

CERTIFICATE OF INSPECTION & TEST (EN 10204 3.1)

ST&H CORPORATION
 74, Jwadongsunhwan-ro, Haeundae-gu, Busan, Korea
 Tel : +82.51.744-4680(5 line) Fax : +82.51.744-4670
 E-mail : qm@stnhcorp.com



Certificate No. MJW9145A-04/09 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	Y.S MPa	T.S MPa	E.L %	R.A %	197	Indiv.	Ave.	Notch	Temp.	
			mm	mm										
G90ELRXS10 LR 90D ELBOW XH 10"	10	WAABG	12.5	50.0	270	465	36		115	141	Test Result (J)		Ave.(J)	
G90ELRS804 LR 90D ELBOW SCH80 4"	20	GBAAU	12.5	50.0	280	490	36		114	135				
G90ELRS8024 LR 90D ELBOW SCH80 24"	2	WAADP	12.5	50.0	275	460	35		124	138				
G90ELRSTD8 LR 90D ELBOW STD 8"	152	GBADL	12.5	50.0	300	500	35		120	135				
G90ELRSTD10 LR 90D ELBOW STD 10"	48	GBADT	12.5	50.0	270	480	35		110	127				
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			
WAABG		0.190	0.230	0.560	0.012	0.004	0.015	0.010	0.040	0.010	0.008					0.293			
GBAAU		0.210	0.190	0.420	0.011	0.010	0.062	0.021	0.051	0.032	0.002					0.302			
WAADP		0.210	0.380	0.460	0.011	0.009	0.054	0.065	0.110	0.020	0.004					0.319			
GBADL		0.140	0.230	1.030	0.008	0.008	0.014	0.003	0.014	0.008	0.002					0.316			
GBADT		0.180	0.220	0.450	0.009	0.008	0.014	0.009	0.009	0.004	0.002					0.260			

REMARK * CARBON STEEL FITTINGS MADE FROM PIPE
 * EXPORT COUNTRY - BUSAN, KOREA
 * COUNTRY OF ORIGIN - KOREA
 * TOTAL WEIGHT : 19,499 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 of H. J. LEE

Witnessed by / H. J. LEE



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