# Operator Guide

English

# Magnus VLF

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Internal 731-00140C-EN Rev A

www.creo.com/

# Magnus VLF

Operator Guide

creo™

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| | | | | | | |
|---|---|---|---|---|---|---|
| RE37,376 | 5,412,737 | 5,699,174 | 6,014,471 | 6,189,452 | 6,396,422 | 6,579,660 |
| D478,608 | 5,420,702 | 5,699,740 | 6,016,752 | 6,191,882 | 6,407,849 | 6,587,211 |
| 4,558,302 | 5,420,722 | 5,708,736 | 6,043,865 | 6,204,874 | 6,409,331 | 6,589,710 |
| 4,743,091 | 5,459,505 | 5,713,287 | 6,060,208 | 6,205,364 | 6,414,755 | 6,590,635 |
| 4,992,864 | 5,473,733 | 5,742,743 | 6,063,528 | 6,208,369 | 6,422,801 | 6,593,064 |
| 5,049,901 | 5,481,379 | 5,764,374 | 6,063,546 | 6,214,276 | 6,425,565 | 6,601,888 |
| 5,113,249 | 5,488,906 | 5,771,794 | 6,072,518 | 6,217,965 | 6,430,136 | 6,605,407 |
| 5,132,723 | 5,508,828 | 5,785,309 | 6,090,529 | 6,252,241 | 6,435,091 | 6,609,459 |
| 5,155,782 | 5,509,561 | 5,802,034 | 6,093,447 | 6,252,522 | 6,441,914 | 6,611,363 |
| 5,157,516 | 5,517,359 | 5,813,346 | 6,096,461 | 6,255,033 | 6,443,571 | 6,618,187 |
| 5,177,724 | 5,519,852 | 5,818,498 | 6,098,544 | 6,260,482 | 6,450,092 | 6,628,435 |
| 5,208,818 | 5,576,754 | 5,854,883 | 6,107,011 | 6,266,080 | 6,456,396 | 6,632,584 |
| 5,208,888 | 5,579,115 | 5,861,904 | 6,112,663 | 6,266,134 | 6,471,335 | 6,637,329 |
| 5,247,174 | 5,583,551 | 5,861,992 | 6,115,056 | 6,267,054 | 6,476,342 | 6,637,860 |
| 5,249,067 | 5,592,309 | 5,875,288 | 6,116,160 | 6,268,948 | 6,476,931 | 6,640,713 |
| 5,283,140 | 5,594,556 | 5,894,342 | 6,121,996 | 6,270,204 | 6,477,955 | 6,641,772 |
| 5,291,273 | 5,600,448 | 5,900,981 | 6,130,702 | 6,283,589 | 6,493,064 | 6,641,978 |
| 5,305,091 | 5,608,822 | 5,934,196 | 6,134,393 | 6,295,076 | 6,494,965 | 6,646,669 |
| 5,323,248 | 5,615,282 | 5,946,426 | 6,136,509 | 6,299,572 | 6,503,691 | 6,648,468 |
| 5,325,217 | 5,625,397 | 5,947,028 | 6,137,580 | 6,318,266 | 6,509,903 | 6,652,088 |
| 5,339,176 | 5,625,766 | 5,958,647 | 6,147,789 | 6,328,408 | 6,511,163 | 6,654,147 |
| 5,343,059 | 5,636,330 | 5,966,504 | 6,158,345 | 6,336,708 | 6,520,084 | 6,660,997 |
| 5,355,446 | 5,649,220 | 5,969,872 | 6,159,659 | 6,340,817 | 6,530,317 | 6,661,561 |
| 5,359,451 | 5,650,076 | 5,973,801 | 6,164,637 | 6,352,816 | 6,541,181 | 6,665,048 |
| 5,359,458 | 5,652,804 | 5,986,819 | 6,165,658 | 6,353,216 | 6,544,336 | 6,665,121 |
| 5,367,360 | 5,680,129 | 5,995,475 | 6,180,325 | 6,366,339 | 6,545,772 | 6,670,986 |
| 5,384,648 | 5,691,823 | 5,996,499 | 6,181,362 | 6,371,026 | 6,550,388 | 6,684,783 |
| 5,384,899 | 5,691,828 | 5,998,067 | 6,181,439 | 6,377,739 | 6,564,018 | 6,704,123 |
| 5,412,491 | 5,696,393 | 6,003,442 | 6,186,068 | 6,387,597 | 6,567,713 | |

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This chapter describes important safety information that you should know before you operate the Kodak® Magnus™ VLF platesetter.

# Who Should Use This Guide

This guide is intended for anyone who operates and maintains a Magnus VLF.

To use this guide, you should:

- Have a working knowledge of prepress operations
- Be familiar with the Windows® operating system
- Be familiar with the Macintosh® operating system

This guide assumes that:

- All the hardware, software, and network components of your system are installed, configured, and operating correctly.
- Files submitted to your system are free of common errors usually resolved during preflight, such as missing fonts and PostScript® errors.

If you have questions about using the device, write down the serial number for your device, and contact your service representative. You can find the serial number on the Identification Label which is located at the rear of the device (see *Dataplate label* on page 120).

# For More Information

Visit Creo at http://graphics.kodak.com/ for documentation, training courses, downloads, and service and support contacts.

For a list of translated documents for this product, log on to eCentral at https://ecentral.creo.com/.

# Dangers, Warnings, and Cautions

All dangers, warnings, and cautions are meant to provide you with safety information. Disregarding dangers, warnings, and cautions can result in personal injury to you.



**DANGER: This indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.**



**WARNING:** This indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.



**CAUTION:** This indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. This does not alert you to a property damage accident unless personal injury risks are associated with the accident.

**NOTICE:** The use of the signal word "NOTICE" indicates a situation, which, if not avoided, could result in damage to the device.

# Important Notes on Safe Operation



**WARNING:** Before using the Magnus VLF, you MUST read this guide and understand it.

When using the Magnus VLF, you MUST follow ALL of the safety precautions and recommended procedures. This guide must be accessible to anyone who operates the Magnus VLF.

Your failure to read, understand, and follow the information in this guide may result in the incorrect operation of this product and could create a dangerous situation. This could result in serious injury as well as damage to the output device.

# Safety Information

Instructions and warnings relating to the safe operation of the Magnus VLF are provided throughout this guide. Strict adherence to the following instructions is critical to the safe operation of the device:



**DANGER: Do not tamper with the access panel interlock system (see *Interlock System* on page 7). Tampering with the interlock system can result in serious injury from visible and invisible high-powered laser radiation and/or moving mechanical parts.**



**DANGER: Do not perform unauthorized repairs or make modifications (see *Maintenance* on page 6). Unauthorized panel removal, repairs, or changes made to the device can expose you to visible and invisible high-powered laser radiation, moving mechanical parts, and/or electrical shock, which will result in death or serious injury.**



**WARNING:** When opening access panels, keep hands away from moving parts until the rotating drum comes to a complete stop (see *Interlock System* on page 7). Mechanical hazards associated with the device can result in serious injury and/or damage to your device.



**WARNING:** Use only qualified media (see *Supported Media* on page 24). Using unqualified media may expose you to noxious gaseous emissions in excess of applicable regulatory limits. This may result in possible discomfort, illness, injury, and/or disability.



**WARNING:** Particulate emissions that are not properly filtered can endanger your health. For a list of airborne emissions that pertain to the media you are using, see the manufacturer's Material Safety Data Sheet (MSDS) or contact the manufacturer or distributor directly.



**WARNING:** Do not let water or other liquids run freely into the device (see *Cleaning Exterior Surfaces* on page 51). This can result in serious injury from electrical shock as well as damage to your device.



**WARNING:** Do not use a debris removal particulate filter with a damaged gasket and do not attempt to image printing media with a depleted filter. Failure to heed the above warnings could result in exposure to airborne emissions in excess of applicable regulatory limits and in possible discomfort, illness, injury, and/or disability.



**WARNING:** Do not use chemical solvents or aggressive cleaning solutions for cleaning the compressed air supply filter bowls (see *Replacing the Compressed Air Supply Filter* on page 66). This can cause cracking or crazing on the plastic parts. When these plastic parts are exposed to high air pressure, parts may explode and cause serious injury and/or damage to the device.



**WARNING:** Be careful handling the magnetic clamps if you have a pacemaker (see *Removing a Stuck Plate From the Drum* on page 104). Operators with implanted cardiac pacemakers should ensure that magnetic clamps are kept more than 7 cm (2.75 in.) away from their pacemaker. If you have additional concerns, consult your physician and/or the manufacturer of your implant.



**WARNING:** Turn off the air supply when working on the air supply filters (see *Replacing the Compressed Air Supply Filter* on page 66). Failure to turn off the compressed air supply before replacing a compressed air supply filter can result in serious injury and/or damage to your device.



**CAUTION:** Wear protective gloves when handling plates. Plate edges can be sharp. Failure to wear protective gloves can result in injury.



**CAUTION:** Wear protective gloves when handling the magnetic clamps. Otherwise you may pinch your fingers between the trailing-edge clamps and the drum.

**NOTICE:** If the clamp tabs are not properly aligned (see *Repositioning the Trailing-Edge Clamps* on page 108), the clamp tabs can damage the drum surface.

### In Case of Fire

If there is a fire in the device, you should immediately turn off the Power/ Emergency Stop switch.

## Installation

Installation of the device and the initial start-up must be performed by a service representative. You must observe operating environment and connection requirements when your device is installed and when it is turned on.

## Maintenance

You should perform only the maintenance activities that are described in *Chapter 4, Maintenance*. If you perform any other maintenance procedures or remove panels or other housing parts for any reason, you may be injured. Other maintenance and all service work should be performed by a service representative.



**DANGER: Unauthorized panel removal, repairs, or changes made to the device can expose you to visible and invisible high-powered laser radiation, moving mechanical parts, and/or electrical shock, which will result in death or serious injury.**

# Safety Features

## Interlock System

The device is equipped with an interlock system. It protects you against injury from:

- Visible and invisible high-powered laser radiation
- Moving mechanical parts

### Visible and Invisible High-Powered Laser Radiation

Laser emissions from an imaging head are invisible to the naked eye and are very dangerous if they contact skin or eyes. If you open or remove an access panel while the device is operating, the interlock system will:

- Halt all mechanical activity
- Remove power from the laser



**DANGER: Never attempt to operate the device with any of the access panels open, and never attempt to open or remove access panels while the device is imaging media. Tampering with the interlock system can result in serious injury from visible and invisible high-powered laser radiation and/or moving mechanical parts.**

### Moving Mechanical Parts

The Magnus VLF has a drum that revolves inside the device. The plates are loaded, wrapped onto the drum, imaged, and unloaded.

The drum normally revolves up to 400 times per minute. If an object hits the revolving drum, the object may get lodged inside the device and cause damage, including damage to the safety system, thermal exposure head, or protective enclosure.

Clicking **Unlock** in the Print Console device control software stops all mechanical activity so that you can safely open or remove an access panel. If mechanical movements do not stop after five seconds when you open or remove an access panel, the device must be repaired. Take the following actions:

1. Keep your hands away from the moving parts.
2. Turn off the Power/Emergency Stop switch.
3. Close or replace the access panel.
4. Contact your service representative as soon as possible.

Because exposure to a revolving drum can result in serious injury to the operator, service representative, or others in the vicinity of the device, make sure that you comply with these drum safety messages.



**DANGER: Do not tamper with the access panel interlock system. Never attempt to operate the device with any of the access panels open, and never attempt to open or remove access panels while the device is imaging plates. Tampering with the interlock system can result in serious injury from visible and invisible high-powered laser radiation and/or moving mechanical parts.**



**WARNING:** If a service representative has activated interlock defeaters while access panels are open, do not stand in front of the device. Do not touch any moving mechanical parts while it is in motion.



**WARNING:** When opening access panels, keep hands away from moving parts until the rotating drum comes to a complete stop. Do not insert your fingers or hands anywhere near the drum, because they may get caught in the narrow gaps in the drum area. Mechanical hazards associated with the device can result in serious injury and/or damage to your device.



**WARNING:** Do not leave any object, tool, or part inside or on the device enclosure. If an object becomes lodged in the device, it may damage the device safety systems, which can result in serious injury.



**WARNING:** If you need to open or remove an access panel to release a stuck plate or perform a maintenance procedure, remove any piece of clothing or object that may get caught in the drum or other parts. Remove ties, roll up long sleeves, remove jewelry, and gather long hair.

# Power/Emergency Stop Switch

The Power/Emergency Stop switch disconnects power to the device.

## Regular Operations

The Power/Emergency Stop switch is located at the rear of the device in the upper-left corner. When you are instructed to turn off the device for a maintenance procedure, use this switch to turn off the power. See *Turning Off the Magnus VLF* on page 35.

## Emergency Shutdown

When an Emergency Stop button is not accessible, turn the Power/Emergency Stop switch to the **Off** position. You will not be able to access information about the status of your device.

# Emergency Stop Button

The Emergency Stop button stops laser operation and mechanical movement, but the power remains connected. You can still access information about the status of the device. Use this button to turn off the power in an emergency situation.

It is located on the side of the operator interface.

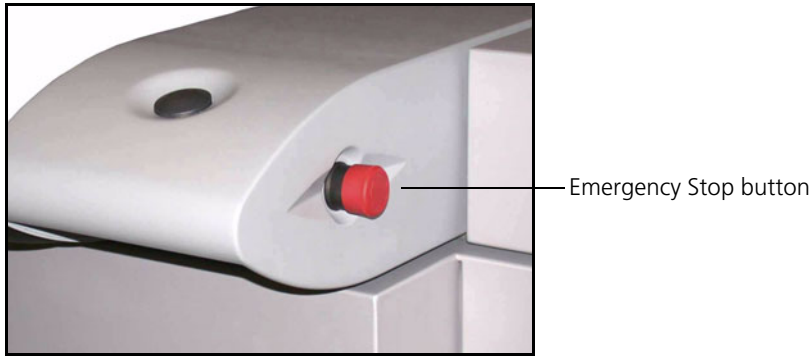



Figure 1: Emergency Stop button location

If you press this button, you must reset it before the device can return to normal operations. See *Resetting the Emergency Stop Button* on page 102.

2

# System Overview

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This chapter provides an overview of your Magnus VLF device. It describes the system, its components, the maintenance supplies, and the media.

# Magnus VLF System

The Magnus VLF device is a very large format platesetter that can expose plates for conventional and waterless printing. It is capable of high speeds and is PostScript-compatible. This computer-to-media device was developed and manufactured by Creo Inc. and is compatible with prepress environments.

This model features fast semiautomatic media handling. It receives raster data from the workstation for imaging onto media that you manually load onto the device's load table. You may load one or two plates at a time. An automatic plate registration system confirms that the plates are loaded correctly, and then the device automatically wraps the media around the drum and images it using a laser. Imaged plates unload back onto the load table.

The device has a built-in debris removal system that extracts and filters airborne emissions.



**Note:** The terms media and plate can be used interchangeably. However, in places where it will make the subject clearer, we have used the term plate.

