

OUTOKUMPU

Certificate of Analysis and Tests

OUR ORDER 0271201 - 02 **848624-1A** HEAT & PIECE 848624-1A 04/14/10

SOLD TO: E. M. JORGENSEN 1900 MITCHELL BLVD. SCHAUMBURG IL 60193
 SHIP TO: E. M. JORGENSEN CO 1900 MITCHELL BLVD 847-307-2325 SCHAUMBURG IL 60193

----- YOUR ORDER & DATE ----- TAG# 542277
 P292609-423 2/26/10
 ----- ITEM DESCRIPTION -----
 HEAT & PIECE 848624 - 1A
 WEIGHT 6736
 FINISH 1
 GRADE 304LP / 304P UNS-S30403 / UNS-S30400
 DIMENSIONS 3.000 X 96.000 X 80.000 EXACT

----- SPECIFICATIONS -----
 *** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM BRITAIN
 AMS 5511H WITH EXCEPTIONS AMS 5513J WITH EXCEPTIONS
 ASTM A240-09 / ASME SA240 07E09AD ASTM A480-09 / ASME SA480 07E09AD
 LIST HEAT/PC/SIZE ON INVOICE OUTOKUMPU MACH TEST LPO20
 NO GRIPPER MARKS NO WELD REPAIRS
 ASTM A262-02A PRACTICE A ASTM A262-02A PRACTICE E
 PRODEC QUALITY

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 RB 77
 GRAIN SIZE 4
 YIELD STRENGTH (PSI) 33590
 TENSILE STRENGTH (PSI) 83230
 INTERGRANULAR CORROSION OK
 ELONGATION % IN 2" 57.3
 REDUCTION OF AREA % 65.9

----- CHEMICAL COMPOSITION -----
 CARBON (C) .016
 MANGANESE (MN) 1.42
 PHOSPHORUS (P) .033
 SULFUR (S) .023
 SILICON (SI) .38
 CHROMIUM (CR) 18.20
 NICKEL (NI) 8.11
 COBALT (CO) .17
 COPPER (CU) .46
 MOLY (MO) .29
 NITROGEN (N) .07
 COLUMBIUM (CB) .017
 TITANIUM (TI) .003
 ALUMINUM (AL) .006
 TIN (SN) .016
 TANTALUM (TA) .001



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

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

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

James Doublman
 Outokumpu Stainless Plate, Inc.
 P.O. Box 370
 Castle, Indiana 47362