

MAINTENANCE ITEMS GROUPED PER FREQUENCY

Weekly

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
2	Robot Carriage	Confirm the presence of an oil film on rails	●						Carriage and rail maintenance
9	TCP	Perform TCP calibration (torch and LTS/Snapcam)	●						TCP calibration
14	Welding Torch	Inspect the torch front end parts (nozzle, diffuser, insulator)	●						Welding torch maintenance

Monthly

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Inspect and clean robot arm (External damage, Oil seepage, abnormal noise or vibration)		●					See Fanuc doc. section 7.1.1
1	Robot Arm & Controller	Perform GetAllFile backup		●					Fanuc backup
2	Robot Carriage	Clean rails and rack from debris.		●					Carriage and rail maintenance
2	Robot Carriage	Clean rail flooring under cable chain		●					Carriage and rail maintenance
5	Light Curtains	Clean light curtains		●					Inspect and general checks
7	LTS Sensor	Clean the outside of the housing, removing any spatter buildup		●					AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Inspect components (outside and inside, clean lens as needed)		●					AGT LTS Laser Sensor Maintenance
8	Snapcam	Clean the outside of the housing, removing any spatter buildup		●					
8	Snapcam	Inspect components (outside and inside, clean lens as needed)		●					
9	TCP	Verify all components are tight (no loose parts or hardware, test by light shaking of the tools)		●					
14	Welding Torch	Clean the neck liner (Wire Brake Only)		●					Welding torch maintenance

MAINTENANCE ITEMS GROUPED PER FREQUENCY

3-Month

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Check the oil sight glass of J4 to J6 axis (120iC only)			●				See Fanuc doc. section 7.2.3
1	Robot Arm & Controller	Inspect the fluoric resin ring (120iC only)			●				See Fanuc doc. section 7.2.4
1	Robot Arm & Controller	Inspect exposed robot cables (J1 & Robot base)			●				See Fanuc doc. section 7.2.3 (iD) or 7.2.5 (iC)
2	Robot Carriage	Inspect cover strip (check for wear, dents, cracks, excessive rust)			●				Carriage and rail maintenance
2	Robot Carriage	Verify grease level in lubrication unit. Refill as needed			●				Automatic greasing unit refill
2	Robot Carriage	Check for lubricant leaks (near the lubrication unit and at each linear bearing)			●				Carriage and rail maintenance
2	Robot Carriage	Manual lubrication of linear bearings (If no automatic lubrication)			●				Manual linear bearing lubrication
3	Rotators	Inspect clamping mechanism (abnormal noise)			●				Rotators Maintenance (1)
3	Rotators	Inspect clamp gearbox shaft (bent shaft, worn hex head)			●				Rotators Maintenance (2)
4	Operator Console	Clean HMI screen, keyboard, mouse, etc.)			●				None
4	Operator Console	Inspect HMI screen protector (replace as needed)			●				None
6	Filter-Regulator unit	Purge water from air treatment unit			●				Inspect and general checks
6	Filter-Regulator unit	Check inlet pressure of supplied air			●				Inspect and general checks
7	LTS Sensor	Clean the door opening, removing any spatter buildup			●				AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Inspect LTS Moltec and leather cover			●				Inspect and general checks
8	Snapcam	Clean the PC			●				
9	TCP	Verify all teach tips have a 20mm stickout and the pins are straight			●				
10	Torch Cleaning station	Clean around reamer motor			●				Cleaning station maintenance
10	Torch Cleaning station	Verify sprayer suction mechanism			●				Cleaning station maintenance
10	Torch Cleaning station	Empty wire trims and reamer residue bins			●				Cleaning station maintenance
10	Torch Cleaning station	Validate program positions: Clean-Cut-Spray			●				Cleaning station maintenance
10	Torch Cleaning station	Clean thoroughly the anti-spatter sprayer assembly			●				

MAINTENANCE ITEMS GROUPED PER FREQUENCY

3-Month (continued)

