

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 | | 620℃ ~ 980℃ | | | | | | | | | | | |
| STD | 제품번호 STAMP NO. | 화 학 성 분 CHEMICAL COMPOSITION (%) | | | | | | | | | | | | 인 장 시 험 Tensile Test | | | | 굴곡시험 Bending | 평판시험 Flattening | 경도시험 Hardness | 충격시험 Impact | 수압시험 Hydrost- atic | C.E | |
| | | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | V | Nb | N | Y-P MPA | T-S MPA | EL (%) | RA (%) | Test () | Test | Test(HB) | Test | Test | | |
| SPEC | 수량 MIN | | 0.10 | 0.29 | | | | | | | | | | 240 | 415 | 22 | | | | | | | | |
| | Q'TY MAX | 0.30 | | 1.06 | 0.05 | 0.058 | 0.40 | 0.15 | 0.40 | 0.40 | 0.08 | | | | 655 | | | | | | 197 | | | |
| LR 90D ELBOW SCH160 | | 0.19 | 0.25 | 0.54 | 0.006 | 0.006 | 0.04 | 0.01 | 0.03 | 0.06 | 0.01 | | | 350 | 490 | 35 | | | | | | | 0.30 | |
| 4" | 20 | 02165 | | | | | | | | | | | | | | | | | | | | | | |
| LR 90D ELBOW SCH80 | | 0.18 | 0.26 | 0.52 | 0.016 | 0.011 | 0.06 | 0.01 | 0.032 | 0.008 | 0.01 | | | 315 | 520 | 37 | | | | | | | 0.29 | |
| 10" | 5 | 03409 | | | | | | | | | | | | | | | | | | | | | | |
| BLANK | | | | | | | | | | | | | | | | | | | | | | | | |

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

품 질 보 증 부
 QUALITY ASSURANCE DEP'T

(株) 釜 山 카 프 링
 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