

DATE OF ISSUE : JULY. 24. 2010
 CUSTOMER : BROWNSVILLE STEEL CITY LLC

INSPECTION CERTIFICATE

(EN 10204:2004 3.1)

ST&H CORPORATION
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발주번호 P/O NO.			원 재 료 RAW MATERIAL											성적서 번호 CERTIFICATE NO.										
BSC 2010 - 222 (PSJ5724)			MADE FROM SEAMLESS PIPE											QA100724 - 02										
재료규격 Spec. for Material			검사규격 Spec. for Inspection					외관 및 치수검사 Surface & Dimension				비파괴검사 N.D.E.		열 처 리 HEAT TREATMENT										
ASTM A234-05/ASME SA234-05 WPB NACE MR-0175			ASME B16.9					GOOD				MT : GOOD		620℃ ~ 980℃										
STD	제품번호 STAMP NO.	화 학 성 분 CHEMICAL COMPOSITION (%)												인 장 시 험 Tensile Test				굴곡시험 Bending Test ()	편평시험 flattening Test	경도시험 Hardness Test(HB)	충격시험 Impact Test	수압시험 Hydrost- atic Test	C.E	
		C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Nb	N	Y-S Mpa	T-S Mpa	EL %	RA %							
SPEC	수량 Q'TY	MIN	0.10	0.29										240	415	22								
		MAX	0.30		1.06	0.05	0.058	0.40	0.15	0.40	0.40	0.08											197	
LR 90D ELBOW STD			0.19	0.18	0.46	0.027	0.019	0.03	0.01	0.04	0.03	0.01			275	495	29							0.28
1 1/2"	400	1010																						
LR 90D ELBOW STD			0.21	0.19	0.48	0.027	0.018	0.03	0.01	0.05	0.02	0.01			305	500	28							0.30
2"	375	7722																						
LR 90D ELBOW STD			0.24	0.19	0.48	0.029	0.018	0.04	0.01	0.06	0.02	0.01			295	495	27							0.34
2 1/2"	135	6112																						
LR 90D ELBOW STD			0.18	0.19	0.49	0.029	0.016	0.06	0.01	0.07	0.01	0.01			295	480	26							0.28
3"	500	7016																						
LR 90D ELBOW STD			0.23	0.19	0.49	0.026	0.012	0.032	0.01	0.017	0.02	0.01			290	475	28							0.32
4"	600	6398																						

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.

1MPa = 145.037 psi
 1MPa = 0.145037 ksi
 1psi = 0.00689 Mpa
 1ksi = 6.89476 Mpa

QUALITY INSPECTED AND SUPPLY BY ST&H CORP
 MANUFACTURED BY PUSAN COUPLING CO.LTD

C.E. = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15

양식번호 : QMS-8102-11

PUSAN COUPLING CO.,LTD

품질보증부
 QUALITY ASSURANCE DEP'T
 (株) 釜山 카프링
 釜山 釜山 釜山
 B.J. KIM/Q.A -GENERAL MANAGER