

# MILL TEST CERTIFICATE

**CANGZHOU HAOGUAN PIPE FITTINGS CO., LTD.**

Luzhuangzi Industry Zone, Nijiazhuang Town, Mengcun County, Hebei Province, China

Tel: 86-317-6810218 Fax: 86-317-6810217

Email: czaoguan@163.com Web: www.czhaoguan.com

**BUTT-WELDING PIPE FITTINGS**

EN 10204 3.1

**CERTIFICATE NO.  
HGJK21020**

CUSTOMER: UNIMECH ENGINEERING (M) SDN.BHD.

MATERIAL STANDARDS: CARBON STEEL SEAMLESS PIPE FITTING

P.O.NO.: ZPO-2104-0025

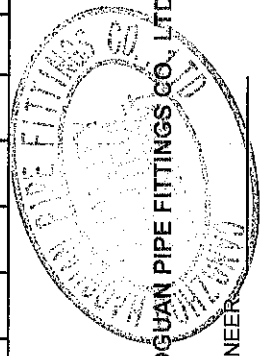
DIMENSION STANDARD: SCH40 CARBON STEEL PIPE FITTINGS

MINIMUM STANDARD AS PER ABOVE SPECIFICATIONS				MECHANICAL PROPERTIES						CHEMICAL COMPOSITION(%)													
ITEM	SIZE	DESCRIPTION	QTY	HEAT#	415 Mpa MIN TENSILE	240 Mpa MIN YIELD	30% MIN ELONGATION	197 HB MAX HARDNESS	COLD FORM Y/N	HOT FORMED TEMP.C	0.30 max C	0.29 To 1.06 Mn	0.050 max P	0.058 max S	0.10 min Si	0.40 max Cr	0.15 max Mo	0.40 max Ni	0.40 max Cu	0.08 max V	0.02 max Nb	0.50 max C.E.	
1	1"	C.S SCH40 END CAP	70	387	425	279	32				0.18	0.52	0.030	0.032	0.28								
2	2"	C.S SCH40 ELBOW 90 DEG	3200	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
3	4"	C.S SCH40 ELBOW 90 DEG	555	315	450	268	31				0.20	0.46	0.031	0.034	0.26								
4	6"	C.S SCH40 ELBOW 90 DEG	200	528	430	275	31				0.21	0.48	0.026	0.028	0.30								
5	8"	C.S SCH40 ELBOW 90 DEG	250	125	445	280	32				0.19	0.49	0.029	0.027	0.28								
6	10"	C.S SCH40 ELBOW 90 DEG	25	169	450	275	33				0.17	0.52	0.031	0.030	0.27								
7	12"	C.S SCH40 ELBOW 90 DEG	40	983	430	285	32				0.21	0.51	0.025	0.034	0.28								
8	16"	C.S SCH40 ELBOW 90 DEG	12	235	448	277	34				0.22	0.50	0.028	0.036	0.27								
9	20"	C.S SCH40 ELBOW 90 DEG	2	352	445	282	35				0.19	0.53	0.029	0.029	0.28								
10	2"	C.S SCH40 ELBOW 45 DEG	100	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
11	2.1/2"	C.S SCH40 ELBOW 45 DEG	30	795	430	275	31				0.19	0.49	0.025	0.029	0.28								
12	8"	C.S SCH40 ELBOW 45 DEG	30	125	445	280	32				0.19	0.49	0.029	0.027	0.28								
13	14"	C.S SCH40 ELBOW 45 DEG	10	523	448	276	34				0.22	0.55	0.028	0.032	0.29								
14	1"X1/2"	C.S SCH 40 CON REDUCER	300	857	425	278	33				0.21	0.51	0.031	0.031	0.26								
15	1.1/4"X1/2"	C.S SCH 40 CON REDUCER	100	598	425	277	33				0.19	0.45	0.026	0.029	0.25								
16	1.1/4"X1"	C.S SCH 40 CON REDUCER	100	598	425	277	33				0.19	0.45	0.026	0.029	0.25								
17	1.1/2"X1.1/4"	C.S SCH 40 CON REDUCER	20	917	445	276	32				0.22	0.48	0.028	0.037	0.27								
18	2"X1/2"	C.S SCH 40 CON REDUCER	50	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
19	2"X1"	C.S SCH 40 CON REDUCER	150	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
20	2"X1.1/2"	C.S SCH 40 CON REDUCER	150	578	450	272	33				0.18	0.52	0.030	0.032	0.26								

