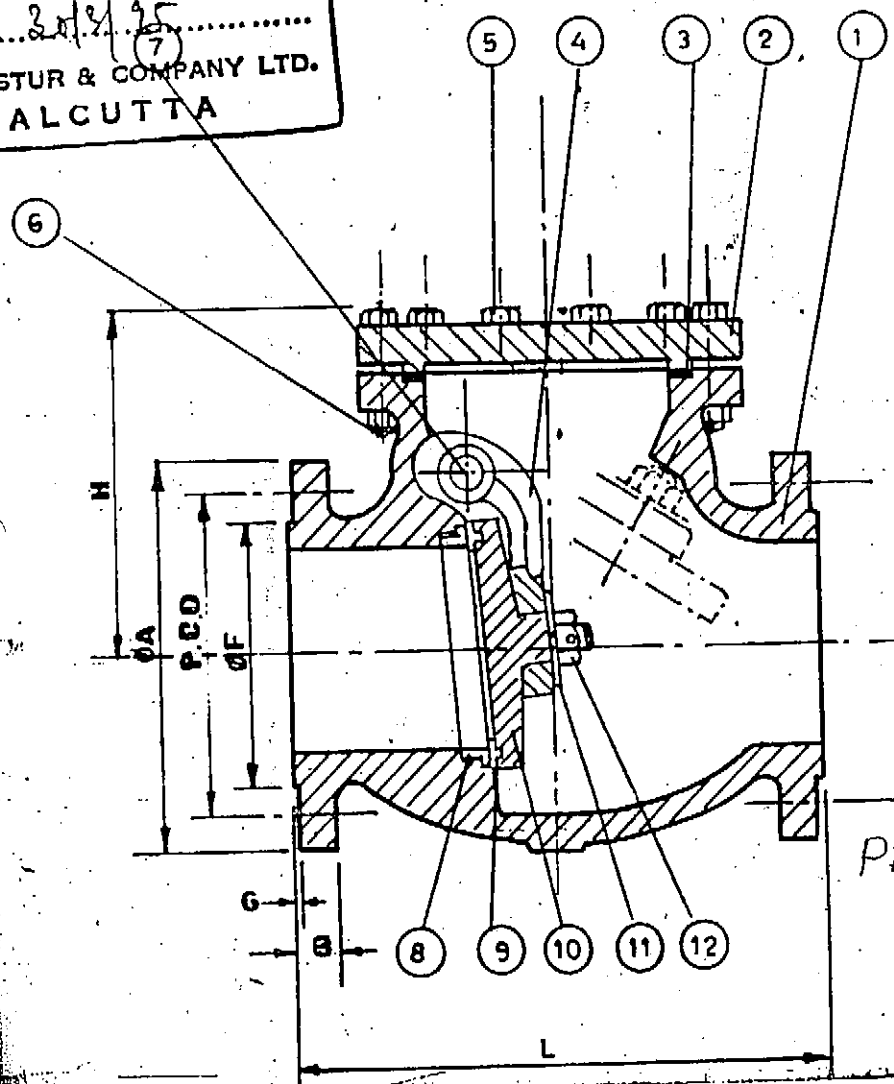


Item Number	Material	Item Title	Item Description	Item Quantity	Unit of Measure	Delivery Period (In number of days)
10	71403000401043	VALVE,CHECK,CS,NB150,FLGD,12BAR	<p>CHECK VALVE  TYPE, DESIGN : SWING TYPE,BOLTED COVER  MOC, BODY/BONNET/COVER : CARBON STEEL  MATERIAL SPEC, BODY &amp; COVER : ASTM A216 GR.WCB  SIZE : NB150  END CONNECTION : FLANGED  END-END/FACE-FACE DISTANCE : 357MM  SERVICE : SOFT WATER  WORKING PRESSURE : 12BAR  FOR CONVERTER-3 LANCE COOLING CIRCUIT.  CLASS : ANSI CLASS 150  OPERATING PRESSURE : 12BAR MAXIMUM  FLANGES AS PER ANSI B 16.5 CLASS  150,BOLT CIRCLE DIA- 241.3MM  WITH 8 NO OF BOLT HOLES OF 22MM DIA  MOC, BODY/BONNET/COVER : ASTM A216 GR. WCB  MOC, SEAT : ASTM A216 GR.WCB WITH 13% CROMIUM  MOC, DISC : ASTM A216 GR. WCB  HINGE PIN : SS AISI 410</p>	2	EA	150
20	71402000400769	VALVE,B/FLY,CS,A216 GR.WCB,250MM,71MM	<p>BUTTERFLY VALVE  TYPE, DESIGN : TRIPPLE OFFSET,WAFFER LUG  MOC, BODY/BONNET/COVER : CARBON STEEL  MATERIAL SPEC, BODY/BONNET : ASTM A216 GR.WCB  SIZE : 250MM  END-END/FACE-FACE DISTANCE : 71MM  TYPE - TRIPPLE OFFSET,WAFFER LUG TYPE, METAL SEATED WITH ZERO LEAKAGE  DESIGN CLASS - ANSI B16.5, CLASS 150  PCD - 362MM  NO OF BOLTS - 12  BOLT HOLE SIZE - 25.5  MEDIUM- SOFT WATER  DISC MOC : ASTM A217 GR.CA15/CF8M  SHAFT MOC : A479 TYPE SS 410/17-4PH SS,SINGLE PIECE  BODY SEAT :STELLITE 21 INTEGRALLY WELDED TO BODY  VALVE IS TO BE FITTED WITH ELECTRICAL ACTUATOR SA3E22 + WORM GEARBOX  GS 63.2(MAKE-AUMA) WITH HAND WHEEL AND LIMIT SWITCH  MAXIMUM OUTPUT TORQUE- 1000NM  FOR CONVERTER-C LANCE COOLING WATER CIRCUIT</p>	2	EA	150

Item Number	Material	Item Title	Item Description	Item Quantity	Unit of Measure	Delivery Period (In number of days)
