







# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Sterilizing units, Portable  
BE CODE : DE-031

CHECKLIST NO: CL-147-000  
REV.001

## PART 1 ASSET DETAILS

WORK ORDER NO ▶ ppm / pmo 365296 ASSET NO ▶ JHR 023406  
MANUFACTURER ▶ melag MODEL ▶ vacuKev 3184  
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.	TECJA0025	DIGITAL TEMPERATURE PROBE	29520201WS	26/12/2018
2.	TECJA0338	DIGITAL PRESSURE METER	H-315545	8/11/2018

## PART 4 QUALITATIVE TASKS

Tick (✓) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	(✓)	( )	( )	9 Over pressure cut of valve - Verify physical integrity	(✓)	( )	( )
2 Power Cord - verify proper insulation and integrity	(✓)	( )	( )	10 Door lock - Verify physical integrity	(✓)	( )	( )
3 Strain Relief - verify physical integrity at both ends of line cord	( )	( )	(✓)	11 Door gasket Verify physical integrity	(✓)	( )	( )
4 Fittings/ Connectors - check all fittings/connectors	(✓)	( )	( )	12 Check water tank leak	(✓)	( )	( )
5 <del>Controls</del> / <del>switch</del> - verify proper operation of controls	(✓)	( )	( )	13 Check drain valve -Physical integrity	(✓)	( )	( )
6 Indicators/ <del>Displays</del> - verify proper illumination and operation	(✓)	( )	( )	14 Check label	(✓)	( )	( )
7 Check fuse, circuit breaker	(✓)	( )	( )	15 Waste Water Reservoir/Bottle - clean & verify integrity	(✓)	( )	( )
8 Heater - verify physical Integrity	(✓)	( )	( )				
9 <del>Chamber</del> / Cassette - verify physical integrity (scaling, rusting, pitting or	(✓)						

## PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (✓) where appropriate

	DONE	NOT DONE **	NA		DONE	NOT DONE **	NA
1 Clean exterior and interior of the equipment	(✓)	( )	( )	4 Lubricate all moving parts	( )	( )	(✓)
2 Check / replace gasket ***	(✓)	( )	( )				
3 Check/ clean solenoids	( )	( )	(✓)				

Notes:

\* For all Parts, NA is defined as NOT APPLICABLE  
\*\* If you have ticked 'NOT DONE', then justify in Part 8  
\*\*\* Choose Whichever Applicable



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▶ *4 PW0365296*

## PART 6 SERVICE CHECKLIST

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

## PART 7 Technician Remarks

*AA*



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## 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	135°C	134-137 121-124	(✓)	( )	( )
2	Pressure reading - non absolute pressure reading	bar	2.03	2.15	2.03-2.32 1.04-1.24	(✓)	( )	( )
3	Electrical Supply Voltage	V	241.3v	refer to EST	Refer to Nameplate	(✓)	( )	( )
4	Electrical Power/Consumption	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

NA

☐ CORRECTIVE MAINTENANCE REQUIRED

☒ FUNCTIONING

☐ NOT FUNCTIONING

WORK ORDER NO ▶ P20365296

NEXT PPM DATE 12/2018

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

COMPLETED BY:

WITNESSED BY:

DATE:

DATE:

AZLEE YASIN  
JURUTEKNOLOGI PERGIGIAN  
KLINIK PERGIGIAN : GE-MAT  
20/6/18

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Date :20/6/2018

## Test Setup

Operator ID :  
Calibration Tech : NADIA  
Calibration Date : 25/8/2018  
Firmware Version : 2.08.01  
Serial Number : 3246911  
Date & Time : 20/06/2018 & 10:00 P.M  
JOB Name :

## DUT Information

Equipment Number : JHR 023406  
Serial Number : 1431B1067  
Manufacturer : MELAG  
Model : VACUKLAV 31B+  
Location : KP SUNGAI MATI  
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	0.22 Ohm	0.3	-	P
Insulation Resistance				P
Mains to Protective Earth	58.3 MOhm	-	-	P
Mains Voltage				P
Live to Neutral	238.9 V	-	-	P
Neutral to Earth	3.4 V	-	-	P
Live to Earth	239.3 V	-	-	P
Equipment Current	0.2 A	-	-	P
Direct Equipment Leakage				P
Open Earth	34.6 uA	500	-	P
Open Earth- Reversed Mains	56.6 uA	500	-	P

