

TECHNICAL SPECIFICATION FOR SOFT LINED MSRL PIPES

MS Pipe	: Confirming to IS 1239 Part – I 1973, Medium duty
Pipe Make	: TATA, JINDAL, NEZONE, UTKARSH
Flange Thickness	: 16 mm drilled to ANSI B 16.5 Class 150 Tolerance in overall length including rubber lining +0.00 mm - 5.00 mm Flanges should be parallel and holes should be collinear
Rubber Lining	: Confirming to IS 4682, Vulcanization should be done in autoclave, joints should be overlapped with bevel joints and lining should be done with calendared sheet
Properties of Rubber	: SOFT NATURAL RUBBER Rubber lining thickness – 4.5 mm Hardness : Shore A $40 \pm 5^\circ$ Tensile Strength – 150 to 180 Kg/cm ² Elongation – 450% min. Sp. Gr. : 1.1 to 1.2 Ash Content : 11 % Max Abrasion Resistance – 100 mm ² max at 10 N as per DIN 53516 Adhesion : 3.6 kg/cm as per IS : 3400 Part V
Test Report	: Test reports of above mentioned properties of rubber should be provided along with each supply. High frequency spark test should be carried out for checking continuity of lining.
Painting	: Pipes should be painted externally including flanges with one coat of Red Oxide Zinc Chromate Primer & two coats of synthetic enamel golden yellow paint of 1 st quality – “BERGER “ MAKE
Inspection	: 1) Final Inspection shall be done at our site 2) It include fabrication of pipes, Hydraulic Pressure testing, Properties of rubber, rubber lining quality by spark testing, visual.
Guarantee	: The MSRL Pipes shall be guaranteed for a period of 12 months from the date of receipt against failure of Rubber lining / MS Pipes.

NP

ELBOW FLG. (1.5 DIA)		ELBOW FLG. (3 DIA)	
PIPE	R	A	R
50 NB	76	96	152
65 NB	95	118	101
80 NB	114	138	229
90 NB	133	137	-
100 NB	152.4	177	305
125 NB	190.5	215	301
150 NB	228.6	254	457
200 NB	304.8	334	610
250 NB	381	412	762
300 NB	457.2	489	914
350 NB	533.4	569	1067
400 NB	610	647	1219

Properties of soft natural rubber

Rubber Lining Thickness - 50-80 NB 3.5 mm
 Rubber Lining Thickness - 90-125 NB 4.5 mm
 Rubber Lining Thickness - 150-400 NB 6 mm

Hardness : Shore A 40±5°
 Tensile Strength : 150-180 kgf/cm²
 Sp. Gr. : 1.0 to 1.1
 Elongation : 450 % Min.
 Ash Content : 11% Max.
 Resilience : 60±5 %
 Abrasion Resistance : 65 mm³ at 10 N as per DIN 53516
 Adhesion : 3.6 Kg/CM as per IS:3400 Part V

NOTE:-

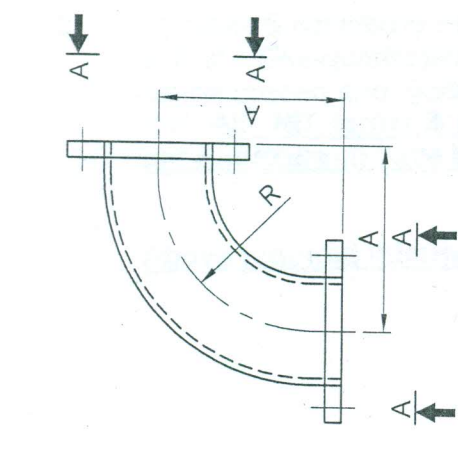
1. LINING CONFIRMING TO IS:4682
2. VALCANISING SHOULD BE DONE IN AUTOCLAVE.
3. LINING SHOULD BE DONE WITH CALANDERED SHEET
4. FINAL INSPECTION WILL BE DONE AT OUR SITE.