30	71450007031696	VALVE,B/FLY,WAFER,SGI,MANUAL,DN200,6BAR	<p>BUTTERFLY VALVE  TYPE, DESIGN : WAFER TYPE, CENTRIC DISC  SIZE : DN 200  OPERATING TYPE : HAND LEVER OPERATED  END CONNECTION : SANDWITCH TYPE  PRESSURE CLASS : PN6  END-END/FACE-FACE DISTANCE : 60MM  MAX WORKING PRESSURE : 6BAR  MAXIMUM WORKING TEMP : 60 DEG C  MOC: BODY :SPHEROIDAL GRAPHITE CAST IRON(SGI)  DISC : AL-BRONZE  STEM : SS 304  SEAT SEAL : EPDM BONDED WITH BODY  BUSH : SS304  GLAND SEAL : PTFE  WORKING MEDIUM : POWDERED CALSIUM CARBIDE/MAGNESIA  ADDITIONAL FEATURE: FLANGE FOR FIXING ROTARY ACTUATOR AS PER ISO 5211-II.  VALVE IS TO BE FIXED IN BETWEEN ASME B16.5, CLASS 150FLANGES FOR NB200 TO BE USED AT HMDS SILO OUTLET.</p>	4	EA	150
40	71401000800153	VALVE,BALL,SS,NB40,FLGD,BS:5351	<p>BALL VALVE  TYPE, DESIGN : 3-PIECE,FULL BORE  MOC, BODY/BONNET/COVER : STAINLESS STEEL  SIZE : NB40  END CONNECTION : FLANGED  END-END/FACE-FACE DISTANCE : ANSI B 16.10  TEST PRESSURE (SHELL) HYD. : 30KG/CM2(G)  TEST PRESSURE (SEAT) HYD. : 20KG/CM2(G)  ADDITIONAL INFORMATION : BS:5351  BALL VALVE, SIZE NB 40. TECHNICAL SPECIFICATIONS: STAINLESS STEEL FLANGED END, 3-PIECE, FULL BORE BALL VALVE, SIZE NB 40, CLASS 150#. MANUFACTURING STANDARD: BS 5351, FACE TO FACE DISTANCE: ANSI B 16.10, FLANGE DETAILS: ANSI B 16.5 (RF) SERR FINISH, INSPECTION &amp; TESTING STANDARD: BS 6755 PART -1. HYDRAULIC TEST PRESSURE: BODY 30 KG./SQ.CM. (G), SEAT 20 KG./SQ.CM.(G). AIR TEST PRESSURE: SEAT 6 KG./SQ.CM.(G). MATERIALS OF CONSTRUCTIONS:- BODY, END PIECES, BALL, STUD END, STOPPER PIN: ASTM A 351 GR. CF 8M/ AISI 316L, SEAT: VIRGIN PTFE, STEM &amp; GLAND BUSH: AISI 316L, GLAND PACKING AND STEM SEAL: VIRGIN PTFE, FASTENERS: AISI 316, LEVER: CARBON STEEL WITH PVC CAP.</p>	20	EA	150
50	71450007032307	VALVE,NON RETURN,SIZE:300MM,PD/R-253348	<p>VALVE,NON RETURN,SIZE:300MM,PD/R-253348  FOR LANCE COOLING WATER PUMP (PUMP HOUSE-23)  AS PER DRAWING.  DRAWING NO : PD/R-253348,SH.1&amp;2</p>	4	EA	150

