



SAMYOUNG FITTING

# INSPECTION CERTIFICATE

(EN10204 3.1/ISO 10474 3.1)

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Customer		Certificate No.	20190624010	Date	2019-08-24			
CIP/BL#	SYF190819-02345C/SEL1906189	Project Name						
Job No.								
Specification for Material	ASME SA105N NACE-2015ED	Dimension and Visual Inspection	GOOD					
HCN	Description				Qty (pc)	Heat Treatment	Line No.	ITEM CODE
P009	CROSS TEE	2000#	NPT	3/4"	90	N 900 °C(1652F) A.C		2MCRS.75
P076	TEE	3000#	NPT	1-1/4"x3/4"	10	N 900 °C(1652F) A.C		3MRTT01.25X.75
P088	45ELBOW	3000#	NPT	1-1/4"	120	N 900 °C(1652F) A.C		3M45T01.25
P110	90ELBOW	2000#	NPT	3/4"	150	N 900 °C(1652F) A.C		2M9.75
P110	45ELBOW	2000#	NPT	1/2"	160	N 900 °C(1652F) A.C		2M45.50
P148	45ELBOW	3000#	NPT	1-1/2"	200	N 900 °C(1652F) A.C		3M45T01.5
P179	45ELBOW	3000#	SW	1-1/2"	880	N 900 °C(1652F) A.C		3M45R01.5
P180	45ELBOW	3000#	NPT	2"	192	N 900 °C(1652F) A.C		3M45T02.0
P180	45ELBOW	6000#	SW	2"	24	N 900 °C(1652F) A.C		6M45S02.0
P210	UNION	3000#	NPT	3"	8	N 900 °C(1652F) A.C		3MUT03.0

### CHEMICAL COMPOSITION(%)

HCN	spec.	C Mn P S Si Ni Cr Mo Cu V										Raw	Raw Maker	
		Max	0.35	1.05	0.035	0.040	0.35	0.40	0.30	0.12	0.40	0.080	Heat No	
		Min	-	0.60	-	-	0.10	-	-	-	-	-		
P009	L	0.110	0.930	0.012	0.008	0.200	0.040	0.110	0.020	0.090	0.000	C41649	SeAH	
P076	L	0.110	0.930	0.014	0.008	0.190	0.050	0.130	0.010	0.120	0.000	D05236	SeAH	
P088	L	0.110	0.920	0.011	0.010	0.230	0.050	0.080	0.020	0.090	0.000	C43932	SeAH	
P110	L	0.100	0.910	0.011	0.005	0.190	0.060	0.140	0.030	0.120	0.000	D05745	SeAH	
P148	L	0.178	0.938	0.007	0.006	0.245	0.075	0.142	0.017	0.085	0.001	S35923	SeAH CSS	
P179	L	0.110	0.930	0.013	0.010	0.210	0.060	0.100	0.020	0.160	0.010	C48800	SeAH	
P180	L	0.170	0.923	0.006	0.005	0.224	0.072	0.083	0.017	0.100	0.001	S36316	SeAH CSS	
P210	L	0.110	0.930	0.011	0.010	0.210	0.050	0.120	0.020	0.110	0.010	C48890	SeAH	

### MECHANICAL PROPERTIES

HCN	spec.	Y.S		E.L (%)	Red (%)	Hardness Test		
		Ksi				HB		
		Max	Min	35.7	70.0	22.0	39.0	187
P009	P	40.7	78.6	32.7	70.1	148	149	
P076	P	40.3	76.4	32.8	67.5	146	145	
P088	P	44.1	73.5	31.8	68.2	142	148	
P110	P	43.4	73.5	32.5	67.9	141	138	
P148	P	44.8	75.0	30.7	68.4	141	144	
P179	P	44.7	77.9	31.4	73.3	148	145	
P180	P	42.3	76.3	32.7	60.4	152	149	
P210	P	50.5	80.7	31.2	69.7	152	149	

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.

Remark :

\*ORIGIN : KOREA  
\*THE FITTING SUPPLIED IDENTIFIED AS ASME B16.11-2016  
\*CONFORMS TO NACE : MR0175-15/ISO 15156-15/MR0135-15

Legend:  
HB: Brinell      ACAir Cool  
ST: Solution Treatment      O: Oil Cool  
SR: Stress Relieving      WQ: Water Quenched  
HCN: Heat Code No.  
N: Normalized  
T: Tempered      L: Ladle  
A: Annealed      P: Product  
Q: Quenched  
(D): Hot-Dip Galvanized Coating  
(EO): Electronic Galvanized

SAMYOUNGFITTING CO.,LTD.

*S. H. Shin*  
S.H.SHIN

Reviewed by : \_\_\_\_\_  
Witnessed by : \_\_\_\_\_

Approved by \_\_\_\_\_  
Director of Quality Assurance Dept