

# HEBEI FULONG IMPORT & EXPORT CO., LTD.

## EN10204 3.1B MILL TEST CERTIFICATE

CUSTOMER		LYTAGRA JOINT-STOCK COMPANY		Certificate NO.		120914-1924m1		Invoice NO.		S01924FEZZM1										
PRODUCT			SPECIFICATION FOR MATERIAL AS REQUEST															SPECIFICATION FOR MATERIAL		
Carbon Steel Pipe Fittings and Steel Flange			CHEMICAL PROPERTIES(%)												MECHANICAL PROPERTIES			Visual Examination	Dimensional Inspection	
DESCRIPTION	QTY	HEAT NO	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Nb	C.E.	TS	YS	E.L.	HARDNESS		
			(Max)	(Min)		(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Mpa)	(Mpa)	(%)	(Max)	
DIN2605 3D seamless elbows			0.3	0.1	0.29-1.06	0.05	0.058	0.4	0.4	0.4	0.15	0.08	0.02	0.5	15-65	≥240		197		
20 - 26.9	1000	537	0.2	0.22	0.49	0.013	0.01	0.09	0.08	0.1	0.01	0.004	0.01	0.3	485	325	33	145	OK	OK
25 - 33.7	2500	469	0.2	0.24	0.52	0.016	0.01	0.02	0.01	0.07	0.005	0.004	0.01	0.31	470	320	32	145	OK	OK
32 - 42.4	3000	638	0.2	0.20	0.51	0.013	0.01	0.03	0.01	0.07	0.005	0.002	0.01	0.32	465	310	32	145	OK	OK
40 - 48	5000	836	0.2	0.23	0.5	0.011	0.01	0.02	0.01	0.07	0.008	0.003	0.01	0.29	475	315	31	140	OK	OK
50 - 57	500	386	0.2	0.22	0.49	0.013	0.01	0.09	0.08	0.1	0.01	0.004	0.01	0.29	485	325	33	145	OK	OK
50 - 60.3	700	386	0.2	0.22	0.49	0.013	0.01	0.09	0.08	0.1	0.01	0.004	0.01	0.29	485	325	33	145	OK	OK
65 - 76.1	800	673	0.2	0.24	0.51	0.012	0.01	0.04	0.05	0.09	0.008	0.003	0.01	0.29	480	320	34	145	OK	OK
80 - 88.9	1000	451	0.2	0.22	0.49	0.013	0.01	0.09	0.08	0.08	0.01	0.004	0.01	0.29	485	325	33	145	OK	OK
100 - 108	800	521	0.2	0.23	0.52	0.014	0.06	0.02	0.01	0.07	0.005	0.004	0.01	0.31	470	320	32	145	OK	OK
100 - 114.3	220	521	0.2	0.23	0.52	0.014	0.06	0.02	0.01	0.07	0.005	0.004	0.01	0.31	470	320	32	145	OK	OK
125 - 133	270	231	0.2	0.23	0.5	0.011	0.01	0.02	0.01	0.07	0.008	0.003	0.01	0.29	475	315	31	140	OK	OK
150 - 159	50	829	0.2	0.22	0.49	0.013	0.01	0.09	0.08	0.1	0.01	0.004	0.01	0.29	485	325	33	145	OK	OK
200 - 219.1	60	926	0.2	0.21	0.51	0.013	0.08	0.03	0.01	0.07	0.005	0.002	0.01	0.3	475	310	32	145	OK	OK
DESCRIPTION	QTY	HEAT NO	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Nb	C.E.	TS	YS	E.L.	HARDNESS	Visual Examination	Dimensional Inspection
			(Max)			(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Max)	(Mpa)	(Mpa)	(%)		
EN1092 PN16 FLANGE			0.2	0.10	0.60	0.035	0.04								375	≥235	≥22			
15 - 21.3	300	20575	0.2	0.19	0.42	0.027	0.03								461	25	22		OK	OK

HOT FORMED TEMP: BETWEEN 845°C AND 945°C AIR COOLING

We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned and also with the purchaser's requirements and that the test results shown herein are correct

Inspector: zhangchao  
Date: 2012-10-18

HEBEI FULONG IMPORT & EXPORT CO., LTD.  
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