

DFD6361 Maintenance 1 (Half-cut Specification) (Rev. 3.00)

Trainee		Period	
Company		Trainer	

<DFD6361 Maintenance 1 (Rev. 4.00)>

Item	Date	Trainee	Trainer
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..... Day 1

1. Important Safety Information

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|---|-------|-------|-------|
| 1.1. Interpret the Precautions on Safe Use of this Machine | _____ | _____ | _____ |
| 1.2. Interpret the Precautions on Safe Maintenance of this Machine | _____ | _____ | _____ |
| 1.3. Interpret the Inherently Hazardous Areas and the Ways to Avoid the Area-specific Hazards | _____ | _____ | _____ |
| 1.4. Identify the EMO Switch | _____ | _____ | _____ |
| 1.5. Identify the Power Circuit Breaker | _____ | _____ | _____ |
| 1.6. Carry Out LOTO for Safe Machine Maintenance | _____ | _____ | _____ |
| 1.7. Identify the Interlock Mechanism | _____ | _____ | _____ |
| 1.8. Identify the Interlock Mechanism of the Splash Cover/Arm Section Cover | _____ | _____ | _____ |

2. Machine Components and Functions

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|---|-------|-------|-------|
| 2.1. Interpret the Machine Outer Cover | _____ | _____ | _____ |
| 2.2. Interpret the Axis Arrangement [Standard Specification] | _____ | _____ | _____ |
| 2.3. Interpret the X-axis Section [Standard Specification] | _____ | _____ | _____ |
| 2.4. Interpret the Y (Y1 and Y2)-axis Section [Standard Specification] | _____ | _____ | _____ |
| 2.5. Interpret the Z (Z1 and Z2)-axis Section [Standard Specification] | _____ | _____ | _____ |
| 2.6. Interpret the θ -axis Section [Standard Specification] | _____ | _____ | _____ |
| 2.7. Identify the Chuck Table Structure [Standard Specification] | _____ | _____ | _____ |
| 2.8. Interpret the Spinner Section [Standard Specification] | _____ | _____ | _____ |
| 2.9. Interpret the Workpiece Transport Section [Standard Specification] | _____ | _____ | _____ |
| 2.10. Interpret the Elevator Section [Standard Specification] | _____ | _____ | _____ |
| 2.11. Interpret the Inspection Function [Standard Specification] | _____ | _____ | _____ |
| 2.12. Interpret the Pre-alignment Section [Standard Specification] | _____ | _____ | _____ |
| 2.13. Interpret the Microscope Section [Standard Specification] | _____ | _____ | _____ |
| 2.14. Interpret the Spindle Section | _____ | _____ | _____ |
| 2.15. Interpret the Pressure Monitoring System | _____ | _____ | _____ |

3. Operator Maintenance

- 3.1. Set Up the Function Data _____
- 3.2. Back Up/Restore the Machine Data _____

4. Machine Maintenance

- 4.1. Adjust the Air Pressure Sensor _____
- 4.2. Set the Chuck Table Vacuum Lower Limit _____
- 4.3. Set the Vacuum Pressure Monitoring (Sensor) Threshold [Standard Specification] _____
- 4.4. Replace the Chuck Table [Standard Specification] _____
- 4.5. Change the Frame Size and Configuration [Standard Specification] _____
- 4.6. Execute the Rotation Alignment _____
- 4.7. Execute the Focus Maintenance _____

5. Log Viewer

- 5.1. Utilize the Log Viewer _____

6. Engineering Maintenance

- 6.1. Identify the Purpose of Wheel Mount/Flange Conditioning _____
- 6.2. Perform the Wheel Mount/Flange Conditioning _____
- 6.3. Utilize the Digital I/O Check Function _____
- 6.4. Utilize the Axial Operation Function _____
- 6.5. Set Up the User Define Data _____
- 6.6. Set the Maintenance Scheduler _____

..... Day 2

7. Maintenance and Periodic Inspection

- 7.1. Clean the Cutting Room _____
- 7.2. Clean the Spindle _____
- 7.3. Clean the Spindle Coolant Water Path _____
- 7.4. Clean the Vacuum Ejector _____
- 7.5. Clean the Non-contact Setup (NCS) Sensor (Detection Surface) _____
- 7.6. Clean the Blade Breakage Detector (BBD) Sensor _____
- 7.7. Grease the X-axis _____
- 7.8. Grease the Y-axis _____
- 7.9. Grease the Z-axis _____
- 7.10. Grease the Push-pull Axis [Standard Specification] _____
- 7.11. Grease the Upper Arm Axis [Standard Specification] _____
- 7.12. Grease the Lower Arm Axis [Standard Specification] _____
- 7.13. Grease the Frame Centering Axis _____
- 7.14. Grease the Elevator Axis _____

