

CERTIFICATE OF INSPECTION & TEST (EN 10204 3.1)

ST ST&H CORPORATION
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Certificate No. MJW9145B-03/06 Date : MAR. 08. 2016
 Customer PLESA ANAHUAC Y CIAS., S.A. DE C.V
 Contract No. 22014
 Spec. For Material ASTM/ASME A/SA234-14 WPB,NACE MR0175-2009/ ISO15156-1:2015
 Heat Treatment HOT FORMED (620°C ~ 980°C)

Certified to ISO9001:2008, ISO14001:2004, PED97/23/EC by LRQA

Dimensional inspection ASME B16.9 - 2012

ITEM / SIZE	Q'ty	Heat No./ Batch No.	Size of Test Specimen		Tension Test				Hardness Test (HB)		Charpy Impact Test (10X10mm Specimen Size)				
			D	GL	Max	Y.S	T.S	E.L	R.A	Test	197	Indiv.	Ave.	Notch	Temp.
			mm	mm											
G90ELRSTD12 LR 90D ELBOW STD 12"	38	GBAFG	12.5	50.0	240	415	30.0		114	133					
G45ELRSTD12 LR 45D ELBOW STD 12"	33	GBAFG	12.5	50.0	280	490	37		114	133					
G90ELRSTD16 LR 90D ELBOW STD 16"	14	GBABH	12.5	50.0	270	480	34		120	138					
G90ELRSTD16 LR 90D ELBOW STD 16"	34	GBAFF	12.5	50.0	275	490	35		110	130					
G90ELRS804 LR 90D ELBOW SCH80 4"	180	GBAAU	12.5	50.0	280	490	36		114	135					
G90ELRSTD8 LR 90D ELBOW STD 8"	48	GBADL	12.5	50.0	300	500	35		120	135					
BLANK		BLANK					BLANK		BLANK	BLANK					

Heat No./ Batch No.	Max Min	Chemical Composition (%)										NDE						
		C	SI	Mn	P	S	Cr	Mo	Ni	Cu	V			CE	UT	MT	PT	
		0.300	0.100	1.060	0.050	0.058	0.400	0.150	0.400	0.400	0.080				0.430			
GBAFG		0.200	0.240	0.410	0.010	0.008	0.014	0.003	0.009	0.003	0.002				0.272			
GBABH		0.210	0.180	0.430	0.008	0.014	0.012	0.003	0.008	0.014	0.002				0.286			
GBAFF		0.190	0.210	0.460	0.009	0.008	0.011	0.003	0.008	0.003	0.002				0.270			
GBAAU		0.210	0.190	0.420	0.011	0.010	0.062	0.021	0.051	0.032	0.002				0.302			
GBADL		0.140	0.230	1.030	0.008	0.008	0.014	0.003	0.014	0.008	0.002				0.316			

REMARK * CARBON STEEL FITTINGS MADE FROM PIPE
 * EXPORT COUNTRY - BUSAN, KOREA
 * COUNTRY OF ORIGIN - KOREA
 * TOTAL WEIGHT : 18,360 KGS

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

(Handwritten Signature)

Witnessed by / H. J. LEE



Manager of Q.A Dept. / J. W. PARK