

DATE OF ISSUE : JUL.24.2010  
 CUSTOMER Brownsville Steel City LLC

# INSPECTION CERTIFICATE

(EN 10204:2004 3.1)

**ST&H CORPORATION**  
 1290-4 Jwa3dong, Haeundaegu, Busan, Korea  
 Tel : 82.51.7444680 (5 line) Fax : 82.51.7444670

발주번호 P/O NO.			원재료 RAW MATERIAL										성적서번호 CERTIFICATE NO												
BSC 2010-222 (PSJ5724)			MADE FROM SEAMLESS PIPE										QA100724-02												
재료규격 Spec. for Material			검사규격 Spec. for Inspection				외관및치수검사 Surface & Dimension				비파괴검사 N.D.E		열처리 HEAT TREATMENT												
ASTM A234-05/ASME SA234-05 WPB NACE MR-0175			ASME B16.9				GOOD				MT:GOOD		NORMALIZED (850°CX0.5HR)												
STD	수량 Q'TY	제품번호 STAMP NO.	화 학 성 분 CHEMICAL COMPOSITION (%)											인 장 시 험 Tensile Test				굴곡시험 Bending Test ( )	평판시험 Flattening Test	경도시험 Hardness Test(HB)	충격시험 Impact Test	수압시험 Hydrostatic Test	C.E		
			C	Si	Mn	P	S	Cr	Mo	Ni	Cu	V	Nb	N	Y-P MPa	T-S MPa	EL (%)							RA (%)	
SPEC	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		
ECC RED STD			0.19	0.24	0.56	0.014	0.012	0.06	0.01	0.03	0.05	0.01			330	495	30						<197		0.30
3" X 2"	5	02162N																							
ECC RED STD			0.19	0.24	0.56	0.014	0.012	0.06	0.01	0.03	0.05	0.01			330	495	30						<197		0.30
3" X 2 1/2"	5	02162N																							
ECC RED STD			0.2	0.22	0.54	0.011	0.007	0.025	0.004	0.04	0.1	0.01			305	495	31						<197		0.31
4" X 2"	5	02375V																							
ECC RED STD			0.21	0.24	0.53	0.006	0.005	0.05	0.01	0.01	0.05	0.01			340	505	33						<197		0.32
4" X 2 1/2"	5	02375N																							
ECC RED STD			0.21	0.24	0.53	0.006	0.005	0.05	0.01	0.01	0.05	0.01			340	505	33						<197		0.32
4" X 3"	5	02375N																							

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

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

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

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

양식번호 : QMS-8102-11

PUSAN COUPLING CO.,LTD