

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

# INSPECTION CERTIFICATE

(EN 10204:2004 3.1)

ST&H CORPORATION  
 1270-4 Jwa3dong, Haeundaegu, Busan, Korea  
 Tel : 82.51.7444680 (5 line) Fax : 82.51.7444670

발주번호 P/O NO.			원 재료 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 처리 HEAT TREATMENT												
ASTM A234-05/ASME SA234-05 WPB NACE MR-0175			ASME B16.9					GOOD				MT : GOOD			620°C ~ 980°C												
STD	제품번호 STAMP NO.	화 학 성 분 CHEMICAL COMPOSITION (%)												인 장 시 험 Tensile Test				굽곡시험 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				655										197	
LR 90D ELBOW XH			0.21	0.21	0.50	0.017	0.009	0.02	0.01	0.01	0.028	0.01			295	480	31										0.30
1/2"	25	4785																									
LR 90D ELBOW XH			0.21	0.21	0.49	0.017	0.015	0.022	0.01	0.02	0.028	0.01			290	475	27										0.30
3/4"	25	1007																									
LR 90D ELBOW XH			0.21	0.21	0.49	0.026	0.014	0.022	0.01	0.02	0.03	0.01			290	475	28										0.30
1"	25	1009																									
LR 90D ELBOW XH			0.21	0.22	0.49	0.026	0.013	0.032	0.01	0.02	0.03	0.01			285	470	28										0.31
1 1/4"	5	1110																									
LR 90D ELBOW XH			0.18	0.22	0.49	0.025	0.013	0.05	0.01	0.021	0.02	0.01			280	460	27										0.28
1 1/2"	40	1717																									

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.

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

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

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

품질보증부  
 QUALITY ASSURANCE DEP'T  
 (株) 釜山 카프링  
 釜山 依俊

B.J. KIM/Q.A -GENERAL MANAGER

양식번호 : QMS-8102-11

PUSAN COUPLING CO.,LTD