# System Components

Depending on your configuration, your Magnus VLF system may consist of some or all of the following components:

- Device
- Heat exchanger unit[1]
- Workstation
- Print Console software
- Drum vacuum pump system

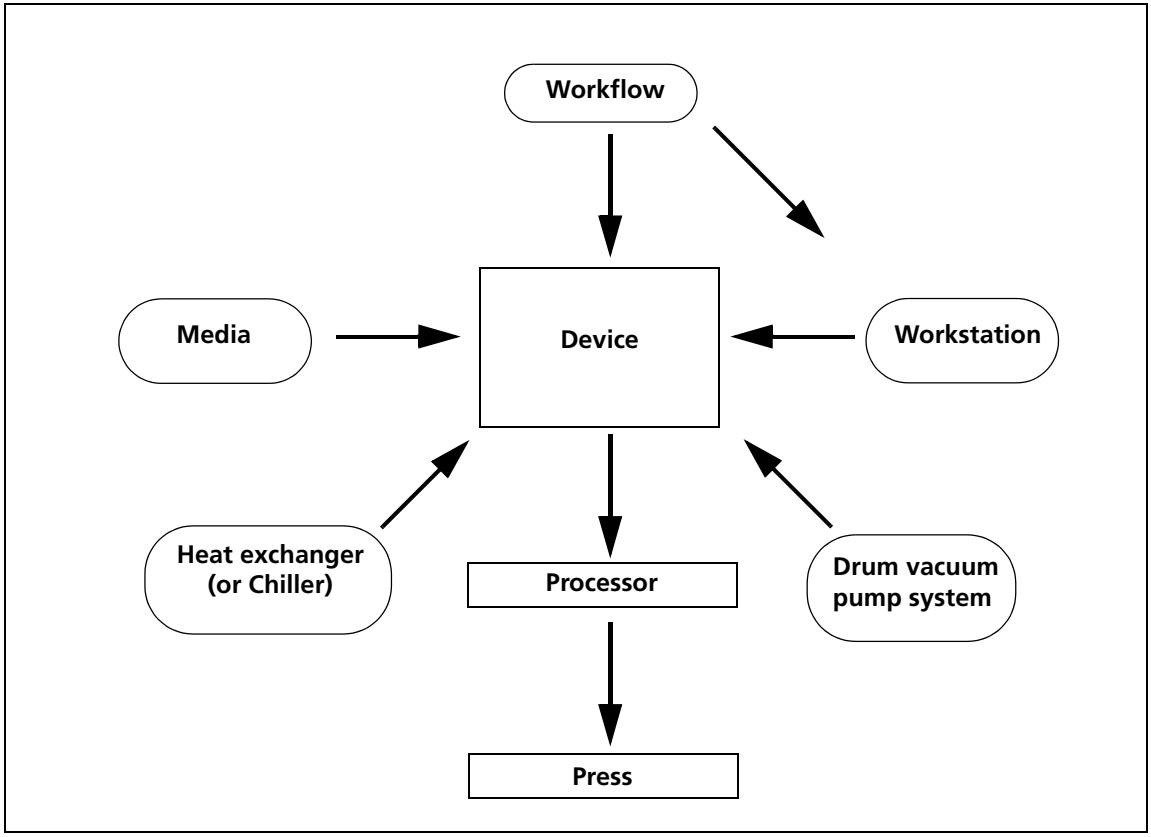



Figure 2: Magnus VLF system

1. Some models may use a chiller unit instead.

This guide contains information about the Magnus VLF device. For all other documentation, see:

- *Print Console Quick Start Guide* and the Print Console online help
- Workstation user guide
- *Merlin Recirculating Chillers Thermo NESLAB Manual*

# Device Components

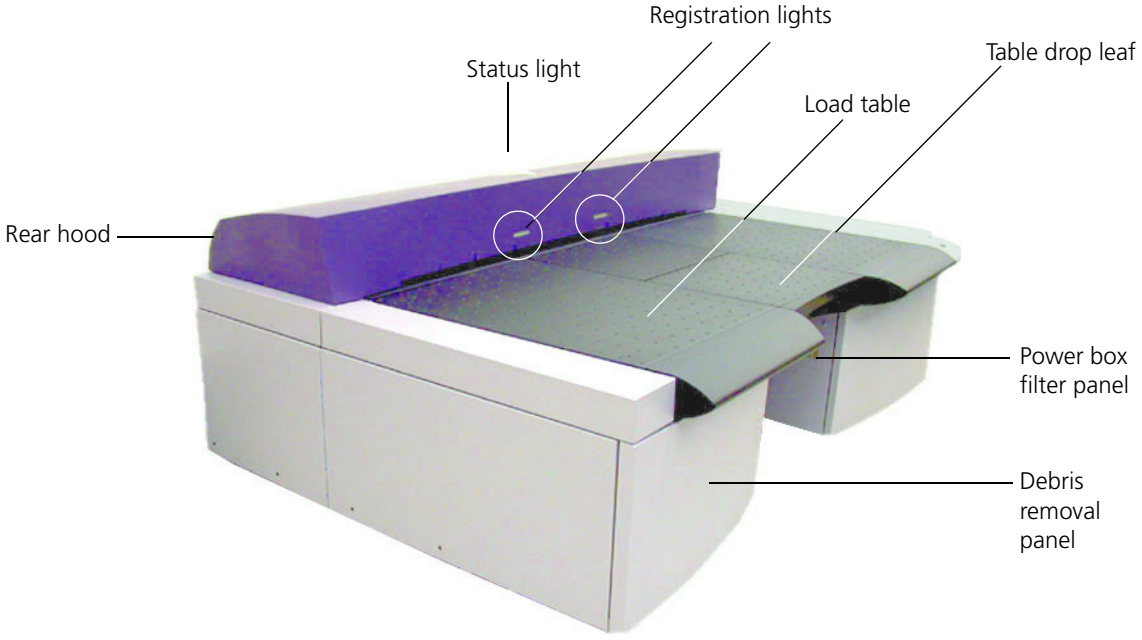



Figure 3: Front view

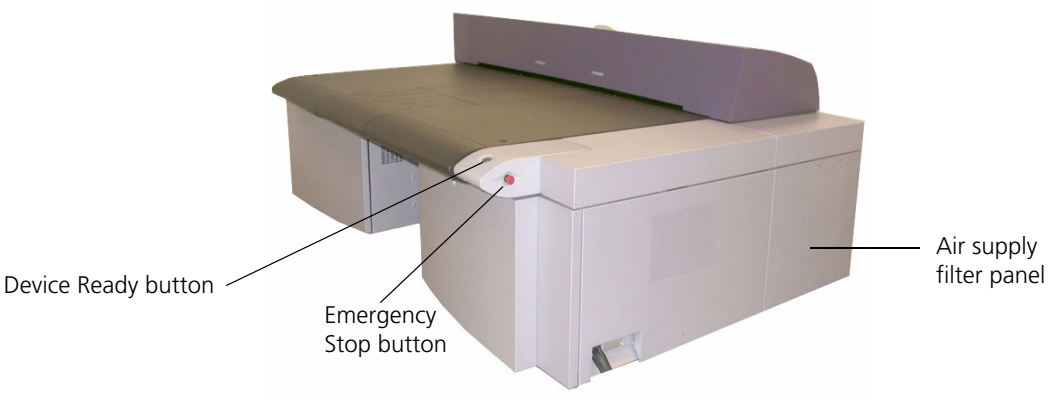



Figure 4: Front-right view

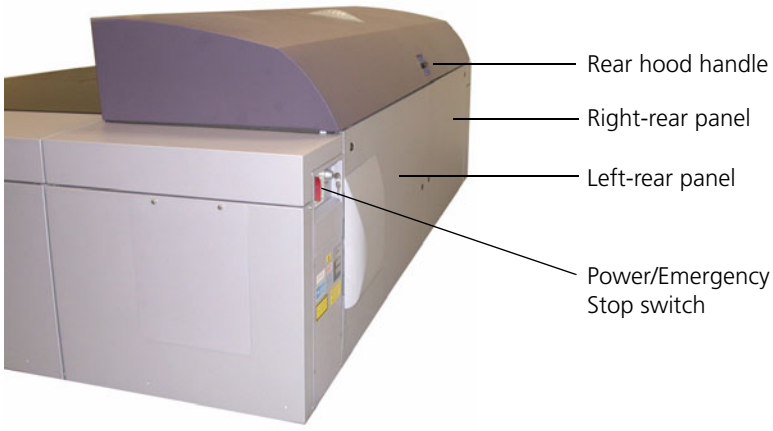



Figure 5: Rear view



**Important:** Do not open the device more often than is absolutely necessary. Opening access panels is unavoidable but should be kept to a minimum to reduce the accumulation of dust in and around sensitive components.

# Operator Interface Components

The operator interface for the Magnus VLF device consists of:

- Status light
- Device Ready button
- Registration lights

The lights of the operator interface either glow a solid color or flash in a particular color, depending on the state of the device. For a more detailed explanation, see *Operator Interaction With the Interface* on page 18.

## Status Light

This large light is located on top of the hood of the device. It appears as a green, blue, or yellow color, and it can be either a flashing or solid color.

For a more detailed explanation, see *Operator Interaction With the Interface* on page 18.




Figure 6: Status light location

## Device Ready Button

This button can be used to start the imaging process. However, because the device is automatic, in the sense that you do not need to press the Device Ready button to start the imaging process, the Device Ready button resorts to the default setting of inactive and when you press the button, it will not do anything. The device starts the imaging process when the plate is correctly registered.

If you want to make the button active, contact your service representative to change the default.

## Registration Lights

The two registration lights are located just above the table surface on the hood of the device. These lights have three states:

- Off
- Flashing white—When the registration lights flash white, a job has been submitted and the device is waiting to register the plate. Place one or two plates on the load table to register them.
- Solid white—When the lights glow a solid white color, the plate or plates have been registered successfully, and the media is positioned correctly for loading onto the drum. The imaging process can begin.

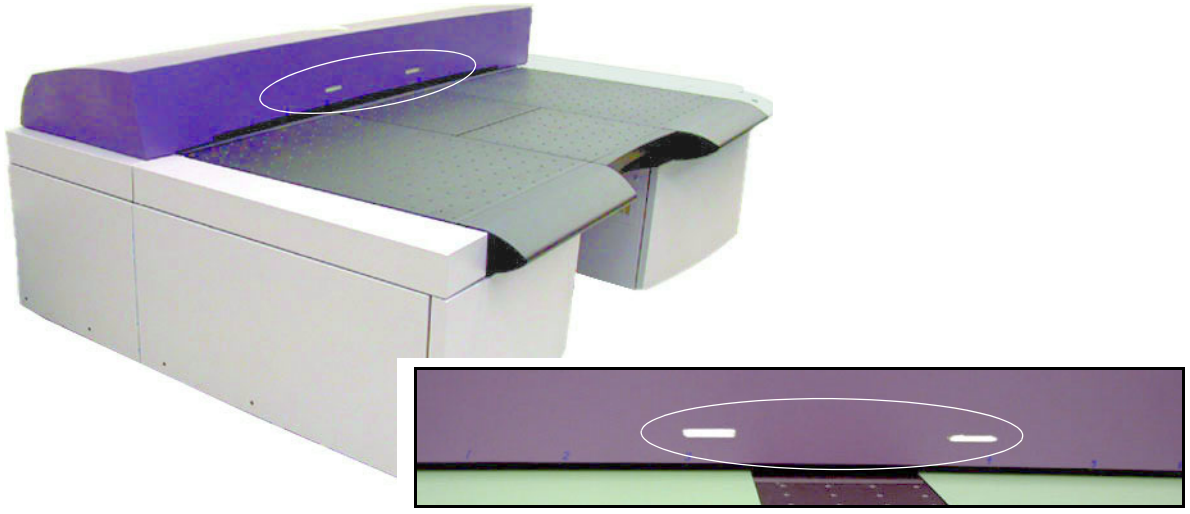


Figure 7: Registration lights location

**Operator Interaction With the Interface**

Table 1: How the operator interface works

| Status Light | Registration Lights | Device Ready Button | Operator Action |
|---|---|---|---|
| Off | Off | Solid green | The device is idle. Submit a job from the workflow when you're ready. |
| Solid blue | Flashing white | Solid green | The device is waiting to register a plate. Place a plate on the load table and register it.<br>If you want to load two plates at the same time (dual-plate loading), place both plates side-by-side. Push both plates into the device at the same time and register them. |
| Solid blue | Solid white | Solid green | The plate has registered successfully.<br>Wait—the device is clamping a plate. |
| Solid green | Off | Solid green | Wait—the device is imaging a plate. |
| Flashing green | Off | Solid green | Wait—the device is unloading a plate. |
| Flashing blue | Off | Solid green | Remove the plate from the load table. |
| Flashing yellow | Off | Solid green | An error has occurred and the job is suspended. Print Console displays specific information about the error. Click **Media Removed** or **Resume**.[a] |
| Off | Off | Off | The device is turned off. |

a. Sometimes unrecoverable system errors occur, such as cable faults, power supply failures, or loss of air pressure. To determine whether you can intervene to solve a problem, see *Warning Messages* on page 88. If you can't resolve the error condition, call your service representative.

# Debris Removal System

The debris removal system is an integral part of your imaging system. It extracts and filters airborne emissions, specifically, particulate debris—dust. These airborne emissions are released when imaging certain types of printing media. Some gases may be released as well. However, with proper ventilation, the amounts will not exceed regulatory limits.

The debris removal system is located behind the debris removal panel of the device. It consists of the internal compartment, the debris collection nozzle (the nozzle is located on the thermal head), hoses, and cables.

The debris removal system is intended for use with media that release only particulate emissions.



**WARNING:** Particulate emissions that are not properly filtered can endanger your health. For a list of airborne emissions that pertain to the media you are using, see the MSDS or contact the media manufacturer or distributor directly.



**WARNING:** The particulate filtration of airborne emissions is not 100 percent efficient and must be complemented by adequate outdoor air ventilation. Failure to ensure adequate ventilation may result in exposure to airborne emissions in excess of applicable regulatory limits and in possible discomfort, illness, injury, and/or disability.

The debris removal system is intended for use only with qualified media. If you attempt to image unqualified media, the particulate filter may not remove all airborne emissions. For the latest information on qualified media, contact your service representative. The imaging parameters for these media were determined by Creo for optimum performance. Overexposure may result in a substantial increase in airborne emissions.



**WARNING:** Do not attempt to image media that have not been qualified by Creo. Failure to use only qualified media can result in exposure to airborne emissions in excess of applicable regulatory limits and in possible discomfort, illness, injury, and/or disability.

# External System Components

The Magnus VLF system includes the drum vacuum pump system, in addition to the device and workstation.

## Drum Vacuum Pump System

The drum vacuum pump system consists of two components that are external to the device:

- The drum vacuum drive panel controls the operation of the drum vacuum pump. It is wall-mounted near the device. The drum vacuum pump drive panel is connected to the device by a control signal serial cable and to the drum vacuum pump enclosure by a water-tight cable conduit.
- The drum vacuum pump enclosure contains the drum vacuum pump, a ventilation fan, and acoustic baffling. The drum vacuum pump enclosure should be located away from the room containing the device, because it generates a significant amount of heat. The drum vacuum pump enclosure is connected to the device by a 51-mm (2-in.) diameter vacuum hose.

# Environmental Specifications

### Device

The Magnus VLF device should be installed in a clean prepress area (in accordance with *Magnus VLF Site Preparation Guide* (725-00032A)).

The Magnus VLF device requires the following operating conditions:

- Temperature: 17°C–30°C (63°F–86°F)
- Relative humidity: 20 percent–60 percent RH, non-condensing

For information on noise emissions in an office environment, see *Noise Emissions* on page 141.

## Required Operating Conditions

The Magnus VLF device uses a thermal imaging head and does not require a darkroom.

## Debris Removal System

The debris removal system requires outdoor air ventilation. Ventilation exhaust ducts should be located as near to the device as possible.

Proper ventilation and adequate air mixing in the room ensure that unfiltered airborne emissions are properly dissipated and pockets of higher concentration do not form.



**WARNING:** Failure to provide adequate air mixing in the imaging room could cause increased concentrations of airborne emissions in certain areas. This may result in exposure to airborne emissions in excess of applicable regulatory limits and in possible discomfort, illness, injury, and/or disability.

# Possible Airborne Emissions

The most common airborne emissions released by printing media include, but are not limited to, the compounds listed in Table 2. Where applicable, the Occupational Safety and Health Administration of the U.S. (OSHA) Regulation standard concerning the individual compound is also listed.

Table 2: List of chemical compounds

| Compound | OSHA Standard[b] |
|---|---|
| Acetaldehyde | |
| Carbon monoxide | |
| Formaldehyde | 1910.1048 |
| Nitric oxide | |
| Nitrogen dioxide | |
| Particulates | |

b. U.S. Standards-29 CFR, Part 1910, Subpart Z-Toxic and Hazardous Substances

For a list of emissions that might be released by a particular media, see the MSDS or contact the media manufacturer directly.

# Maintenance Supplies

Use only Creo-authorized filters. Your device may not operate properly if you try to use a substitute or unauthorized filter.

Your device requires the following maintenance supplies:

Table 3: Maintenance supplies from Creo

| Item | Description |
|---|---|
| Air supply filter kit | Contains the particulate filter and O-ring for the compressed air supply. See *Replacing the Compressed Air Supply Filter* on page 66. |
| Debris removal filter | A particulate filter used in the debris removal system to remove airborne emissions. See *Replacing the Debris Removal Filter* on page 79. |
| Intake air filters | Used in the device to maintain air quality. See *Replacing the Power Box Intake Air Filter* on page 74. See *Replacing the Heat Exchanger Intake Air Filter* on page 76. |

Table 4: Maintenance supplies from other suppliers

| Item | Description |
|---|---|
| Media | See *Supported Media* on page 24. |
| Processor consumables | See the manufacturer's documentation. |

# Media

## Supported Media

Use only media qualified by Creo for use in your device. For the latest information on supported media, contact your service representative.

