## Sandvik Materials Technology

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**Product Area Tube** 

MATERIAL CERTIFICATE



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Plant Location: 982 Griffin Pond Road, Clarks Summit, PA 18411 Sold To: 8442 Ship To: SWAGELOK MANUFACTURING COMPANY EDMONTON VALVE & FITTING INC INDEPENDENCE OH EDMONTON AB Customer Order No: X25744 Certification Date: 20130808 Sandvik Order No: 233590/1 55-TI-5-020-2 Work Order/Lot: 175854 ASTM A213-10a, ASTM A269-10, ASME SA213, ASME Section II 2010 Edition, 2011 Addenda Cold Finished BRIGHT ANNEALED Seamless Tube Type TP316/TP316L (UNS S31600/S31603) .063" OD X .022" ID Size: Heat: 535144 ANALYSIS % Si Mn P С S Cr Ni .019 1.57 .028 .008 17.16 .40 13.07 Heat Prod .019 .41 1.58 .030 .008 17.32 13.18 Mo Cu **A1** Pb Fe 2.53 Heat 2.56 Prod Tensile Test sample width (1=Full-Size 2=1/2" Strip): 1 Country Of Origin: Germany 100% Positive Material Identification performed All material subjected to a final solution annealing heat treatment with material at a temperature of 1900 deg. F minimum followed by rapid quenching to below 800 deg. F in less than three (3) minutes. The material has not come in contact with Mercury or Mercury containing compounds. No welding has been performed on this material. Material has been eddy current tested in accordance with ASTM A450, ASTM A1016 and is acceptable. Material has been manufactured/supplied in accordance with Sandvik Materials Technology Quality Manual-Standard Products Revision 14 dated July 30, 2013. Quality system has been approved to ISO 9001:2008. (Cert# GBG0000502,30AU13) Certificate produced in accordance with EN 10204 3.1 (formerly EN 10204 3.1.B) Melt Method: Electric Furnace This is to certify that the contents of this certificate are correct and accurate as contained in Sandvik's records, and that all above test results and operations performed are in compliance with the requirements of the purchase order and the specification(s) listed above. Electronically Generated Certificate-Valid without signature Stephen Knight, Quality Engr. 10 (SD213/269XHT R24) (10) (HV5647)