8. Consumable Parts Replacement

- 8.1. Replace the Air Clean Unit Consumables _____
- 8.2. Replace the Fluorescent Lamp _____

Training Sign-off Sheet

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|--|-------|-------|-------|
| 8.3. Replace the Halogen Lamp | _____ | _____ | _____ |
| 8.4. Replace the Spindle Carbon Brush | _____ | _____ | _____ |
| 8.5. Replace the Y-axis Roll Cover (Sheet) | _____ | _____ | _____ |
| 8.6. Replace the Spindle Coolant Water Flow Rate Sensor | _____ | _____ | _____ |
| 8.7. Replace the Upper Arm Vacuum Pad | _____ | _____ | _____ |
| 8.8. Replace the Lower Arm Vacuum Pad | _____ | _____ | _____ |
| 8.9. Replace the Spinner Table O-ring | _____ | _____ | _____ |
| 8.10. Replace the Solenoid Valve | _____ | _____ | _____ |
| 8.11. Replace the X-axis Bellows | _____ | _____ | _____ |
| 8.12. Replace the Waterproof Cover / O-ring / V-ring for θ -axis [Standard Specification] | _____ | _____ | _____ |
| 8.13. Replace the Cutting Water Flow Meter | _____ | _____ | _____ |

9. Appendix

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| 9.1. (Appendix) Maintenance and Periodic Inspection Check Sheet [Standard Specification] | _____ | _____ | _____ |
| 9.2. (Appendix) Consumable Parts Replacement Check Sheet [Standard Specification] | _____ | _____ | _____ |

..... Day 3

<DFD6361 Maintenance 1 (Half-cut Specification) (Rev. 1.10)>

Item	Date	Trainee	Trainer
1. Machine Components and Functions [Half-cut Specification]			
1.1. Interpret the Axes Arrangement and Function [Half-cut Specification]	_____	_____	_____
2. Operator Maintenance [Half-cut Specification]			
2.1. Set Up the Chuck Table Cleaning Data	_____	_____	_____
3. Machine Maintenance [Half-cut Specification]			
3.1. Set the Vacuum Pressure Monitoring (Sensor) Threshold [Half-cut Specification]	_____	_____	_____
3.2. Replace the Chuck Table [Half-cut Specification]	_____	_____	_____
3.3. Change the Frame Size and Configuration [Half-cut Specification]	_____	_____	_____
3.4. Change the Conversion Plate	_____	_____	_____
3.5. Execute the Non-contact Surface Detector (NSD) Maintenance	_____	_____	_____
3.6. Perform the Pre-alignment Maintenance	_____	_____	_____
3.7. Perform the FOUP Maintenance	_____	_____	_____
4. Maintenance and Periodic Inspection [Half-cut Specification]			
4.1. Grease the Robot Pick Axis	_____	_____	_____
4.2. Grease the Upper Arm Axis [Half-cut Specification]	_____	_____	_____
4.3. Grease the Lower Arm Axis [Half-cut Specification]	_____	_____	_____
5. Consumable Parts Replacement [Half-cut Specification]			
5.1. Replace the Solenoid Valve in the FOUP Control Unit	_____	_____	_____

5.2. Replace the Cleaning Brush of Chuck Table _____

6. Appendix [Half-cut Specification]

6.1. Maintenance and Periodic Inspection Check Sheet [Half-cut Specification] _____

6.2. Consumable Parts Replacement Check Sheet [Half-cut Specification] _____

6.3. Convert between the Half-cut/Full-cut Specifications _____

Course composition, intended trainees and course objective

Course Name	Intended Trainees	Course Objective
Operation	<ul style="list-style-type: none"> - who has no experience of operating the machine - who conducts data and function settings of the machine 	<ul style="list-style-type: none"> - To enable trainees to understand the terms necessary for operating the machine and to process products by calling up the data set in the machine - To enable trainees to create the data and set the data and functions for operating the machine
Maintenance 1	<ul style="list-style-type: none"> - who has already completed the "Operation" course (or has equivalent operation skills) - who conducts periodic maintenance of the machine 	To enable trainees to safely and precisely perform the periodic maintenance and consumable parts replacement described in the Maintenance Manual of the machine
Maintenance 2	<ul style="list-style-type: none"> - who has already completed the "Maintenance 1" course (or has equivalent maintenance skills) - who conducts maintenance works which are not described in the Maintenance Manual of the machine 	To enable trainees to conduct maintenance works which are not described in the machine Maintenance Manual (only the items that can be executed without any special tools or access to the internal Maker Data)