

INSPECTION CERTIFICATE

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
DELIVER To	
JOB NAME	
JOB No.	
P.O.No.	APO-2004-0010
PRODUCT CODE	

Certificate No.
1020330662-017-01-01
 Date : 2020/07/03



SPECIFICATION

Manuf No.	1020330662-017		
Description	20K DUCTILE IRON GLOBE VALVE SCREWED ENDS		
Figure	20SY1		
Size	1	inch(B)	
Quantity	10		
Valve No.			
Item No.	25		
Kiki No.			

MAIN PARTS

No.	Name of parts	Material
001	BODY	Gr. 60-40-18
002	BONNET	Gr. 60-40-18

TEST

Pressure test	Judge.	Inspection fluid and pressure		
Shell	Good	Hydro	4.2	MPa
	Good	Air	2.8	MPa
Seat		Hydro	-	
	Good	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

R. Miyagawa
KITZ CORPORATION
 QC Manager

MATERIAL TEST RESULT

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1020330662-017-01-01-Z1

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Figure	20SY1	Valve No.	
	Material ASTM A 395 Gr. 60-40-18	Item No.	25
	Charge No.	Display No.	Name of Parts
1	138		BODY
2	13F		BONNET
3			
4			

CHEMICAL COMPOSITION %

Element	C	Si	P	Mn												
Spec.	Min	*Max	Max													
	3.00	2.50	0.080													
1	3.61	2.59	0.021	0.26												
2	3.61	2.60	0.019	0.29												
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		430	281	21					
2		430	282	21					
3									
4									

Item	Hardness	Microstructure							
Unit	HBW	%							
Spec.	143	Min							
	187	90							
1	143	90							
2	143	90							
3									
4									

HEAT TREATMENT °C

Spec.				
1				
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

* Every 0.01% P reduction enables 0.08% Si increase each within the maximum 2.75%.
 EN10204 Type 2.2

 Reviewed by

R. Miyazawa
KITZ CORPORATION
 QC Manager