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
11	Power Source	Inspect exposed welding cables for damage (positive and negative)			●				Power source maintenance
11	Power Source	Verify tightening of all cable connection points (lugs, studs, busbar, feeder, etc.)			●				Power source maintenance
12	Wire Delivery	Verify wire feeder current draw in Power Wave Manager (<3 Amps)			●				
12	Wire Delivery	Verify friction in the wire feed system (pinch test on the side of wire feeder)			●				
12	Wire Delivery	Clean the wire delivery conduit (using compressed air, disconnect at both ends)			●				
12	Wire Delivery	Inspect drive unit for presence of arcing and wire shavings (verify inlet/outlet guide, liner inlet, drive rolls, look for burrs and sharp edges)			●				Wire feeder Maintenance
13	Wire Feeder	Verify the push-lock connector for gas hose			●				Wire feeder Maintenance
14	Welding Torch	Verify the tightening of torch body components (up to the robot flange)			●				Welding torch maintenance
14	Welding Torch	Verify the power pin tightening			●				Welding torch maintenance
14	Welding Torch	Clean the torch liner (for torches with a wire brake, the torch liner must be removed for cleaning)			●				Welding torch maintenance
14	Welding Torch	Replace the neck liner (Wire Brake Only)			●				Welding torch maintenance
14	Welding Torch	Replace nozzle, gas diffuser, insulator			●				Welding torch maintenance
14	Welding Torch	Check shielding gas flow rate			●				Welding torch maintenance
15	Cooling Unit	Check water level			●				Water Cooler Maintenance

MAINTENANCE ITEMS GROUPED PER FREQUENCY

6-Month

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Clean the controller ventilation system (front + side vents)				●			See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Check for damage to the teach pendant, and teach pendant cable (Damages, wrinkles, kinks)				●			See Fanuc doc. section 7.1.2
2	Robot Carriage	Inspect rail (check for wear, dents, cracks, excessive rust, damaged rail joints)				●			Carriage and rail maintenance
2	Robot Carriage	Inspect rack & pinion (check for wear, dents, cracks, excessive rust)				●			Carriage and rail maintenance
2	Robot Carriage	Check rail anchors tightening				●			Carriage and rail maintenance
2	Robot Carriage	Inspect linear bearings				●			Linear bearings and seal kit inspection
2	Robot Carriage	Validate positioning laser alignment with rotators (adjust as needed)				●			
3	Rotators	Roller Chain tension adjustment				●			Rotators Maintenance (3)
3	Rotators	Roller Chain lubrication				●			Rotators Maintenance (4)
3	Rotators	Support rollers bearing lubrication				●			Rotators Maintenance (5)
3	Rotators	Runner blocks lubrication				●			Rotators Maintenance (6)
3	Rotators	Clamping screws lubrication				●			Rotators Maintenance (7)
3	Rotators	Check for oil leak under the drive gearbox				●			Rotators Maintenance (8)
3	Rotators	Inspect cables and leather cover (between rotators and rails)				●			Inspect and general checks
3	Rotators	Clean braking resistor unit				●			
4	Operator Console	Inspect exposed cables and leather covers (cable tray between HMI and rails)				●			Inspect and general checks
6	Filter-Regulator unit	Inspect filter in air treatment unit				●			Inspect and general checks
9	TCP	Inspect TCP calibration block for wear, replace as needed				●			
11	Power Source	Clean with compressed air				●			Power source maintenance
13	Wire Feeder	Clean with compressed air				●			Wire feeder Maintenance
15	Cooling Unit	Clean Strainer				●			Water Cooler Maintenance
15	Cooling Unit	Replace filter (Cool wave 20S only)				●			Water Cooler Maintenance
15	Cooling Unit	Clean inside and heat exchanger with compressed air				●			Water Cooler Maintenance
15	Cooling Unit	Purge and replace coolant				●			Water Cooler Maintenance

MAINTENANCE ITEMS GROUPED PER FREQUENCY

Yearly

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Replace 8 C batteries (Robot base + controller door)					●		See Fanuc doc. section 7.3.1
		Verify the tightening of external main bolts (check witness marks if present), Use							
1	Robot Arm & Controller	180 ft-lbs to verify. Do not go beyond 192ft-lbs					●		See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Perform Controller Image Back up					●		Fanuc backup
2	Robot Carriage	Igus cable chain inspection					●		Cable chain inspection
10	Torch Cleaning station	Replace reaming bit					●		Cleaning station maintenance
11	Power Source	Verify calibration (calibrate if off by >0.3V)					●		PowerWave r450 Calibration Procedure
14	Welding Torch	Replace the torch liner (use provided deburring tool for new liner)					●		Welding torch maintenance
14	Welding Torch	Inspect torch cable assembly at J5 (moltec in position, no apparent damage)					●		Welding torch maintenance
14	Welding Torch	Cleaning of inside J5 with compressed air (remove the torch cable)					●		Welding torch maintenance

