

MILL TEST CERTIFICATE

CERTIFICATE TO EN10204 3.1

Certificate No. :2017KK158-1
Customer : DODSON GLOBAL INC
Brand name : KKF

PO No. : 190730
Invoice No. :170912CA
Issued date :Feb.7,2018

KKFF BEND (CAMBODIA) CO.,LTD
ADD:Bldg.NO.D711,Sihanouk Ville,SSEZ.
National RD NO.4 212km,Prey Nob Dist.
Sihanouk Ville,Cambodia.
TEL : 00855-097-8609813

Material Grade: ASTM A234/ASME SA234-14 WPB

Specification for ASME B16.9-2012

Chemical Compositions		C	Si	Mn	P	S	Ni	Mo	Cr	V	Cu	Nb	N	Ultrasonic Examination	N/A		
		X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100	X1/100			X1/100	
Heat No.	*1	MAX 0.25	MIN 0.10	0.29 1.06	MAX 0.050	MAX 0.058	MAX 0.40	MAX 0.150	MAX 0.40	-	MAX 0.40	MAX 0.020	MAX -	RT TEST			
E0029	Ch	0.22	0.25	0.51	0.011	0.006	0.07	0.008	0.06	-	0.05	0.002	-	Dimension Inspection	PASSED		
E4808	Ch	0.19	0.26	0.45	0.010	0.009	0.05	0.003	0.05	-	0.03	0.001	-		PASSED		
E8146	Ch	0.21	0.27	0.47	0.022	0.007	0.04	0.003	0.05	-	0.02	0.002	-		PASSED		
E2364	Ch	0.20	0.3	0.52	0.017	0.008	0.08	0.005	0.04	-	0.05	0.005	-		PASSED		
E2886	Ch	0.18	0.31	0.49	0.015	0.009	0.03	0.008	0.05	-	0.03	0.002	-		PASSED		
E0698	Ch	0.20	0.28	0.50	0.014	0.010	0.07	0.005	0.04	-	0.03	0.003	-		PASSED		
Description & Dimension		Size (inch)	QTY (pc)	Mechanical Properties		Tension Test *2				Hardness Test	Hydrostatic Test	Impact Test	MPI Test				
				Heat No.		Y.S	T.S	E.L	R.A.	(HB)	(MPA)	(J)	*4				
90ELL		XH	1"	200	E0029	285	475	28.5	N/A	168	N/A	N/A	N/A				
90ELL		XH	1 1/4"	400	E4808	270	480	29.0	N/A	175	N/A	N/A	N/A				
90ELS		XH	1 1/4"	50							N/A	N/A	N/A				
90ELL		XH	1 1/2"	300	E8146	300	495	30.0	N/A	169	N/A	N/A	N/A				
180ELS		XH	1 1/2"	200							N/A	N/A	N/A				
90ELL		XH	10"	50	E2364	285	500	29.5	N/A	171	N/A	N/A	N/A				
45ELL		XH	10"	15							N/A	N/A	N/A				
90ELS		XH	10"	15							N/A	N/A	N/A				
90ELL		XH	18"	10	E2886	270	485	31.5	N/A	174	N/A	N/A	N/A				
45ELL		XH	18"	3							N/A	N/A	N/A				
90ELL		XH	20"	5	E0698	295	490	31.0	N/A	169	N/A	N/A	N/A				
		TOTAL:		1248													
Heat Treatment *3		Normalizing		°C		hrs		Water Quenching		°C		hrs					
		Annealing		°C		hrs		Tempering		°C		hrs					
Starting Material: Seamless Pipes as ASTM A106 Gr.B					Marking Details: KKF+Size + Schedule + A/SA234 WPB +Heat No.					Fittings conform to NACE MR 0175-2015							
We hereby certify that the material herein has been made and tested in accordance with as above specification and also with the requirement called for the above order.																	
Quality Assurance System in accordance with Pressure Equipment Directive 2014/68EU Annex I Section 4.3 as well as EN 764-5, Para. 4.2 by TUV Sud Industrie Service and Certification Body No.0036																	
Quality system certification ISO9001:2008 No. 01 100 1430809 by TUV Rheinland Cert GmbH;																	

Note: *1---Ch=Chemical Analysis *2---Tension Test: Y.S=Yield Strength T.S=Tensile Strength E.L=Elongation R.A.=Reduction of Area
*3---Heat Treatment: A.C=Air Cooled *4---MPI Test=Magnetic Powder Inspection

Manager of Quality Control Dept

Authorized Signature(s)