

(A04) MATERIAL TEST CERTIFICATE

(A03) Cert.N°: 1665

Pag. : 1

(Z02) Date : 17/04/2013

Ddt N°: AB1 / 1043

☐ UNI/EN 10204:2004 2.2 - EN 10168:2004☒ UNI/EN 10204:2004 3.1 - EN 10168:2004☐ UNI/EN 10204:2004 3.2 - EN 10168:2004Azienda con sistema di gestione certificato da IGQ secondo UNI EN ISO 9001
IGQ system quality certified company according to UNI EN ISO 9001

(A06) CUSTOMER/CONSIGNEE :	SAMIC S.P.A.	(A08) Job N°	962
(A07) PURCHASE ORDER :	VS. ORDINE 11090ORDA75R0 DEL 08/04/2013	(B02) Steel Designation	A/SA105

Item	(B08) Q.ty	(A09/B01,- B09-B11) Description Material - Product	(B07) Heat No	Supplier
9	10,00	FLG BL 150 RF 3/4" SA105	71323	17031-RIVA

CHEMICAL ANALYSIS % (C11 - C52)

(B07) Heat N.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Cu %	V %	Nb %	Al %	Ceq.			(C01)
71323	0,180	1,150	0,190	0,014	0,020	0,130	0,060	0,010	0,160	0,023	0,002	0,027	0,420			L

(B07) Heat N.	(C01) Loc.	(C02) Direc.	(C10) Shape mm	(C03) Temp. °C	(C11) Yield Stress N/mm ²	(C12) Tensile strength N/mm ²	(C13) Elongation on 2"	(C14) Red. of Area %	(C30-C31) Hardness HB	(C01) Loc.	(C02) Direc.	Impact Test (J) (C49) 10x10 mm				(C03) Temp. °C	(B05) Heat Treatment
												(C42) Obtained		(C43) Mean			
71323				20	279,7	514,5	27,0	50,4	152,156			61	55	66	61	20	N

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched & Tempered	S=Soluzion Annealed	
(C01) Location :	F=Full Thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 Thk.	L=Ladle analysis	P=Product analysis
(C02) Direction :	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential		

NOTE:

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- Material according to NACE MR01-75
- Material according to ASTM Ed.2012
- Material according to ASME II Part.A Ed.2010 + Add.2011
- Material normalized at 920 °C
- The material are in compliance with the specification and order
- Where not indicate content of V & Nb less than 0.001%

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI S.r.l.		
Massimo Gambi		

(A06) CUSTOMER/CONSIGNEE :	SAMIC S.P.A.	(A08) Job N°	962
(A07) PURCHASE ORDER :	VS. ORDINE 11090ORDA75R0 DEL 08/04/2013	(B02) Steel Designation	A/SA182 F316L

Item	(B08) Q.ty	(A09/B01,- B09-B11) Description Material - Product	(B07) Heat No	Supplier
12	2,00	FLG WN 150 RF 1/2" 160 SA182 F316L	128302	12107-UGITECH

CHEMICAL ANALYSIS % (C11 - C52)															(C01)
(B07) Heat N.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Cu %	N2 %	Tr %	Al %	Ceq.		
128302	0,010	1,332	0,502	0,024	0,025	16,560	11,079	2,043	0,492	0,032		0,027	0,420		L

(B07) Heat N.	(C01) Loc.	(C02) Direc.	(C10) Shape	(C03) Temp. °C	(C11) Yield Stress	(C12) Tensile strenght	(C13) Elongation on 2"	(C14) Red. of Area	(C10-C31) Hardness	(C01) Loc.	(C02) Direc.	Impact Test (J) (C49) 10x10 mm				(C03) Temp. °C	(B05) Heat Treatment
			mm		N/mm²	N/mm²	%	%	HB			(C42) Obtained		(C43) Mean			
128302	T/4	Q	12,5x60	20	253,2	553,1	54,6	71,3	159,161			168	177	171	172	-196	S

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched & Tempered	S=Soluzion Annealed	
(C01) Location :	F=Full Thk.	S=Surface	T/4=1/4 thk.	T/2=1/2 Thk.	L=Ladle analysis	P=Product analysis
(C02) Direction :	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential		

NOTE:
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- Material according to NACE MR01-75
- Material according to ASTM Ed.2012
- Material according to ASME II Part.A Ed.2010 + Add.2011
- Material solution annealing at 1100°C and water cooling
- The material are in compliance with the specification and order.

(Z03) Inspection Representative	(Z05) Inspection Authority	(Z06) Customer
FERRARI S.r.l.		
Massimo Gambi		

(A06) CUSTOMER/CONSIGNEE :	SAMIC S.P.A.	(A08) Job N°	655
(A07) PURCHASE ORDER :	VS. ORDINE 13021ORD105R0 DEL 08/03/2013	(B02) Steel Designation	A/SA182 F316L

Item	(B08) Q.ty	(A09/B01,- B09-B11) Description Material - Product	(B07) Heat No	Supplier
12	9,00	FLG EN1092-1 11/B2 PN40 DN25 40s F316L	12CT1288	14452-ACERALAVA
15	6,00	FLG EN1092-1 11/B2 PN40 DN80 40s F316L	2256SS	14908-ACERALAVA

CHEMICAL ANALYSIS % (C11 - C52)															(C01)
(B07) Heat N.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Cu %	N2 %	Ti %	Al %	Ceq		
12CT1288	0,016	1,290	0,460	0,041	0,004	16,700	10,090	2,030		0,070		0,027	0,420		L
2256SS	0,014	1,660	0,460	0,030	0,020	16,550	10,030	2,020		0,081		0,027	0,420		L

(B07) Heat N.	(C01) Loc.	(C02) Direc.	(C10) Shape mm	(C03) Temp. °C	(C11) Yield Stress N/mm²	(C12) Tensile strength N/mm²	(C13) Elongation on 2" %	(C14) Red. of Area %	(C80-C31) Hardness HB	(C01) Ede.	(C02) Direc.	Impact Test (J) (C49) 10x10 mm			(C03) Temp. °C	(B05) Heat Treatment
												(C42) Obtained	(C43) Mean			
12CT1288				20	258,0	561,0	52,0	79,0	167 167						0	S
2256SS				20	268,0	577,0	64,1	74,7	172 174						0	S

(B05)	N=Normalized	T=Normalized And Tempered	A=Annealed	Q=Quenched & Tempered	S=Soluzion Annealed	
(C01) Location :	F=Full Thk.	S=Surface	T/4=1/4 Thk.	T/2=1/2 Thk.	L=Ladle analysis	P=Product analysis
(C02) Direction :	T=Transvers	L=Longitudinal	R=Radial	Q=Tangential		

NOTE:						
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-						
-	Material according to ASTM Ed.2012					
-	Material according to ASME II Part.A Ed.2010 + Add.2011					
-	Material solution annealing at 1100°C and water cooling					
-	The material are in compliance with the specification and order					

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FERRARI S.r.l. Massimo Gambi		