Other

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Replace Fluoric resin ring (120iC only)						2Y	See Fanuc doc. section 7.2.4
		Replace the grease and oil of J2/J3-axis reducer and J4 to J6-axis gearbox (Fanuc							
1	Robot Arm & Controller	Service call)						3Y	See Fanuc doc. section 7.3.2
1	Robot Arm & Controller	Replace controller battery						4Y	See Fanuc doc. section 7.1.2
2	Robot Carriage	Replace linear bearing, seal and scrapper kits(AGT service call)						3Y	Linear bearings and seal kit inspection
7	LTS Sensor	Send LTS assembly for service at AGT (overhaul every 500,000 cycles - R[200])						>500K cycles	Contact AGT support
8	Snapcam	Replace the UPS battery						4Y	
9	TCP	Replace TCP calibration block						2Y	
14	Welding Torch	Replace torch cable assembly						2Y	Welding torch maintenance

MAINTENANCE ITEMS GROUPED PER COMPONENT

Robot Arm & Controller

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Replace 8 C batteries (Robot base + controller door)					●		See Fanuc doc. section 7.3.1
1	Robot Arm & Controller	Inspect and clean robot arm (External damage, Oil seepage, abnormal noise or vibration)		●					See Fanuc doc. section 7.1.1
1	Robot Arm & Controller	Check the oil sight glass of J4 to J6 axis (120iC only)			●				See Fanuc doc. section 7.2.3
1	Robot Arm & Controller	Inspect the fluoric resin ring (120iC only)			●				See Fanuc doc. section 7.2.4
1	Robot Arm & Controller	Clean the controller ventilation system (front + side vents)				●			See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Inspect exposed robot cables (J1 & Robot base)			●				See Fanuc doc. section 7.2.3 (iD) or 7.2.5 (iC)
1	Robot Arm & Controller	Check for damage to the teach pendant, and teach pendant cable (Damages, wrinkles, kinks)				●			See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Verify the tightening of external main bolts (check witness marks if present), Use 180 ft-lbs to verify. Do not go beyond 192ft-lbs					●		See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Replace Fluoric resin ring (120iC only)						2Y	See Fanuc doc. section 7.2.4
1	Robot Arm & Controller	Replace the grease and oil of J2/J3-axis reducer and J4 to J6-axis gearbox (Fanuc Service call)						3Y	See Fanuc doc. section 7.3.2
1	Robot Arm & Controller	Replace controller battery						4Y	See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Perform GetAllFile backup		●					Fanuc backup
1	Robot Arm & Controller	Perform Controller Image Back up					●		Fanuc backup

Robot Carriage

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
2	Robot Carriage	Clean rails and rack from debris.		●					Carriage and rail maintenance
2	Robot Carriage	Clean rail flooring under cable chain		●					Carriage and rail maintenance
2	Robot Carriage	Confirm the presence of an oil film on rails	●						Carriage and rail maintenance
2	Robot Carriage	Inspect cover strip (check for wear, dents, cracks, excessive rust)			●				Carriage and rail maintenance
2	Robot Carriage	Inspect rail (check for wear, dents, cracks, excessive rust, damaged rail joints)				●			Carriage and rail maintenance
2	Robot Carriage	Inspect rack & pinion (check for wear, dents, cracks, excessive rust)				●			Carriage and rail maintenance
2	Robot Carriage	Check rail anchors tightening				●			Carriage and rail maintenance
2	Robot Carriage	Igus cable chain inspection					●		Cable chain inspection
2	Robot Carriage	Inspect linear bearings				●			Linear bearings and seal kit inspection
2	Robot Carriage	Replace linear bearing, seal and scrapper kits(AGT service call)						3Y	Linear bearings and seal kit inspection
2	Robot Carriage	Verify grease level in lubrication unit. Refill as needed			●				Automatic greasing unit refill
2	Robot Carriage	Check for lubricant leaks (near the lubrication unit and at each linear bearing)			●				Carriage and rail maintenance
2	Robot Carriage	Manual lubrication of linear bearings (If no automatic lubrication)			●				Manual linear bearing lubrication
2	Robot Carriage	Validate positioning laser alignment with rotators (adjust as needed)				●			

