

Schedule

Setsco Services Pte Ltd
No.18 Teban Garden Crescent
Singapore 608925

Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 1 of 14

FIELD OF TESTING : Mechanical Testing

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
A. TAPS AND MIXERS			
1. Taps and Combination Tap Assemblies	1. Dimensional Measurement 2. Water Tightness Test 3. Pressure Resistance Characteristics 4. Hydraulic Characteristics 5. Mechanical Strength 6. Endurance Test Delay Action 7. Backflow Prevention	) BS 5412 : 1996)) BS EN 200 : 1989, 2008 ) ) ) ) ) ) )	) YA / CKM /) CY / MA) YA / CKM /) CY / MA/) JB / HWC))))
	1. Dimension Measurement 2. Watertightness Characteristics 3. Hydraulic Test 4. Endurance Test 5. Pressure Resistance Test 6. Backflow Prevention 7. Salt Spray Test	) SS 448 : 1-4 : 1998) BS EN 248 : 2002)))))) ISO 9227 : 2006, 2012	) YA / CKM /) CY / MA))))) YA / CKM) NCC / NKG /) WKW
2. Mechanical Mixer	1. Leaktightness Characteristics 2. Sensitivity 3. Flow Rate 4. Mechanical Strength Characteristics 5. Pressure Resistance Characteristics	) BS EN 817 : 2008 ) ) ) ) ) ) )	) YA / CKM /) CY / MA))))))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 2 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
3. Thermomixing Valves	6. Mechanical Endurance Characteristics	) BS 5412 : 1996 )	) YA / CKM /) CY / MA
	7. Backflow Prevention	) SS 448 : 1-4 : 1998))
	1. Dimensional Characteristics (inlet thread)	) BS EN 1287 : 1999 )	) YA / CKM /) CY / MA
	2. Leaktightness Characteristics	)	) JB / HWC
	3. Hydraulic Operating Characteristic))))
	4. Mechanical Performance under Pressure))))
4. Shower Head	5. Mechanical Endurance Characteristics))))
	6. Torsional Resistance Characteristics))))
5. Washing Machine	1. Flow Rate	) AS/NZS 3662: 2005 )	) YA / CKM /) CY / MA) JB / HWC
	1. Water Consumption Test	IEC 60456 Edition 5.0 (2010-02) Clause 8.6 and PUB Requirement	) YA / CKM /) CY / MA))
6. Coating Thickness Measurement	1. Measurement of coating thickness - Coulometric method by anodic dissolution	) BS EN ISO 2177: 2004 ) )	) YA / CKM /) CY / MA) NCC

