

# INSPECTION CERTIFICATE

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
DELIVER To	
JOB NAME	
JOB No.	
P.O.No.	APO-2201-0074
PRODUCT CODE	(TR)C<ZOP02>11/2

Certificate No.  
 1020831160-012-01-01  
 Issue Date : 2022/03/22



## SPECIFICATION

Manuf No.	1020831160-012
Description	CLASS 150 CAST BRONZE GLOBE VALVE SCREWED ENDS
Figure	C<ZOP02>11/2
Size	11/2 inch(B)
Quantity	96
Valve No.	
Item No.	12
Kiki No.	

## MAIN PARTS

No.	Name of parts	Material
001	BODY	CAC
002	BONNET	C 3771 BE

## TEST

Pressure test	Judge.	Inspection fluid and pressure		
Shell	Good	Hydro	2.40	MPa
	Good	Air	0.6	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

*K. Kawate*  
**KITZ CORPORATION**  
 QC Manager

# MATERIAL TEST RESULT

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
JOB NAME	
JOB No.	
P.O.No.	APO-2201-0074
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Certificate No.  
1020831160-012-01-01-Z1

Issue Date : 2022/03/22



Figure	C<ZOP02>11/2	Valve No.	
Material	Other standard	CAC	Item No. 12
Charge No.	Display No.	Name of Parts	
1 21070803-1		BODY	
2			
3			
4			

**CHEMICAL COMPOSITION %**

Element	Cu	Sn	Pb	Zn											
Spec.	79.0	2.0	3.0	4.0											
	87.0	6.0	7.0	12.0											
1	81.5	3.1	5.5	9.6											
2															
3															
4															
Element															
Spec.															
1															
2															
3															
4															

**TENSION TEST**

**IMPACT TEST**

Item			Tensile str.	Elongation					
Unit			N/mm2	%					
Spec.			Min	Min					
1			165	15					
2			239	33					
3									
4									

Item									
Unit									
Spec.									
1									
2									
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**

JIS G 0415 2.2

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 Reviewed by

**KITZ CORPORATION**  
QC Manager

# MATERIAL TEST RESULT

MESSRS	UNIMECH ENGINEERING (M) SDN. BHD.
JOB NAME	
JOB No.	
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Figure	C<ZOP02>11/2	Valve No.	
Material	JIS H 3250 C 3771 BE	Item No.	12
Charge No.	Display No.	Name of Parts	
1 H215089		BONNET	
2			
3			
4			

**CHEMICAL COMPOSITION %**

Element	Cu	Pb													
Spec.	57.0	1.0													
	61.0	2.5													
1	58.8	2.1													
2															
3															
4															

  

Element	Fe+Sn	Zn												
Spec.	Max	Remainder												
	1.0													
1	0.3	REM.												
2														
3														
4														

**TENSION TEST**

**IMPACT TEST**

Item			Tensile str.	Elongation					
Unit			N/mm2	%					
Spec.			Min	Min					
1			315	15					
2			447	32					
3									
4									

Item									
Unit									
Spec.									
1									
2									
3									
4									

**HEAT TREATMENT °C**

Spec.				
1				
2				
3				
4				

N:Normalizing      A:Annealing      T:Tempering      Q:Quenching      AC:Air Cooling  
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**REMARKS**

JIS G 0415 2.2

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