

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.	PWO365802	Schedule Month	July 2018
Work Order Date	01/07/2018	Completed Date	18/7/18
Clinic Name	Klinik Kesihatan Pengerang	Clinic Code	JHR045
BE No.	JHR008105	Distict	KOTA TINGGI
BE Category	Centrifuges, Tabletop, High-Speed,	WO Assigned to	1CFGBME4
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 checked="" 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	NA
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BE Third Party Calibration / Statutory Certification Details			
Company Name	NA	Cal / Cert Date	NA
Contact Number	NA	Cal / Cert Expiry Date	NA
Action Taken		Manufacturer: Heitich	
<input checked="" type="checkbox"/> PM / RI job done as per checklist. Unit tested functioning good & ready to use.		Model: HAEMA70KRIT 210	
<input type="checkbox"/> Corrective Maintenance / <input type="checkbox"/> Breakdown		Serial No: D-78532	
BE Sticker Availability: <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> NA			
Remarks:			

Schedule Maintenance Execution Details				
Sl No	QMS Engineer / Technician Name	Date	Start Time	End Time
	ZULHELMI	18/7/18	15-30	16-30
Customer Remarks				
NA				
Engineer / Technician Signature		Customer Signature		
Name		Name		
Date		Date		
18/7/18		18/7/18		
ZULHELMI BIN ALI Senior Biomedical Technician Quantum Medical Solution Sdn. Bhd.		MOHD IZHAN BIN WAGIMAN Penolong Pegawai Perubatan U29 Klinik Kesihatan Pengerang 81600 Pengerang, Johor.		

For Internal Use

MUHD RAMADHAN AULANAR JAYA
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Technical Service Department
Quantum Medical Solutions Sdn. Bhd.
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Final Verification
QMS State Incharge

**KEMENTERIAN KESIHATAN MALAYSIA**

MEET Planned Preventive Maintenance Checklist
Centrifuge Tabletop, High Speed, Hematocritirators
BE CODE : 10-779

CHECKLIST NO: CL-039-000
REV.000

PART 1 ASSET DETAILS

WORK ORDER NO ▶ PW0365802 BE NO ▶ JHR008105
MANUFACTURER ▶ Hethch MODEL ▶ HAEMATOKRT 210
FREQUENCY ▶ 6 MONTHLY () 12 MONTHLY (✓) PPM HOURS ▶ 1.00

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.	TEESA0010	ELECTRICAL SAFETY ANALYZER	3218071	24/8/2018
2.	TEESA0099	TACHOMETER	H.310425	10/11/2018
	N/A	STOP WATCH	N/A	N/A

PART 4 QUALITATIVE TASKS

Tick (✓) where appropriate

	PASS	FAIL	NA	
1 Chassis - verify physical integrity, cleanliness and condition	(✓) () ()			8 Rotor Fixing Nuts - Verify integrity (✓) () ()
2 Mount/ Fasteners - verify physical integrity	(✓) () ()			9 Chamber - Verify physical integrity (✓) () ()
3 Circuit Breaker/ Fuse - verify integrity of external circuit breaker and/or rating of external fuse	(✓) () ()			10 Carbon Brush - Verify Integrity (✓) () ()
4 Power Cord / cables - verify proper insulation and integrity	(✓) () ()			
5 Strain Relief - verify physical integrity at both ends of line cord	(✓) () ()			
6 Controls/ Switches - verify proper operation of controls	(✓) () ()			
7 Indicators/ Displays - verify proper illumination and operation	(✓) () ()			

PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (✓) where appropriate

	DONE	NOT DONE **	NA	Notes:
1 Clean exterior and interior of the equipment	(✓) () ()			* For all Parts, NA is defined as NOT APPLICABLE ** If you have ticked 'NOT DONE', then justify in Part 8 *** Choose Whichever Applicable



KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist
Centrifuges, Tabletop, High-Speed, Microhematocrit
BE CODE : 10-779

CHECKLIST NO: CL-039-001
REV.000

WORK ORDER NO ▶ PW0365802

PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PAS S	FAIL	NA
	Rotating speed	rpm	6000	5900	±10%	(✓)	()	()
	Timer Accuracy	min	3	3.00		(✓)	()	()

PART 7 ELECTRICAL SAFETY TEST

ELECTRICAL SAFETY TEST, (attach report)

Tick (✓) where appropriate

Standard use :

☒ IEC 60601

☐ IEC 61010

☐ IEC 62353

Result :

☒ PASS

☐ FAIL

☐ NA

PART 8 NOTES

NA

☐

CORRECTIVE MAINTENANCE REQUIRED

☒

FUNCTIONING

☐

NOT FUNCTIONING

WORK ORDER NO

W/A

NEXT PPM DATE

7/19

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

COMPLETED BY:

ZULHELMI BIN ALI

Senior Biomedical Technician

Quantum Medical Solution Sdn. Bhd.

DATE: 18/7/18

Test Setup

Operator ID :
 Calibration Tech : MOHANA
 Calibration Date : 08/24/2018
 Firmware Version : 2.08.01
 Serial Number : 3218071
 Date & Time : 07/18/2018 & 15:20pm
 JOB Name :

DUT Information

Equipment Number : JHR008105
 Serial Number :
 Manufacturer :
 Model :
 Location : KK Pengerang
 Other :

Template Information

Template Name : CENTRIFUGE
 Pause after Power ON: NO
 Power ON delay: 2
 Test Speed: NORMAL
 Halt on Test Failure: YES
 Include Time: YES
 Insulation Resistance \geq 500V
 Multi Enclosure Test : NO

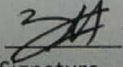
Standard : IEC60601-1-2nd Ed
 Pause before Power ON: NO
 Power OFF delay: 0
 Test Mode: AUTO
 Multi PE Test: NO
 Multi Resstore: WORST/LAST
 Reverse Polarity: YES
 Classification: II

PLC Configuration-Applied part setup

AP Name AP Type AP Num

ESA615 Test Results

Test Name	Value	High Limits	Low Limits	Status
Insulation Resistance				P
Mains to Non-Earth Accessible Conductive Par	999 MOhm	-	-	P
Mains Voltage				P
Live to Neutral	236.9 V	-	-	P
Equipment Current	0.0 A	-	-	P
Enclosure Leakage Current				P
Normal Condition	0.6 uA-OPI	100	-	P
Open Neutral	0.7 uA-OPI	500	-	P
Open Neutral- Reversed Mains	0.7 uA-OPI	500	-	P
Normal Condition- Reversed Mains	0.6 uA-OPI	100	-	P
Earth Leakage Current				P
Open Neutral	17.8 uA-OI	1000	-	P


 Signature