

## Form B03

## Scheduled Maintenance Work Order



Quantum Medical Solutions sdn bhd  
transcending boundaries, transforming life

Format Ref: - QMS/TSD-022 Rev.01

Work Order No.	PWO365680	Schedule Month	June 2018
Work Order Date	01/06/2018	Completed Date	25/6/18
Clinic Name	Klinik Pergigian Sekolah Menengah Le	Clinic Code	JHR556
BE No.	JHR023433	Distict	LEDANG
BE Category	STERILIZING UNITS, STEAM	WO Assigned to	12VAN
Ownership	<input checked="" type="checkbox"/> Existing Equipment	<input type="checkbox"/> Purchase	<input type="checkbox"/> New
BE Condition	<input checked="" type="checkbox"/> Active	<input type="checkbox"/> BER Proposed	
Work Order Type	<input type="checkbox"/> Preventive Maintenance (PM)	<input type="checkbox"/> Third Party Calibration (TPC)	
	<input type="checkbox"/> Routine Inspection (RI)	<input type="checkbox"/> Statutory Certification (SC)	

Reschedule Date	
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## 3E Third Party Calibration / Statutory Certification Details

Company Name		Cal / Cert Date	
Contact Number		Cal / Cert Expiry Date	

## Action Taken

- ☒ PM / RI job done as per checklist. Unit tested functioning good & ready to use.
- ☒ Corrective Maintenance / ☐ Breakdown
- BE Sticker Availability: ☒ Yes / ☐ NA

Manufacturer: Tuttanaver

Modal: 1730 MPV

Serial No: 158649

Remarks:

## Schedule Maintenance Execution Details

SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
1	12VAN	25/6/18	3:10	4:10

Customer Remarks

Engineer / Technician Signature	Customer Signature
Name	Name
Date	Designation
	Date
	Seal

For Internal Use

First Verification

QMS Circle Incharge

Final Verification

QMS State Incharge

MOHD WILLY BIN ZAKARIA  
Technical Service Department  
Quantum Medical Solutions Sdn Bhd  
HP: 012-3967638





# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Sterilizing units, Steam  
BE CODE : 13-746

CHECKLIST NO: CL-148-000  
REV.001

## PART 1 ASSET DETAILS

WORK ORDER NO ▶ PW0865680 ASSET NO ▶ JHR020433  
MANUFACTURER ▶ GENERAL (Tuttnauer) MODEL ▶ GENERAL (1730MEV)  
FREQUENCY ▶ 3 MONTHLY ( ) 6 MONTHLY ( / ) 12 MONTHLY ( ) PPM HOURS ▶ 1 HOUR

## PART 2 SPECIAL PRECAUTION

If there is evidence of body fluid contamination, submit the device for cleaning and decontamination before inspecting it.  
Wear appropriate Personnel Protection Equipment (PPE) during work.  
Wear grounded electrostatic wristband when handling PCB or electronic components.  
Refer to the safety procedure for additional precautions and guidance as per manufacturer guidelines.  
Make sure the test equipment used are duly calibrated.

## PART 3 TEST APPARATUS

Tick (✓) where appropriate

NO	ASSET NO	DESCRIPTION	SERIAL NO	CALIBRATION DUE ON
1	TEESAA 0055 0158	DIGITAL TEMPERATURE METER	3246911 2952020165	26/12/18
2	TEEJA 0335	DIGITAL PRESSURE METER	H-315545	8/11/18

## PART 4 QUALITATIVE TASKS

Tick (✓) where appropriate

(Penutup tangki: pecah)											
		PASS	FAIL	NA				PASS	FAIL	NA	
1	Chassis - verify physical integrity, cleanliness and condition	( <input checked="" type="checkbox"/> )	( <input checked="" type="checkbox"/> )	( )		10	Over pressure cut of valve - Verify physical integrity	( <input checked="" type="checkbox"/> )	( )	( )	
2	Power Cord - verify proper insulation and integrity	( <input checked="" type="checkbox"/> )	( )	( )		11	Door lock - Verify physical integrity	( <input checked="" type="checkbox"/> )	( )	( )	
3	Strain Relief - verify physical integrity at both ends of line cord	( <input checked="" type="checkbox"/> )	( )	( )		12	Door gasket Verify physical integrity	( <input checked="" type="checkbox"/> )	( )	( )	
4	Fittings/ Connectors - check all fittings/connectors	( <input checked="" type="checkbox"/> )	( )	( )		13	Check water tank leak	( <input checked="" type="checkbox"/> )	( )	( )	
5	Controls/Switches - verify proper operation of controls	( <input checked="" type="checkbox"/> )	( )	( )		14	Check drain valve -Physical integrity	( <input checked="" type="checkbox"/> )	( )	( )	
6	Indicators/ Displays - verify proper illumination and operation	( <input checked="" type="checkbox"/> )	( )	( )		15	Check label	( <input checked="" type="checkbox"/> )	( )	( )	
7	Check fuse, circuit breaker	( <input checked="" type="checkbox"/> )	( )	( )		16	Check demineralisation and sensor (if available)	( <input checked="" type="checkbox"/> )	( )	( )	
8	Heater - verify physical Integrity	( <input checked="" type="checkbox"/> )	( )	( )		17	Check automatic water filling (if available)	( <input checked="" type="checkbox"/> )	( )	( )	
9	Chamber - verify physical integrity (scalling, rusting, pitting or impurities)	( <input checked="" type="checkbox"/> )	( )	( )		18	Replace Bacteria/Air Sterilization Filter	( )	( )	( <input checked="" type="checkbox"/> )	

## PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (✓) where appropriate

				DONE	NOT DONE **	NA					
1	Clean exterior and interior of the equipment	( ✓ )	(   )	(   )			4	Lubricate all moving parts	(   )	(   )	( ✓ )
2	Check / replace gasket ***	( ✓ )	(   )	(   )			Notes:  * For all Parts, NA is defined as NOT APPLICABLE				
3	Check/ clean solenoids	( ✓ )	(   )	(   )							



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CHECKLIST NO:CL-148-000 REV.001

WORK Order No

► PW0365680

## PART 6 SERVICE CHECKLIST

No	Description	Checked	Service/ Clean	Replaced	Not Applicable	No	Description	Checked	Service/ Clean	Replaced	Not Applicable
1	Fuses	( / )	( )	( )	( )	16	Discharge Valve	( )	( )	( )	( )
2	Main Control Board	( / )	( )	( )	( )	17	Infill Valve	( )	( )	( )	( )
3	Control Board	( / )	( )	( )	( )	18	Heating Element	( / )	( )	( )	( )
4	Fan Running Rear & Side	( / )	( )	( )	( )	19	Heat Exchanger/Cooling system (if applicable)	( / )	( )	( )	( )
5	Water Reservoir Float Switch/Water Level Sensor	( / )	( )	( )	( )	20	Vacuum Pump	( / )	( )	( )	( )
6	Water Reservoir	( / )	( )	( )	( )	21	Door Gasket	( / )	( )	( )	( )
7	Electric Door Lock	( / )	( )	( )	( )	22	Chamber Guard Seal (if applicable)	( / )	( )	( )	( )
8	Pressure Door Lock	( / )	( )	( )	( )	23	Solid State Relay	( )	( )	( )	( )
9	Discharge Door Lock	( / )	( )	( )	( )	24	Thermostat Assembly	( )	( )	( )	( )
10	Pressure Transducer	( )	( )	( )	( / )	25	Temperature Sensor	( / )	( )	( )	( )
11	Pressure Gauge	( / )	( )	( )	( )	26	Thermal Printer (if applicable)	( )	( )	( )	( / )
12	Safety Valve	( / )	( )	( )	( )	27	Vacuum Pump (if applicable)	( / )	( )	( )	( )
13	Air Valve/Steam Solenoid Valve	( / )	( )	( )	( )	28	Filters / strainer	( / )	( )	( )	( )
14	Air Valve/Steam Solenoid Valve	( / )	( )	( )	( )						
15	Air Valve/Steam Solenoid Valve	( / )	( )	( )	( )						

## PART 7 Technician Remarks

NA





# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Sterilizing units, Steam  
BE CODE : 13-746

CHECKLIST NO: CL-148-000  
REV.001

WORK ORDER NO ▶ PW0265630

## PART 8 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PASS	FAIL	NA
1	Temperature reading	°C	134°C	134.2	134-137 121-124	(✓)	( )	( )
2	Pressure reading	bar		2.23	2.03-2.32 1.03-1.23	(✓)	( )	( )
3	Electrical Supply Voltage	V		refer to EST	Refer to nameplate	(✓)	( )	( )
4	Electrical Power	kW		refer to EST	Refer to nameplate	(✓)	( )	( )

## PART 9 ELECTRICAL SAFETY TEST

ELECTRICAL SAFETY TEST, (attach report)

(In accordance to IEC 60601)

☒ PASS

☐ FAIL

☐ NA

## PART 10 NOTES

☐ CORRECTIVE MAINTENANCE REQUIRED

☒ FUNCTIONING

☐ NOT FUNCTIONING

WORK ORDER NO ▶

NEXT PPM DATE ▶ 12/18

PPM has been performed in accordance to the checklist and the equipment is functioning to the intended purpose.

COMPLETED BY:

WITNESSED BY USER:

DATE :

DATE :



Date :25/6/2018

## Test Setup

Operator ID :  
Calibration Tech : NADIA  
Calibration Date : 25/8/2018  
Firmware Version : 2.08.01  
Serial Number : 3246911  
Date & Time : 25/06/2018 & 3:10 P.M  
JOB Name :

## DUT Information

Equipment Number : JHR 023433  
Serial Number : 158649  
Manufacturer : TUTTNAUER  
Model : 1730MKV  
Location : KP SEKOLAH MENEGAH  
Other :

## Template Information

Template Name : 62353-Alt.STERILIZING  
Pause after Power ON: NO  
Power ON delay: 2  
Test Speed: NORMAL  
Halt on Test Failure: YES  
Include Time: YES  
Insulation Resistance \ 500V  
Multi Enclosure Test : NO

Standard : IEC62353-Direct  
Pause before Power O NO  
Power OFF delay: 0  
Test Mode: AUTO  
Multi PE Test: NO  
Multi Resstore: WORST/LAST  
Reverse Polarity: YES  
Classification: I

## PLC Configuration-Applied part setup

AP Name AP Type AP Num

## ESA615 Test Results

Test Name	Value	High Limits	Low Limits	Status
Protective Earth Resistance	0.25 Ohm	0.3	-	P
Insulation Resistance				P
Mains to Protective Earth	78.4MOhn	-	-	P
Mains Voltage				P
Live to Neutral	240.9 V	-	-	P
Neutral to Earth	3.6 V	-	-	P
Live to Earth	239.3 V	-	-	P
Equipment Current	0.4 A	-	-	P
Direct Equipment Leakage				P
Open Earth	33.34uA	500	-	P
Open Earth- Reversed Mains	52.3 uA	500	-	P

