



METALFAR
PRODOTTI INDUSTRIALI S.P.A.

STAMPAGGIO A CALDO DI ACCIAI COMUNI - LEGATI E INOSSIDABILI

SEDE AMMINISTRATIVA E STABILIMENTO:
23861 CESANA BRIANZA (LC) - Italy
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Fax +39 031.655149
quality.mff@farmas.com

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= ISO 9001 =

SALA PROVE E ANALISI MATERIALI / MATERIAL TEST DEPARTMENT

CERTIFICATO DI COLLAUDO SECONDO EN 10204 - 3.1 INSPECTION CERTIFICATE

Certif. N. 1566 DDT / Del Note N. 1289	Dei/Dated 22.03.2014 Dei/Dated 21.03.2014	Fattura / Invoice N. 1138 Ns.Ord. / Our ref. N. 0	Dei/Dated 21.03.2014 Dei/Dated
DNOV CANADA ULC. 1800, 635 - 8TH Avenue S.W. T2P 3M3 CALGARY, ALBERTA CA		Dest.: DNOV Canada ULC. 2603 - 76 Avenue T6P 1P6 EDMONTON ALBERTA CA	

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COD. COL.	COLATA	POS.	VS.ORDINE											DIM.IN ACC. A						
HEAT CODE	HEAT	ITEM	YOUR REFERENCE	Q.TA'	DESCRIZIONE										DIM. ACCORDANCE TO					
	9171/14	028	3220811-OR-2100	395,00	W/N 150 RF 3" STD A105N										ASME/ANSI B16.5 - 2013					
MATERIALE / MATERIAL				C%	Si%	Mn%	S%	P%	Cr%	Ni%	Mo%	Ti%	Cu%	V%	Nb%	N%	Al%	C.E.%	B%	
ASTM A105 (LADLE)				0,190	0,190	0,990	0,001	0,005	0,080	0,120	0,079	0,016	0,110	0,004	0,002	0,008	0,025	0,403	0,000	

MATERIALE / MATERIAL
ASTM A105 (LADLE)

PROVETTA / TEST SPECIMEN
SEZ. mm2 LUNG. mm
SECT. mm2 LENGTH mm
126,60 50,80

FORMA
SHAPE
1-O 2-□

SNERVAMENTO
YIELD POINT
N/mm2 >=0,2%

ROTTURA
TENSILE STRENGTH
N/mm2 >=

ALLUNGAMENTO
ELONGATION
%>=

CONTRAZIONE
REDUCTION OF AREA
%>=

DUREZZA
HARDNESS
HBW

RESILIENZA / IMPACT TEST - JOULE/cm2
TIPO / TYPE 10x10mm °C

SNERVAMENTO
YIELD POINT
N/mm2 >=1,0%

Ns. Ref.
OUR REF.

MATERIALE IN ACCORDO A / MATERIAL IN ACC. TO
ASTM/ASME A 105/SA 105 M - 13 ASME CODE SECT. II, PART A, ED. 2013
NACE MR-0175/2009 ISO 15156 - SOUR SERVICE
NACE MR-0103/2012 - SOUR SERVICE
Q.A.S. IN ACCORD. WITH PRESS. EQUIPM. DIRECT. 97/23/EC (PED) ANNEX
I, PARAGRAPH 4.3 CERT. MLN 0531016/01
CSA CAN3 Z245.12-09 GRADE 290 CAT. I SOUR SERVICE

TRATTAMENTO TERMICO / HEAT TREATMENT
NORMALIZED AT 920 C - COOLED IN STILL AIR

FORNO / FURNACE
ELECTRIC FURNACE

ORIGINE / ORIGIN OF STEEL
EUROPEAN UNION

VISIVO E DIMENS.
VIS. & DIMENS.
SATISFACTORY

COD. COL.	COLATA	POS.	VS.ORDINE											DIM.IN ACC. A					
HEAT CODE	HEAT	ITEM	YOUR REFERENCE	Q.TA'	Q.TY	DESCRIZIONE										DIM. ACCORDANCE TO			
14/30949			143	3323839-OR-2100	100,00	W/N 600 RF 4" STD A105N										ASME/ANSI B16.5 - 2013			
MATERIALE / MATERIAL				C%	Si%	Mn%	S%	P%	Cr%	Ni%	Mo%	Ti%	Cu%	V%	Nb%	N%	Al%	C.E.%	B %
ASTM A105 (LADLE)				0.180	0.210	0.970	0.008	0.008	0.080	0.050	0.010	0.020	0.120	0.002	0.001	0.009	0.028	0.371	0.000

MATERIALE / MATERIAL
ASTM A105 (LADLE)

PROVETTA / TEST SPECIMEN
SEZ. mm2 LUNG. mm
SECT. mm2 LENGTH mm
126,60 50,80

FORMA
SHAPE
1-O 2-□

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YIELD POINT
N/mm2 >=0,2%

ROTTURA
TENSILE STRENGTH
N/mm2 >=

ALLUNGAMENTO
ELONGATION
%>=

CONTRAZIONE
REDUCTION OF AREA
%>=

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HARDNESS
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RESILIENZA / IMPACT TEST - JOULE/cm2
TIPO / TYPE 10x10mm °C

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N/mm2 >=1,0%

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FORNO / FURNACE
ELECTRIC FURNACE

ORIGINE / ORIGIN OF STEEL
EUROPEAN UNION

VISIVO E DIMENS.
VIS. & DIMENS.
SATISFACTORY

NOTE 100% MANUFACTURED IN ITALY
NOTES MANUFACTURING IN ACCORDANCE WITH ORDER AND SPECIFICATION
MATERIAL FULLY KILLED STEEL AND FINE GRAIN PRACTICED

UFFICIO CONTROLLO QUALITA'
QUALITY CONTROL DEPARTEMENT

ENTE UFFICIALE DI COLLAUDO
INSPECTION AUTHORITY

MARCHIO PRODUZIONE
MANUFACTURER'S SYMBOL

[Signature]