On installation, the device is configured with the media sizes that you will use. The imaging parameters for all qualified media are preset and cannot be changed. However, you can modify the media sizes in Print Console. For information, see the Print Console online help.



**WARNING:** Imaging unqualified media may result in the release of unknown airborne emissions that are not properly filtered and may result in exposure to airborne emissions in excess of obligatory regulatory limits and in possible discomfort, illness, injury, and/or disability.

**NOTICE:** Failure to use approved thermal media can damage the Magnus VLF device. Do not use unqualified media in the device. If you are unsure about a particular media, contact your service representative.

## Media Orientation and Dimensions

Media can be loaded in leading-edge registration mode or side-edge registration mode.

To properly configure page setups in Print Console, you should understand the dimensions of the media as it is imaged in the device. The following media dimensions apply only to the Magnus VLF device.

## CTP Registration

When you use non-Creo registration points, this can result in the image being skewed.

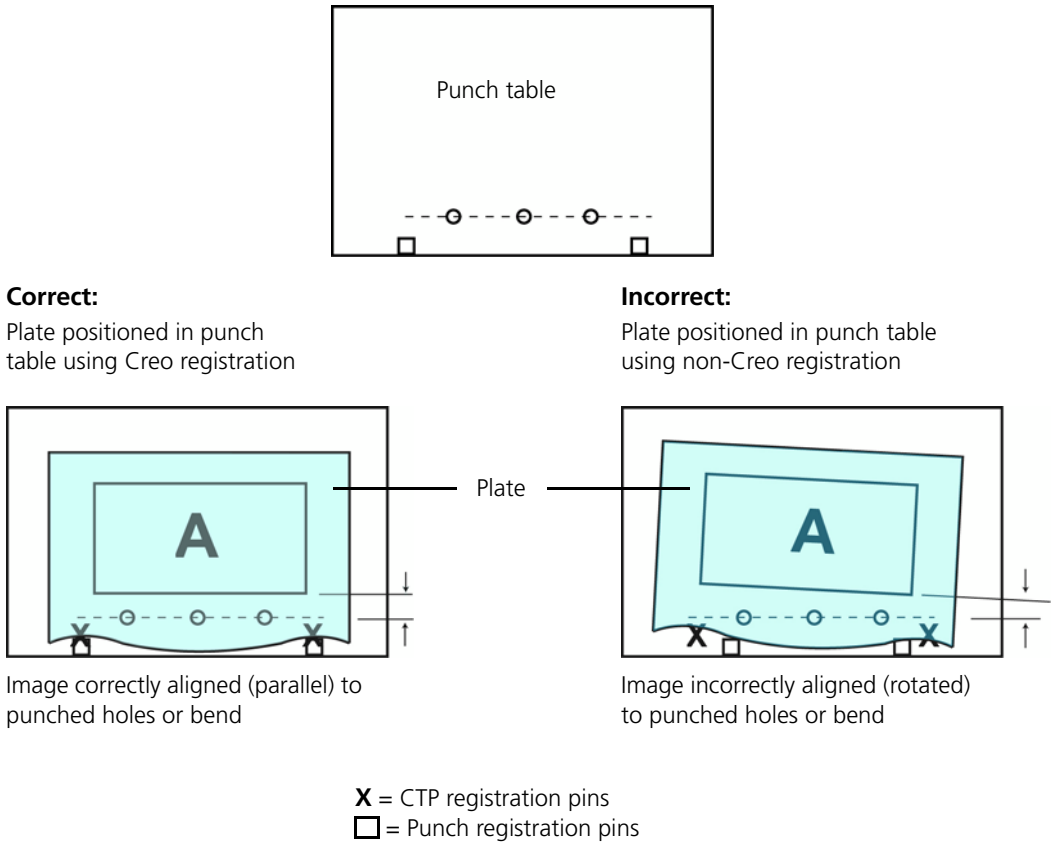



Figure 8: Registration edge

When you use non-Creo registration points, this can result in the image being shifted on the press. However, this error can easily be corrected on the press.

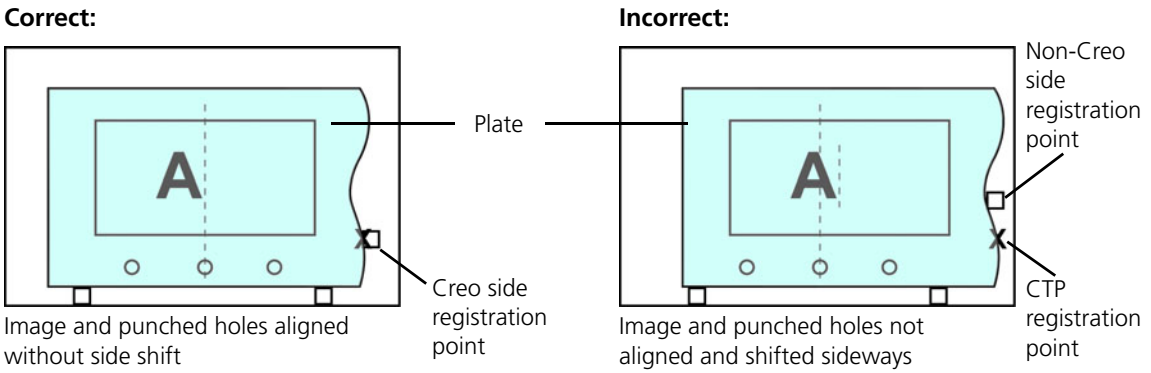



Figure 9: Side registration

## Leading-Edge Registration

**Fixed**

Two (nonconfigurable) registration points are on the leading-edge and the device uses the (nonconfigurable) edge detection strip to look for a third registration point at the home edge of the plate.

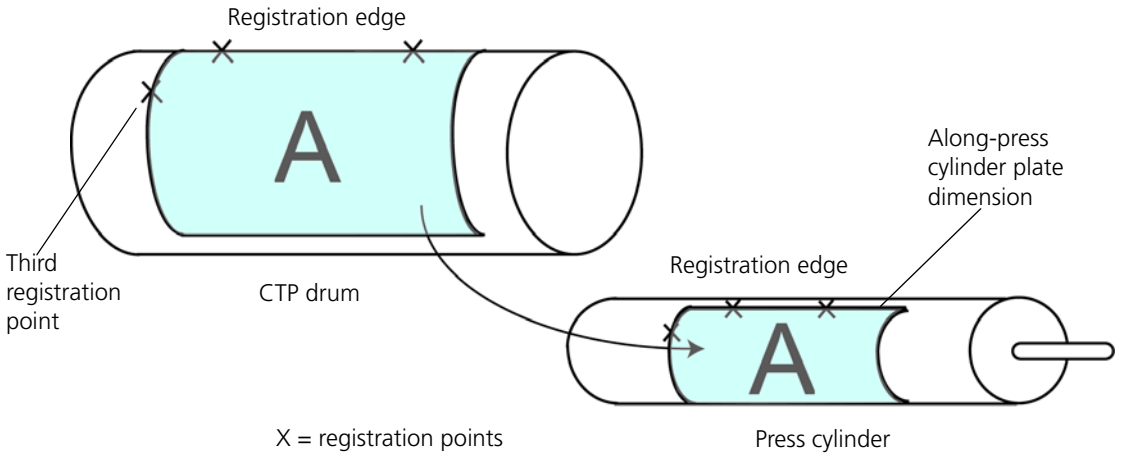



Figure 10: Fixed leading-edge registration

### Leading-Edge (Third Point Configurable)

Two (nonconfigurable) registration points are on the leading-edge and the device uses a camera to find a third (configurable) registration point at the home edge of the plate. If you select this mode, you must configure the distance to the third point.

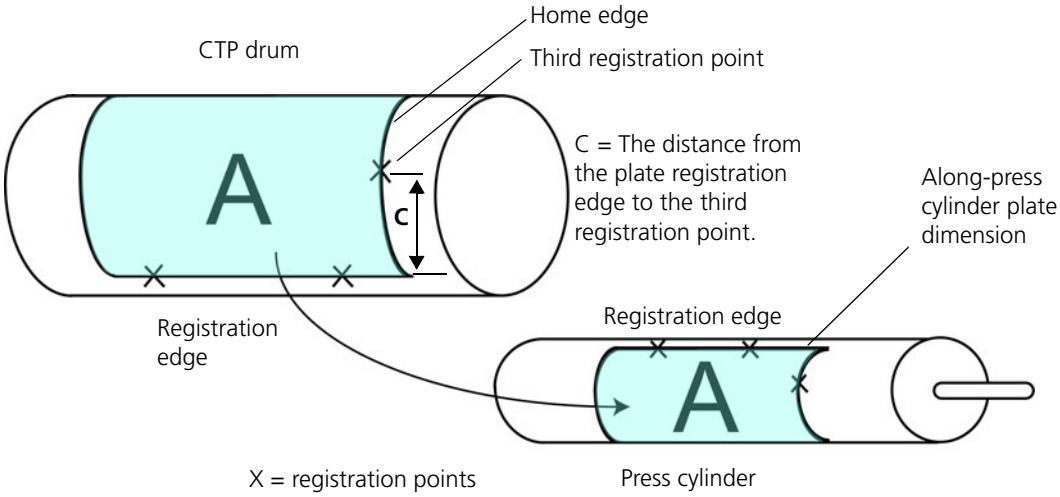



Figure 11: Leading-edge (third point configurable) registration

## Side-Edge Registration

### Fixed

One (nonconfigurable) registration point is on the leading-edge and the device uses two (nonconfigurable) edge detection strips to look for two registration points at the side-edge of the plate.

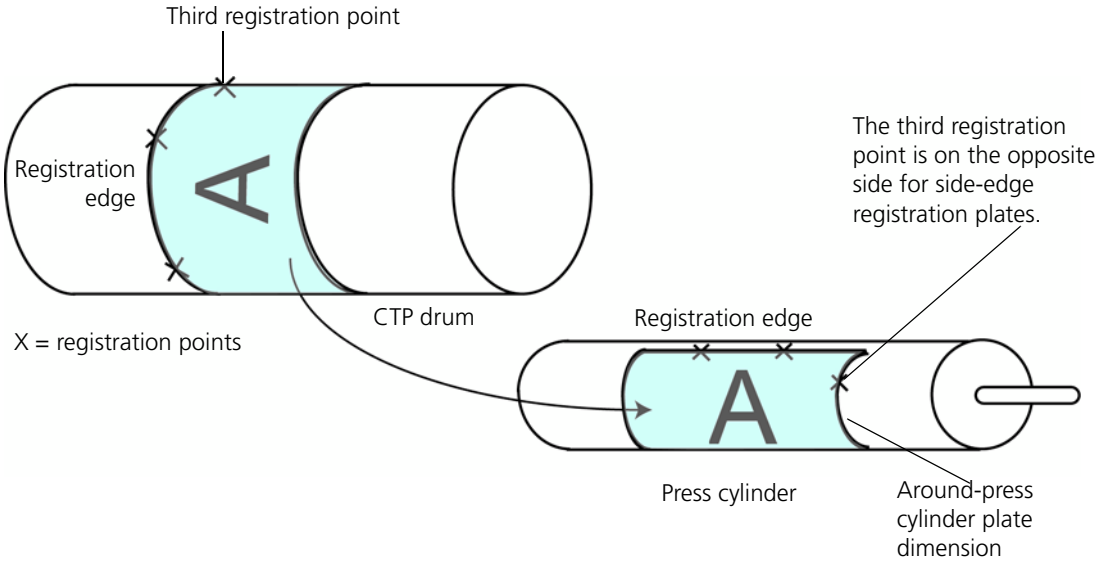



Figure 12: Side-edge registration

### Configurable Side-Edge

One (nonconfigurable) registration point is on the leading-edge and the device uses a camera to find two (configurable) registration points at the home edge of the plate. If you select this mode, you must configure:

- Spacing between points
- Center the points
- Distance to the first point (if you do not center the points)

**Center the points registration**

This parameter will be available only when the Configurable Side-Edge is the registration mode.

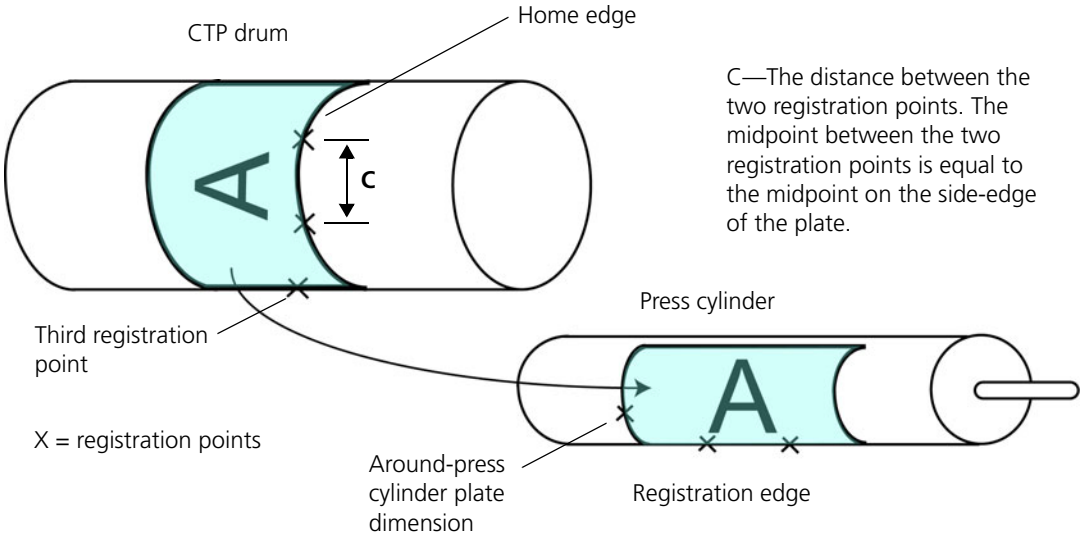



Figure 13: Center the points registration

**Distance to the first point registration**

This parameter will be available only when the Configurable Side-Edge is the registration mode and you have selected **No** for Center the Points.

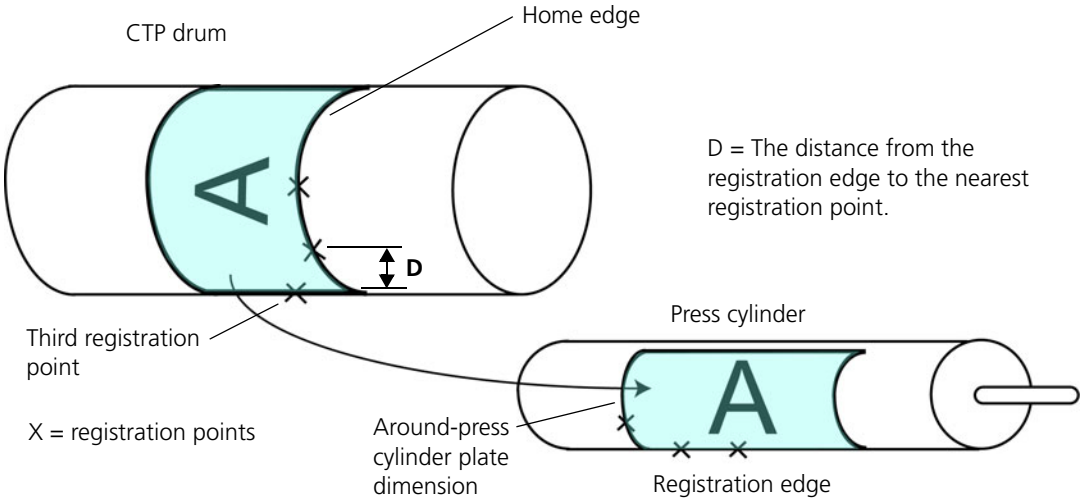



Figure 14: Distance to the first point registration

**Important:** The device does not measure the size of media along the drum. If the length of the media (around the drum) is correct, but the width (along the drum) does not correspond with the media size selected in Print Console, the device will go ahead and image the media, or an edge detect error will occur. This does not damage the device. However, the device does not notify you that a media of an incorrect size has been imaged.

# Media Processing

Some of the media supported by the Magnus VLF need to be processed after they are imaged in the device. For information on processing media, see the media's processor documentation.

# Media Alignment Labels

Media alignment labels should be affixed to the load table of your device during installation. If they were not, you can affix the labels to the load table (you will require the assistance of your service representative).

These labels act as guidelines to help you align the media when loading plates.