We hereby certify that the material described herein has been inspected/tested satisfactorily in accordance with the standards specified above and purchase order requirements.

REMARKS:

1. VISUAL EXAMINATION: GOOD
2. DIMENSIONAL EXAMINATION: GOOD



**CANGZHOU HAOGUAN PIPE FITTINGS CO., LTD.**

CHIEF ENGINEER

DATE: 9-Jul-21

# MILL TEST CERTIFICATE

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CUSTOMER: UNIMECH ENGINEERING (M) SDN BHD.

P.O.NO.: ZPO-2104-0025

MATERIAL STANDARDS: CARBON STEEL SEAMLESS PIPE FITTING

DIMENSION STANDARD: SCH40 CARBON STEEL PIPE FITTINGS

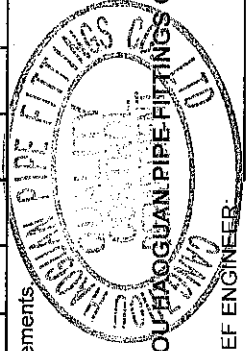
CERTIFICATE NO.  
HGJK21020

MINIMUM STANDARD AS PER ABOVE SPECIFICATIONS				MECHANICAL PROPERTIES										CHEMICAL COMPOSITION(%)									
ITEM	SIZE	DESCRIPTION	QTY	HEAT#	415 Mpa MIN TENSILE	240 Mpa MIN YIELD	30% MIN ELONGATION	197 HB MAX HARDNESS	COLD FORM YIN	HOT FORMED TEMP.C	0.30 max C	0.29 To 1.06 Mn	0.050 max P	0.058 max S	0.10 min Si	0.40 max Cr	0.15 max Mo	0.40 max Ni	0.40 max Cu	0.08 max V	0.02 max Nb	0.50 max C.E.	
21	3"X1.1/2"	C.S SCH 40 CON REDUCER	100	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
22	3"X2"	C.S SCH 40 CON REDUCER	400	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
23	3"X2.1/2"	C.S SCH 40 CON REDUCER	50	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
24	4"X2"	C.S SCH 40 CON REDUCER	100	315	450	268	31				0.20	0.46	0.031	0.034	0.26								
25	6"X4"	C.S SCH 40 CON REDUCER	200	528	430	275	31				0.21	0.48	0.026	0.028	0.30								
26	8"X6"	C.S SCH 40 CON REDUCER	25	125	445	280	32				0.19	0.49	0.029	0.027	0.28								
27	10"X8"	C.S SCH 40 CON REDUCER	20	169	450	275	33				0.17	0.52	0.031	0.030	0.27								
28	2"X1"	C.S SCH 40 ECC REDUCER	120	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
29	2.1/2"X2"	C.S SCH 40 ECC REDUCER	20	795	430	275	31				0.19	0.49	0.025	0.029	0.28								
30	3"X2"	C.S SCH 40 ECC REDUCER	130	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
31	3"X2.1/2"	C.S SCH 40 ECC REDUCER	12	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
32	4"X2"	C.S SCH 40 ECC REDUCER	15	315	450	268	31				0.20	0.46	0.031	0.034	0.26								
33	4"X3"	C.S SCH 40 ECC REDUCER	40	315	450	268	31				0.20	0.46	0.031	0.034	0.26								
34	10"X6"	C.S SCH 40 ECC REDUCER	16	169	450	275	33				0.17	0.52	0.031	0.030	0.27								
35	1/2"	C.S SCH 40 EQUAL TEE	500	123	425	275	31				0.18	0.49	0.025	0.031	0.27								
36	3/4"	C.S SCH 40 EQUAL TEE	800	321	450	265	31				0.20	0.53	0.026	0.026	0.25								
37	2"	C.S SCH 40 EQUAL TEE	200	578	450	272	33				0.18	0.52	0.030	0.032	0.26								
38	3"	C.S SCH 40 EQUAL TEE	200	987	435	276	33				0.17	0.53	0.033	0.035	0.29								
39	4"	C.S SCH 40 EQUAL TEE	320	315	450	268	31				0.20	0.46	0.031	0.034	0.26								
40	6"	C.S SCH 40 EQUAL TEE	100	528	430	275	31				0.21	0.48	0.026	0.028	0.30								

