

Industrial Valco, INC.
 Purchaser
 Project Name
 Project No
 Po No

ORIGINAL
MATERIAL TEST & INSPECTION CERTIFICATE

According to
 DIN 50049 3.1 / EN 10204 3.1 / ISO 10474 3.1

ASTM A234 WPB-19 & ASME SA234 WPB(ASME BPVC.II.A-2019)
 ASME B16.9 (Wrought Butt-welding Fittings)-2018
 CARBON STEEL SEAMLESS PIPE

HEAT TREATMENT
 QTY
 HCN

CERTIFICATE NO. PM220728-04
 DATE FOR ISSUE 2022.07.28
 VISUAL & DIMENSION GOOD

#59, Nokamsandan 46-ro, Gangsoo-gu, Busan, Korea
 TEL: 82-51-832-2100
 FAX: 82-51-832-2103
 http://www.pusanfitting.com

Pusan Fitting Corporation
 PFC
 MANUFACTURER

No	SEQ/LINE/ITEM NO	ITEM	SCH.	NPS	QTY	HCN	H/T	NDE / PMI	Remark
1		90D ELBOW LR	XH	3	1,400	A3382	A		
2		45D ELBOW LR	STD	4	530	A3960	A		
3		45D ELBOW LR	XH	4	750	A3859	A		

No	HCN	CHEMICAL COMPOSITION (wt. %)										TENSILE TEST			IMPACT TEST(0-10J)			Hydro Test (MPa)			
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Y.S	T.S	E.L	R.A	Hardness	Temp.(°C)		Size(2mm-v)	Pressure / result	
		SPEC.	100	10	29	106	50	58	40	40	15	40	8	240	415	22.0	%	HBW	Min()	Act.	Ave.
		MIN			29																
		MAX	30		106	50	58	40	40	15	40	8						197			
1	A3382	L	16	29	91	12	3	12	19	4	14	0		344	503	38.0	%	138/139			
2	A3960	L	18	21	38	14	7	8	13	2	18	0		348	496	35.0	%	127/130			
3	A3859	L	19	20	41	23	7	1	1	0	1	0		302	458	37.0	%	140/141			

WE CERTIFY THIS MATERIAL HAS BEEN MANUFACTURED AND EXAMINED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE SPECIFICATION AND THE RESULTS OF ALL EXAMINATION ARE ACCORDANT.

REVIEWED BY : _____
 WITNESSED BY : _____

MANAGER OF QUALITY
 S. L. KIM

ASME SA234SA234M(ASME BPVC.II.A-2019) TABLE 1
 NACE MR0175/ISO 15156-2 : 2015

Note:
 1) L : LADLE ANALYSIS , P : PRODUCT ANALYSIS , HCN : Heat Control Number
 2) Min. : FOR EACH REDUCTION OF 0.01% BELOW THE SPECIFIED CARBON MAXIMUM, AN INCREASE OF 0.005% MANGANESE ABOVE THE SPECIFIED MAXIMUM WILL BE PERMITTED, UP TO A MAXIMUM OF 1.65%.
 3) ASME SA234SA234M(ASME BPVC.II.A-2019) TABLE 1

* 본 검사증명서에 발급된 규격용의 사용이 안전상 문제가 발생하지 않음을 증명합니다. * 본 검사증명서 위 변조시 사후처리 및 법적책임을 질 수 있으며, 검사증명서 위 변조시 사후처리 및 법적책임을 질 수 있습니다.

PFC-QP-515-04(Rev.3)-20160406