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 3 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
B. PIPES AND FITTINGS			
1. uPVC Pipes and Fittings	1. Tensile Strength Test	) SS 141 : 1976	) YA / CKM
	2. Heat Reversion Test	) SS 213 : 1998 (1979))
	3. Impact Test	) SS 272 : 1983)
	4. Hydrostatic Pressure Test	) BS 4514 : 2001)
	5. Stress Relief	) BS 3506 : 1969)
	6. Dimensional Measurement	) BS EN 1452-1 to 2 : 2000)
	7. Opacity))
2. Polypropylene Pipes	1. Dimensional Measurement	) DIN 8077 : 1999	) YA / CY /
	2. Surface Finish	) DIN 8078 : 1996, 2008	) MA / CKM
	3. Creep Strength	) DIN 16962-1 to 13 : 1989)
	4. Heat Reversion	) BS EN ISO 15874-2: 2003,)
	5. Ovality	2013)
	6. Long-term hydrostatic strength test	) BS EN ISO 15874-3: 2003,)
	7. Opacity test	2013)
3. Acrylonitrile Butadiene Styrene (ABS) Pipes and Fittings for Pressure Applications	1. Dimension	) AS 3518.1 : 1988	) YA / CKM
	2. Heat Reversion))
	3. Impact))
	4. Short Term Hydrostatic))
	5. Heat Ageing))
4. Polybutylene (PB) Pipes and Associated Fittings	1. Dimension	) BS 7291-2 : 2001, 2010	) YA / CKM /
	2. Short Term Hydrostatic (20°C)	)	) MA / CY
	3. Short Term Hydrostatic (95°C)))
	4. Short Term Hydrostatic – Assembled Pipes (20°C)))
5. Crosslinked Polyethylene (PE- X) Pipes and Associated Fittings	1. Dimension	) BS 7291-3 : 2001, 2010	) YA / CKM
	2. Coil Diameter	)	) MA / CY
	3. Short Term Hydrostatic (20°C)))
	4. Short Term Hydrostatic (95°C)))
	5. Short Term Hydrostatic – Assembled Pipes (20°C)))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 4 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
6. Chlorinated Polyvinyl Chloride (PVC-C) Pipes and Associated Fittings and Solvent Cement	1. Opacity 2. Dimensions 3. Longitudinal Reversion 4. Short Term Hydrostatic (20°C) 5. Short Term Hydrostatic (82°C) 6. Short Term Hydrostatic – Assembled Pipes (20°C)	) BS 7291 : Part 4 : 1990 ) ) ) ) ) )	) YA / CKM))))))
7. Epoxy Coated Galvanized Iron/Malleable Iron Pipe Fittings	1. Jointing Threads 2. Visual Inspection 3. Leak Tightness Test 4. Coating Thickness Measurement	) BS 143 & 1256 : 2000 ) ) )	) YA / CKM))))
8. Constant Flow Regulator	1. Constant Flow Measurement	) BS EN 246 : 2003 )	) YA / CKM /) CY / MA
9. Flexible Tube	1. Heat Aging 2. Watertightness 3. Endurance Test	) AS/NZS 3499 : 2006 ) )	) YA))
10. Line Pipe	1. Flattening Test	API SPEC 5L: 2004, 2012	) YA / CKM
11. Ductile Iron Pipe & Fitting	1. Dimensional Measurement 2. Tensile Strength Test 3. Hardness Test - Brinell 4. Diametral Stiffness 5. Abrasion Resistance 6. Hydrostatic Pressure Test 7. Thickness Measurement on Cement Lining 8. Microstructure	) BS EN 545 : 2006, 2010) BS EN 598 : 1995, 2007) +A1:2009))) BS EN 969 : 1996) ISO 2531 : 1998 ) )	) YA / CKM) CY/ MA/) WC)))))
12. Carbon Pipe Tube Polyethylene (PE- X) Pipes and Associated Fittings	1. Dimensional Measurement 2. Tensile Strength Test 3. Hydrostatic Pressure Test 4. Bend Test 5. Flattening Test	) BS 3601 : 1987) BS EN 10002-1 : 2001) BS EN 10216-1 : 2002, 2013) BS EN 10217-1: 2002) BS EN ISO 6892-1: 2009	) YA / CKM) CY/ MA/) WC))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 5 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
13. Stainless Steel Tubes and Pipes	1. Dimensional Measurement 2. Hydrostatic Pressure Test 3. Drifting Test 4. Flattening Test 5. Mechanical Properties at Room Temperature 6. Bend Test 7. Leak Tightness 8. Intergranular Corrosion Test 9. Mechanical Properties at Room Temperature 10. Flattening Test 11. Bend Test 12. Weld Bend Test 13. Leak Tightness	) BS EN 10312 : 2002) BS EN ISO 8492: 2004, 2013) BS EN ISO 8493 : 2004)) BS EN 10216-5 : 2004, 2013 (exclude clause 11.2.2 on elevated temperature)) BS EN 10217-7: 2005, 2014))) BS EN ISO 3651-2: 1998) BS 3605-1 : 1991) BS 3605-2 : 1992 ) ) ) ) ) )	) YA / CKM /) CY / MA))))))))))))))
14. Screwed and Socketed Steel Tubes and Tubulars	1. Tensile Strength Test 2. Flattening Test 3. Hydrostatic Pressure Test	) BS EN 10255 : 2004 ) )	) YA / NAM /) YPS / CKM)
15. Copper Tubing	1. Tensile Strength Test 2. Drifting Test 3. Hydrostatic Pressure Test 4. Flanging Test 5. Dimension Measurement 6. Hardness Test 7. Carbon Film Test	) BS EN 1057 : 2006 ) ) ) ) ) )	) YA / CKM))))))
16. Corrosion of Metals and Alloys	1. Dezincification Resistance 2. Stress Corrosion Resistance	) BS EN ISO 6509: 1995, 2014) ISO 6957 : 1988	) YA / WKW /) NCC / NKG) YA / WKW
17. Y-Strainer	1. Mating Dimension & Flange Tolerance 2. Pressure Test/ Temperature Rating	) BS EN 1092-1 : 2002, 2007+A1: 2013) BS EN 1092-2 : 1997) BS EN 545 : 2006, 2010 )	) YA / CKM)))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 6 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
18. Steel Flange Adaptor	<ol style="list-style-type: none"> Mating Dimension & Flange Tolerance Pressure Test/ Temperature Rating 	<ul style="list-style-type: none">) BS EN 1092-1 : 2002, 2007+A1: 2013) BS EN 1092-2 : 1997) BS EN 545 : 2006, 2010) 	<ul style="list-style-type: none">) YA / CKM))))
19. Copper/Copper Alloy or Stainless Steel Mechanical Joining End Connectors	<ol style="list-style-type: none"> Resistance Pull Out Leaktightness under internal hydrostatic pressure while subjected to bending Leaktightness/ Pressure Test 	<ul style="list-style-type: none">) BS EN 1254-2 : 1998))) 	<ul style="list-style-type: none">) YA / CKM /) CY / MA)))
	<ol style="list-style-type: none"> Strength of Joint Assembly Resistance to Pull Out of Assembled Joint Method of Determining Compatibility of fittings with pipe 	<ul style="list-style-type: none">) AS 3688 : 2005)))) 	<ul style="list-style-type: none">)))))
20. Thermoplastic Pipes and Fittings	<ol style="list-style-type: none"> Opacity 	<ul style="list-style-type: none">) BS 7291-1 : 2010) 	<ul style="list-style-type: none">) YA / CKM /) CY / MA
21. Fitting	<ol style="list-style-type: none"> Body Pressure Resistance Elongation Resistance Internal Pressure Resistance Repeatability Vibration 	<ul style="list-style-type: none"> JWWA G 116 : 2007 (in general accordance based on translated document in English) 	<ul style="list-style-type: none">) YA / CKM /) CY / MA)))
C. SOLVENT CEMENT	<ol style="list-style-type: none"> Shear Strength Test Film Properties Long Term Hydrostatic Pressure Test 	<ul style="list-style-type: none">) BS 4346 : Part 3 : 1982))) 	<ul style="list-style-type: none">) YA / CKM /) CY / MA /) WC)

