



R & M Forge & Fittings
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 www.rmforge.com

MATERIAL TEST REPORT

Date: 03/05/2021

Customer:	PO# 2021-1221	Line Item: 1	R&M S/O#: 44929
	DESCRIPTION: ROUGH MACHINED 1/4" ALLOWANCE – 250 RMS 19.0" OD X 5.50" THK		
	TAG: JOB# 1605, 1606, 1607		
	HEAT NUMBER: 67006		QTY. Shipped: 2 PCS.
Spec: ASME SA182 F51 (S31803)	2019 EDITION / LATEST ADDENDA		Mill: ITALFOND (ITALY)

	C	MN	P	S	SI	NI	CR	MO	CU	V	CB/NB
LADLE	.02	1.51	.024	.0006	.37	5.63	22.08	3.07			
PRODUCT											
	N	AL	CE	FE	TI	W	SB	SN	AS	CB+TA	J-FACTOR
LADLE	.191										
PRODUCT											

Mechanical Properties	
YIELD (PSI) 0.2% OFFSET	66,500
TENSILE (PSI)	102,400
ELONG. (%) 2"	45.0
R/A (%)	80.0
HARDNESS	255-253
CVN (FT/LBS)	203-190-200
AVG.	197.667
LAT. EXP.	.100-.090-.092
SHEAR (%)	100-100-100
CVN TEMP.	-40F

Heat Treatment
SOLUTION ANNEALED @ 1922F FOR 5 HOURS / WATER QUENCHED

Requirements & Other Results
EAF AOD
PER NACE MR0175
CVN @ -40F PER UHA-51
.015 MIN LATERAL EXPANSION
PER EN 10204 3.1
FERRITE CONTENT: 58%

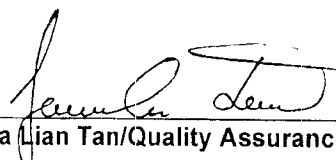
COMMENTS:

THIS PRODUCT HAS NOT COME IN CONTACT WITH MERCURY OR MERCURY COMPOUNDS. NO WELDING PERFORMED.

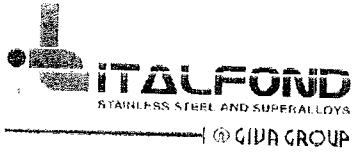
CERTIFICATION OF CONFORMANCE

THIS IS TO CERTIFY THAT THE ITEMS DESCRIBED ON THIS DOCUMENT ARE IN FULL CONFORMANCE WITH ALL REQUIREMENTS OF YOUR PURCHASE ORDER AND MATERIAL SPECIFICATIONS.

We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.
 This 5th day of March 2021


 Janela Lian Tan/Quality Assurance

ANS



Tel. (39).(030).6829911

Fax. (39).(030).6820616

Via Industriale, 1 - 25021 BAGNOLO MELLA (BS) ITALY

CERTIFICATE OF QUALITY AND MATERIAL TESTING

ULTRASONIC TEST

INSPECTION CERTIFICATE N.

UT/ **3293**

DATE : 04/11/2020

according to EN 10204.3.1

FIRM :

ORDER :

ORDER CONFIRMATION: **209229**

HEAT	N. of PCS	MATERIAL DESCRIPTION	MATERIAL GRADE
67006	3	FORGED ROUND GROUND BARS Ø16"	F51/F60

H.T. CONDITION :

ULTRASONIC TEST REPORT

EQUIPMENT	:	KRAUTKRAMER USM 36
CALIBRATION METHOD	:	BACK WALL ECHO
COUPLANT	:	GEL
KIND OF PROBE	:	B2S
SURFACE CONDITION	:	Ground
TESTING PROCEDURE	:	ASTM A388
ACCEPTANCE CRITERIA	:	ASME VIII Div.2 Par. 3.3.4
RESULT	:	No recordable indications found

SURVEYORS	CUSTOMER INSPECTION	ITALFOND S.p.A. NDE Inspector
		ISO 9712 - UT PT Lev. 2 SNT-TC 1A - UT PT Lev. II STEFANO TEOLODI