We hereby certify that the material described herein has been inspected/tested satisfactorily in accordance with the standards specified above and purchase order requirements.

REMARKS:

1. VISUAL EXAMINATION: GOOD
2. DIMENSIONAL EXAMINATION: GOOD



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MATERIAL STANDARDS: CARBON STEEL SEAMLESS PIPE FITTING

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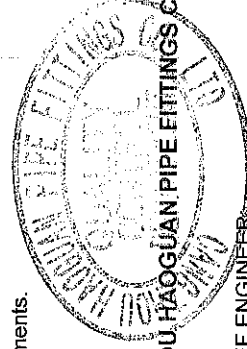
DIMENSION STANDARD: SCH40, SCH80 CARBON STEEL PIPE FITTINGS

MINIMUM STANDARD AS PER ABOVE SPECIFICATIONS				MECHANICAL PROPERTIES				CHEMICAL COMPOSITION(%)																
ITEM	SIZE	DESCRIPTION	QTY	HEAT#	415 Mpa MIN TENSILE	240 Mpa MIN YIELD	30% MIN ELONGATION	197 HB MAX HARDNESS	COLD FORM Y/N	HOT FORMED	TEMP.C	0.30 max C	0.29 To 1.06 Mn	0.050 max P	0.058 max S	0.10 min Si	0.40 max Cr	0.15 max Mo	0.40 max Ni	0.40 max Cu	0.08 max V	0.02 max Nb	0.50 max C.E.	
41	1.1/4"X1/2"	C.S SCH 40 REDUCING TEE	300	598	425	277	33					0.19	0.45	0.026	0.029	0.25								
42	2.1/2"X1"	C.S SCH 40 REDUCING TEE	100	795	430	275	31					0.19	0.49	0.025	0.029	0.28								
43	2.1/2"X2"	C.S SCH 40 REDUCING TEE	20	795	430	275	31					0.19	0.49	0.025	0.029	0.28								
44	3"X1"	C.S SCH 40 REDUCING TEE	15	987	435	276	33					0.17	0.53	0.033	0.035	0.29								
45	3"X2"	C.S SCH 40 REDUCING TEE	50	987	435	276	33					0.17	0.53	0.033	0.035	0.29								
46	6"X3"	C.S SCH 40 REDUCING TEE	20	528	430	275	31					0.21	0.48	0.026	0.028	0.30								
47	1"	C.S SCH 80 ELBOW 90 DEG	1000	758	453	279	35					0.22	0.54	0.032	0.033	0.27								
48	1.1/2"	C.S SCH 80 ELBOW 90 DEG	200	467	450	271	34					0.21	0.47	0.032	0.031	0.26								
49	2"	C.S SCH 80 ELBOW 90 DEG	1200	859	455	278	32					0.19	0.52	0.029	0.034	0.26								
50	2.1/2"	C.S SCH 80 ELBOW 90 DEG	200	112	451	274	33					0.20	0.51	0.028	0.032	0.28								
51	3"	C.S SCH 80 ELBOW 90 DEG	250	175	450	278	34					0.19	0.56	0.031	0.036	0.29								
52	4"	C.S SCH 80 ELBOW 90 DEG	60	526	447	281	32					0.20	0.54	0.028	0.027	0.28								
53	8"	C.S SCH 80 ELBOW 90 DEG	25	371	445	283	33					0.23	0.55	0.030	0.029	0.31								
54	10"	C.S SCH 80 ELBOW 90 DEG	10	312	452	278	32					0.21	0.56	0.031	0.028	0.27								
55	2.1/2"	C.S SCH 80 ELBOW 45 DEG	80	112	451	274	33					0.20	0.51	0.028	0.032	0.28								
56	3"	C.S SCH 80 S/R ELBOW 90 DEG	10	175	450	278	34					0.19	0.56	0.031	0.036	0.29								
57	1"X1/2"	C.S SCH 80 CON REDUCER	40	758	453	279	35					0.22	0.54	0.032	0.033	0.27								
58	1"X3/4"	C.S SCH 80 CON REDUCER	40	758	453	279	35					0.22	0.54	0.032	0.033	0.27								
59	1.1/2"X1.1/4"	C.S SCH 80 CON REDUCER	10	467	450	271	34					0.21	0.47	0.032	0.031	0.26								
60	3"X1.1/2"	C.S SCH 80 CON REDUCER	30	175	450	278	34					0.19	0.56	0.031	0.036	0.29								