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 7 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY	
D. SANITARY WARE				
1. WC Pan	1. Dimension Measurement	) SS 379 : 1996	) YA / CKM /
	2. Flushing Test	)	) CY / MA
	3. Quality of Glazing and Visual Exam))	
	4. Warpage))	
	5. Burning Resistance))	
	6. Chemical Resistance))	
	7. Stain Test))	
	8. Load Test for Wall Hung Pan))	
	9. Integral Water Seat Test))	
	1. Flushing Test	) SS 574-2: 2012	) YA / CKM /
	2. Load Test for Wall Hung Pan	)	) CY / MA /
	3. Trap Seal Depth Determination and Restoration Test	)	) WC
	2. Wash Basin	1. Quality of Glazing and Visual Exam) SS 42 : 1971) YA / CKM /
		2. Warpage)) MA / WC
		3. Burning Resistance))
4. Dimensional Measurement))	
5. Water Absorption))	
6. Chemical Resistance))	
3. WC Cisterns	1. Dimension	) SS 378 : 1996	) YA / CKM /
	2. Volume of Discharge	) PUB Specs (Dual-Flush	) CY / MA
	3. Flushing Test	) Low Capacity Cistern -)	
	4. Endurance Test	) Sep 07))	
	5. Hydraulic Test))	
	6. Resistance to Torque of Flushing Device))	
	7. Dead Load Test on Operating Mechanism))	
	8. Front Thrust	) SS 378 : 1996)	
	9. Backflow Prevention	) PUB Specs (Dual-Flush)	
	10. Adjustability of Float Operated Valve	) Low Capacity Cistern -)	
	11. Water Line	) Sep 07))	

