




CERTIFICATE - EN 10204 3.1

232712

CUSTOMER : VAN LEEUWEN STAINLESS B.V. INDUSTRIEWEG 26, 4153 BW BEESD THE NETHERLANDS	MANUFACTURER'S SYMBOL 	ISO 9001 : 2008 - TUV NORD-44100011170-E3 EXPIRY DATE : 21-01-2013	MTR NO.	913062 - 9
		AD 2008 MERKBLATT WO REG. NO. 07 202 1423 WP 1022 08	DATE	01/06/2010
		TECHNICAL REQUIREMENT ACC. TO AD MERKBLATT W2/W9/W10 EXPIRY DATE : FEBRUARY 2011	MATERIAL SPECIFICATION	EN 10222 - 5 : 2000
		PED 97/23/EC QMS REG. NO. 07 202 1423 WZ 1022 / 08 EXPIRY DATE : FEBRUARY 2011	GRADE	WNR 1.4404
ORDER NO.: 923190	L/C.: NLNL1NL10M101044 DT:2010-01-13	DIMENSIONAL SPECIFICATION		EN 1092 - 1
STAINLESS STEEL FLANGES				

CHEMICAL ANALYSIS

SR NO	ITEM DESCRIPTION	HEAT NO	QTY	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Ti	N2 PPM
1	65/76.1 TYPE 02A 4 holes	PN16 83033	20	0.028	1.70	0.53	0.008	0.040	16.85	10.10	2.04	-	850
2	32/42.4 TYPE 02A	PN40 83025	20	0.024	1.76	0.44	0.008	0.040	16.60	10.08	2.03	-	880
3	50/60.3 TYPE 05A	PN40 82173	30	0.021	1.76	0.44	0.009	0.040	16.65	10.05	2.04	-	735
4	50/60.3 TYPE 05A	PN16 83025	172	0.024	1.76	0.44	0.008	0.040	16.60	10.08	2.03	-	880
5	50/60.3 TYPE 05A	PN16 83025	27	0.024	1.76	0.44	0.008	0.040	16.60	10.08	2.03	-	880
6	50/60.3 TYPE 05A	PN16 83025	1	0.024	1.76	0.44	0.008	0.040	16.60	10.08	2.03	-	880
7	25/33.7 TYPE 11B	PN40 83033	150	0.026	1.70	0.53	0.008	0.040	16.85	10.10	2.04	-	850
8	100/114.3 TYPE 11B	PN40 82878	10	0.018	1.85	0.45	0.019	0.039	16.62	10.05	2.03	-	890

MECHANICAL PROPERTIES

HEAT NO.	ITEM DESCRIPTION	TENSILE STRENGTH (N/mm ²)	PROOF STRESS		ELONGATION % (Lo=5D)	REDUCTION OF AREA %	IMPACT TEST CHARPY V NOTCH AT 26 °C (JOLULES)				REMARKS
			Rp0.2% (N/mm ²)	Rp 1% (N/mm ²)			1	2	3	AVG	
83033	65/76.1 TYPE 02A 4 holes	560.65	254.26	299.81	58.00	72.51	180	175	170	175	
83025	32/42.4 TYPE 02A	581.51	258.60	308.64	58.80	72.33	185	189	189	181	
82173	50/60.3 TYPE 05A	561.79	282.43	329.38	57.80	70.00	181	173	168	174	
83025	50/60.3 TYPE 05A	581.51	258.60	308.64	58.80	72.33	185	189	189	181	
83025	50/60.3 TYPE 05A	581.51	258.60	308.64	58.80	72.33	185	189	189	181	
83025	50/60.3 TYPE 05A	581.51	258.60	308.64	58.80	72.33	185	189	189	181	
83033	25/33.7 TYPE 11B	560.65	254.26	299.81	58.00	72.51	180	175	170	175	
82878	100/114.3 TYPE 11B	570.33	255.71	317.49	54.00	72.11	162	171	175	169	

MELTING PROCESS : INDUCTION/AOD (IRS)/CONCAST
 HEAT TREATMENT : SOLUTION ANNEALED AT 1050°C AND WATER QUENCHED
 DIMENSIONS : CONFIRM WITH THE SPECIFICATION
 SURFACE INSPECTION : SATISFACTORY
 FLANGE FACE FINISH : < Rz 160
 PMI : NO OBJECTION(100% TESTED WITH MOBILE SPECTRO)
 INTER GRANULAR CORROSION TEST : PASSED IGC TEST IN ACCORDANCE WITH DIN EN ISO 3651-2
 MICRO OBSERVATION : NO CARBIDE PRECIPITATION OBSERVED ON THE GRAIN BOUNDARIES
 RADIOACTIVITY TEST : ALL THE ABOVE MATERIAL IS TESTED FOR RADIOACTIVITY AND FOUND WITH IN THE LIMIT OF BACKGROUND RADIATION

" CARACTERISTIQUES GARANTIES "

La Société Viraj Forgings Ltd. garantit que les produits objet du présent certificat, respectent en leur totalité les prescriptions de l'Article 15 de l'Arrêté Ministeriel du 24 mars 1978 modifié.

C<=0.25%, P<=0.035%, S<=0.035%

Rm<=800 N/mm², Ec<=0.9xRm, A%(Lo=5.65Vo)/min.16% en long. R(A=2)≥10500

WE CERTIFY THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIES WITH THE ORDER/CONTRACT AND IS OF INDIAN ORIGIN.

Der RWTÜV hat mit Schreiben vom 13.08.2001 auf die Gegenzeichnung verzichtet



INSPECTOR'S STAMP



Viraj Kumar Pillai

VIRAJ KUMAR PILLAI
MANAGER Q.A.

POS: 1