Item Number	Material	Item Title	Item Description	Item Quantity	Unit of Measure	Delivery Period (In number of days)
60	71401000400413	VALVE,BALL,CS,80MM,FLANGED	BALL VALVE MOC, BODY/BONNET/COVER : CARBON STEEL MATERIAL SPEC,BODY & CONNECTOR : WCB SIZE : 80MM END CONNECTION : FLANGED PRESSURE CLASS : CLASS 150 MOC, BALL : SS410 MOC, SEAT : PTFE VALVE OPERATION : LEVER FLANGE, FACING : RAISED FACE REDUCED BORE,DISC:CA15	40	EA	150

**RECEIVED FOR INFORMATION**  
 Nature.....  
 ORDER No. 12992/1021/TPR-274A  
 DATE..... 20/11/54  
 M. N. DASTUR & COMPANY LTD.  
 CALCUTTA



**RECORD COPY**  
 MUKUND LTD. RSPM DIVN.  
 KALWE  
 RACK NO. .... BOX No. 55:4

PD/R-253348  
 shd

6

Q: For Mat. Spec. refer sheet : 2.

RES: 9: For Qty & tag No. refer sheet 3.

ALL DIMENSIONS ARE IN MM

CLASS OF VALVE - 300

END CONNECTIONS - FLANGED END.

AS PER ANSI-B16.5

VALVE STANDARD - BS 1868

FLANGED END VALVES SHALL

BE SUPPLIED WITH COMPANION

FLANGES, FASTNERS &

GASKETS.

FINISHING AS PER QS-03.

SE No. 3.3.5, 4.2.1, 3.14.2.2.3, 4.2.3.6

WORKING PRESS: - 80 BAR

TEMP: - 190°C.

