

## Schedule

Issue date: 3 January 2017  
Valid until: 23 November 2017



MS ISO/IEC 17025

**NO: SAMM 082**

(Issue 3, 3 January 2017 replacement of SAMM 082 dated 12 January 2016)

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**FIELD OF CALIBRATION: VOLUMETRIC**

**SCOPE OF ACCREDITATION:**

The valid scope of accreditation is in [www.ism.gov.my/cab-direktories](http://www.ism.gov.my/cab-direktories).

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty(±)*	Remarks
Burette	1 ml to 10 ml	0.006 ml	Calibrated using Analytical Balance and Distilled Water based on ISO 385:2005(E)
	10 ml to 25 ml	0.02 ml	
	25 ml to 50 ml	0.03 ml	
	50 ml to 100 ml	0.07 ml	
Measuring Cylinder	5 ml	0.04 ml	Calibrated using Analytical Balance and Distilled Water based on ISO 4788:2005(E)
	5 ml to 10 ml	0.07 ml	
	10 ml to 25 ml	0.2 ml	
	25 ml to 100 ml	0.4 ml	
	100 ml to 250 ml	0.7 ml	
	250 ml 500 ml	1.6 ml	
	500 ml to 1000 ml	3 ml	
1000 ml to 2000 ml	5 ml		
One Mark Volumetric Flask	5 ml to 10 ml	0.02 ml	Calibrated using analytical Balance and Distilled Water based on ISO 1042:1998
	10 ml to 25 ml	0.03 ml	
	25 ml to 100 ml	0.06 ml	
	100 ml to 500 ml	0.2 ml	
	500 ml 2000 ml	0.3 ml	
Pipette	Type 1, Type 2, Type 3		Calibrated using Analytical Balance and Distilled Water based on ISO 835:2007(E)
	0.5 ml to 1 ml	0.004 ml	
	1 ml to 2 ml	0.007 ml	
	2 ml to 5 ml	0.02 ml	
	5 ml to 10 ml	0.03 ml	
	10 ml to 25 ml	0.06 ml	
	25 ml to 100 ml	0.007 ml	
Piston Operated Volumetric Apparatus (POVA)	10 µl to 200 µl	0.10 µl	Calibrated using Analytical Balance and Distilled Water based on ISO 8655-6:2002 and ISO 8655-2:2002
	200 µl to 500 µl	0.12 µl	
	500 µl to 1000 µl	0.15 µl	
	1 ml to 2 ml	0.25 µl	
	2 ml to 5 ml	0.57 µl	
	5 ml to 10 ml	1.14 µl	

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Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty( $\pm$ )*	Remarks		
Viscosity Flow Cup i. Ford Cup	Cup no. 1 (10 cSt to 35 cSt)	0.07 cSt	Calibrated using Standard Solution and Stop Watch based on ASTM D 1200:2005		
	Cup no. 2 (25 cSt to 120 cSt)	0.2 cSt			
	Cup no. 3 (49 cSt to 220 cSt)	0.5 cSt			
	Cup no. 4 (70 cSt to 370 cSt)	0.6 cSt			
	Cup no. 5 (200 cSt to 1200 cSt)	2 cSt			
	ii. Zahn Cup	Cup no.1 (5 cSt to 60 cSt)		0.1 cSt	Calibrated using Standard Solution and Stop Watch based on ASTM D 4212:2005
		Cup no. 2 (20 cSt to 250 cSt)		0.5 cSt	
		Cup no. 3 (100 cSt to 800 cSt)		1.5 cSt	
		Cup no. 4 (200 cSt to 1200 cSt)		2 cSt	
		Cup no. 5 (400 cSt to 1800 cSt)		3 cSt	
Hydrometer	0.600 g/ml to 1.500 g/ml	0.0007 g/ml	Compare using Hydrometer based on BS 718:1991		

**Signatories:**

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