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 8 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
	1. Materials & Design/ Dimension	) SS 574-1: 2012	) YA / CKM /
	2. Marking	)	) CY / MA /
	3. Front Thrust Test (except conceal cistern)	)	) WC
	4. Distortion Test))
	5. Leakage Test))
	6. Torque Test))
	7. Volume of Discharge per Flush (for full & reduced flush)))
	8. Water Line))
	9. Water Inlet Valve))
	10. Hydraulic Test))
	11. Endurance Test (for full & reduced flush)))
	12. Flushing Tests))
	13. Load Test on Operating Mechanism (for full & reduced flush)))
	14. Flush Button Design))
	15. WC Drainline Transportation Test (For cisterns with full flush volume of less than 3.5 litres/flush)	)	) YA / CKM /) CY / MA
4. Inlet Valve (Float Operated Valve – WC Flushing System)	1. General Dimension	) BS 1212-4: 1991	) YA / CKM /
	2. Inlet Connection	)	) CY / MA
	3. Backnuts	)	) WC
	4. Float Adjustment))
	5. Discharge Arrangement))
	6. Inlet Shank & Backnuts))
	7. Distortion test))
	8. Static Pressure Test))
	9. Shut-off Pressure and level deflection))
	10. Dynamic Pressure))
	11. Impact Test))
	12. Backflow))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 9 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
5. Toilet Seat & Cover	1. Water Absorption 2. Rigidity 3. Distortion	) SS 16 : 1985 ) )	) YA / CKM))
6. Sensors of Flushing Devices	1. Requirements	) PUB Specs (WE 92413/40)) - Appendix A: June 2003	) YA / CKM) CY / MA) WC
7. Sensor Device for Urinal Flush Valve	1. Endurance 2. Determination of Sensing Distance 3. Manual Over-Ride	) PUB Specs (WE 92413/40):) - Appendix B: June 2003) Part I )	) YA / CKM) CY / MA) WC)
8. Urinal Flush Valve	1. Endurance Test 2. Hydraulic Test 3. Volume Discharge 4. Effectiveness of Vacuum Breaker Test	) PUB Specs (WE 92413/40)) - Appendix B: June 2003) Part II ) )	) YA / CKM) CY / MA) WC))
9. Manual Operated Urinal Flush Valve	1. Endurance Test 2. Hydraulic Test 3. Volume Discharge 4. Effectiveness of Vacuum Breaker Test	) PUB Specs (WE 92413/40)) - Appendix C: June 2003 ) ) )	) YA / CKM) CY / MA) WC))
10. Sensor Device for 4.5 Water Closet Flush Valve	1. Endurance Test 2. Determination of Sensing Distance 3. Manual Over-Ride	) PUB Specs (WE 92413/40)) - Appendix D: June 2003) Part I )	) YA / CKM)))
11. 4.5 Litre Water Close Flush Valve	1. Endurance Test 2. Hydraulic Test 3. Volume Discharge 4. Flushing Test 5. Effectiveness of Vacuum Breaker Test	) PUB Specs (WE 92413/40)) - Appendix D: June 2003) Part II ) ) ) )	) YA / CKM)))))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 10 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
12. Manual Operated 1.5 Litre Water Closet Flush Valve	1. Endurance Test 2. Hydraulic Test 3. Volume Discharge 4. Flushing Test 5. Effectiveness of Vacuum Breaker Test	) PUB Specs (WE 92413/40)) - Appendix E: June 2003 ) ) ) ) )	) YA / CKM)))))
13. Low Capacity Flushing Cisterns	1. Quality of glazing and visual exam 2. Warpage 3. Burning/ Staining Resistance 4. Dimensional Measurement 5. Water Absorption 6. Chemical Resistance 7. Crazing	) BS 3402 : 1969 ) ) ) ) ) ) )	) YA / CKM /) CY / MA) WC))))
14. Ceramic Plumbing Fixture	1. Drain Line Transport Characteristics 2. Dye Test	) ASME A112.119.2 : 2008 ) )	) YA / CKM /) CY / MA)
15. Toilet Seat with Bidet	1. Wash water temperature test 2. Warm wind temperature test 3. Toilet seat temperature test 4. Washing water quantity test 5. Anus Douch Capacity Test 6. Warm wind 7. Performance Test 8. Insulation Resistance Test 9. Moisture Proof Insulation resistance test 10. Withstand voltage test 11. Ordinary temperature test 12. Abnormal Temperature test 13. Toilet seat strength test 14. Toilet seat cover strength test	) JIS A 4422 : 1986 ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	) YA / CKM /) CY / MA)))))))))))))))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 11 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
E. VALVES			
1. Copper and Copper Alloys	1. Tensile Test	BS EN 10002-1 : 2001 BS EN ISO 6892-1: 2009	) YA / CKM)
	2. Tensile Test	*BS EN 1982 : 1999, 2008)
	3. Alpha-Phase Determination	BS EN 1982 : 1999, 2008	) YA / NCC
	4. Grain Size Determination	BS EN ISO 2624 : 1995 *BS EN 1982 : 1999, 2008	) YA / WKW /) NCC
	5. Dezincification Resistance	BS EN ISO 6509 : 1995, 2014 *BS EN 1982 : 1999, 2008 *BS EN 12420 : 1999, 2014 *BS EN 12163 : 1998, 2011 *BS EN 12165 : 1998, 2011	) YA / WKW /) NCC/ NKG)))
	6. Stress Corrosion Resistance Test	ISO 6957 : 1988 *BS EN 12163 : 1998, 2011 *BS EN 12420 : 1999, 2014	) YA / WKW))
2. Cast Iron/ Ductile Iron/ Check Valve	1. Pressure Test	) BS 5153 : 1974 )	) YA / CKM)
3. Cast Iron Check Valve	1. Dimension and Tolerance on Body End	) *BS EN 12334 : 2001) BS EN 558-1: 1996, 2008 +A1: 2011) BS EN 1092-2 : 1997) BS EN 12266-1: 2003, 2012	) YA / CKM))))
	2. Pressure Test	) BS EN 12266-1: 2003, 2012)
4. Metallic Iron Butterfly Valve	1. Dimension Measurement	) BS EN 593 : 2004	) YA / CKM
	2. Pressure Test	) BS EN 558-1: 1996, 2008 +A1: 2011))
		) BS EN 558-2 : 1996)
		) BS EN 1092-1 : 2002, 2007+A1: 2013))
		) BS EN 1092-2 : 1997)
		) BS EN 1092-3 : 2003)

