.97
27.1.97

21/01/97
21/01/97

TR 24003V