

INSPECTION CERTIFICATE

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
DELIVER To	
JOB NAME	
JOB No.	
P.O.No.	APO-2004-0009
PRODUCT CODE	

Certificate No.

1020332040-009-01-01

Date : 2020/07/06

KITZ

SPECIFICATION

Manuf No.	1020332040-009
Description	TYPE 600 CAST STAINLESS STEEL BALL VALVE SCREWED ENDS
Figure	UTKM1/2
Size	1/2 inch(B)
Quantity	288
Valve No.	
Item No.	12
Kiki No.	

MAIN PARTS

No.	Name of parts	Material
001	BODY	Gr. CF8M

TEST

Pressure test	Judge.	Inspection fluid and pressure		
Shell	Good	Hydro	6.20	MPa
		Air	-	
Seat	Good	Hydro	-	
		Air	0.6	MPa
Back seat		Hydro	-	
		Air	-	

Item	Judge.	Attached sheet
Material	Good	Material Test Result
Dimension	Good	
Visual	Good	
Operation	Good	

NONDESTRUCTIVE EXAMINATION

Type of examination and judgement	Attached sheet

REMARKS

REPRESENTATIVE TEST BY HYDRAULIC SHELL TEST HAS BEEN PERFORMED

Witnessed by


KITZ CORPORATION
QC Manager

MATERIAL TEST RESULT

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Certificate No.
1020332040-009-01-01-Z1

Date : 2020/07/06



Figure	UTKM1/2		Valve No.	
Material	ASTM A 351 Gr. CF8M		Item No.	12
Charge No.	Display No.	Name of Parts		
1 D04R-6M	D04RM	BODY		
2 V03RM		BODY		
3 D03-5M	D03RM	BODY		
4 V05RM		BODY		

CHEMICAL COMPOSITION %

Element	C	Mn	Si	S	P	Ni	Cr	Mo								
Spec.	Max	Max	Max	Max	Max	9.0	18.0	2.0								
	0.08	1.50	1.50	0.040	0.040	12.0	21.0	3.0								
1	0.06	0.94	1.06	0.012	0.029	9.3	19.0	2.2								
2	0.05	0.78	0.66	0.003	0.029	9.9	18.5	2.4								
3	0.06	1.06	1.11	0.010	0.032	9.3	19.3	2.1								
4	0.05	0.88	0.58	0.003	0.027	9.9	18.7	2.3								
Element																
Spec.																
1																
2																
3																
4																

TENSION TEST

IMPACT TEST

Item	Tensile str.	Yield str.	Elongation						
Unit	MPa	MPa	%						
Spec.	Min	Min	Min						
1	485	205	30						
2	585	290	39						
3	511	251	47						
4	571	349	43						
	802	387	47						

Item									
Unit									
Spec.									
1									
2									
3									
4									

HEAT TREATMENT °C

Spec.	Min 1040° C WQ
1	ST:1100° C*135min WQ
2	ST:1080° C* 1.5h WQ
3	ST:1100° C*135min WQ
4	ST:1080° C* 1.5h WQ

N:Normalizing A:Annealing T:Tempering Q:Quenching AC:Air Cooling
 WQ:Water Quenching OQ:Oil Quenching WC:Water Cooling FC:Furnace Cooling ST:Solution Treatment

REMARKS

EN10204 Type 2.2

Reviewed by _____

KITZ CORPORATION
 QC Manager

We hereby certify that the articles listed above are satisfactory in accordance with the requirements of the standard and purchase order.

MATERIAL TEST RESULT

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
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1020332040-009-01-01-Z2

Date : 2020/07/06



Figure	UTKM1/2	Valve No.	
Material	ASTM A 351 Gr. CF8M	Item No.	12
Charge No.	Display No.	Name of Parts	
1	K04RM	BODY	
2			
3			
4			

CHEMICAL COMPOSITION %

Element	C	Mn	Si	S	P	Ni	Cr	Mo								
Spec.	Max	Max	Max	Max	Max	9.0	18.0	2.0								
	0.08	1.50	1.50	0.040	0.040	12.0	21.0	3.0								
1	0.05	0.89	1.27	0.009	0.022	9.4	18.1	2.0								
2																
3																
4																
Element																
Spec.																
1																
2																
3																
4																

TENSION TEST

IMPACT TEST

Item			Tensile str.	Yield str.	Elongation				
Unit			MPa	MPa	%				
Spec.			Min	Min	Min				
1			485	205	30				
2			571	357	38				
3									
4									

Item									
Unit									
Spec.									
1									
2									
3									
4									

HEAT TREATMENT °C

Spec.	Min 1040° C WQ
1	ST:1080° C*110min WQ
2	
3	
4	

N:Normalizing A:Annealing T:Tempering Q:Quenching AC:Air Cooling
 WQ:Water Quenching OQ:Oil Quenching WC:Water Cooling FC:Furnace Cooling ST:Solution Treatment

REMARKS

EN10204 Type 2.2

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