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 12 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
5. Cast Iron/Ductile Iron Gate Valve	1. Dimension Measurement 2. Strength Test 3. Functional Test 4. Pressure Test	) BS 5163 : 1986 ) ) )	) YA / CKM)))
6. Solenoid Gate Valve	1. Pressure Test	) *BS 5163-1 & 2 : 2004) BS EN 1074-1 : 2000	) YA / CKM)
7. Cast Iron/Ductile Iron Globe & Check Valve	1. Dimension Measurement 2. Pressure Test	) BS 5152 : 1974 )	) YA / CKM)
8. Cast Iron Globe Valve	1. Dimension and Tolerance on Body End 2. Pressure Test	) *BS EN 13789 : 2002) BS EN 588-1: 1996) BS EN 1092-2 : 1997) BS EN 12266-1: 2003, 2012	) YA / CKM)))
9. Copper Alloy/Cast Iron/Ductile Iron Float Operated Valve (Diaphragm)	1. Construction & Dimension 2. Hydraulic Pressure 3. Shut-Off 4. Backnut Distortion 5. Backflow Prevention 6. Jointing Method 7. Float Shape 8. Dimension & Weight 9. Immersion 10. Marking 11. Mating Dimensions 12. Flange Thickness 13. Elastomeric Seal - a. Tensile Properties b. Compression Test c. Elongation at Break d. Hardness e. Stress Relaxation f. Water Absorption g. Ozone Test h. Accelerated Aging	) BS 1212-2 : 1990))))))) BS 1968: 1953))) BS 4504-3 Sect.3.2 : 1989) BS EN 1092-2 : 1997) SS 270 : 1996 , 2015 ) ) ) ) ) ) ) ) ) ) ) )	) YA / CKM)))))))))))) YA / CKM /) CY/ MA /) WC)))))))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 13 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
10. Copper Alloy/ Cast Iron/ Ductile Iron Float Operated Valve (Piston)	1. Construction & Dimension	) BS 1212-1 : 1990	) YA / CKM
	2. Performance))
	3. Jointing Method	) BS 1968: 1953)
	4. Float Shape))
	5. Dimension & Weight))
	6. Immersion))
	7. Marking))
	8. Mating Dimensions	) BS 4504-3 Sect.3.2 : 1989)
	9. Flange Thickness	) BS EN 1092-2 : 1997)
11. Cast Iron/ Ductile Iron Water Pressure Reducing Valve	1. Pressure Strength & Tightness of Body	) BS EN 1567 :1999	) YA / CKM
	2. Tightness between Inlet & Outlet Chamber))
	3. Set Point Flange for Adjustable/ Non-Adjustable Valves))
12. Copper Alloy Gate, Globe and Check Valves	1. Dimension Measurement	) BS 5154 : 1991	) YA / CKM
	2. Pressure Test))
13. Copper Alloy Gate Valve	1. Dimension and Tolerance on Body End	) * BS EN 12288 : 2003) BS EN 558-1: 1996, 2008 +A1: 2011	) YA / CKM
	2. Pressure Test	) BS EN 1092-3: 2003) BS EN 12266-1: 2003, 2012)
14. Copper Alloy Stopcock, Ball Stopvalves and Stopvalves	1. Dimension Measurement	) SS 75-2 : 1978	) YA / CKM
	2. Pressure Test))
15. Compression & Capillary Pipe Fittings	1. Dimension	) BS EN 1254-1 & 2 : 1998	) YA / CKM /
	2. Leak Tightness/ Pressure Test	)	) CY / MA
16. Ductile Iron Gate Valve	1. Max. Operating Torque for Operation & Leak Tightness	) BS EN 1074-1: 2000) BS EN 1074-2 :2000	) YA / CKM /) CY / MA
	2. Hydraulic Characteristics))
	3. Resistance of Valves to Bending))