NOTE :-

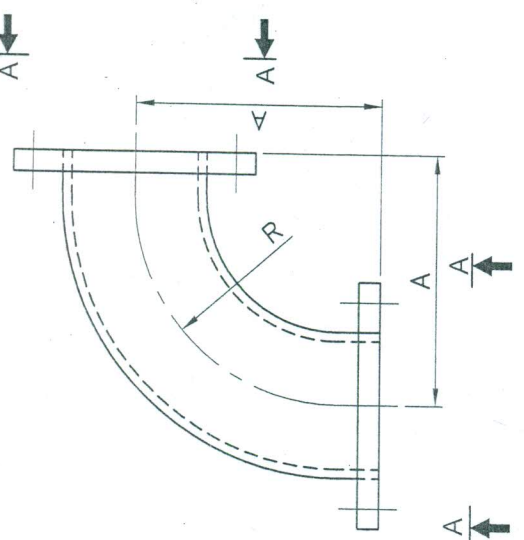
1. ALL FLANGES ARE AS PER ANSI-B16.5, 150. FLAT FACE UNLESS OTHERWISE STATED.
2. ALL FLANGES BOLT HOLES ARE EQUALLY SPACED.
3. BENDS ARE TO BE MADE FROM ERW PIPES AS PER IS:1239-1 HEAVY GRADE UPTO 150 NB FOR SIZE 200 NB AND ABOVE FROM ERW PIPES AS PER IS:3589 WITH THICKNESS AS PER TABLE - A
4. ALL THE DIMENSIONS ARE EXCLUDING RUBBER LINING THICKNESS.

PIPE SIZE	THICKNESS
200 NB	4.5
250 NB	5.0
300 NB	5.6
400 NB	6.35

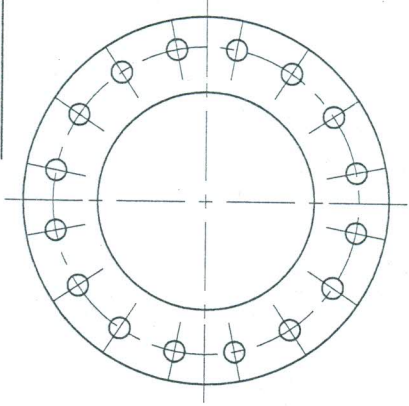
TABLE - A



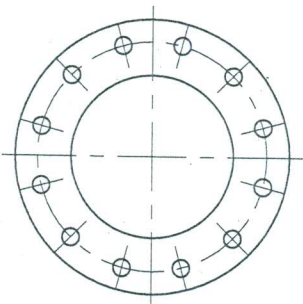
ELBOW FLG.(R=3D)



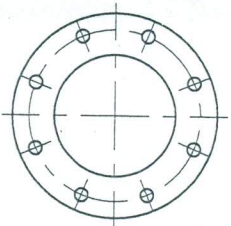
ELBOW FLG.(R=1.5D)



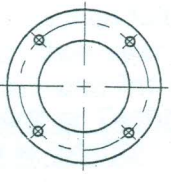
VIEW - A - A
FLANGES FOR PIPES
FROM 400 NB & ABOVE



VIEW - A - A
FLANGES FOR PIPES
FROM 250 TO 350 NB



VIEW - A - A
FLANGES FOR PIPES
FROM 100 TO 200 NB



VIEW - A - A
FLANGES FOR PIPES
UP TO 80 NB



URANIUM CORPORATION OF INDIA LTD. TURAMDIH MINES
 (A GOVT. OF INDIA ENTERPRISE, DEPT. OF ATOMIC ENERGY)

MATERIAL :- M.S. RL

DRN.	Rajesh	03.09.11	TITLE
CHECKED	Anishkant	90° BEND	
APPROVED			
SCALE - NTS			
DIMENSIONS IN MM			
2 SKG 03.06.16 1 NKN 01.05.14 REV. REV.BY DATE		RUBBER PROPERTY CHANGED HOLE DIRECTION CHANGED	
DESCRIPTION		DRG.NO.- UCT-2/MECH/PIPE/32	
		REV - 2	