SPEA 4080 Maintenance Log & Inspection Record

Standard Operating Procedure Maintenance Plans, Safety Device Checks & Safety Label Audits

Maintenance Cycle 1

Status: Complete

MACHINE MODEL	MAINTENANCE DATE	CYCLE TYPE
SPEA 4080	March 24, 2025	Standard Periodic PM

1. Maintenance Plan Execution

CARD ID	OPERATION	INTERVAL	TIME REQUIRED	STATUS / RESULT
FP-1A	Start of work meeting	Beginning	5 min	Done
FP-2A	Preliminary checks	Beginning	5 min	NPF (No Problem Found)
FP-3A	PC hard disk drive diagnostics	Monthly	20 min	No Errors
FP-4A	Virus check	Monthly	20 min	N/A
FP-5A	Hard disk space check	Monthly	5 min	~54% Free
FP-6A	Micro filter efficiency check	Monthly	15 min	Dry / OK
FP-7A	Safety device check	Monthly	40 min	Good - NPF
FP-8A	Light check	3 Months	1 min	Completed
FP-9A	Fan efficiency check	6 Months	15 min	Completed
FP-10A	X, Y axis guides lubrication	6 Months	1 hour	Completed
FP-11A	Machine cleaning	6 Months	30 min	Completed
FP-12A	Z-axis screw tightening check	1 Year	5 min	Completed
FP-13A	Warning and safety label check	1 Year	20 min	Completed
FP-14A	PC hard disk backup procedure	1 Year	30 min	Completed
FP-15A	Multi Probe Head replacement	500k/1M Cycles	1 hour	Completed
FP-16A	Check machine against reference sample	End Cycle	30 min	Completed
FP-17A	Monitor the machine during production	End Cycle	1 hour	Completed

2. Safety Device Checks

SAFETY DEVICE NAME	RESULT	NOTES
Exterior covering panels	Good / Verified	Satisfactory
Emergency stop button	Good / Verified	Functional
Main switch	Good / Verified	Functional
Red indicator lamp and buzzer	Good / Verified	Functional
Interior panels for high-voltage protection	Good / Verified	Satisfactory
Door locking mechanism	Good / Verified	Functional

3. Safety Label Compliance Check

REF	LABEL TYPE / DESCRIPTION	PART CODE	LOCATION	CONDITION
1	WARNING - Hazardous Voltage Inside	14711382.129	Line Panel	OK
2	WARNING - Magnetic Field	14711388.177	Test area	OK
3	WARNING - Hazardous Voltage	14711562.127	Instrument basket	OK
4	WARNING - Crush Hazard (Moving Parts)	14711768.187	Left, Right, Rear Doors	OK
5	WARNING - Crush Hazard Inside	14711767.179	Left, Right, Rear Doors	OK
6	WARNING - Avoid Injury (Guard)	14711769.195	Left, Right, Rear Doors (Inside)	OK
7	Axis X-Y-Z Warning	14711563.135	Axis X-Y-Z	OK
8	CAUTION - Laser Radiation Class 2	14711993.180	Axis 1 (Optional)	OK
9	CAUTION - Pinch Point	14711373.130	Test area outer front cover panel	OK
10	Safety Instructions / Emergency Recovery	14711425.117	Emergency push button	OK

Maintenance Cycle 2

Status: Calibration Needed

MACHINE MODEL	MAINTENANCE DATE	CYCLE TYPE
SPEA 4080	**June 24, 2025**	**Mid-Year Maintenance**

1. Maintenance Plan Execution

CARD ID	OPERATION	INTERVAL	TIME REQUIRED	STATUS / RESULT
FP-1A	Start of work meeting	Beginning	5 min	OK NPF
FP-2A	Preliminary checks	Beginning	5 min	No Errors
FP-3A	PC hard disk drive diagnostics	Monthly	20 min	N/A
FP-4A	Virus check	Monthly	20 min	N/A
FP-5A	Hard disk space check	Monthly	5 min	55% Free Files
FP-6A	Micro filter efficiency check	Monthly	15 min	Dry / OK
FP-7A	Safety device check	Monthly	40 min	NPF / Good
FP-8A	Light check	3 Months	1 min	Completed
FP-9A	Fan efficiency check	6 Months	15 min	Completed
FP-10A	X, Y axis guides lubrication	6 Months	1 hour	Completed
FP-11A	Machine cleaning	6 Months	30 min	Completed
FP-12A	Z-axis screw tightening check	1 Year	5 min	Completed
FP-13A	Warning and safety label check	1 Year	20 min	Completed
FP-14A	PC hard disk backup procedure	1 Year	30 min	Completed
FP-15A	Multi Probe Head replacement	500k/1M Cycles	1 hour	Completed
FP-16A	Check machine against reference sample	End Cycle	30 min	Completed
FP-17A	Monitor the machine during production	End Cycle	1 hour	Completed

2. Safety Device Checks & Operational Notes

SAFETY DEVICE NAME	RESULT	NOTES
Exterior covering panels	Verified	OK
Emergency stop button	Verified	OK
Main switch	Verified	OK
Red indicator lamp and buzzer	Verified	OK
Interior panels for high-voltage protection	Verified	OK
Door locking mechanism	Verified	OK

Technician Field Notes: Calibration is needed; out of spec this month. Quote pending. Unit starting to have test issues.

