



Columbus Stainless (Pty) Ltd P O Box 133 Middelburg 1050 South Africa
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 A Subsidiary of ACERINOX S.A.

CE **REP**
 EC REP
 Acernox Europa, S.A.U.
 C/ Santiago de Compostela no 100. 28035 Madrid Spain
 ZA 0045 16 Tel: 91 398 5100/ 91 398 5102
 0045-CPR-1805
 Corrosion Resistant Steel for building construction or civil engineering.
 Regulated substances: No performance determined

INSPECTION CERTIFICATE 3.1

ISSUE DATE: 2016-11-21

ACCORDING TO EN 10204 CERTIFICATE NO 3112124 Rev 1

MANUFACTURER'S MARK		INSPECTOR'S STAMP		MELTING PROCESS	E/AOD
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CUSTOMER: DAMSTAHL A/S DANMARKSVEJ,28 8660 SKANDERBORG Denmark	ORDER No.	ITEM No.	DELIVERY NOTE No.
	PW01468	6	DEL068205
	CUSTOMER ORDER No. 561896/kn		
REQUIREMENTS AD 2000 W2 AD 2000 W10			

SPECIFICATIONS	MATERIAL CODE	CASE
EN 10088-2-2014	1.4404 1.4401	KPAS33123 4077281B02 [1117 Kg]
EN 10028-7-2007	1.4404 1.4401	KPAS33126 4077281B03 [886 Kg]
ASTM A240 / A240M-16	316L 316	KPAS33129 4077281B01 [1117 Kg]
ASME BPVC IIA SA240 / SA240M-2015	316L 316	KPAS33130 4077281B05 [1092 Kg]
EN 10088-4-2009	1.4404 1.4401	KPAS33137 4077281B07 [1171 Kg]
		KPAS33148 4077281B04 [1118 Kg]
		KPAS33160 4077281B06 [1092 Kg]

TOLERANCE: ISO 9445-2 ; ASTM A480/480M ; ASME SA480/SA480M	TYPE	X2CrNiMo 17-12-2
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PRODUCT: 2B: Cold rolled, heat treated, pickled, skin passed.	HEAT No.: 407728
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DIMENSIONS: 2 mm x 1500 mm x 3000 mm	QUANTITY 109	MASS 7593 Kg	MATERIAL No : 4077281
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CHEMICAL COMPOSITION (%)										
	C	S	P	Mn	Si	Cr	Ni	Mo	N	
Min						16.5	10.0	2.00		
Max	0.030	0.015	0.045	2.00	0.75	18.0	13.0	2.50	0.10	
Actual	0.026	0.001	0.025	1.31	0.55	16.7	10.0	2.04	0.05	

MECHANICAL PROPERTIES										
TEMPERATURE	DIRECTION	POSITION	Rp0.2 MPa	Rp1.0 MPa	Rm MPa	A50 %	A80 %	HRBW		
Ambient	Transverse	Requirement Min	240	270	530	40	40			
		Max			680			95		
Ambient	Transverse	Head	314	346	622	55	53	81		
		Tail						83		

INTERGRANULAR CORROSION	
SPECIFICATION	RESULT
ASTM A262 Practice E	PASS
ISO 3651-2 Method A	PASS
HEAT TREATMENT (SOLUTION ANNEALED)	
Anneal °C	Quench
1050 - 1100	AIR/ WATER SPRAY

Columbus Stainless (Pty) Ltd. certifies that the analysis and material on this certification is correct and meets the specifications stated. This document is issued without alteration or erasure and may only be reproduced in full. Made and melted in South Africa. This Material is PMI Tested. Visual and dimensional control: no exceptions. The delivery is in accordance with the order. This material is free from mercury contamination. The radiation level exhibited by this material is not greater than the normal background level. This material meets the Hardness requirement of NACE MR0175 / ISO 15156-3 : 2015 & NACE MR0103 / ISO 17945 : 2015 Columbus Stainless is ISO 9001:2008 & ISO 14001:2004 Certified. For the Declaration of Performance, please visit <http://www.columbusstainless.co.za/declaration>
 Certified by TUV Rheinland to European Directive 2014/68/EU for Pressure Equipment. Certificate no: 01 202 ZA/Q-000001

Permeability 1.1 Max
 Marking: Material Code, MPO No, Manufacturers Brand, Inspectors Stamp

COLUMBUS STAINLESS (PTY) LTD
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 Mpumalanga, South Africa

 G. van Niekerk
 WORKS EXPERT