Schedule



Certificate No. : LA-1993-0067-G
(Part 2 of 5)

Issue No. : 31

Date : 8 April 2016

Page : 14 of 14

ITEMS/ MATERIALS/ PRODUCTS TESTED	TESTS/ MEASUREMENT RANGE OF MEASUREMENT	STANDARD METHODS/ TECHNIQUES/ EQUIPMENT	APPROVED SIGNATORY
17. Copper Alloy Stainless Steel Ball Valve	1. Operating Torque Test 2. Torque and Bending Test 3. Mechanical Resistance Test (stops & spindle) 4. Hydraulic Test 5. Endurance Test	) BS EN 13828 : 2003 ) ) ) ) )	) YA / CKM /) CY / MA))))
18. LPG Gas Regulator	1. Leakage Test 2. Drop Test 3. Flow Test 4. Endurance Test 5. Bursting and Pull-Out Test of Diaphragms 6. Relief Valve Test 7. Clip-On Connection Test 8. Mechanical Strength Test	) SS 281 : 1984 ) ) ) ) ) ) ) ) ) )	) YA))))))))))

Approved Signatories

Mr Yusoo Aynuddin	YA	Mr Chen Yu	CY
Mr Cheng Kwang Meng	CKM	Mr Mohd Azam	MA
Mr Wong Kok Wah	WKW	Mr Wang Chao	WC
Mr Ng Chang Chong	NCC	Mr Ng Kian Guan	NKG
Mr Ho Wan Chong	HWC	Belarmino Jerny Fabian	JB

* Product Specification

Note :

This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid test results. The **management system requirements** in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 **Quality Management Systems — Requirements** and are aligned with its pertinent requirements.