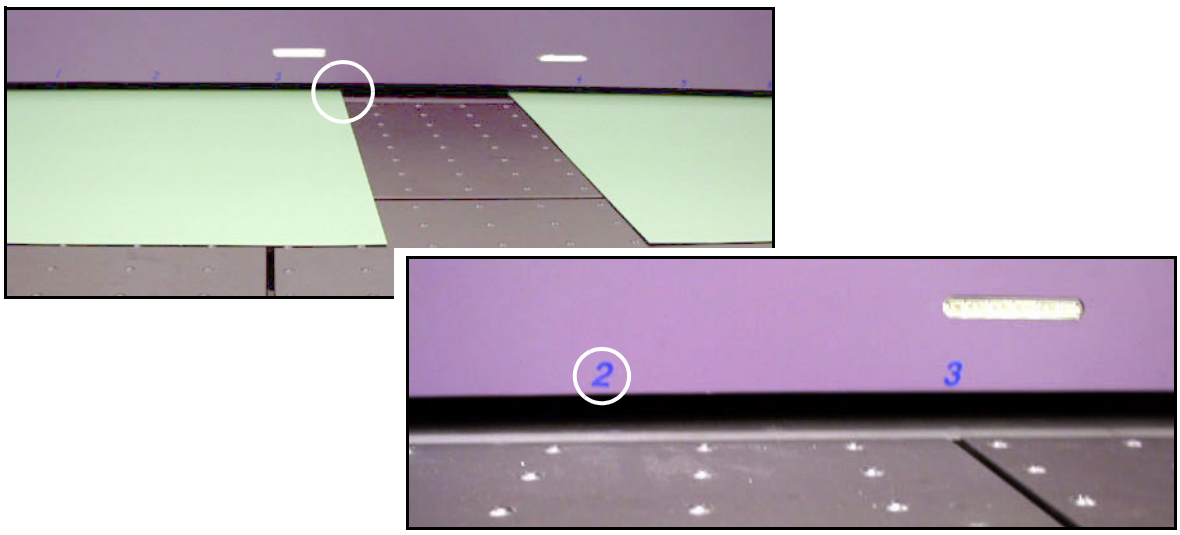



Figure 15: Typical media alignment label

The device's laser does the more precise registration. The laser beam corrects the registration to within 15 µ (microns) if you load the media to within ± 3 mm (0.125 in.) of the correct position on the load table. If affixed, the media alignment labels can help you quickly identify the correct position.

Using the media alignment labels can result in faster overall imaging time, as detection of the media edge occurs more quickly.

For more information about media registration, see *Magnus VLF Site Preparation Guide* (725-00032A).

For more information about media registration, see *Magnus VLF Specifications* (707-00176A).

3

# Operating Procedures

Turning On the Magnus VLF....34
Turning Off the Magnus VLF....35
Emergency Shutdown....36
Loading and Imaging Media....37
Unloading Media....47

This chapter describes the standard procedures for operating your Magnus VLF device.

# Turning On the Magnus VLF

## Warm-up Time

The Magnus VLF device takes about two minutes to initialize after it is turned on. The warm-up time is dependent on how long the device has been idle.

You cannot image media while the device is warming up. Files submitted to be imaged wait in Print Console until the device is ready.

While the device warms up, the Device Ready button glows a solid green color, and the status and registration lights are off. As soon as the device has finished warming up, a `Device is ready` message appears in Print Console and the device is ready to accept a job.

**To turn on the device:**

1. Turn the Power/Emergency Stop switch clockwise.

   The Power/Emergency Stop switch is located at the rear of the device, in the upper-left corner.

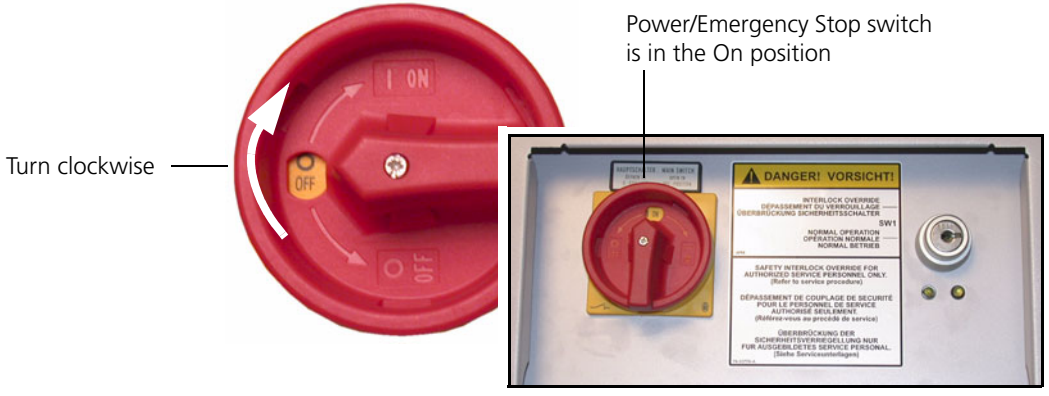



Figure 16: Power/Emergency Stop switch in the On position

2. Ensure that the workstation is turned on.

   For information on turning the workstation on or off, see your workstation documentation.

3. Start Print Console.

   For details on starting Print Console, see the *Print Console Quick Start Guide*.

   When the device is ready to image plates, the Device Ready button glows a solid green.

# Turning Off the Magnus VLF

You normally leave the workstation running at all times.

For information about quitting Print Console, see the *Print Console Quick Start Guide* or the Print Console online help. For information about shutting down your workstation, see your workstation documentation.



**Note:** Before you turn off the device, remove all media from the drum.

**To turn off the device:**

- Turn the Power/Emergency Stop switch counterclockwise.

  The Power/Emergency Stop switch is located at the rear of the device, in the upper-left corner.

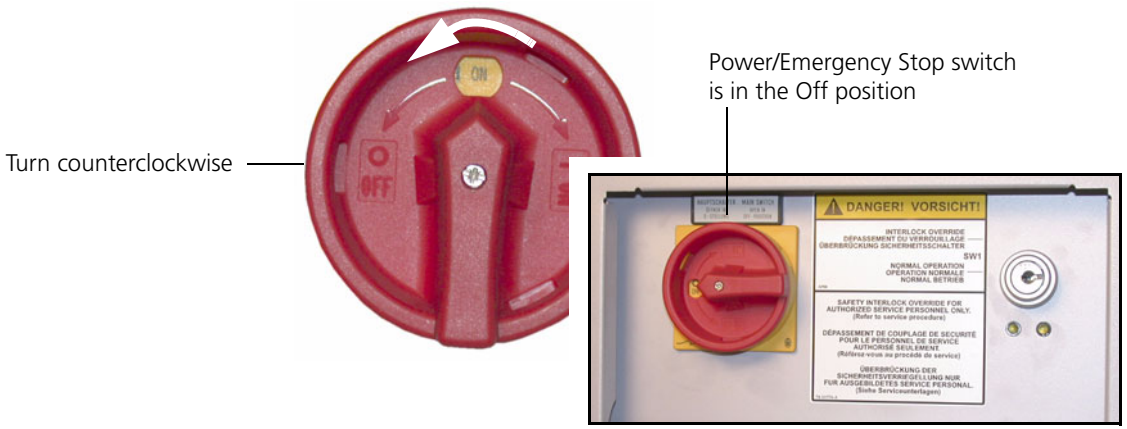



Figure 17: Power/Emergency Stop switch in the Off position

# Emergency Shutdown

## Power/Emergency Stop Switch

In an emergency situation, use the Power/Emergency Stop switch to turn off the device.

**To turn off the device using the Power/Emergency Stop switch:**

➢ Turn the Power/Emergency Stop switch counterclockwise.

The Power/Emergency Stop switch is located at the rear of the device, in the upper-left corner.

See Figure 17 on page 36.

## Emergency Stop Button

In an emergency situation, use the Emergency Stop button to turn off the device.

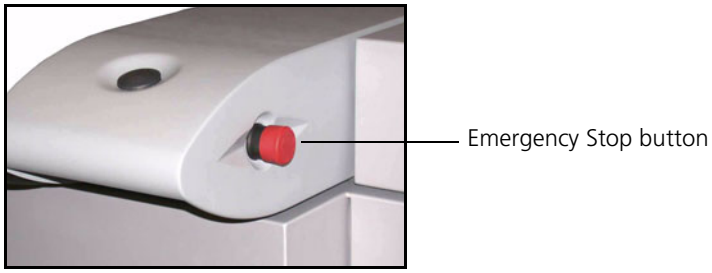



Figure 18: Emergency Stop button

**To turn off the device using the Emergency Stop button:**

➢ Push in the red Emergency Stop button.

All device operation stops. The button remains depressed until you release it.

**To release the Emergency Stop button:**

➢ Rotate the Emergency Stop button 90º clockwise.

The switch pops out and the device is ready for operation.

You must now reset the device. For the procedure, see *Resetting the Device* on page 102.

# Loading and Imaging Media

You must manually load media onto the device.

For a list of the media sizes you can use with the Magnus VLF device, contact your service representative.

**CAUTION:** Plate edges can be sharp. Failure to wear protective gloves can result in personal injury.

**NOTICE:** You must remove all slip sheets and packaging material from the back and front of a plate before you image it in the device. Otherwise, the thermal laser could ignite the paper, causing a fire in the device.

### To load a single plate:

1. Select one of the following workflow software:

   - **TIFF Workflow with Prinergy® Evo software:**

     In the Process Start dialog box, click **Go** to submit a file.

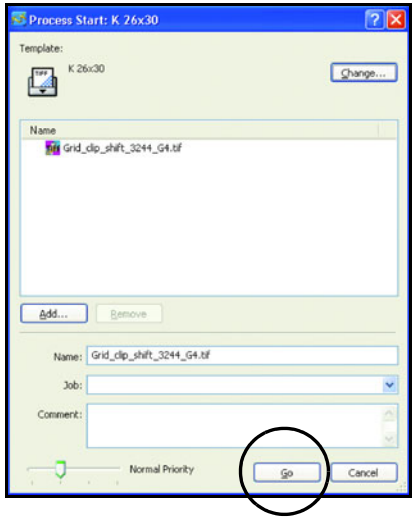



Figure 19: Submitting a TIFF file using Prinergy Evo

   - **Prinergy software:**

     In the Start Final Output Process dialog box, click **OK** to submit a file.

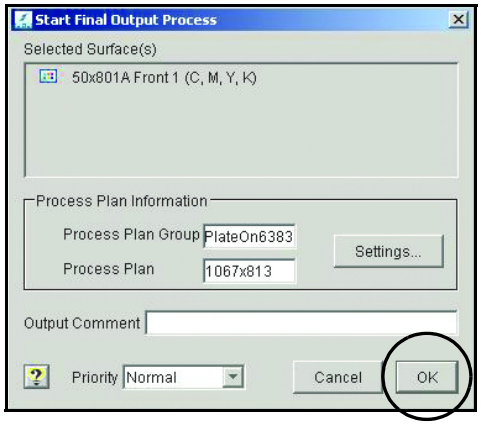



Figure 20: Submitting a file using Prinergy

- **Brisque® software:**

  **Note:** You must have a Prinergy Evo TIFF output template and hot folder already set up.

  In the Job Ticket Editor dialog box, click **Submit** to submit a file.




Figure 21: Submitting a file using Brisque

2. Ensure that the device is ready to accept media for imaging.

   This means:

   - Print Console displays the message prompt showing the plate size, number of plates, and type of plate to load.

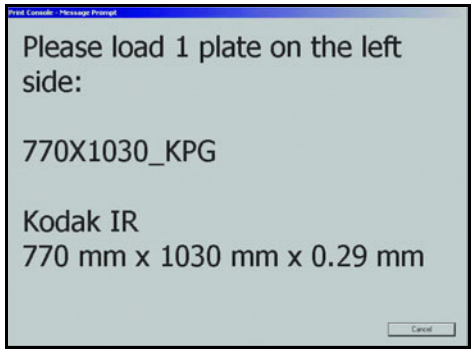



Figure 22: Message prompt for single plate

- The Device Ready button glows a solid green.
- The Status light glows a solid blue.
- The Registration lights flash white.

3. Locate the correct type and size of media to load.
4. Remove the media from its packaging and discard any slip sheets or packaging material that may be attached.

   We strongly recommend that you wear gloves when handling plates.
5. If you are imaging small plates, lower the table drop leaf.

   The table drop leaf has a lock on the bottom edge. To release the table drop leaf, use your fingers to grip and press the lock.



**Note:** A small plate is defined as any plate smaller than 890 mm (35 in.)—the distance from the registration pins to the edge of the drop leaf.

**CAUTION:** When you lower the table drop leaf, do not use a plate larger than 1 m (39 in.) around the drum. Using a plate this size or larger will extend the plate off the table and into the drop leaf section. The plate has sharp edges and you could cut yourself.



Figure 23: Lowering the table drop leaf

6. Place the plate on the load table and align it using the media alignment labels.

   Ensure that the side of the plate to be imaged is facing up (the emulsion side—it is usually the duller-looking surface) and that the leading edge of the plate is positioned against the end stop using the media alignment labels (as shown in Figure 29 on page 46). See *Media Alignment Labels* on page 31 for details.

7. Gently push the plate in until the Registration lights stop flashing and they change to glow a solid white. The Status light still glows a solid blue.

   When the device begins imaging the media, the Status light glows a solid green.

   When the imaging process nears completion (in the last 10 seconds), the Status light begins to flash green. This means that you can soon unload the media.

   When the device unloads the imaged media back onto the load table, the Status light flashes blue. You can remove the imaged media from the table. See *Unloading Media* on page 47 for details.

**To load double plates:**

1. Select from one of the following workflow software:

   - **TIFF Workflow with Prinergy Evo software:**

     In the Process Start dialog box, click **Go** to submit a file.

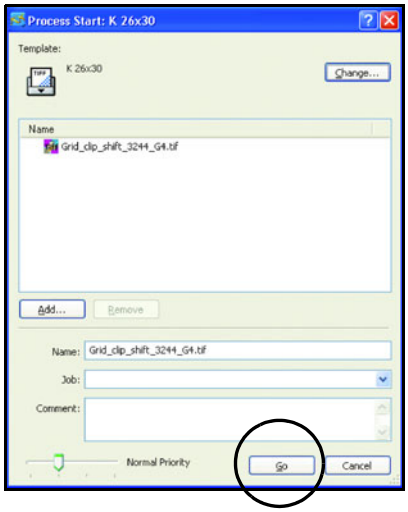



Figure 24: Submitting a TIFF file using Prinergy Evo

   - **Prinergy software:**

     In the Start Final Output Process dialog box, click **OK** to submit a file.

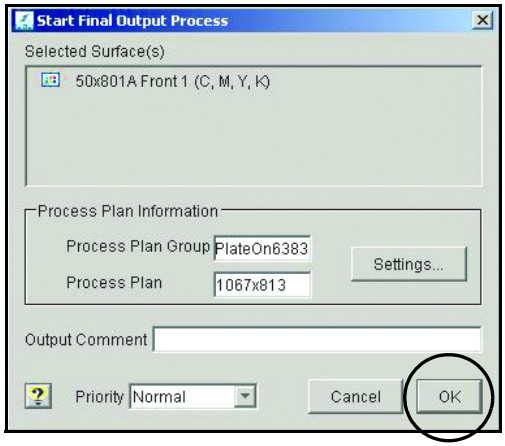



Figure 25: Submitting a file using Prinergy

- **Brisque software:**

  **Note:** You must have a Prinergy Evo TIFF output template and hot folder already set up.

  In the Job Ticket Editor dialog box, click **Submit** to submit a file.




Figure 26: Submitting a file using Brisque

2. Ensure that the device is ready to accept media for imaging.

   This means:

   - Print Console displays the message prompt showing the plate size, number of plates, and type of plates to load.

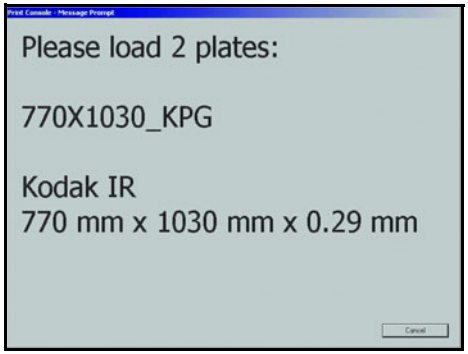



Figure 27: Message prompt for double plates

- The Device Ready button glows a solid green.
- The Status light glows a solid blue.
- The Registration lights flash white.

3. Locate the correct type and size of media to load.
4. Remove the media from its packaging and discard any slip sheets or packaging material that may be attached.