3. Safety Label Compliance Check

REF	LABEL TYPE / DESCRIPTION	PART CODE	LOCATION	CONDITION
1	WARNING - Hazardous Voltage Inside	14711382.129	Line Panel	OK
2	WARNING - Magnetic Field	14711388.177	Test area	OK
3	WARNING - Hazardous Voltage	14711562.127	Instrument basket	OK
4	WARNING - Crush Hazard (Moving Parts)	14711768.187	Left, Right, Rear Doors	OK
5	WARNING - Crush Hazard Inside	14711767.179	Left, Right, Rear Doors	OK
6	WARNING - Avoid Injury (Guard)	14711769.195	Left, Right, Rear Doors (Inside)	OK
7	Axis X-Y-Z Warning	14711563.135	Axis X-Y-Z	OK
8	CAUTION - Laser Radiation Class 2	14711993.180	Axis 1 (Optional)	OK
9	CAUTION - Pinch Point	14711373.130	Test area outer front cover panel	OK
10	Safety Instructions / Emergency Recovery	14711425.117	Emergency push button	OK

Maintenance Cycle 3

Status: Extended Maintenance Completed

MACHINE MODEL
SPEA 4080

MAINTENANCE DATE
November 13, 2025

CYCLE TYPE
Extended Preventive Maintenance

1. Maintenance Plan Execution

CARD ID	OPERATION	INTERVAL	TIME REQUIRED	STATUS / RESULT
FP-1A	Start of work meeting	Beginning	5 min	Completed
FP-2A	Preliminary checks	Beginning	5 min	No Problems / No Errors
FP-3A	PC hard disk drive diagnostics	Monthly	20 min	None N/A
FP-4A	Virus check	Monthly	20 min	No Update Required
FP-5A	Hard disk space check	Monthly	5 min	~5.59% Free

CARD ID	OPERATION	INTERVAL	TIME REQUIRED	STATUS / RESULT
FP-6A	Micro filter efficiency check	Monthly	15 min	OK - Dry
FP-7A	Safety device check	Monthly	40 min	N/A / PF / All Good
FP-8A	Light check	3 Months	1 min	Completed
FP-9A	Fan efficiency check	6 Months	15 min	Completed
FP-10A	X, Y axis guides lubrication	6 Months	1 hour	Looked a Bit Dry - Lubed
FP-11A	Machine cleaning	6 Months	30 min	Done Visually
FP-12A	Z-axis screw tightening check	1 Year	5 min	Done
FP-13A	Warning and safety label check	1 Year	20 min	Done
FP-14A	PC hard disk backup procedure	1 Year	30 min	N/A
FP-15A	Multi Probe Head replacement	500k/1M Cycles	1 hour	N/A - NO
FP-16A	Check machine against reference sample	End Cycle	30 min	Completed
FP-17A	Monitor the machine during production	End Cycle	1 hour	OK / N/A - Daily

2. Safety Device Checks & Operational Notes

SAFETY DEVICE NAME	RESULT	NOTES
Exterior covering panels	Verified	OK
Emergency stop button	Verified	OK
Main switch	Verified	OK
Red indicator lamp and buzzer	Verified	OK
Interior panels for high-voltage protection	Verified	OK
Door locking mechanism	Verified	OK

Technician Field Notes: No problems found on final inspection. Calibration/repairs were needed in June 2025; none to date. Unit had minor testing performance issues requiring ongoing monitoring.

3. Safety Label Compliance Check

REF	LABEL TYPE / DESCRIPTION	PART CODE	LOCATION	CONDITION
1	WARNING - Hazardous Voltage Inside	14711382.129	Line Panel	OK
2	WARNING - Magnetic Field	14711388.177	Test area	OK

REF	LABEL TYPE / DESCRIPTION	PART CODE	LOCATION	CONDITION
3	WARNING - Hazardous Voltage	14711562.127	Instrument basket	OK
4	WARNING - Crush Hazard (Moving Parts)	14711768.187	Left, Right, Rear Doors	OK
5	WARNING - Crush Hazard Inside	14711767.179	Left, Right, Rear Doors	OK
6	WARNING - Avoid Injury (Guard)	14711769.195	Left, Right, Rear Doors (Inside)	OK
7	Axis X-Y-Z Warning	14711563.135	Axis X-Y-Z	OK
8	CAUTION - Laser Radiation Class 2	14711993.180	Axis 1 (Optional)	OK
9	CAUTION - Pinch Point	14711373.130	Test area outer front cover panel	OK
10	Safety Instructions / Emergency Recovery	14711425.117	Emergency push button	OK