

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				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				655								197	
LR 45D ELBOW XH			0.20	0.24	0.47	0.021	0.009	0.02	0.01	0.020	0.010	0.01			285	485	27								0.29
4"	35	6117																							
LR 45D ELBOW XH			0.20	0.25	0.46	0.021	0.008	0.02	0.01	0.02	0.01	0.01			285	490	28								0.29
5"	10	9231																							
LR 45D ELBOW XH			0.20	0.25	0.46	0.021	0.029	0.02	0.01	0.021	0.023	0.01			290	510	29								0.29
6"	50	8954																							
LR 45D ELBOW XH			0.20	0.25	0.46	0.021	0.029	0.04	0.01	0.021	0.023	0.01			290	510	29								0.29
8"	25	6681																							
LR 45D ELBOW XH			0.19	0.25	0.46	0.021	0.026	0.05	0.01	0.021	0.018	0.01			300	500	29								0.28
10"	10	7749																							

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 依發  
 B.J. KIM/Q.A -GENERAL MANAGER

양식번호 : QMS-8102-11

PUSAN COUPLING CO.,LTD