   We strongly recommend that you wear gloves when handling plates.
5. If you are imaging small plates, lower the table drop leaf.

   The table drop leaf has a lock on the bottom edge. To release the table drop leaf, use your fingers to grip and press the lock.

   **CAUTION:** When you lower the table drop leaf, do not use a plate larger than 1 m (39 in.) around the drum. Using a plate this size or larger will extend the plate off the table and into the drop leaf section. The plate has sharp edges and you could cut yourself.

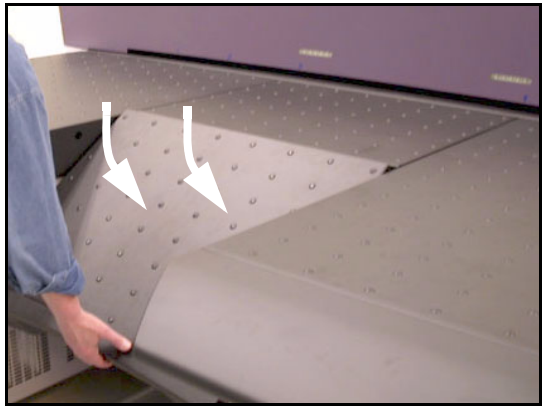


Figure 28: Lowering the table drop leaf

6. Place the first plate on the load table and align it using the media alignment labels.

   Make sure that the side of the plate to be imaged is facing up (the emulsion side—it is usually the duller-looking surface) and that the leading edge of the plate is positioned against the end stop using the media alignment labels (as shown in Figure 29 on page 46). See *Media Alignment Labels* on page 31 for details.

7. Place the second plate on the table beside the first.

8. Gently push both plates in until the Registration lights stop flashing and change to glow a solid white. The Status light still glows a solid blue.

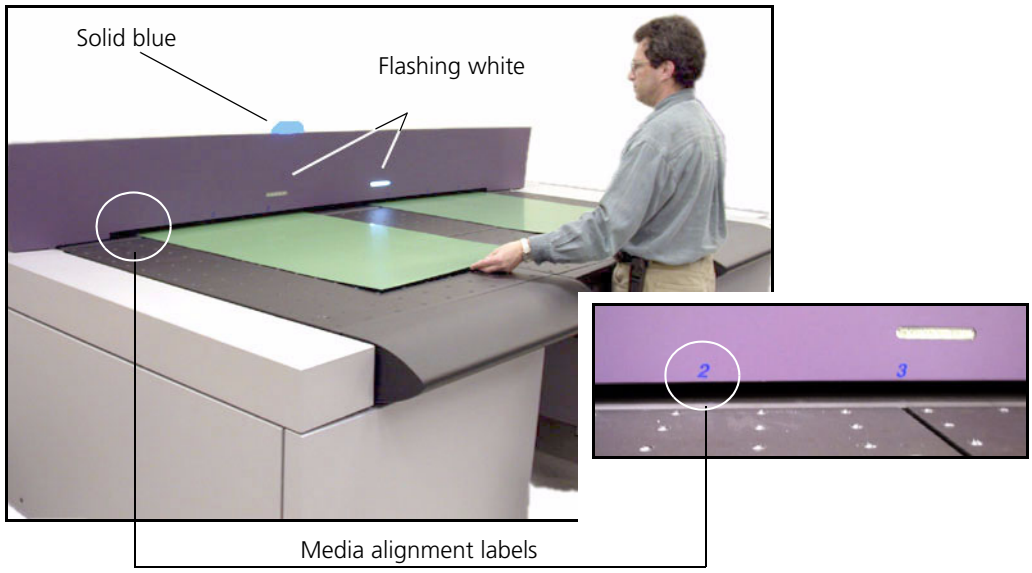



Figure 29: Aligning double plates on the load table

When the device begins imaging the media, the Status light glows a solid green.

When the imaging process nears completion (in the last 10 seconds), the Status light begins flashing green. This is the cue for the operator to be on hand to unload the media.

When the device unloads the imaged media back onto the load table, the Status light flashes blue. You can remove the imaged media from the table. See *Unloading Media* on page 47 for details.

# Unloading Media

A prompt appears in Print Console requesting that the operator remove the imaged media and the Status light flashes blue. The operator can now remove the imaged media from the device.

**To unload a plate:**

1. Ensure that the device has finished imaging.

   When imaging is finished, the Status light flashes green to show that the imaged plate is being returned to the load table.

   When the device finishes unloading the media, the Status light begins to flash blue. You can remove the media from the load table.

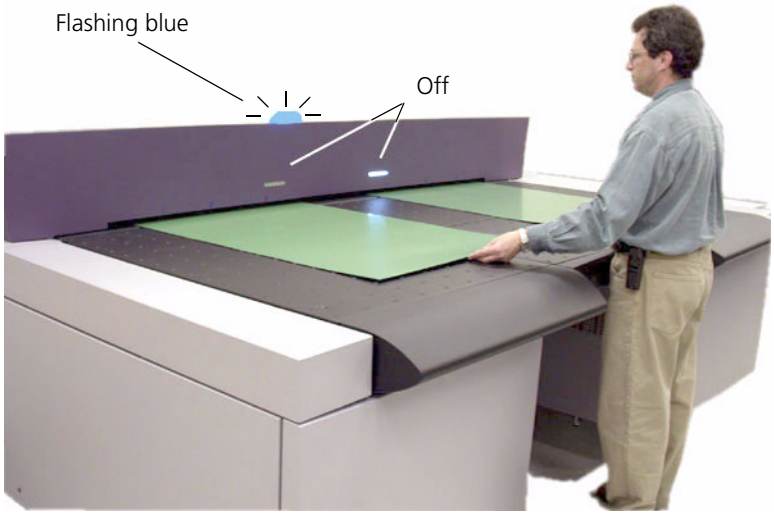



Figure 30: Unloading a plate

2. Grasp the edges of the media and lift, removing it from the load table.

   The prompt disappears once the plate is removed. The unload is complete.

# 4 Maintenance

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Cleaning Exterior Surfaces ..... 51
Accessing the Interior of the Device ..... 53
Cleaning the Interior of the Device ..... 62
Air Filters ..... 66

This chapter describes the standard maintenance procedures that are required to keep the Magnus VLF device operating properly.

# Maintenance Schedule

Table 5 on page 51 outlines the maintenance required to achieve optimum performance and quality from your device. Failure to perform this maintenance can result in poorer performance and can cause serious damage to your device. Although it requires several hours of scheduled downtime, regular maintenance ensures that your device is properly maintained and minimizes unscheduled downtime.

Keep records of when you perform maintenance on the device.

If you have a Creo service contract, you should schedule service visits by a service representative every six months. However, if your operating conditions require maintenance more frequently, we strongly recommend that you perform these maintenance procedures prior to a service visit.



**Important:** Before performing any maintenance procedure, ensure that the device is not imaging media and turn off the device. If you turn off the device while it is imaging, the imaging process stops and the plot is lost.

Table 5: Schedule of recommended maintenance procedures

| Frequency | Description | Action | Maintenance Procedure |
|---|---|---|---|
| Weekly | Exterior surfaces | Clean | See page 51. |
| | Load table | Clean | See page 53. |
| Every six months or as needed | Compressed air supply particulate filter | Replace | See page 66. |
| | Edge detection strip | Clean | See page 62. |
| | Heat exchanger intake air filter | Replace | See page 76. |
| | Plate rollers | Clean | See page 64. |
| | Power box intake air filter | Replace | See page 74. |
| | Particulate filter (debris removal) | Replace | See page 79. |
| | Debris removal interior surfaces | Clean | See page 81. |

For part replacement information, see *Appendix A, Part Numbers*.

# Cleaning Exterior Surfaces

Clean the exterior of the Magnus VLF weekly.

Cleaning the exterior surfaces of the Magnus VLF preserves the appearance and finish, and ensures that visual indicators and markings are clearly visible. Most importantly, regular cleaning reduces the amount of dust that can fall into the device when access panels are removed or opened. The most sensitive areas for dust accumulation are the left-rear panel, the right-rear panel, and the air supply filter panel.

Keeping the exterior of the device clean helps to ensure reliability and high-quality output.

**To clean exterior surfaces:**

1. Vacuum all hood and access panel seams to remove any accumulated dust.

   It may be sufficient to simply wipe the surfaces clean with a dry cloth if it is done frequently, and if the environment is relatively dry and free of vapors.

2. Wipe all exterior surfaces with a clean cloth dampened with water and mild detergent.

   Thoroughly remove all soap residue with a clean, damp cloth.



**WARNING:** Do not let water or other liquids get inside the device. This can result in serious injury or death from electrical shock as well as damage to the device.

**To remove stains:**

➢ Immediately wipe the stain with a cloth dampened with water and mild detergent.

If stains are persistent and do not come off with mild detergent and water, try using slight amounts of isopropyl alcohol, glass cleaner, or a mild household cleaner.



**CAUTION:** Avoid the regular use of chemical cleaners that contain acetone, because these could damage the exterior of the device. Read and follow all directions provided by the acetone manufacturer. Failure to do so can result in injury to you or damage to the device.

## Cleaning the Load Table

Clean the load table daily to keep its surface free of dust and lint.



Figure 31: Load table

**To clean the load table:**

- Wipe the surface with a clean cloth dampened with water and mild detergent.

  Thoroughly remove all soap residue with a clean, damp cloth.

# Accessing the Interior of the Device

Regular maintenance and troubleshooting require access to some internal areas of the device. The following sections describe how to access these different areas.

**NOTICE:** Opening access panels is unavoidable, but should be kept to a minimum to reduce the accumulation of dust in and around sensitive components.

The rear hood provides access to the edge detection strip and plate rollers for cleaning. See *Opening the Rear Hood* on page 54.

The panels at the back of the device provide access to the drum to remove a plate. See *Removing the Rear Panels* on page 56.

**NOTICE:** The Magnus VLF device contains static-sensitive subassemblies. Do not touch any of the electronic subassemblies, the imaging head, or any wiring or cables when accessing the interior of the device. Doing so could cause permanent damage to the electronic subassemblies.

# Opening the Rear Hood

The rear hood provides access to the edge detection strip and plate rollers.

**To open the rear hood:**

1. Ensure that the device is in an idle state.

   **Important:** An idle state is when you have not submitted a job for 30 minutes. During this period, the drum and rollers are locked. After 30 minutes, they will unlock automatically.

2. Select **Unlock** from the Print Console Operations palette.

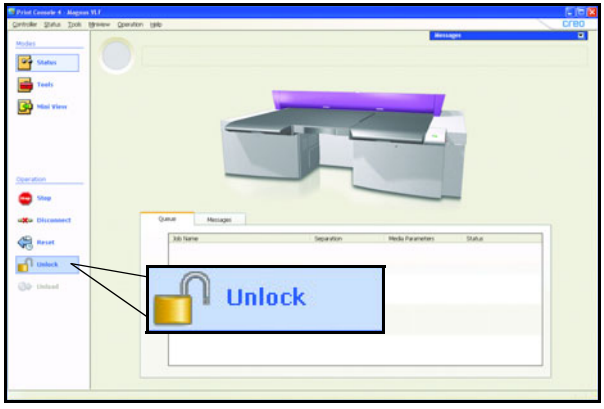


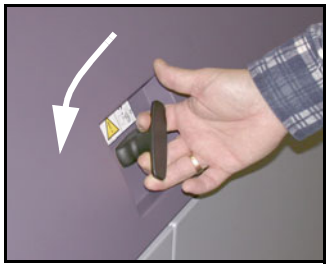

Figure 32: Unlock the rear panels from the workstation

   The rear hood and rear panels unlock.

   If a `command failed` message appears, the rear hood is locked because the device is still imaging. You must wait until the imaging process is complete.

3. To raise the rear hood, turn the handle counterclockwise and lift upward.





Turn the handle counterclockwise.



The drum and blue plate rollers are exposed.

Figure 33: Opening the rear hood

## Closing the Rear Hood

You must replace the rear panels before closing the rear hood. See *Replacing the Rear Panels* on page 59.

**To close the rear hood:**

1. Lower the rear hood.
2. Turn the rear hood handle counterclockwise.

   The rear hood is locked.

# Removing the Rear Panels

Two panels at the rear of the device provide access to the drum. To open the rear panels, you must open the rear hood first. Then you must remove the left-rear panel first and then remove the right-rear panel second.

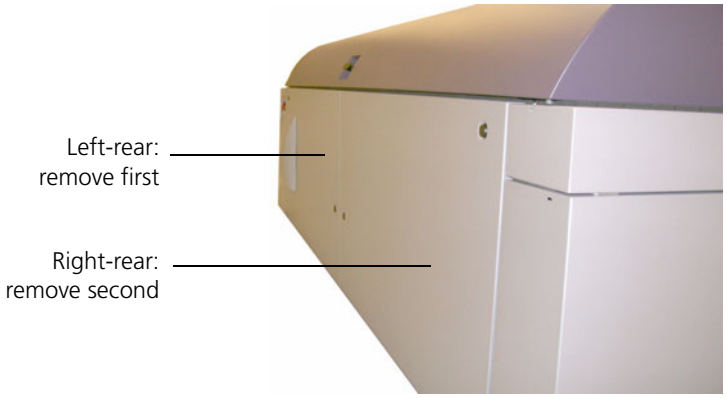



Figure 34: Remove the two rear panels in the correct order

**Note:** Opening access panels will turn off power to the laser. It takes up to two minutes for the laser to warm up again after the panels are replaced. You cannot image media while the laser is warming up.

**To remove the rear panels:**

1. Ensure that the device is in an idle state.

   **Important:** The device is in an idle state is when you have not submitted a job for 30 minutes. During this period, the drum and rollers are locked. After 30 minutes, they will unlock automatically.

2. Select **Unlock** from the Print Console Operations palette.

   The hood and rear panels open.

   If a `command failed` message appears, the hood is locked because the device is still imaging media. You must wait until the imaging process is complete.

3. To raise the rear hood, turn the handle counterclockwise and lift upward.

4. Using a slot screwdriver, turn the screw on the left side of the left-rear panel 90° counterclockwise.



Figure 35: Turn the screw on the left side of the left-rear panel

5. Using a slot screwdriver, turn the screw on the right side of the left-rear panel 90° counterclockwise.



Figure 36: Turn the screw on the right side of the left-rear panel

6. Tilt the panel back, and lift it off its locating pins to remove it.



Figure 37: Pull back and lift the left-rear panel

7. Using a slot screwdriver, turn the screw on the right side of the right-rear panel 90° counterclockwise.



Figure 38: Turn the screw on the right side of the right-rear panel

8. Using a slot screwdriver, turn the screw on the left side of the right-rear panel 90° counterclockwise.



Figure 39: Turn the screw on the left side of the right-rear panel

9. Tilt the panel back, and lift it off its locating pins to remove it.



Figure 40: Pull back and lift the right-rear panel

## Replacing the Rear Panels

You must replace the right-rear panel before you can replace the left-rear panel.

**To replace the rear panels:**

1. Position the right-rear panel on its locating pins, and push it into its upright position.



Figure 41: Replace the right-rear panel

2. Using a slot screwdriver, turn the screw on the left side of the right-rear panel 90° clockwise.



Figure 42: Turn the screw on the left side of the right-rear panel

3. Using a slot screwdriver, turn the screw on the right side of the right-rear panel 90° clockwise.



Figure 43: Turn the screw on the right side of the right-rear panel

The panel is secured.

4. Position the left-rear panel on its locating pins, and push it into its upright position.



Figure 44: Replacing the left-rear panel

5. Using a slot screwdriver, turn the screw on the right side of the left-rear panel 90° clockwise.



Figure 45: Turn the screw on the right side of the left-rear panel

6. Using a slot screwdriver, turn the screw on the left side of the left-rear panel 90° clockwise.



Figure 46: Turn the screw on the left side of the left-rear panel

The panel is secured.

7. Close the rear hood. See *Closing the Rear Hood* on page 55.

# Cleaning the Interior of the Device

You should perform regular maintenance on interior areas of the device as outlined in the *Maintenance Schedule* on page 50.

**WARNING:** Do not let water or other liquids get inside the device. This can result in serious injury or death from electrical shock as well as damage to the device.

## Cleaning the Edge Detection Strip

To register an image to the edge of a media, the Magnus VLF uses an edge detection algorithm. This algorithm relies on a 741-mm (29.2-in) strip set into the surface of the drum inside the device, beside the leading-edge clamps. This strip is black and nonreflective.

You must clean the edge detection strip every six months to avoid false edge detections.

