



FLOW TECHNOLOGY LTD
 TEST CERTIFICATE
 VERIFIED TRUE
 COPY OF ORIGINAL

INSPECTION CERTIFICATE 3.1 (EN 10204:2004)
 DOCUMENT NUMBER 2017028235
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CUSTOMER'S ORDER: COGNIE U.K. LIMITED
 P1-34339
 MANUFACTURER'S WORKS: AOSTRA, VIA PARAVERA 16 - ITALY
 PRODUCER OF THE DOC: QUALITY DEPARTMENT
 MANUFACTURER'S WORKS ORDER NO: 25223390 / 40 MARK OF THE MANUFACTURER: COGNIE
 THE CERTIFIED PRODUCTS ARE COMPLYING TO THE PURCHASE ORDER

INTERNAL SPEC: AD2000ERKHA1ATW10 TECHNICAL RULE: AD2000
 PRODUCT: PEEL PEELD ROUND BARS TOLERANCE: ISOH10
 SURFACE FINISH: 2B Cold Finished
 PRODUCT DELIVERY CONDITION: RS SOLUTION ANNEALED
 PRODUCT DIMENSIONS (mm): 32,000
 GRADE: AISI 316/316L EN1.4401/4404 LENGTH (mm)
 IDENTIFICATION HEAT NO: 772410 INTERNAL GRADE: F316L IMCO
 MARKING OF THE PRODUCT: 1.4404 IDENTIFICATION LOT NO: 063660
 TEST PIECE N: 366

MATERIAL CONFORM TO SPECIFICATION NOROK M630 MDS S01 REV.5
 HOT ROLLED
 REDUCTION RATIO 29,1

CHEM. COME. (%W/W) - LADLE ANALYSIS ACCORDING TO ASTM E1019-A751-E1086-B415-A580
 Control lot No. - Weight : 020000681614
 ELEMENTS OBTAINED
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C	0,020	0,34	84.703	KG	P	0,028	S	0,025	N	0,075	Cr	16,90	MO	2,03	NI	10,09	Cu	0,40
CO	0,15																	

HARDNESS TEST IN AS DELIVERY CONDITION
 Control lot No. - Weight : 020000681851
 SPECIFICATION OBTAINED 182 ENISO6506 1.500 KG HARDNESS TEST HB TESTING METHOD: 10/3000

IMPACT TEST IN AS DELIVERY CONDITION
 Control lot No. - Weight : 020000681851
 SPECIFICATION OBTAINED
 TYPE OF TEST PIECE EN ISO 148-1-KV2 1.500 KG DIRECTION OF THE TEST PIECE: L
 TEST TEMPERATURE °C KV 20
 MEASUREMENT UNIT J 280 289 280 282 286 290 286 286 289

F14485
 3/8" NPT MALE X 3/8" BSP SWIV FEM 90 BLOCK ELBOW 10K 316L



COGNIE ACCIAI SPECIALI S.p.A.
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 C.A.P. SOC. 100.000.000 EUR INT. VERS.
 C.F. 02187380987
 VAT: 1100571320076 - R.E.A. n. AO-50474

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

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F14485
 3/8" NPT MALE X 3/8" BSP SWIV FEM 90 BLOCK ELBOW 10K 316L

TENSILE TEST IN AS DELIVERY CONDITION
 Control lot No. - Weight :020000681851
 SPECIFICATION

EN-ISO6892-1 1.500 KG

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	RM	RP02	AS	Z	RP1
OBTAINED	MPA	MPA	5.0 D %	%	NMM
	613	285	59,0	78,2	325
	621	292	56,7	78,0	337
	623	290	57,8	78,8	335

GRAIN SIZE
 Control lot No. - Weight :020000681851 -
 SPECIFICATION 5 7 ASTME112 -- 1.500 KG

REFERENCE NORMS: EN 10088-3, EN 10272, ASME II-SA479-15, ASME
 II-SA484-15, ISO15156-3 NACE MR0175, NACE MR0103.
 MATERIAL ACCORDING TO ASME SEC. II Ed. 2015

IMPACT TEST
 Control lot No. - Weight :020000681851 -
 SPECIFICATION EN ISO 148-1 1.500 KG
 TYPE OF TEST PIECE KV 196-
 TEST TEMPERATURE °C J
 MEASUREMENT UNIT 175 187 191 196 186 188 176 187 170
 OBTAINED

DIRECTION OF THE TEST PIECE: L

TENSILE TEST
 Control lot No. - Weight :020000681851 -
 SPECIFICATION ASTM A370-E8-0.5" SPEC 1.500 KG

DIRECTION OF THE TEST PIECE: L

MEASUREMENT UNIT	RMB	RP02B	ZB	AI2B
OBTAINED	KSI	KSI	%	%
	90	42	76,1	4,0 D
	89	41	78,3	61,1
	88	40	77,5	62,4
				59,6

COUNTRY OF ORIGIN: ITALY, THE MATERIAL COMPLIES WITH FAR DFARS
 252.225-7009 ALT 1.
 The products delivered are conforming to EN10088-5 and bear the CE marking on the basis of the test results here reported and the
 continuous surveillance, assessment and approval by MPA NRW
 (certificate no. 0432-CPR-00166-01)
 Material produced according to the system #Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011#
 DOCUMENT ISSUED IN AGREEMENT WITH TÜV BAYERN(11.1972) WAVING OF COUNTERSIGNING (SEE TÜV BAYERN LETTER DATED 17.01.80).
 MARKING: SYMBOL OF THE MANUF. WORK, MATERIAL N., LOT N., RECEIVING AGENT STAMP
 CORROSION TEST ACCORDING TO ASTM A262 Practice E EN ISO 3651-2: SATISFACTORY.
 ANTIMIXING TEST BY PORTABLE SPECTROMETRE: CONFORMING



EDDY CURRENT INSPECTION OF SURFACE ACCORDING TO EN 10277-1 CLASS 4.
DIMENSIONAL CONTROL ACCORDING TO EN 10278: SATISFACTORY.
NO WELDING REPAIR ON THE MATERIAL.
ULTRASONIC TEST ACCORDING TO EN 10308 Class.3
REFERENCE NORMS: EN10088-3, EN10272, ASTM A276, ASTM A479, ASME SA479, ASTM A193 B8 CLASS 1D, AMS 5647, AMS 5639, ISO15156-3 NACE
MR0175, NACE MR0103.
REFERENCE NORMS FOR CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES: ASTM A182, ASME SA182.
REFERENCE NORMS FOR CHEMICAL COMPOSITION ONLY: EN10222-5, ASTM A484, ASTM A403, ASTM A314, AMS-QQ-S-763.
INSPECTOR'S STAMP LF
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 MATERIAL IS PRODUCED ACCORDING TO SPECIFICATION AD2000-MERBLATT W2/W10
ALL THE NORMS MENTIONED ARE INTENDED IN THEIR LATEST REVISION AT THE DATE OF ISSUE OF THIS DOCUMENT.
ASTM A484 DOES NOT APPLY FOR SIZE AND LENGTH TOLERANCES.

CE 0432

F14485
3/8" NPT MALE X 3/8" BSP SWIV FEM 90 BLOCK ELBOW 10K 316L