MAINTENANCE ITEMS GROUPED PER COMPONENT

Rotators

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
3	Rotators	Inspect clamping mechanism (abnormal noise)			●				Rotators Maintenance (1)
3	Rotators	Inspect clamp gearbox shaft (bent shaft, worn hex head)			●				Rotators Maintenance (2)
3	Rotators	Roller Chain tension adjustment				●			Rotators Maintenance (3)
3	Rotators	Roller Chain lubrication				●			Rotators Maintenance (4)
3	Rotators	Support rollers bearing lubrication				●			Rotators Maintenance (5)
3	Rotators	Runner blocks lubrication				●			Rotators Maintenance (6)
3	Rotators	Clamping screws lubrication				●			Rotators Maintenance (7)
3	Rotators	Check for oil leak under the drive gearbox				●			Rotators Maintenance (8)
3	Rotators	Inspect cables and leather cover (between rotators and rails)				●			Inspect and general checks
3	Rotators	Clean braking resistor unit				●			

Operator Console

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
4	Operator Console	Clean HMI screen, keyboard, mouse, etc.)			●				None
4	Operator Console	Inspect HMI screen protector (replace as needed)			●				None
4	Operator Console	Inspect exposed cables and leather covers (cable tray between HMI and rails)				●			Inspect and general checks

Light Curtains

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
5	Light Curtains	Clean light curtains		●					Inspect and general checks

Filter-Regulator unit

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
6	Filter-Regulator unit	Purge water from air treatment unit			●				Inspect and general checks
6	Filter-Regulator unit	Inspect filter in air treatment unit				●			Inspect and general checks
6	Filter-Regulator unit	Check inlet pressure of supplied air			●				Inspect and general checks

MAINTENANCE ITEMS GROUPED PER COMPONENT

LTS Sensor

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
7	LTS Sensor	Clean the outside of the housing, removing any spatter buildup		●					AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Inspect components (outside and inside, clean lens as needed)		●					AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Clean the door opening, removing any spatter buildup			●				AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Send LTS assembly for service at AGT (overhaul every 500,000 cycles - R[200])						>500K cycles	Contact AGT support
7	LTS Sensor	Inspect LTS Moltec and leather cover			●				Inspect and general checks

Snapcam

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
8	Snapcam	Clean the outside of the housing, removing any spatter buildup		●					
8	Snapcam	Inspect components (outside and inside, clean lens as needed)		●					
8	Snapcam	Clean the PC			●				
8	Snapcam	Replace the UPS battery						4Y	

TCP

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
9	TCP	Perform TCP calibration (torch and LTS/Snapcam)	●						TCP calibration
9	TCP	Verify all components are tight (no loose parts or hardware, test by light shaking of the tools)		●					
9	TCP	Verify all teach tips have a 20mm stickout and the pins are straight			●				
9	TCP	Inspect TCP calibration block for wear, replace as needed				●			
9	TCP	Replace TCP calibration block						2Y	

MAINTENANCE ITEMS GROUPED PER COMPONENT

Torch Cleaning Station

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
10	Torch Cleaning Station	Clean around reamer motor			●				Cleaning station maintenance
10	Torch Cleaning Station	Verify sprayer suction mechanism			●				Cleaning station maintenance
10	Torch Cleaning Station	Empty wire trims and reamer residue bins			●				Cleaning station maintenance
10	Torch Cleaning Station	Replace reaming bit					●		Cleaning station maintenance
10	Torch Cleaning Station	Validate program positions: Clean-Cut-Spray			●				Cleaning station maintenance
10	Torch Cleaning Station	Clean thoroughly the anti-spatter sprayer assembly			●				Cleaning station maintenance