**To clean the edge detection strip:**

1. Ensure that the device is not imaging media.
2. Open the rear hood.

   For the procedure, see *Opening the Rear Hood* on page 54.



Figure 47: Open the rear hood

3. Rotate the drum by hand until the edge detection strip is visible.

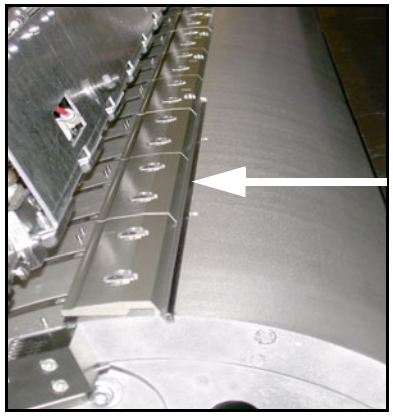



Figure 48: Edge detection strip is visible

4. Dampen a clean lint-free cloth with a mixture of 90 percent isopropanol and 10 percent distilled water, and wipe along the strip once, in one direction only.

**CAUTION:** Read and follow all precautions provided by the manufacturer of the isopropanol. Failure to do so can result in personal injury or damage to the device.



Figure 49: Clean the edge detection strip

Be careful not to leave any fingerprints or smudges on the edge detection strip.

5. To close the rear hood, gently press down until the latch clicks into place.

## Cleaning the Plate Rollers

The plate rollers are three blue rubber rollers that hold the media to the drum while the media is being loaded.

Clean the plate rollers only when you begin to see plate roller marks on your plates.

**To clean the plate rollers:**

1. Ensure that the device is not imaging media.
2. Open the rear hood.

   For the procedure, see *Opening the Rear Hood* on page 54.



Figure 50: Open the rear hood

3. Dampen a clean dry lint-free cloth and wipe the plate rollers gently.

   Turn the plate roller with one hand as you clean it with the other.

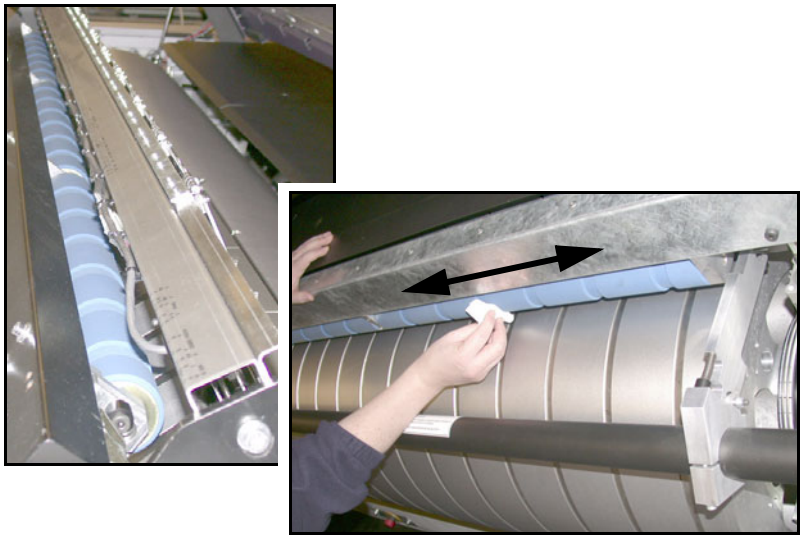


Figure 51: Wipe the blue plate rollers

**NOTICE:** Never use detergent or alcohol to clean the plate rollers. Never put any pressure on or bend the plate rollers. Doing so may damage the plate rollers.

4. To close the rear hood, gently press down until the latch clicks into place.

# Air Filters

There are four air filtration systems in the device:

- Compressed air supply filter system—two filters inside the air supply filter panel
- Cooling-air filter system—access the power box intake air filter by removing the power box filter panel
- Heat exchanger filter system—access the fan box intake air filter by removing the fan box filter panel (this is an option not available on all models)
- Debris removal system—access the debris removal system by removing the debris removal panel

Inspect and replace these filters regularly.

## Frequency of Filter Replacement

Do not use the appearance of filters to determine when the filters should be cleaned or replaced. They can seem dirty before they need to be replaced if there is coarse dust in the operating environment, and they can appear clean when they need to be replaced if there are smaller particulates in the air.

For customers with service contracts, the filter replacements will be done by a service representative during the six-month service visit. However, if your operating conditions require air supply filter replacement more often, we strongly recommend that you perform this maintenance procedure prior to a service visit.

# Replacing the Compressed Air Supply Filter

The compressed air supply filters clean and dry the compressed air that is supplied to the device pneumatics.

Replace the particulate air supply filter every six months. See *Maintenance Schedule* on page 50.

Do not replace the coalescing filter. Your service representative will do this during your scheduled service visit.

**CAUTION:** Turn off the compressed air before replacing the particulate air supply filter. Failure to turn off the compressed air pressure before replacing the particulate air supply filter can result in personal injury and/or damage to the device.

The filters are located on the side of the device. To access the air supply filters, you must first open the air supply filter panel.

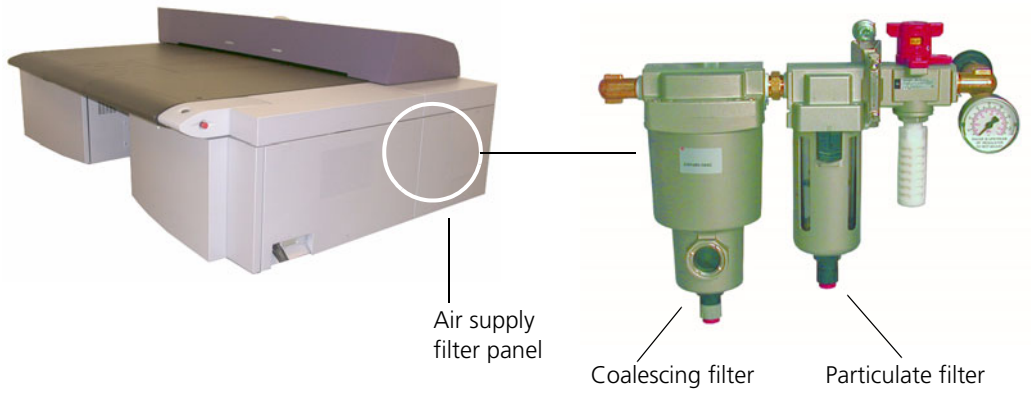



Figure 52: Location of air supply filters

The particulate air supply filter can become clogged if it is not replaced every six months—more frequently in dusty environments. A clogged filter can cause air pressure problems in the device. If the filter is allowed to fail, contaminants can damage the air system in the device.

You must turn off the compressed air before you replace the particulate air supply filter. When you turn off the compressed air, the air bleeds completely out of the device and the pressure gauge on the filtration device reads zero. When you turn the air pressure back on, normal air pressure on the filtration device should read between 100 to 125 psi.

## Replacement Parts

You can order replacement parts for the compressed air supply filter system from Creo Inc. See *Appendix A, Part Numbers*.

**WARNING:** Read and follow all precautions provided by the manufacturer of the filters used in the compressed air supply system. Failure to do so can result in personal injury or damage to the device.

## Inspecting the Particulate Air Supply Filter

Inspect the particulate air supply filter weekly.

When you inspect the filter bowl, check for water or oil. If there is any water or oil, notify the service representative for your air compressor.

The water or oil comes from the external compressed air supply system. It is important to have the external air supply system inspected and repaired before the Magnus VLF is permanently damaged.

See the *Compressed Air Specifications* on page 69 to determine if the incoming air meets Creo specifications.

**CAUTION:** Failure to remove air pressure from the device before removing an air filter could result in the following problems:
- Unfiltered air in sensitive areas of the device, which will eventually degrade and damage the device
- High-pressure air in the filter elements and bowl, making disassembly difficult and dangerous, resulting in possible personal injury and/or damage to the device
- A very loud noise that could damage your hearing

**To inspect the particulate filter:**

1. Ensure that the device is not imaging media.
2. Turn the orange air shutoff valve clockwise to the Off position to turn off the compressed air supply. See Figure 54 on page 70.
3. Shut down the device.

   See *Turning Off the Magnus VLF* on page 35.

4. Check the filter bowl for any accumulation of water or oil, and for any cracks in the filter bowl.

   If there is any water or oil in the filter bowl, wash the filter bowl with mild soap and warm (not hot) water.

   **NOTICE:** Notify your air compressor manufacturer and your service representative immediately if you find water or oil in the filter bowl.

## Compressed Air Specifications

The compressed air supply for the device should conform to the specifications in ISO 8573:

- Maximum particle size = 15 µ (0.006 in.)
- Concentration of solid contaminants = 8 mg/m³ (0.000216 ounce/yard³)
- Maximum pressure dew point = 3°C (37.4°F)
- Maximum oil content = 5 mg/m³ (0.000135 ounce/yard³)

The air temperature should not exceed normal room temperature, to prevent oil vapor transmission to the device.

**To replace the compressed air supply particulate filter:**

1. Ensure that the device is not imaging media.
2. Loosen the two thumb screws and then lift the air supply filter panel.




Figure 53: Remove the air supply filter panel

3. Turn the orange air shutoff valve clockwise to the Off position to turn off the compressed air supply.

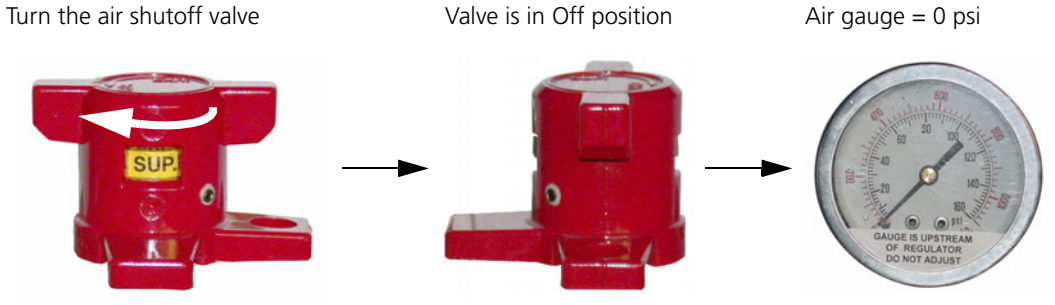



Figure 54: Turn off the compressed air

**CAUTION:** Failure to turn off the compressed air system before replacing the compressed air filter can result in injury and/or damage to the device.

4. Pull down the black tab on the side of the air supply particulate filter bowl.

   This releases the lock on the bowl.

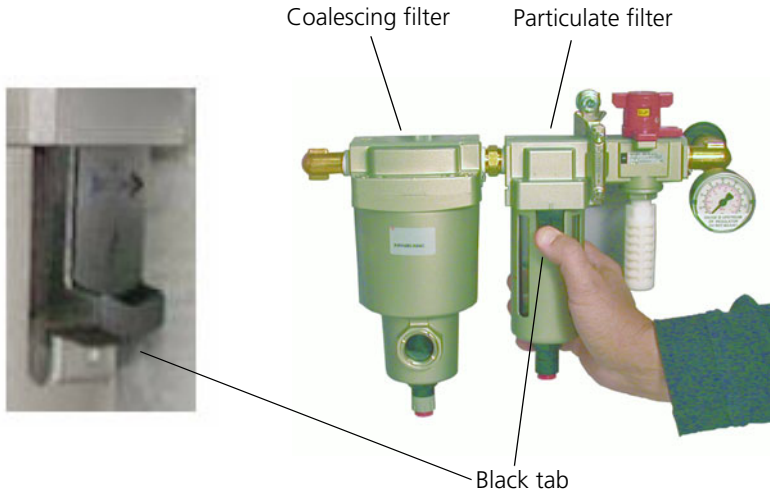



Figure 55: Pulling down the black tab

Rotate the bowl to the left, until the markings on the filter bowl align with the markings on the filter body. Pull down the filter bowl to remove it.

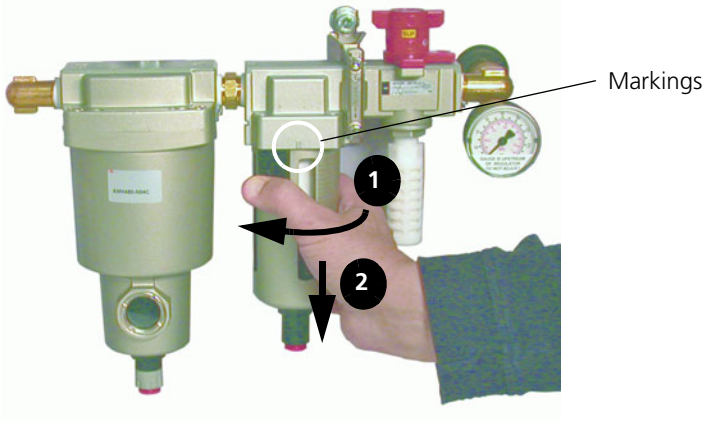



Figure 56: Remove the air supply particulate filter bowl

5. Turn the black plastic disk clockwise to remove the filter assembly.

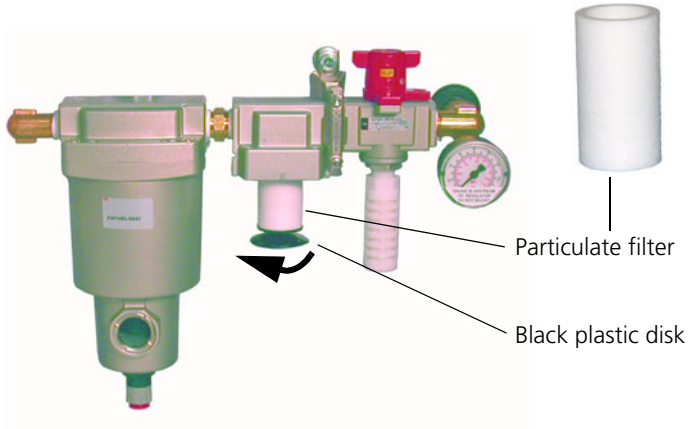



Figure 57: Remove the air supply particulate filter

6. Install a new particulate filter, and screw the black plastic disk back into the unit until it is hand-tight.
7. If necessary, remove the rubber O-ring on the top of the filter bowl by pulling it off.

   Don't replace the O-ring yet.
8. Check and clean the filter bowl for water or oil.



Figure 58: Check and clean the filter bowl

If there is water or oil in the filter bowl, wash it with mild soap and warm (not hot) water and contact your authorized service representative to have the air supply inspected.

Examine the filter bowl for any damage or deterioration such as crazing or cracking. Inform your service representative immediately if replacement is necessary.



**WARNING:** Do not use chemical solvents or aggressive cleaning solutions for cleaning the compressed air supply filter bowls. This can cause cracking or crazing on the plastic parts. When these plastic parts are exposed to high air pressure, there is the possibility of the parts exploding and causing serious personal injury and/or damage to the device.

9. Now replace the rubber O-ring.

   Apply a thin coat of synthetic grease to the O-ring.

10. Reinstall the filter bowl by aligning with the marks on the filter body. Push up and turn to the right until you hear a click.

11. Turn the orange air shutoff valve counterclockwise to turn the compressed air supply back on.

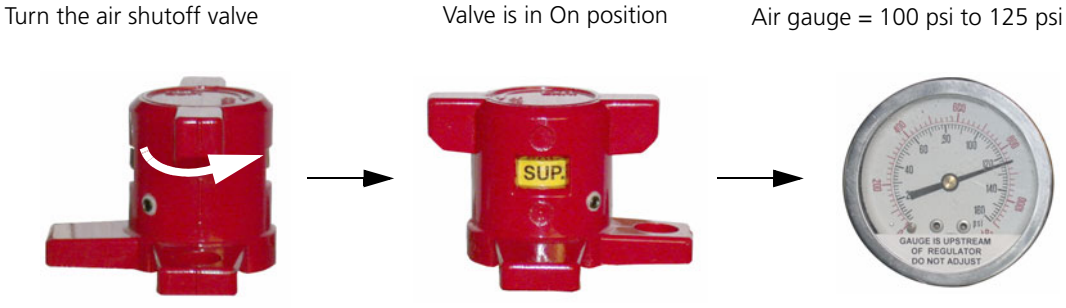



Figure 59: Turn on the compressed air supply

The air pressure gauge on the filtration unit should read 100 psi to 125 psi. If it does not, adjust the external air supply.

12. Replace the air supply filter panel and tighten the two thumb screws.

## Replacing the Power Box Intake Air Filter

The power box intake air filter is used to clean the air that cools the power box.

