857901-3AA

outokumpu
high performance stainless steel

Outokumpu Stainless Plate, LLC

Certificate of Analysis and Tests

****
* RE-CERTIFICATION *
****

OUR ORDER 0286182 - 01 HEAT & PIECE 857901-3AA 12/22/14

---------- YOUR ORDER & DATE ----------

P568622-423 1/16/14 TAG# 542289

---------- ITEM DESCRIPTION ----------

HEAT & PIECE 857901 - 3AA
WEIGHT 6568
FINISH 1
GRADE 316LP / 316P UNS-S31603 / UNS-S31600
DIMENSIONS 3.000 X 72.000 X 104.000 EXACT

---------- SPECIFICATIONS ----------

*** MFG IN NEW CASTLE, IN, USA
AMS 5507F WITH EXCEPTIONS
ASTM A240-14 ASME SA240-13ED
LIST HEAT/PCE/SIZE ON INVCE
NACE MR0175-2009/ISO 15156
NO WELD REPAIRS
ASTM A262-13 PRACTICE A
PRODEC QUALITY

FROM SLABS IMPORTED FROM BRITAIN
AMS 5524L WITH EXCEPTIONS
ASTM A480-14B ASMESA480 13ED
OUTOKUMPU MACH TEST LP020
NO GRIPPER MARKS

ASTM A262-13 PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1900 DEGREES FAHRENHEIT MINIMUM.
THEN WATER COOLED OR RAPIDLY COOLED BY AIR
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
HOT ROLLED, ANNEALED & PICKLED (HRAP)

---------- MECHANICAL & OTHER TESTS ----------

HARDNESS HRBW	75
GRAIN SIZE	2
YIELD STRENGTH (PSI)	39902
TENSILE STRENGTH (PSI)	75630
INTERGRANULAR CORROSION	OK
ELONGATION % IN 2"	52.0
REDUCTION OF AREA %	50.9

---------- CHEMICAL COMPOSITION ----------

CARBON	(C)	.018
MANGANESE	(MN)	1.47
PHOSPHORUS	(P)	.033
SULFUR	(S)	.022
SILICON	(SI)	.52
CHROMIUM	(CR)	16.71
NICKEL	(NI)	10.06
COBALT	(CO)	.23
COPPER	(CU)	.45
MOLY	(MO)	2.06
NITROGEN	(N)	.05
COLUMBIUM	(CB)	.012
TITANIUM	(TI)	.002
ALUMINUM	(AL)	.007
TIN	(SN)	.013
TANTALUM	(TA)	.003
PB	(PB)	.001

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE, SUPPLIED, AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL TESTS AND INSPECTIONS ARE ACCEPTABLE.

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

CERTIFICATE IN CONFORMANCE WITH EN10204-95 3.1.B/EN10204-2004 3.1

Outokumpu Stainless Plate, LLC
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