Power Source

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
11	Power Source	Clean with compressed air				●			Power source maintenance
11	Power Source	Verify calibration (calibrate if off by >0.3V)					●		PowerWave r450 Calibration Procedure
11	Power Source	Inspect exposed welding cables for damage (positive and negative)			●				Power source maintenance
11	Power Source	Verify tightening of all cable connection points (lugs, studs, busbar, feeder, etc.)			●				Power source maintenance

Wire Delivery

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
12	Wire Delivery	Verify wire feeder current draw in Power Wave Manager (<3 Amps)			●				
12	Wire Delivery	Verify friction in the wire feed system (pinch test on the side of wire feeder)			●				
12	Wire Delivery	Clean the wire delivery conduit (using compressed air, disconnect at both ends)			●				

Wire Feeder

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
13	Wire Feeder	Clean with compressed air				●			Wire feeder Maintenance
13	Wire Feeder	Inspect drive unit for presence of arcing and wire shavings (verify inlet/outlet guide, liner inlet, drive rolls, look for burrs and sharp edges)			●				Wire feeder Maintenance
13	Wire Feeder	Verify the push-lock connector for gas hose			●				Wire feeder Maintenance

MAINTENANCE ITEMS GROUPED PER COMPONENT

Welding Torch

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
14	Welding Torch	Inspect the torch front end parts (nozzle, diffuser, insulator)	●						Welding torch maintenance
14	Welding Torch	Verify the tightening of torch body components (up to the robot flange)			●				Welding torch maintenance
14	Welding Torch	Verify the power pin tightening			●				Welding torch maintenance
14	Welding Torch	Replace contact tip (as needed)			●				Welding torch maintenance
14	Welding Torch	Clean the torch liner (for torches with a wire brake, the torch liner must be removed for cleaning)			●				Welding torch maintenance
14	Welding Torch	Replace the torch liner (use provided deburring tool for new liner)					●		Welding torch maintenance
14	Welding Torch	Clean the neck liner (Wire Brake Only)		●					Welding torch maintenance
14	Welding Torch	Replace the neck liner (Wire Brake Only)			●				Welding torch maintenance
14	Welding Torch	Replace nozzle, gas diffuser, insulator			●				Welding torch maintenance
14	Welding Torch	Check shielding gas flow rate			●				Welding torch maintenance
14	Welding Torch	Inspect torch cable assembly at J5 (moltec in position, no apparent damage)					●		Welding torch maintenance
14	Welding Torch	Cleaning of inside J5 with compressed air (remove the torch cable)					●		Welding torch maintenance
14	Welding Torch	Replace torch cable assembly						2Y	Welding torch maintenance

Cooling Unit

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
15	Cooling Unit	Check water level			●				Water Cooler Maintenance
15	Cooling Unit	Clean Strainer				●			Water Cooler Maintenance
15	Cooling Unit	Replace filter (Cool wave 20S only)				●			Water Cooler Maintenance
15	Cooling Unit	Clean inside and heat exchanger with compressed air				●			Water Cooler Maintenance
15	Cooling Unit	Purge and replace coolant				●			Water Cooler Maintenance

