

# HT# 701143

# C200280



COGNE ACCIAI SPECIALI S.p.a.

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CAP. SOC. 100.000.000 EUR INT. VERS.  
C.F. 02187360967  
VAT: IT00571320076 - R.E.A. n. AO-50474

Company with management systems IGO  
approved and certified according to ISO 9001,  
ISO/TS 16949 e ISO 14001.

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)  
DOCUMENT NUMBER 2017046048  
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CUSTOMER: COGNE SPECIALTY STEEL USA, INC  
CUSTOMER'S ORDER: 4500278861  
MANUFACTURER'S WORKS: AOSTA, VIA PARavera 16 - ITALY  
PRODUCER OF THE DOC: QUALITY DEPARTMENT  
MANUFACTURER'S WORKS ORDER NO: 25223529 /150 MARK OF THE MANUFACTURER: **COGNE**  
DISPATCH NOTE: 81146963 /10 WEIGHT: 15,090.39

THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER

INTERNAL SPEC: AMSQSQS763  
PRODUCT: 50368 SPE ROUGHPEELED ROUND BARS TOLERANCE: + 0,0985 - 0  
SURFACE FINISH: 1X Hot Finished  
PRODUCT DELIVERY CONDITION: RS SOLUTION ANNEALED  
PRODUCT DIMENSIONS (Inch): 13.000 LENGTH (inch) 00120 /00168  
GRADE: AISI 316/316L - UNS31600/31603 INTERNAL GRADE: F316L IMCO  
IDENTIFICATION HEAT NO: 701143 IDENTIFICATION LOT NO: 219540  
MARKING OF THE PRODUCT: 316L TEST PIECE N: 954

REFERENCE NORMS: ASTM A276/276M(16), ASTM A479/A479M(16), ASTM A484/A484M(16), ASTM A193/A193M(16) B8MCL1, ASME SA276(16), ASME SA479(16), ASME SA484(16), ASME SA193(16) B8MCL1, AMS5653H, AMS5648L, AMS-QQS-763D2015, **NACE MR0175/ISO15156-3(15)**, NACE MR0103 2015, NORSOK M630 MDS S01 Rev5, EN 10272(07).

REFERENCE NORMS FOR CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES: ASTM A182/A182M(15)/ASME SA182(15), ASTM A314/A314M(15)/ASME SA320(15), ASTM A320/A320M(15A)/ASME SA320 (15) B8MCL1, EN 10222-5(2000).

AISI 316/316L UNS S31600/S31603, EN 1.4401/1.4404.

SOLUTION TREATED AT 1050°C / 1 min x mm / WATER.

STEELMAKING EAF + AOD

MACROSTRUCTURE CONFORMING TO THE SPEC. ASTM E340.

QTC ON PROLONGATION OF BARS TESTS AT MID RADIUS (CENTER POS. FOR SIZES <2 INCHES).

HOT FORGED

REDUCTION RATIO 5.0  
INITIAL STATUS 0.0

CHEM. COMP. (%W/W) - LADLE ANALYSIS ACCORDING TO ASTM E1019-A751-E1086-E415-A580

Control lot No. - Weight	:020000690708	-	80,689	KG									
ELEMENTS OBTAINED	C	Si	Mn	P	S	N	Cr	Mo	Ni	Cu			
ELEMENTS OBTAINED	0.018	0.40	1.82	0.024	0.026	0.076	16.73	2.07	10.11	0.42			
ELEMENTS OBTAINED	Co												
ELEMENTS OBTAINED	0.11												

HARDNESS TEST IN AS DELIVERY CONDITION

Control lot No. - Weight	:020000691128	-	10,990	KG								
SPECIFICATION OBTAINED	169	ASTMA370-E10	HARDNESS TEST	HB	TESTING METHOD:	10/3000						

IMPACT TEST IN AS DELIVERY CONDITION

Control lot No. - Weight	:020000691128	-	10,990	KG								
SPECIFICATION OBTAINED	107	EN ISO 148-1-KV2	DIRECTION OF THE TEST PIECE:	T								
TYPE OF TEST PIECE		KV										
TEST TEMPERATURE °C		196-										
MEASUREMENT UNIT		J										
ELEMENTS OBTAINED	107	106	100									

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TENSILE TEST IN AS DELIVERY CONDITION

Control lot No. - Weight :020000691128 - 10,990 KG  
SPECIFICATION EN-ISO6892-1

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	Rm MPA	Rp02% MPA	A %	Z %	Rp1% MPA
OBTAINED	567	290	5.0 D 54.2	55.2	317

GRAIN SIZE

Control lot No. - Weight :020000691128 - 10,990 KG  
SPECIFICATION ASTME112 --  
OBTAINED 3 5

HEAT TREATMENT PERFORMED IN CALIBRATED FURNACES ACCORDING TO INTERNAL PROCEDURE PR-GDQ. ITT COMPLYING WITH API6A Annex M.  
CORROSION TEST ACCORDING TO ASTM A262 Practice E EN ISO 3651-2 (NO SIGNS OF FISSURES OR CRACKS AT 20X MAGNIFICATION): SATISFACTORY.  
SURFACE CONTROL BY VISUAL INSPECTION: CONFORMING.  
DIMENSIONAL CONTROL ACCORDING TO ASTM A484: CONFORMING.  
ULTRASONIC TEST ACCORDING TO EN 10308 Class.3, equivalent to  
ASTM A388 FBH5 (for sizez <=250 mm) and FBH8 (sizez >250 mm): SATISFACTORY.  
ANTIMIX TEST: SATISFACTORY.

TENSILE TEST

Control lot No. - Weight :020000691128 - 10,990 KG  
SPECIFICATION ASTMA370-E8-0.5"SPEC

DIRECTION OF THE TEST PIECE: T

MEASUREMENT UNIT	UTS KSI	YS KSI	RA %	EL %
OBTAINED	82	41	57.1	4,0 D 55.1

NO WELDING REPAIR ON THE MATERIAL.

MARKING: PRODUCER LOGO, MATERIAL NO, HEAT NO, LOT NR.

THE PRODUCT SATISFIES CE DIRECTIVES: 2011/65 (ROHS2) - 2000/53 - 2002/95 (RoHS) - 2003/11 - 2005/618 AND PED 2014/68/EU.

THE MATERIAL IS FREE OF ANY MERCURY, MERCURY COMPOUNDS AND OR RADIUM CONTAMINATION AT TIME OF SHIPMENT AND WAS PRODUCED WITHOUT USING OZONE DEPLETING SUBSTANCES OF CLASS I AND II.

THE ABOVE ARE TRUE AND CORRECT RESULTS OF TESTS ON SAMPLES OF THE MATERIAL. RESULTS ARE CONFORM TO THE SPECIFICATION(S) APPLICABLE AND ARE RECORDED.

THE RECORDING OF FALSE, FICTIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER U.S. FEDERAL STATUTES.

ALL THE NORMS MENTIONED ARE INTENDED IN THEIR LAST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.

COUNTRY OF ORIGIN: ITALY, THE MATERIAL COMPLIES WITH FAR DFARS

252.225-7009 ALT 1.