

INSPECTION CERTIFICATE

KYEONG NAM BEND CO.,LTD

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CERTIFICATE NO. : KN-QA191230-02
DATE OF ISSUE : 12. 30. 2019
INVOICE NO. : 1912-004
CUSTOMER :

(EN10204:2004 3.1/ISO 10474:1991 3.1B)



Spec. for Inspection		ASME B 16.9-2018	Spec. for Material		ASTM A/SA234 WPB-2018	Material	CARBON STEEL FITTINGS	Visual&Dimension	Satisfactory									
No.	PO NO	Description	Q'ty (EA)	Material	HEAT NO.	Chemical Composition (%)											Heat Treatment	
						Spec.	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V		CE
							x 100			x 1000		x 100						
						Min.	-	10	29	-	-	-	-	-	-	-		-
Max.	30	-	106	50	58	40	40	15	40	8								
1	217708-TX	45D ELBOW LONG XH 3"	800	WPB	0228	L	19	25	32	22	20	2	2	1	1	1	Hot formed 620°C~980°C	
2	217708-TX	45D ELBOW LONG S120 4"	10	WPB	2759	L	21	27	42	12	15	2	1	1	1	1	Hot formed 620°C~980°C	
3	217708-TX	45D ELBOW LONG STD 5"	400	WPB	5226	L	20	25	58	13	8	1	1	2	1	1	Hot formed 620°C~980°C	
4	217708-TX	45D ELBOW LONG XH 5"	400	WPB	2482	L	21	25	57	9	3	1	1	1	2	1	Hot formed 620°C~980°C	
5	217708-TX	45D ELBOW LONG S120 6"	10	WPB	7096	L	21	22	59	13	10	1	1	2	1	1	Hot formed 620°C~980°C	
6	217708-TX	45D ELBOW LONG S160 6"	10	WPB	7095	L	21	22	59	13	10	1	1	1	2	1	Hot formed 620°C~980°C	
7	217708-TX	45D ELBOW LONG XXH 6"	50	WPB	1154	L	20	10	40	19	10	2	1	1	2	1	Hot formed 620°C~980°C	

No.	Heat No.	Tensile Test				Hardness Test	Flattening Test	Impact Test(ft-lbf)		Hydrostatic Test		N.D.E	Uniformity Test of GAL'V/Zn	<input type="checkbox"/> Reviewed By : <input type="checkbox"/> Witnessed By : Approved By : <i>H. H. Choi</i> MANAGER OF QUALITY	
		Spec.	Y.S	T.S	EL.	R.A		HB	Temp(°C)	Size(2mm-v)	MPa				Pressure/Result
		Min.	240	415	30			-	Min()	Max()					
		Max.	-	-	-			197	Act.	Ave.					
1	0228	P	357	484	33		150	152							
2	2759	P	357	467	35		150	152							
3	5226	P	297	496	35		150	152							
4	2482	P	291	466	31		150	152							
5	7096	P	278	488	31		150	152							
6	7095	P	288	475	32		150	152							
7	1154	P	305	457	30		150	152							

We hereby certify that the material herein has been made and tested in accordance with all requirements of the specification and the results of all examination are acceptable.

KYEONG NAM BEND CO.,LTD.