The intake air filter for the power box unit is located under the front of the load table behind the power box filter panel.

The filter is green and 12.7 mm (0.5 in.) thick. One side of the filter is metal mesh that faces in, toward the device.

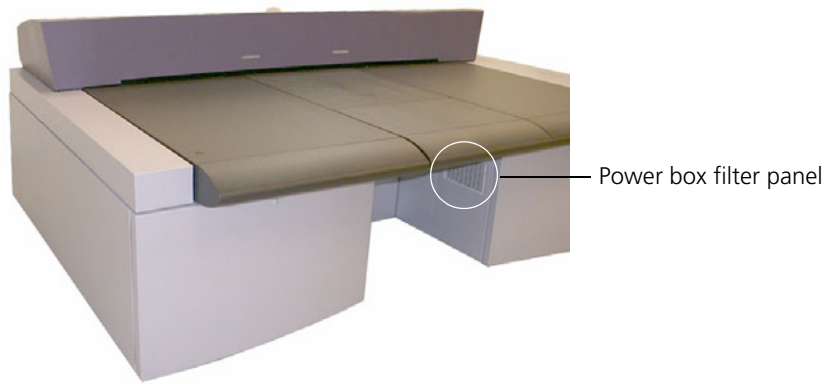



Figure 60: Power box intake air filter location

## Frequency of Power Box Air Intake Filter Replacement

Replace the power box intake air filter at least every six months. In dirtier environments, replace it more often.

## Replacement Parts

You can order replacement parts for the power box intake air filter from Creo Inc. See *Appendix A, Part Numbers*.

**To replace the power box intake air filter:**

1. Loosen the two thumb screws on the power box filter panel.




Figure 61: Remove the power box filter panel

2. Remove the filter panel.



Figure 62: Remove the filter panel

3. Remove the old power box intake air filter from the back side of the panel.



Figure 63: Removing the old intake air filter

4. Install a new filter.
5. Replace the power box filter panel and tighten the two thumb screws.

## Replacing the Heat Exchanger Intake Air Filter

The heat exchanger intake air filter is used to clean the air for the heat exchanger.

**Note:** The heat exchanger is an option. Check your model to see if you have a heat exchanger. If you do, then you need to change the heat exchanger intake air filter.

The intake air filter for the heat exchanger unit is located behind the debris removal panel.

The filter is green and 12.7 mm (0.5 in.) thick. One side of the filter is metal mesh that faces in, toward the device.

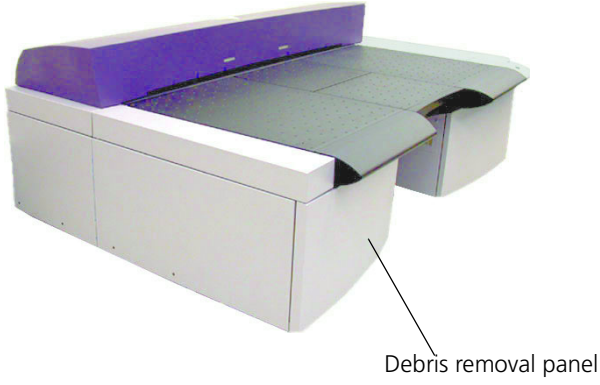



Figure 64: Heat exchanger intake air filter location

## Frequency of Heat Exchanger Intake Air Filter Replacement

Replace the heat exchanger intake air filter at least every six months. In dirtier environments, replace it more often.

## Replacement Parts

You can order replacement parts for the heat exchanger intake air filter from Creo Inc. See *Appendix A, Part Numbers*.

**To replace the heat exchanger intake air filter:**

1. Remove the debris removal panel by pulling the panel toward you.

   The panel unlatches.



Figure 65: Remove the debris removal panel

2. Lift the panel up and away from the device.

   Put the panel in an out-of-the-way area.

3. Remove the old heat exchanger intake air filter by pulling the filter out from its slot.



Figure 66: Remove the old heat exchanger intake air filter

4. Install a new filter by sliding it back into the slot.

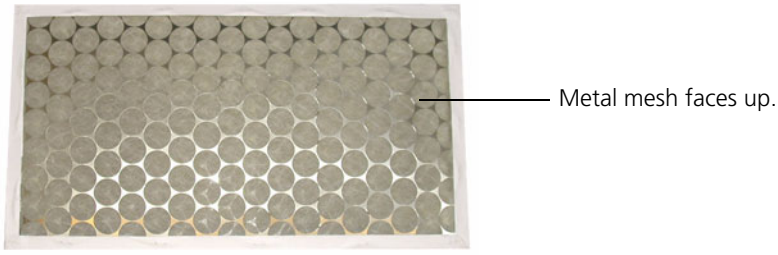



Figure 67: Install the new filter

5. Replace the debris removal panel by aligning the locating holes on the bottom of the panel with the locating pins on the device. Lower the bottom of the panel onto the pins.

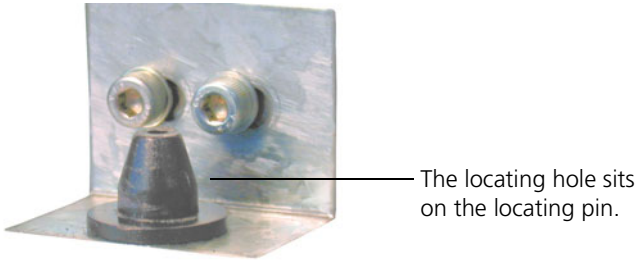



Figure 68: Locating pin

6. Push the upper-panel corners until you hear both latches click.

# Replacing the Debris Removal Filter

The debris removal filter contains a porous material that is used to trap airborne emissions that are released during imaging. The filter is round and long, shaped like a pail with a handle.



Figure 69: Particulate filter

The debris removal system will not operate:

- Without a particulate filter
- When the particulate filter is full

The debris removal filter is located inside the debris canister which is found behind the debris removal panel.

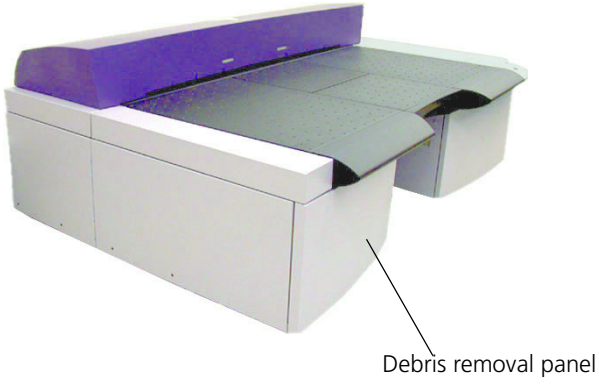



Figure 70: Location of debris removal filter

## Frequency of Debris Removal Filter Replacement

The life of the filter depends primarily on the type of media you use and the rate at which you use this media, since various media have different emissions release rates. A flow rate sensor is used to monitor the condition of the particulate filter.

The workstation displays a message advising you of the filter's condition.

For the debris removal particulate filter, you receive a message telling you that the filter is almost full, and then a second message advising you that the filter is full:

- Particulate filter almost full

  ```
  Debris Removal: The particulate filter is almost full.
  Please ensure a replacement filter is on hand.
  ```

- Particulate filter full

  ```
  Debris Removal: The particulate filter is full. You
  must replace the particulate filter to continue
  imaging.
  ```

  If the "filter full" message appears during imaging, the current plot is completed, but you must replace the filter to continue with further imaging.

  To maximize filter life, replace the particulate filter when the "filter full" message appears.



**Important:** We recommend that you always keep a spare particulate filter on hand.



**Important:** If your device will be running *unattended*, we highly recommend that you replace the filter shortly after the "filter almost full" message appears. This helps avoid an unplanned shutdown of your output device during unattended operations.

The next time the output device will be running *attended*, you can maximize filter life by putting the partly-used filter back into the UDRC and using it until it is full.

## Replacement Parts

You can order replacement parts for the debris removal filter from Creo Inc. See *Appendix A, Part Numbers*.

**CAUTION:** Where people are sensitive to airborne emissions in concentrations below the applicable regulatory limits, and/or a MSDS is not available, wear a smock, protective gloves, and respiratory protection while replacing a filter.

**Important:** Remember to read the safety information regarding the following procedure. Also see *Safety Information* on page 4.

**To replace the debris removal filter:**

1. Ensure that the device is not imaging media.
2. Remove the debris removal panel by pulling the panel toward you.

   The panel unlatches.



Figure 71: Removing the debris removal panel

3. Lift the panel up and away from the device.

   Put the panel in an out-of-the-way area.
4. Release the canister lid on the debris removal unit by pulling on the pins on either side.




Figure 72: Opening the debris removal unit

5. Slide the debris removal unit out from the device.
6. Remove the old filter by grasping the handle and pulling up.




Figure 73: Removing the old filter

7. Place the used filter in a bag for disposal. (A bag is provided with the replacement filter.)

**Note:** Dispose of the used debris removal particulate filter according to federal, state/provincial, and municipal regulations, and the guidelines provided by either the media manufacturer (MSDS or other documents, if available) or Creo (CTP Media Imaging Performance Database, available from your Creo representative).

8. Remove the particulate filter spacer from the bottom of the filter compartment and put it aside for reinstallation.

9. Clean the interior of the debris removal filter compartment:
   a. Vacuum the dust deposits from around the tube in the center of the inner lid. Take care to prevent debris from falling into the filter compartment.
   b. Wipe the inside of the inner lid and the deck with a clean rag dampened with water and mild detergent.
   c. Wipe the interior surface of the filter compartment.
   d. Remove all residue by wiping thoroughly with a clean, damp rag.



**WARNING:** Do not let water run into the debris removal cabinet. This can result in serious personal injury or death from electrical shock, as well as damage to the equipment.

10. Reinstall the particulate filter spacer in the bottom of the filter compartment.
11. Install the particulate filter (new or partially used, as applicable) in the filter compartment with the gasket facing up.

    Ensure that the filter is fully seated on the particulate filter spacer. The spacer centers the filters inside the filter compartment.

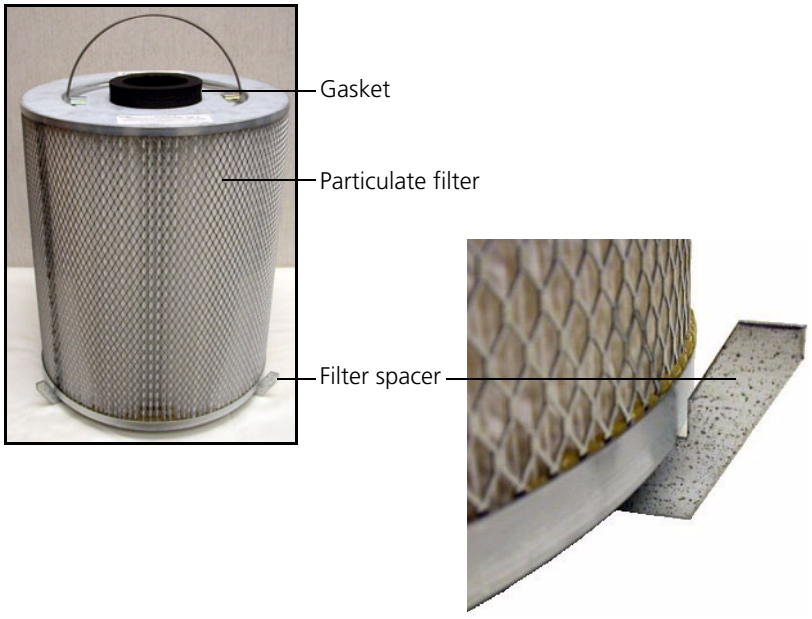



Figure 74: Particulate filter correctly seated on the spacer

**Note:** When replacing the filter, be careful not to bang the filter against the upper edge of the compartment. If you damage the edge, you could cause an air leak from the outside into the compartment, reducing the flow from the debris collection nozzle. Depending on the extent of the air leak, filter life is reduced and a low flow error message may appear on your workstation.

12. Slide the debris removal unit back into the device.
13. Press down on the canister lid until you hear a click.



Figure 75: Closing the canister lid

14. Replace the debris removal panel by aligning the locating holes on the bottom of the panel with the locating pins on the device. Lower the bottom of the panel onto the pins.
15. Push the upper-panel corners until you hear both latches click.
16. Wash your hands.

5

# Troubleshooting

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This chapter describes common errors and problems that can occur with the Magnus VLF and explains how to resolve them. For a list of common error messages and recommended solutions, see *Error Messages and Recommended Solutions* on page 92.

# Operator Recoverable Errors

When the device detects a problem, it takes one of the following actions:

- Continues operation (see *Warning Messages*)

  If the device can continue processing without your intervention, the problem is reported in the Message Log on the workstation.

- Suspends operation (see *Error Messages* on page 89)

  The device stops and the problem is reported on the **Messages** tab in Print Console. If the condition requires immediate intervention, the Status light on the hood flashes yellow.

  Errors that suspend operations require your intervention before the device can recover and resume imaging.

## Warning Messages

Warning messages alert you to conditions that could potentially cause problems, but do not stop the imaging process. For example, when the debris removal unit detects that a particulate filter is almost full, a warning message appears in Print Console telling you to have a replacement filter on hand.

Warning messages are a good indication that servicing is required in the near future. Typical examples of this kind of message include:

```
Focus signal too high.
```

```
The trailing-edge clamps are not at the expected drum position.
```

Typically, warning messages do not appear in Print Console. Instead, they go directly to the History pane as part of the historical record. However, some warning messages may appear on the **Messages** tab for a short period of time before going to the History pane.

# Error Messages

When a system operation error occurs, an error message appears on the **Messages** tab in Print Console and the system stops processing plates until the error is corrected. If the device has already started plotting when an error is discovered, the partially exposed media is ejected.

An example of an error message is:

```
MPC: Media not on registration pin
```

You must correct errors before the device can resume imaging.

After the error message is corrected, it is copied to the History pane.

## Suspend Conditions

A suspend condition prevents the device from operating. A suspend condition occurs when there are errors or problems with the system, such as a media that is misaligned or stuck on the drum.

When an error occurs, wait until all activity stops before starting any error recovery procedure.

### Example of a Suspend Condition

The information in the suspend condition indicates the type of problem and suggests a course of action.

Here is an example of a suspend condition:

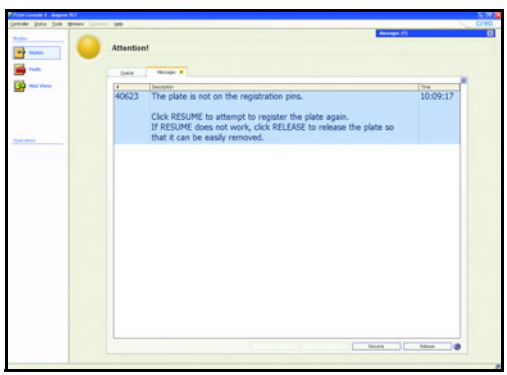



Figure 76: Typical example of a suspend condition in Print Console

| Error Message | Solution |
|---|---|
| **40623** The plate is not on the registration pins. Click **Resume** to attempt to register the plate again. Click **Release** to release the plate so that it can be easily removed. For detailed instructions, click ? for Help. | The device cannot establish a stable contact between the plate and the drum registration pins.<br>**To correct the error:**<br>1. Click **Resume**.<br>2. If **Resume** does not work, click **Release** to cancel the current job and eject one or both plates to the load table.<br>3. When prompted, pull out the load table.<br>4. Press and hold the Load Table button (two buttons are available; one on either end of the load table) to start the plate or plates moving toward the front of the device.<br>5. Let go of the Load Table button when you can see or reach the plate.<br>6. Remove the plate from the load table and click **Media Removed**.<br>**Note:** There is no need to reinitialize the system from Print Console after clicking **Media Removed**.<br>7. Close the load table. |

When a suspend condition occurs:

- The device stops imaging media.
- The Status light on the hood flashes yellow.
- An error message appears in Print Console.

Up to six options are available in Print Console when a suspend condition occurs. If a button is grayed out, it is not available.

Table 6: Suspend condition options

| Option | Result |
|---|---|
| **Resume** button | Click to try the operation again. |
| **Release** button | Click to tell the device to release the media so that it can be easily removed. |
| **Eject** button | Click to cancel the job and unload the media. |
| **Media Removed** button | Click after you remove the media to indicate that you have manually intervened to fix a problem. For example, you have manually removed a misaligned media.<br>**Important:** You must remove the media before you click the **Media Removed** button. |
| **Cancel** button | Click to cancel the job. If the device has already loaded a plate onto the drum, the plate will unload. If the device is loading a plate, the load completes and the media then unloads. To continue, click **Resume**. |

**Important:** If clicking **Resume** works, your job will continue. If you click **Release**, **Eject**, **Media Removed**, or **Cancel**, the job will eventually fail and you must resubmit it.

