

Ensuring Periodic Cleaning is Performed for DFL7161 Using Protective Film Solution (HogoMax)

Fires have occurred

As indicated in TNL2016-0031, "Request to Perform Periodic Maintenance on Models That Use Protective Film", issued in October 2016, if there is deposited material (debris or residual dried protective film solution) in the processing point nozzle, there is a risk that the laser beam will ignite the deposited material and the ignited fire will spread via deposited material inside the machine, leading to a fire in the exhaust system.

We have received reports of fires from multiple customers, but it is possible to prevent fire by performing periodic cleaning. Periodic cleaning should always be performed for models that use protective film solution (HogoMax).

In addition, if you are unable to ensure that deposited material is removed, a DISCO customer engineer will visit you to perform the operation.

Please contact DISCO.

■ Example of fire damage



Applicable models

DFL7161 using protective film solution

Related newsletters

Newsletter no. 1: Request to Perform Periodic Maintenance on Models That Use Protective Film Solution
<https://www.disco.co.jp/eg/support/condition/pdf/TNL2016-0031e.pdf>

Newsletter no. 2: Notification Regarding Addition of Safety Label Concerning Accumulated Matter inside Duct (DFL7000 Series)
<https://www.disco.co.jp/eg/support/condition/pdf/TNL2017-0009e.pdf>

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Request for periodic maintenance

Please perform the following periodic maintenance.

Maintenance item	Operation performed by	Recommended interval
Processing point nozzle cleaning	Customer	Every 7 days
Dust pod cleaning (cyclone dust eliminator)	Customer	Every 7 days
Cyclone dust eliminator cleaning	Customer	Every 180 days
Drainage box cleaning	Customer	Every 180 days
Duct hose cleaning	DISCO	Varies depending on machine usage conditions

- The processing point duct exhaust pressure will fluctuate based on the exhaust capacity at the facility. If use continues while the duct exhaust pressure is below the lower limit, deposited material is more liable to occur.

In addition, if deposited material is liable to occur due to the processing parameters, please perform periodic cleaning at a frequency equal to or greater than the recommended interval.

*The exhaust capacity requested by DISCO at the plant facility is 4 to 6 m³/min.

Specification	Processing point duct exhaust pressure (lower limit [negative pressure])	Unit
BSS6: J05 nozzle	-200	Pa
BSS6: B03 nozzle	-90	Pa

- The processing point duct exhaust pressure may be verified on the SENSOR STATUS screen. Please see Section 1-2 [Sensor Status Screen] of Chapter A in the Operation Manual included with the machine.
- The maintenance method varies depending on the model, optical system, and processing point nozzle specifications. For details, please contact a DISCO sales representative or customer engineer.
- It is recommended to set the items on the MAINTENANCE SCHEDULER screen so that it will remind you of the periodic maintenance.

<Reference documents>

Applicable model/ specification	Document	Included items
DFL7161 BSS6: J05 nozzle BSS6: B03 nozzle	Maintenance Manual	<ul style="list-style-type: none">• Processing point nozzle cleaning• Dust pod cleaning (cyclone dust eliminator)• Cyclone dust eliminator cleaning

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To customers using a J05 nozzle with DFL7161: information about mechanism for reducing risk of fire spreading

1. Please consider switching to a B03 nozzle. Accumulation of debris and protective film solution is slower with the B03 nozzle than with the J05 nozzle (depending on the processing parameters), which makes it possible to reduce the risk of fire spreading.
2. Please consider introducing a dust eliminator. This is an external unit that passes dust suctioned from the DFL7161 in water (spraying and stirring) inside the dust eliminator and collects it. It stops ignition due to flammable dust occurring in the DFL7161, which protects the DFL7161 and equipment at the facility.

Note: For details of the processing point nozzle and dust eliminator, please ask a DISCO sales representative or customer engineer.

Inquiries

For inquiries regarding this matter, please contact a DISCO sales representative or customer engineer.
