



CHANDAN STEEL LIMITED
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2008 - CERTIFICATE No. 44 100 011022-E3
AD 2000 - MERKBLATT W0 - REGN.No. 07 202 1423 WP 1261 09
PED 97 / 23 / EC - CERTIFICATE No. 07 202 1423 WZ 1261/09



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I/c. No.: NLNLINL09M052345
I/c. Date: 26.06.09

F824 QC 09 / 00 / 09.01.2009

MILL TEST CERTIFICATE
ACCORDING TO EN 10204-3.1

VAN LEEUWEN STAINLESS BV INDUSTRIEWEG 26 4153 BW BEESD, POST BOX : 19 4153 ZG BEESD, THE NETHERLANDS	Test Certificate No. : EXP/04/2009-2010 Date of Issue : 06.10.2009 P.O. No. & Date : 906099, Dt. 09.06.2009
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ITEM DESCRIPTION	Pcs.	Net Wt.
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES AS PER ASTM A182 & ASME B16.5	44	149.60 Kgs.

Article No.	Heat No.	Grade EN/ASTM	Size	Item No.	Process Route	
					Electric Induction Melting, A.O.D. Refining, Continuous Casting	
482.88.146	09/756	1.4404/316L	2" BLRF 300 LBS	10		

CHEMICAL COMPOSITION (Weight %)										
	C	Si	Mn	P	S*	Cr	Mo	Ni	Ti	N
Results	0.027	0.40	1.76	0.040	0.024	17.10	2.03	10.06	-	0.0580

MECHANICAL PROPERTIES														
Heat Treatment	Yield Strength			Tensile Strength	Elongation	Reduction of area	Hardness	Charpy (V) Impact Test at -18 °C (Joules)						
	Batch No.	Direction	2%(Rp0.2)					1%(Rp1.0)	(R _m)	(G.L.=5D=50nm)	%	(BHN)	Specimen Size mm : 10 x 10 x 55	
F/09/235	tr		261	304	540.4	51.6	75.35	150-153	190	178	224	197.33		
Remarks: * Under agreement for EN-10222-5							Lateral Expansion (mm)	1.49	1.48	1.43				

- The material is solution annealed and soaked at 1065 °C for 180 minutes and water quenched.
- The material is Free from Mercury contamination.
- Material is free from Radio-Active Elements and within the limit of Background Radiation.
- All raw material is fully killed steel.
- The material is free from welding.
- PMI test 100% satisfactory.
- Micro Structure Reveals twinned equiaxed grains of austenite and free from carbide precipitation found satisfactory.
- Grain size ASTM No. 4.0 - 5.0 of ASTM E112-96 (2004) (Plate No. II)
- Inter-Granular Corrosion Test as per ASTM A - 262 - 02a (Pr.E) & micro after IGC Pr. E found satisfactory (capable of passing).
- The material has been tested & confirms/complies as per ASME B16.5 : 2003, ASTM A182 - 08a & ASME SA 182 - E07A08 Specificatio and purchase order and is of Indian origin.
- The material approved according to PED 97/23/EC.
- The material hardness conforms to NACE MR 0175 : 2003, & NACE MR 0103 : 2005 standards.
- Visual and Dimensions inspection 100% OK.

Box No.: 1

Received 06/06/09
B. S. RAUTELA
MANAGER QUALITY ASSURANCE



It is hereby certified that the above results are true and correct in every details.

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