



**MUSSARI S.r.l.**

Traffleria tubi inox di alta precisione  
Via Repubblica 11/B - Tel 031/390677 - 031/492476  
Fax 031/390010

22075 LURATE CACCIUOLO (ITALY)  
web-site: www.mussari.com

EN 10204 / 3.1

ABNAHMEPRUFZEUGNIS  
CERTIFICAT DESSAIS

CERTIFICATO DI COLLAUDO

Comm. Nr. - Lot. Nr.  
1365/16 - 3263/16

DELIVERY BILL - Lieferschein/Bulletin de Livraison/Bolla di consegna  
2769

N. 3604 - 2016

DATE - Datum/Date

19 dicembre 2016

CUSTOMER ORDER N° - Bestellung/Commande Client/Ordine Cliente  
2016220

**MECHANICAL TEST**

ASTM A 213/269 - SMLS MSR-HP Tubes

STEEEL GRADE	DIMENSIONS	QUANTITY	YIELD POINT		TENSILE STRENGTH		ELONGATION		HARDNESS	
			MPa	ksi	MPa	ksi	%	MPa	ksi	HRB
TP 316 - 316L	6.35 x 2.10 1/4" x 0.083"	300.00	Req.	Result	Req.	Result	Req.	Result	Req.	Result
			≥ 689	783.0	≥ 758	922.5	≥ 18%	19.0	≥ 95	101.7
				780.3		911.0		20.0		100.0
				785.8		916.4		20.0		100.9
				762.1		904.0		20.0		99.8

TECHNOLOGICAL TEST		REMARKS
FLARING TEST:	FLANGE TEST:	
Flangeurversuch/Esperimento/Alargamento	Flangeversuch/Esperimento/Alargamento	Bemerkungen/Notes/Note smls tubes cold drawn HARD pickled Ecou décapés - Tubi senza saldatura trifilati a freddo CRUDI decapati nantioses rohr kalt gezogen HART gebeizt - Tubes sans soudure tirées à froid Suitable for 60.000 Psi HEAT TREATMENT: N.A. Wärmebehandlung/Treatment/Terriquetramento termico PM TEST on each tube: GOOD Verwechlungsprüfungen P.M.I./Prova anti mescolanze Intergranular Corrosion test acc. To A262/pract E = Korrosionslösende Rückstände/Vessai /residues corrosifs/Prova residui corrosivi =
Flangeurversuch/Esperimento/Alargamento	Flangeversuch/Esperimento/Alargamento	
Flangeurversuch/Esperimento/Alargamento	Flangeversuch/Esperimento/Alargamento	
Flangeurversuch/Esperimento/Alargamento	Flangeversuch/Esperimento/Alargamento	
Flangeurversuch/Esperimento/Alargamento	Flangeversuch/Esperimento/Alargamento	

100% hydrostatic pressure tested at **During 5 sec :**  
Wasserdruckversuch/Essai Hydraulique/Prova idraulica  
100% eddy current test acc.to A1076-NFA 49872-SEP 1914-ASTM A450/E426-EN 10893-1-EN 10893-2-EN10246-2 :GOOD  
Eddy current/Courant de Foucault/Eddy Current

Visual and Dimensional control : **OK**  
Beschichtigung und Ausmessung/Controlo Visuale e Dimensionale  
MARKING-Kennzeichnung/Marquage/Marcatura

MSR - AISI 316-316L - ASTM A213/269 MSR-HP Tubes Heat. Nr. A03020 - Tubes Size 1/4x0.083" O.D. ....mm I.D. C.D. Tubes Suit. For 60.000 Psi

F13351 - 1/4" HIGH PRESSURE NIPPLE 70mm LONG 60K 316L



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INSPECTION DEPARTMENT SIGNATURE:  
Via de l'inspecteur  
Via de l'inspecteur  
**MUSSARI S.r.l.**