LIST OF ALL MAINTENANCE ITEMS

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
1	Robot Arm & Controller	Replace 8 C batteries (Robot base + controller door)					●		See Fanuc doc. section 7.3.1
1	Robot Arm & Controller	Inspect and clean robot arm (External damage, Oil seepage, abnormal noise or vibration)		●					See Fanuc doc. section 7.1.1
1	Robot Arm & Controller	Check the oil sight glass of J4 to J6 axis (120iC only)			●				See Fanuc doc. section 7.2.3
1	Robot Arm & Controller	Inspect the fluoroc resin ring (120iC only)			●				See Fanuc doc. section 7.2.4
1	Robot Arm & Controller	Clean the controller ventilation system (front + side vents)				●			See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Inspect exposed robot cables (J1 & Robot base)			●				See Fanuc doc. section 7.2.3 (iD) or 7.2.5 (iC)
1	Robot Arm & Controller	Check for damage to the teach pendant, and teach pendant cable (Damages, wrinkles, kinks)				●			See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Verify the tightening of external main bolts (check witness marks if present), Use 180 ft-lbs to verify. Do not go beyond 192ft-lbs					●		See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Replace Fluoric resin ring (120iC only)						2Y	See Fanuc doc. section 7.2.4
1	Robot Arm & Controller	Replace the grease and oil of J2/J3-axis reducer and J4 to J6-axis gearbox (Fanuc Service call)						3Y	See Fanuc doc. section 7.3.2
1	Robot Arm & Controller	Replace controller battery						4Y	See Fanuc doc. section 7.1.2
1	Robot Arm & Controller	Perform GetAllFile backup		●					Fanuc backup
1	Robot Arm & Controller	Perform Controller Image Back up					●		Fanuc backup
2	Robot Carriage	Clean rails and rack from debris.		●					Carriage and rail maintenance
2	Robot Carriage	Clean rail flooring under cable chain		●					Carriage and rail maintenance
2	Robot Carriage	Confirm the presence of an oil film on rails	●						Carriage and rail maintenance
2	Robot Carriage	Inspect cover strip (check for wear, dents, cracks, excessive rust)			●				Carriage and rail maintenance
2	Robot Carriage	Inspect rail (check for wear, dents, cracks, excessive rust, damaged rail joints)				●			Carriage and rail maintenance
2	Robot Carriage	Inspect rack & pinion (check for wear, dents, cracks, excessive rust)				●			Carriage and rail maintenance
2	Robot Carriage	Check rail anchors tightening				●			Carriage and rail maintenance
2	Robot Carriage	Igus cable chain inspection					●		Cable chain inspection
2	Robot Carriage	Inspect linear bearings					●		Linear bearings and seal kit inspection
2	Robot Carriage	Replace linear bearing, seal and scrapper kits (AGT service call)						3Y	Linear bearings and seal kit inspection
2	Robot Carriage	Verify grease level in lubrication unit. Refill as needed			●				Automatic greasing unit refill
2	Robot Carriage	Check for lubricant leaks (near the lubrication unit and at each linear bearing)			●				Carriage and rail maintenance
2	Robot Carriage	Manual lubrication of linear bearings (if no automatic lubrication)			●				Manual linear bearing lubrication
2	Robot Carriage	Validate positioning laser alignment with rotators (adjust as needed)				●			
3	Rotators	Inspect clamping mechanism (abnormal noise)			●				Rotators Maintenance (1)
3	Rotators	Inspect clamp gearbox shaft (bent shaft, worn hex head)			●				Rotators Maintenance (2)
3	Rotators	Roller Chain tension adjustment				●			Rotators Maintenance (3)
3	Rotators	Roller Chain lubrication				●			Rotators Maintenance (4)
3	Rotators	Support rotlers bearing lubrication				●			Rotators Maintenance (5)
3	Rotators	Runner blocks lubrication				●			Rotators Maintenance (6)
3	Rotators	Clamping screws lubrication				●			Rotators Maintenance (7)
3	Rotators	Check for oil leak under the drive gearbox				●			Rotators Maintenance (8)
3	Rotators	Inspect cables and leather cover (between rotators and rails)				●			Inspect and general checks
3	Rotators	Clean braking resistor unit				●			
4	Operator Console	Clean HMI screen, keyboard, mouse, etc.)			●				None
4	Operator Console	Inspect HMI screen protector (replace as needed)			●				None
4	Operator Console	Inspect exposed cables and leather covers (cable tray between HMI and rails)				●			Inspect and general checks
5	Light Curtains	Clean light curtains		●					Inspect and general checks
6	Filter-Regulator unit	Purge water from air treatment unit			●				Inspect and general checks
6	Filter-Regulator unit	Inspect filter in air treatment unit				●			Inspect and general checks
6	Filter-Regulator unit	Check inlet pressure of supplied air			●				Inspect and general checks
7	LTS Sensor	Clean the outside of the housing, removing any spatter buildup		●					AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Inspect components (outside and inside, clean lens as needed)		●					AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Clean the door opening, removing any spatter buildup			●				AGT LTS Laser Sensor Maintenance
7	LTS Sensor	Send LTS assembly for service at AGT (overhaul every 500,000 cycles - R[200])						>500K cycles	Contact AGT support
7	LTS Sensor	Inspect LTS Moltec and leather cover			●				Inspect and general checks
8	Snapcam	Clean the outside of the housing, removing any spatter buildup		●					
8	Snapcam	Inspect components (outside and inside, clean lens as needed)		●					
8	Snapcam	Clean the PC			●				
8	Snapcam	Replace the UPS battery						4Y	
9	TCP	Perform TCP calibration (torch and LTS/Snapcam)	●						TCP calibration
9	TCP	Verify all components are tight (no loose parts or hardware, test by light shaking of the tools)		●					
9	TCP	Verify all teach tips have a 20mm stickout and the pins are straight			●				
9	TCP	Inspect TCP calibration block for wear, replace as needed				●			
9	TCP	Replace TCP calibration block						2Y	
10	Torch Cleaning station	Clean around reamer motor			●				Cleaning station maintenance
10	Torch Cleaning station	Verify sprayer suction mechanism			●				Cleaning station maintenance
10	Torch Cleaning station	Empty wire trims and reamer residue bins			●				Cleaning station maintenance
10	Torch Cleaning station	Replace reaming bit					●		Cleaning station maintenance
10	Torch Cleaning station	Validate program positions: Clean-Cut-Spray			●				Cleaning station maintenance
10	Torch Cleaning station	Clean thoroughly the anti-spatter sprayer assembly			●				
11	Power Source	Clean with compressed air				●			Power source maintenance
11	Power Source	Verify calibration (calibrate if off by >0.3V)					●		PowerWave r450 Calibration Procedure
11	Power Source	Inspect exposed welding cables for damage (positive and negative)			●				Power source maintenance
11	Power Source	Verify tightening of all cable connection points (lugs, studs, busbar, feeder, etc.)			●				Power source maintenance