NO. RK - 3818

DR: B: 65107: 53: 0011: TSR Dt. 21/12/54

Revisions		Date	Name	Date of Issue
<b>STEEL AUTHORITY OF INDIA LTD.</b> <b>ROURKELA STEEL PLANT</b> MODERNISATION PROJECT				
Basic oxygen shop				package no 104.1
CONSULTING ENGINEER: M.N. DASTUR & COMPANY LIMITED calcutta				
clients drg. no. 104-11-113-08-00-55 0656-0				
<b>TYAZHPROME XPORT</b> contractor			<b>GIPROMEZ</b> Principal contractor	
<b>MUKUND LTD.</b> contractor			<b>A.V. VALVE LIMITED</b> 16-Industrial estate nunhvia:pc	
SUBMITTED FOR		APPROVAL		scale
Approval	CAST CARBON	By	Date	DATE
Information	STEEL			CHKD BY
Construction	CHECK VALVE			APPD BY
	CLASS-300			DATE
DRG. NO.		Sheet 1	Sheet 3	REV. 0

M.D. TM / 1199 to 1204

ITEM NO.	DESCRIPTION	MATERIAL	SPECIFICATION
1	BODY	CAST STEEL	ASTM A 234GR WPA
2	COVER	CAST STEEL	ASTM-A234GR.WPA
3	COVER GASKET	ASBESTOS	CAF CORRUGATED SOFT IRON
4	HINGE	CAST STEEL	ASTM A 234GR.WPA
5	STUD BOLT	ALLOY STEEL	ASTM A 193 GR B7
6	NUTS FOR STUD BOLT	ALLOY STEEL	ASTM A 194 GR 2H
7	HINGE PIN	S.S.	ASTM A 182 GR F6
8	BODY SEAT RING	S.S.	ASTM A 351 CA 15/13% Cr.S.S
9	DISC SEAT RING	S.S.	ASTM A 351 CA 15/13% Cr.S.S
10	DISC	CAST STEEL	ASTM A 216 Gr. WCB
11	DISC WASHER	S.S.	ASTM A 182 Gr. FC
12	DISC RETAINING NUT	S.S.	ASTM A 182 Gr. FC
13	PIN FOR DISC RETAINING NUT	S.S.	ASTM A 182 Gr. FC

14. COMPANION FLANGE

C.S.

IS 6942 MAT TO IS 2002  
4T-2A





SIZE	L	A	B	F	G	P.C.D	BOLT HOLES		H	TAG NO.	QTY.
							DIA	NO.			
50	267	165.0	22.5	92.10	1.6	127.0	22	8	170	VFC-J	3
65	292	190.5	25.0	104.8	1.6	149.0	22	8	185	VFC-K	4
150	445	317.5	36.5	215.9	1.6	269.9	22	12	300	VFC-P	1
250	622	444.5	48.0	323.9	1.6	387.4	29	16	350	VFC-T	6
300	711	521.0	50.8	381.0	1.6	451.0	32	16	431	VFC-U	1
±1.0	± 2.0	± 2.0	± 2.0	± 1.0	± 0.8	± 1.0	± 0.5	-	-	--TOLERANCE	

WITH BY PASS ARRANGEMENT

TEST PRESSURE IN psi (g)	
HYDROSTATIC	BODY - 1100
TEST PRESSURE	SEAT - 800

PDR-253348

Sh-2

 <b>STEEL AUTHORITY OF INDIA LTD.</b> <b>ROURKELA STEEL PLANT</b> MODERNISATION PROJECT			
Basic oxygen shop			package no 104.1
CONSULTING ENGINEER: M.N. DASTUR & COMPANY LIMITED calcutta			
clients drg. no. 104-1-13-08-00-55-0656-0			
 Leader of principal constructor <b>TYAZHPROMEXPORT</b>		 Principal contractor <b>GIPROMEZ</b>	
 contractor <b>MUKUND LTD.</b>		SUB CONTRACTOR <b>A.V. VALVES LIMITED</b> 16 Industrial estate nunhsia 70	
SUBMITTED FOR		APPROVAL	
Approval	CAST CARBON	By	Date
Information	STEEL		
Construction	CHECK VALVE		
	CLASS-300		
		scale	ratio
		PAPG BY	GM
		CHRD BY	B
		APPD BY	B
DRG. NO. [ ]		Sheet 2	Sheet 3

DRG. NO. RK-3818

DRG. NO. R/B:65:07:53:0011; T/SR Dt. 21/12/94