



MUSSARI S.r.l.

Traffleria tubi inox di alta precisione
Via Repubblica 11/B - Tel 031/390677 - 031/492476
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22075 LUPATE CACCIVIO/COMO (ITALY)
web-site: www.mussari.com

TEST CERTIFICATE ACCORDING TO

EN 10204 / 3.1

ABNAMMEPRUFZEUGNIS

CERTIFICAT DESSAIS

CERTIFICATO DI COLLAUDO

Comm. Nr. 1877/14 - 640/15**

DELIVERY BILL - Lieferchein/Bulletin de Livraison/Bolla di consegna

N.

818 - 2015

DATE - Datum/Date

10 marzo 2015

574

CUSTOMER ORDER N° - Bestellung/Commande Client/Ordine Cliente

2015038

MECHANICAL TEST

ASTM A 213/269 - MSR-HP Tubes

MECHANISCHE PRÜFUNGEN/ESSAI Mécaniques/Caratteristiche meccaniche

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STEEEL GRADE	DIMENSIONS	QUANTITY	YIELD POINT		TENSILE STRENGTH		ELONGATION		HARDNESS	
			Struck-Dominanz Limite di snervamento	Limite di snervamento	Zugfestigkeit Resistenza a trazione	Limite di rottura	Bruchdehnung Allungamento	% LO2"	Haarte Durezza	HRB

Materialie	Abmessungen Dimensioni/Dimensioni	Menge/Quantità/Quantità	Rp0.2%		Rm		A		HRC	
			req.	result	req.	result	req.	result	req.	result

TP 316 - 316L	3/8" x 0.125" 9.52 x 3.10	301,87	≥ 689	700.0 715.0	≥ 758	899.0 902.0	≥ 18%	19.0 18.0	≥ 95	95.0 97.0
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FLARING TEST:	FLANGE TEST:	FLATTENING TEST:	BENDING REV TEST:	RING FLATTENING TEST:	DRIFT EXPANDING TEST:
Erweiterversuch/Élargissement/Allungamento	Kemperversuch/Bordgeborndura	Flattening	Bending	Ring flattening	Drift expanding
=	=	=	=	=	=

STEEEL GRADE	DIMENSIONS	HEAT N°	%C	%Mn	%SI	%P	%S	%Ni	%Cr	%Mo	%Ti	REMARKS

TP 316 - 316L	3/8" x 0.125" 9.52 x 3.10	131/037	0.029	1.800	0.430	0.037	0.004	11.050	16.820	2.080	0.058	Remarks Tubi senza saldatura trattati a freddo CRUDI decappati. Tubes sans soudure traités à froid Ecoui decapés - Tubi senza saldatura trattati a freddo CRUDI decappati.
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HEAT TREATMENT:	PMT TEST on each tube:	Intergranular corrosion test acc. To A262/Pract. E
Wärmebehandlung/Treatmenti Termici/Trattamento termico	Verwechlungsprüfung/Essai P.M.T./Prova sul nucleolare	Essai de corrosion intergranulaire/Prüfung des Korrosionsintergranular
N.A.	=	=

100% hydrostatic pressure tested at	100% eddy current test acc. to A1076-NFA 49872-SEP 1914-ASTM A450/E426-EN 10993-1-EN 10893-2-EN10246-2 :GOOD
Wasserdruckversuch/Essai Hydraulique/Prova idraulica	100% eddy current test acc. to A1076-NFA 49872-SEP 1914-ASTM A450/E426-EN 10993-1-EN 10893-2-EN10246-2 :GOOD

Visual and Dimensional control :	Straightness control
Beschulung und Ausmessung/Contrôle Visuel et Dimensionnel/Controlo Visivo e Dimensionale	General Control/Contrôle de rectitude/Controlo rettilineità
OK	=

MARKING-Kennzeichnung/Marcatura/Marcatura
MSR - ASTM A213/269 - AS1 316-316L Heat N°... SMLS MSR-HP Tubes Size 3/8" x 0.125" O.D. ... x ... mm LB. C.D. Tubes SMLS For 60,000 PSI

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TEST CERTIFICATE
VERIFIED TRUE
COPY OF ORIGINAL

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INSPECTOR'S DEPARTMENT SIGNATURE
Mussari S.r.l.

F13337
3/8" HP NIPPLE 4" LONG 60K 316L