LIST OF ALL MAINTENANCE ITEMS

#	Component Group	Item	Weekly	1M	3M	6M	1Y	Other	Reference document / Procedure Link
12	Wire Delivery	Verify wire feeder current draw in Power Wave Manager (<3 Amps)			●				
12	Wire Delivery	Verify friction in the wire feed system (pinch test on the side of wire feeder)			●				
12	Wire Delivery	Clean the wire delivery conduit (using compressed air, disconnect at both ends)			●				
13	Wire Feeder	Clean with compressed air				●			Wire feeder Maintenance
13	Wire Feeder	Inspect drive unit for presence of arcing and wire shavings (verify inlet/outlet guide, liner inlet, drive rolls, look for burrs and sharp edges)			●				Wire feeder Maintenance
13	Wire Feeder	Verify the push-lock connector for gas hose			●				Wire feeder Maintenance
14	Welding Torch	Inspect the torch front end parts (nozzle, diffuser, insulator)	●						Welding torch maintenance
14	Welding Torch	Verify the tightening of torch body components (up to the robot flange)			●				Welding torch maintenance
14	Welding Torch	Verify the power pin tightening			●				Welding torch maintenance
14	Welding Torch	Replace contact tip (as needed)							Welding torch maintenance
14	Welding Torch	Clean the torch liner (for torches with a wire brake, the torch liner must be removed for cleaning)			●				Welding torch maintenance
14	Welding Torch	Replace the torch liner (use provided deburring tool for new liner)					●		Welding torch maintenance
14	Welding Torch	Clean the neck liner (Wire Brake Only)		●					Welding torch maintenance
14	Welding Torch	Replace the neck liner (Wire Brake Only)			●				Welding torch maintenance
14	Welding Torch	Replace nozzle, gas diffuser, insulator			●				Welding torch maintenance
14	Welding Torch	Check shielding gas flow rate			●				Welding torch maintenance
14	Welding Torch	Inspect torch cable assembly at J5 (moltec in position, no apparent damage)					●		Welding torch maintenance
14	Welding Torch	Cleaning of inside J5 with compressed air (remove the torch cable)					●		Welding torch maintenance
14	Welding Torch	Replace torch cable assembly						2Y	Welding torch maintenance
15	Cooling Unit	Check water level			●				Water Cooler Maintenance
15	Cooling Unit	Clean Strainer				●			Water Cooler Maintenance
15	Cooling Unit	Replace filter (Cool wave 20S only)				●			Water Cooler Maintenance
15	Cooling Unit	Clean inside and heat exchanger with compressed air				●			Water Cooler Maintenance
15	Cooling Unit	Purge and replace coolant				●			Water Cooler Maintenance