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CERTIFICATO PROVE MATERIALI

Test certificate/Certificate d'épreuves/Werksabnahmezeugnis
EN 10204 3.1

M10_04 REV 01 DEL 30/05/2000

CLIENTE/Customer/Client/Kunde

SAMIC S.P.A.

VIA VITTORIO VENETO 124
21050 LONATE CEPPINO (VA)

N. CERTIFICATO Certificate number	43	DATA Date/Date/Datum	11/01/2017	PAG.	2
ORDINE CLIENTE Your order/Votre commande Bestellung	15090ORD171R0	DATA/Date/Date/Datum	01/12/2016		
N°. DDT	44	NS. RIF.COMMESSA	161338		

MATERIALE ASTM/ASME A/SA 105/105N

COLATA/Heat/Coulée/Schmelze **4597** CERTIFICATO/Certificate of origin **OLIFER ACP** QTA/Quantity **PZ 6** DESCRIZIONE/Description/Description/Gegenstand **BLIND RF 150 2" B16.5 A/SA105N**

ANALISI CHIMICA / Chemical analysis / Analyse chimique / Chemische Zusammensetzung														CARATTERISTICHE MECCANICHE / Mechanical test / Epreuves mecaniques / Mechanische eigenscharfte																				
Carbon C %	Silicium Si %	Manganese Mn %	Nickel Ni %	Chromium Cr %	Sulfur S %	Phosphorus P %	Molybd Mo %	Cooper Cu %	Titanium Ti %	Vanadium V %	Aluminium Al %	Niobium Nb %	Nitrogen N %	C.Eq	SNERVAMENTO Yield point/Limita elastica Streckgrenze	ROTTURA Tensile strength Rupture/Zugfestigkeit	All. % Elongation Allongement/Zehung	CONTRAZIONE Eshrinkage Reduction of area/Querschnitt	RESILIENZA Impact test Resilience/Kerbschlagzähigkeit	JOULE	DUREZZA Hardness Dureté Harte HB	TRAT. TERMICO Heat Treat Trait. Therm./Wärmebehandl												
															Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	1	2	3	Media	%C	Tipo Kv		①	②	③	④	
															N/mm ²		N/mm ²													B	A	X	X	
0,187	0,200	1,050	0,150	0,110	0,0050	0,0080	0,050	0,150	0,002	0,002	0,023	0,003	0,008	0,36 * 0,41		324		522		30,30		54,20	50	57	62	56	20	x	161-165	920°C				

NOTE Sn=0.006

COLATA/Heat/Coulée/Schmelze **5982** CERTIFICATO/Certificate of origin **OLIFER ACP** QTA/Quantity **PZ 38** DESCRIZIONE/Description/Description/Gegenstand **BLIND RF 300 2" B16.5 A/SA105N**

ANALISI CHIMICA / Chemical analysis / Analyse chimique / Chemische Zusammensetzung														CARATTERISTICHE MECCANICHE / Mechanical test / Epreuves mecaniques / Mechanische eigenschaft																
Carbon C %	Silicium Si %	Manganese Mn %	Nickel Ni %	Chromium Cr %	Sulfur S %	Posphorus P %	Molybd Mo %	Cooper Cu %	Titanium Ti %	Vanadium V %	Aluminium Al %	Niobium Nb %	Nitrogen N %	C.Eq	SNERVAMENTO Yield point/Limita elastica Streckgrenze	ROTTURA Tensile strength Rupture/Zugfestigkeit	All. % Elongation Allongement/Zehung	CONTRAZIONE Shrinkage Reduction of area/Querschnitt	RESILIENZA Impact test Resilience/Kerbschlagzähigkeit	JOULE	DUREZZA Hardness Dureté Harte	TRAT. TERMICO Heat Treat Trait. Therm./Wärmebehandlung								
Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	C.Eq	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	Richiesto Required	Ottenuto Result	1	2	3	Media	%C	Tipo Kv	154-155	900°C		
0,166	0,220	1,160	0,150	0,110	0,0100	0,0050	0,050	0,180	0,000	0,001	0,030	0,001	0,007	0,36 0,41		367		516		39,00		71,27	186	170	162	172	0	x	154-155	900°C

NOTE Sn=0.010

- ① PRODUZIONE ACCIAIO-
Steel production
Production acier
Stahl produktion
- ② TRATT. TERMICO
Heat treatment
Traitement thermique
Wärmebehandlung
- A - CALMATO ELABORATO AL FORNO ELETTRICO / Killed steel made by electric furnace /
Acier calmé produit au four électrique / Beruhigt stahl ausgearbeitet im elektrofen
B - ELABORATO AL FORNO ELETTRICO / Made by electric furnace /
Produit au four électrique / Ausgearbeitet im elektrofen
- A - NORMALIZZATO / Normalized / Normalisé / Normalgeglüht
RAFFREDDATO IN ARIA CALMA / Colled in still air
B - NORMALIZZATO E RINVENUTO / Normalized and tempered / Normalisé et revenu / Normalisiert, angelasst
C - BONIFICATO / Quenched and tempered / Bonifié / Harten un anlassen
D - SOLUBILIZZATO / Solution anneal / Solubilisé / Lösungsgelüht / Treated and quenched in water

- ③ CERTIFICATO SECONDO ASME SA II
Certificate to ASME SA II
Certificat selon ASME SA II
Zeugnis nach ASME SA II

$$*C.Eq.= \frac{C + Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Cu+Ni}{15}$$

$$C.Eq.= \frac{C + Mn}{6}$$

- ④ CERTIFICATO SECONDO DIN 50049 3.1 / Certificate to Din 50049 3.1 / Certificate selon DIN 50049 3.1 / Waz nach DIN 50049 3.1
CONTROLLO VISIVO E DIMENSIONALE SODDISFACENTE / Satisfactory visual and dimension check / Inspection et controle dimensionnel satisfasant / Besichtigung und masskontrolle bestanden
I VALORI DELLE ANALISI CHIMICHE SONO RICAVALI DAL CERTIFICATO DI FERRIERA / Chemical analysis values are taken from mill certificate / Le valeur du certificat ont été obtenus par le certificat d'usine / Die werte des zeugnisses sind vom original werksabnahmezeugnis erhalten

CAPO COLLAUDO
Chief inspection dpt/Chef de la reception/Chef der abnahmeabteilung

NOTE MATERIAL ACCORDING TO ASME II PART. A ED 2015 AND PED 2014/68/UE
MATERIAL ACCORDING TO NACE MR 01.75/15 - ISO 15156 AND NACE MR 01.03/12

ENTE UFFICIALE DI COLLAUDO
Inspection authority/Service inspection/Official Abnahme verein

memit forniture industriali s.r.l.