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REMARKS:

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- DIMENSIONAL EXAMINATION: GOOD



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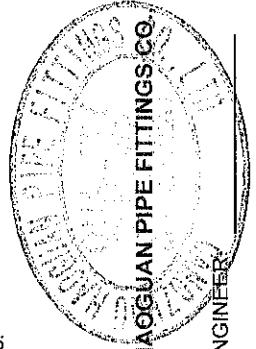
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DIMENSION STANDARD: SCH80 CARBON STEEL PIPE FITTINGS

MINIMUM STANDARD AS PER ABOVE SPECIFICATIONS					MECHANICAL PROPERTIES										CHEMICAL COMPOSITION(%)																
ITEM	SIZE	DESCRIPTION	QTY	HEAT#	415 Mpa MIN	240 Mpa MIN	30% MIN ELONGATION	197 HB MAX	COLD FORM Y/N	HOT FORMED	TEMP.C	0.30 max	0.29 To 1.06	Mn	P	S	0.058 max	0.10 min	Cr	0.40 max	Mo	0.15 max	Ni	0.40 max	Cu	0.40 max	V	0.08 max	0.02 max	0.50 max	C.E.
61	4"X2.1/2"	C.S SCH 80 CON REDUCER	15	526	447	281	32					0.20	0.54	0.028	0.027	0.28															
62	4"X3"	C.S SCH 80 CON REDUCER	50	526	447	281	32					0.20	0.54	0.028	0.027	0.28															
63	6"X3"	C.S SCH 80 CON REDUCER	40	239	443	278	33					0.21	0.56	0.029	0.030	0.31															
64	8"X6"	C.S SCH 80 CON REDUCER	10	371	445	283	33					0.23	0.55	0.030	0.029	0.31															
65	2.1/2"X2"	C.S SCH 80 ECC REDUCER	5	112	451	274	33					0.20	0.51	0.028	0.032	0.28															
66	8"	C.S SCH 80 EQUAL TEE	10	371	445	283	33					0.23	0.55	0.030	0.029	0.31															
67	1.1/2"X3/4"	C.S SCH 80 REDUCING TEE	20	467	450	271	34					0.21	0.47	0.032	0.031	0.26															
68	3"X2"	C.S SCH 80 REDUCING TEE	10	175	450	278	34					0.19	0.56	0.031	0.036	0.29															
69	6"X3"	C.S SCH 80 REDUCING TEE	6	239	443	278	33					0.21	0.56	0.029	0.030	0.31															

We hereby certify that the material described herein has been inspected/tested satisfactorily in accordance with the standards specified above and purchase order requirements.

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