### Recovering From a Suspend Condition

In most cases, the procedure for recovering from a suspend condition is as follows:

1. Click **Resume** in Print Console. If the device does not resume imaging, go to step 2.
2. If **Eject** is available:
   a. Click it to cancel the job.
   b. Unload the media from the drum.

   If **Eject** is unavailable or the device does not resume imaging, go to step 3.

3. If **Cancel** is available:
   a. Click it to cancel the job.
   b. Leave the media on the drum.

   If the device does not resume imaging, go to step 4.
4. If **Release** is available:
   a. Click it to release the media.
   b. Manually remove the media.
   c. Click **Resume** or **Media Removed** to continue.

   If the device does not resume imaging, go to step 5.
5. If **Media Removed** is available:
   a. Manually remove the media.
   b. Click **Resume** or **Media Removed** to continue.

   If the device does not resume imaging, go to step 6.
6. Reset the device from Print Console. For instructions, see the Print Console online help.

   If the device does not resume imaging, go to step 7.
7. Quit Print Console.
8. Turn off the device.
9. Restart the device.



**Important:** If the problem persists, contact a service representative.

# Error Messages and Recommended Solutions

This section describes most of the error messages that appear in Print Console when errors or problems occur with Magnus VLF.



**Important:** If you cannot find a description and recommended solution for a specific error message, try the procedure for recovering from a suspend condition on page 89. If that does not work, contact your service representative.

Even when you solve a problem yourself, you should report any recurring errors to your service representative. If, as part of the recommended operator action, you are to contact your service representative, report the error number (also called prompt number) to help the service representative resolve the problem.



**Important:** Opening access panels is unavoidable, but should be kept to a minimum to reduce the accumulation of dust in and around sensitive components.



**Note:** The Magnus VLF device takes up to two minutes to warm up after it is restarted. You cannot image media while the device is warming up. Files submitted to be imaged wait on the workstation until the device is ready.

## Classifying Errors

All error messages have a message number (also called the prompt number). They are listed numerically in ascending order in Table 7.

Some messages may appear in Print Console with a prefix, for example, `MPC (Master Plot Control)`. This is to differentiate these messages from other messages that relay information about other parts of the device. An example is:

```
MPC: No valid edge found, check edge detect strip
```

The prefix is used primarily as an internal tool to organize the many types of messages; knowing the various error categories is not necessary to solve the error.

If, as part of the recommended solution you are to contact a service representative, report the error number to help the service representative resolve the problem.

Table 7: Numerical listing of error messages

| Numerical Listing | |
|---|---|
| Error Message | Solution |
| **35713** A plate flyoff has occurred. The sensor may be blocked or damaged, or may have been moved. The plate needs to be removed and sensor needs to be checked. Ensure the device is in an idle state; click Help.<br>Select **Unlock** from the Print Console Operations palette.<br>Open the rear hood.<br>Remove any plate or slip sheets from the drum and flyoff sensor area.<br>Check the sensor.<br>Close the rear hood.<br>Select **Lock** from the Print Console Operations palette.<br>**Do not** remove plates from any other parts of the device.<br>Click **Resume** to attempt the suspended operation again.<br>If **Resume** does not work, click **Release** to reinitialize the system.<br>For detailed instructions, click ? for Help. | **Note:** Before removing media from the drum, the device must be in an *idle state*. That is, you must wait until any media on the unload table are ejected and have gone to the processor. Only then can you begin the procedure to remove media from the drum.<br>Refer to your device Visual Reference guide or proceed with the following instructions.<br>**To correct the error:**<br>**Note:** All of the following references are to your device operator guide.<br>1. Open the rear hood.<br>See *Opening the Rear Hood* on page 54.<br>2. Remove the rear panels.<br>See *Removing the Rear Panels* on page 56.<br>3. Remove the plate flyoff.<br>See *Removing a Stuck Plate From the Drum* on page 104.<br>4. Place the trailing-edge clamps into the park position.<br>See *Repositioning the Trailing-Edge Clamps* on page 108.<br>5. Replace the rear panels.<br>See *Replacing the Rear Panels* on page 59.<br>6. Close the rear hood.<br>See *Closing the Rear Hood* on page 55.<br>(Continued) |

| Numerical Listing (Continued) | |
|---|---|
| **35713** (Continued) | 7. Click **Resume** to attempt the suspended operation again.<br>8. If **Resume** does not work, click **Release** to reinitialize the system.<br>**Important:** If the flyoff sensor has been moved or damaged, contact your service representative. |
| **35720** The safety interlocks are not engaged because a door or panel was opened while the device was performing an operation or the Emergency Stop button was pushed in.<br>Close the doors and panels.<br>Release the Emergency Stop button, if necessary.<br>Click **Resume**.<br>For detailed instructions, click ? for Help. | One of the access panels was removed or the rear hood is open, or the Emergency Stop button was pushed in.<br>**To correct the error:**<br>1. Replace any removed access panel and close the rear hood if it is open.<br>See *Replacing the Rear Panels* on page 59 and *Closing the Rear Hood* on page 55.<br>2. Release the Emergency Stop button.<br>See *Resetting the Emergency Stop Button* on page 102.<br>3. Click **Resume**. |
| **35728** The device has no power because the safety interlocks are not engaged. A door or panel was opened while the device was performing an operation or the Emergency Stop button was pushed in.<br>Close the doors and panels.<br>Release the Emergency Stop button, if necessary.<br>Click **Resume**. | **To correct the error:**<br>1. Replace any removed access panel and close the rear hood, if it is open.<br>See *Replacing the Rear Panels* on page 59 and *Closing the Rear Hood* on page 55.<br>2. Release the Emergency Stop button.<br>See *Resetting the Emergency Stop Button* on page 102.<br>3. Click **Resume**. |

| Numerical Listing (Continued) | |
|---|---|
| **35783** The device cannot operate because the air pressure is too low.<br>Fix the problem with the air pressure. Click ? for Help.<br>Click **Resume** to attempt the suspended operation again.<br>If **Resume** does not work, click **Release** to reinitialize the system.<br>For detailed instructions, click ? for Help. | Contaminants have damaged the air supply system in the device or have otherwise restricted the airflow.<br>**To correct the error:**<br>➢ Check your air supply system:<br>• Ensure that the air hose connected to the device has sufficient air pressure.<br>• Ensure that the system air pressure gauge on the device reads 100 to 120 psi.<br>For SA and CL devices, the air pressure gauge is located behind the air supply filter panel.<br>For MCU devices, the air pressure gauge is located behind the rear panel of the slip sheet removal unit.<br>• Adjust the external air supply if necessary. |
| **38135** The plate is not positioned correctly on the drum.<br>Click **Eject** to eject the plate.<br>Load another plate, ensuring that the plate is positioned correctly.<br>For detailed instructions, click ? for Help. | The edge detection failed because the media is not correctly positioned on the drum.<br>**To correct the error:**<br>1. Click **Eject**.<br>The plate is ejected from the device.<br>2. Check the media for the following:<br>• Ensure that the media matches the media size in the job.<br>• Ensure that the media is loaded with the side to be imaged (the emulsion side) facing up.<br>• Ensure that the media is properly positioned with the media alignment labels on the load table (for SA and CL devices only).<br>3. Reload the media.<br>**Important:** If the error persists, contact your service representative. |

| Numerical Listing (Continued) | |
|---|---|
| **40243** The plate did not arrive at the registration pins. Click **Resume** to attempt to deliver the plate again. If **Resume** does not work, click **Release** to release the plate so that it can be easily removed. For detailed instructions, click ? for Help. | There is a problem in bringing the plate up to the drum registration pins. The problem may be caused by the fetcher/load table hand off, plate wave, or plate edge damage. If the error occurs multiple times, check the plate edges for damage or waviness. It may help to rotate the plate stack in the cassette 180°, so that a different plate edge is loaded into the clamps.<br>**To correct the error:**<br>1. Click **Resume**.<br>The load table traveler will attempt to regrab and reregister the plate.<br>2. If **Resume** does not work, click **Release**.<br>3. When prompted, open the load table.<br>4. Press and hold the Load Table button (two buttons are available; one on either end of the load table) to start the plate or plates moving toward the front of the device.<br>5. Let go of the Load Table button when you can see or reach the plate.<br>6. Remove the plate from the load table and click **Media Removed**.<br>**Note:** There is no need to reinitialize the system from Print Console after clicking **Media Removed**.<br>7. Close the load table. |

| Numerical Listing (Continued) | |
|---|---|
| **40256** The plate needs to be removed from the drum. Ensure the device is in an idle state: click Help.<br>Select **Unlock** from the Print Console Operations palette.<br>Open the rear hood.<br>Remove any plate from the drum and close the rear hood.<br>Select **Lock** from the Print Console Operations palette.<br>**Do not** remove plates from any other parts of the device.<br>Click **Media Removed** only after you have removed the plate.<br>For detailed instructions, click ? for Help. | **Note:** Before removing media from the drum, the device must be in an *idle state*. That is, you must wait until any media on the unload table are ejected and have gone to the processor. Only then can you begin the procedure to remove media from the drum.<br><br>Refer to your device Visual Reference guide or proceed with the following instructions.<br><br>**To correct the error:**<br><br>**Note:** All of the following references are to your device operator guide.<br><br>1. Open the rear hood.<br><br>See *Opening the Rear Hood* on page 54.<br><br>2. Remove the rear panels.<br><br>See *Removing the Rear Panels* on page 56.<br><br>3. Remove the plate flyoff.<br><br>See *Removing a Stuck Plate From the Drum* on page 104.<br><br>4. Place the trailing-edge clamps into the park position.<br><br>See *Repositioning the Trailing-Edge Clamps* on page 108.<br><br>5. Replace the rear panels.<br><br>See *Replacing the Rear Panels* on page 59.<br><br>6. Close the rear hood.<br><br>See *Closing the Rear Hood* on page 55.<br><br>7. Click **Media Removed**. |

| Numerical Listing (Continued) | |
|---|---|
| **40623** The plate is not on the registration pins. Click **Resume** to attempt to register the plate again. If **Resume** does not work, click **Release** to release the plate so that it can be easily removed. For detailed instructions, click ? for Help. | The device cannot establish a stable contact between the plate and the drum registration pins.<br>**To correct the error:**<br>1. Click **Resume**.<br>2. If **Resume** does not work, click **Release** to cancel the current job and eject one or both plates to the load table.<br>3. When prompted, pull out the load table.<br>4. Press and hold the Load Table button (two buttons are available; one on either end of the load table) to start the plate or plates moving toward the front of the device.<br>5. Let go of the Load Table button when you can see or reach the plate.<br>6. Remove the plate from the load table and click **Media Removed**.<br>**Note:** There is no need to reinitialize the system from Print Console after clicking **Media Removed**.<br>7. Close the load table. |

| Numerical Listing (Continued) | |
|---|---|
| **40724** The device has detected a plate flyoff. The plate needs to be removed from the drum. Ensure the device is in an idle state; click Help.<br>Select **Unlock** from the Print Console Operations palette.<br>Open the rear hood.<br>Remove any plates from the drum and close the rear hood.<br>Select **Lock** from the Print Console Operations palette.<br>**Do not** remove plates from any other parts of the device.<br>Click **Media Removed** only after you have removed the plate.<br>For detailed instructions, click ? for Help. | **Note:** Before removing media from the drum, the device must be in an *idle state*. That is, you must wait until any media on the unload table are ejected and have gone to the processor. Only then can you begin the procedure to remove media from the drum.<br><br>Refer to your device Visual Reference guide or proceed with the following instructions.<br><br>**To correct the error:**<br><br>**Note:** All of the following references are to your device operator guide.<br><br>1. Open the rear hood.<br><br>See *Opening the Rear Hood* on page 54.<br><br>2. Remove the rear panels.<br><br>See *Removing the Rear Panels* on page 56.<br><br>3. Remove the plate flyoff.<br><br>See *Removing a Stuck Plate From the Drum* on page 104.<br><br>4. Place the trailing-edge clamps into the park position.<br><br>See *Repositioning the Trailing-Edge Clamps* on page 108.<br><br>5. Replace the rear panels.<br><br>See *Replacing the Rear Panels* on page 59.<br><br>6. Close the rear hood.<br><br>See *Closing the Rear Hood* on page 55.<br><br>7. Click **Media Removed**. |

| Numerical Listing (Continued) | |
|---|---|
| **40735** The plate is not on the registration pin. Click **Resume** to attempt to register the plate again. If **Resume** does not work, click **Release** to release the plate so that it can be easily removed. For detailed instructions, click ? for Help. | The device cannot establish a stable contact between the plate and the drum registration pins.<br>**To correct the error:**<br>1. Click **Resume**.<br>2. If **Resume** does not work, click **Release** to cancel the current job and eject one or both plates to the load table.<br>3. When prompted, pull out the load table.<br>4. Press and hold the Load Table button (two buttons are available; one on either end of the load table) to start the plate or plates moving toward the front of the device.<br>5. Let go of the Load Table button when you can see or reach the plate.<br>6. Remove the plate from the load table and click **Media Removed**.<br>**Note:** There is no need to reinitialize the system from Print Console after clicking **Media Removed**.<br>7. Close the load table. |
| **43014** The device debris removal system is not working. This is most likely because the cabinet has lost power, the hose is disconnected, or the cabinet lid is not latched properly. Click **Eject** to eject the plate. For detailed instructions, click ? for Help. | There is no flow at the debris collection nozzle inside the device.<br>**To correct the error:**<br>➢ Ensure that the lid of the debris removal system is properly latched. |

# Resetting the Emergency Stop Button

If you press the Emergency Stop button (located on the side of the operator interface), you must reset it before the device can return to normal operations.

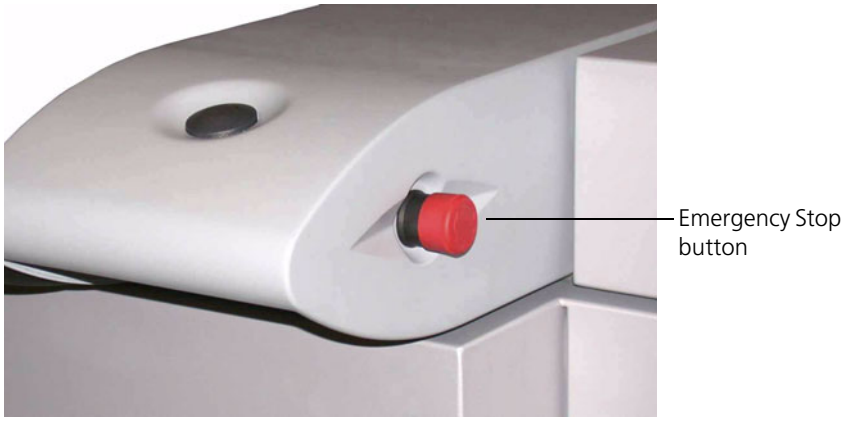



Figure 77: Emergency Stop button

**To reset the Emergency Stop button:**

➢ Rotate the Emergency Stop button 90º clockwise.

You must now reset the device. For the procedure, see *Resetting the Device*, next.

# Resetting the Device

Use the **Reset** item on the Print Console Operations palette menu to reset the device to its idle or ready state. For example, if you canceled an image, but the device didn't unload the media, you could use the **Reset** item to reset the device to an idle state, causing the device to unload the media.

**Important:** The device takes up to two minutes to warm up after it has been restarted or reset.



**Note:** If the **Reset** menu item is unavailable in Print Console, turn off the device for about five seconds and then turn it back on.

**To reset the device:**

➢ In the Print Console Operations palette, select **Reset**.

The device should reset itself. If it does not, turn off the device and restart the entire system.

# Removing Stuck Plates From the Device

Occasionally, a plate may get stuck on the drum as the result of:

- A device error (for instance, media is being loaded onto or unloaded from the drum)
- A plate flyoff

You must remove the stuck media before the device can return to normal operation.

If an error or plate flyoff occurs, the media must be removed, and the trailing-edge clamps may have to be manually placed in their park position on the drum. See *Repositioning the Trailing-Edge Clamps* on page 108.



**CAUTION:** Wear gloves to avoid pinching your fingers between the trailing-edge clamps and the drum.



**CAUTION:** Operators with implanted cardiac pacemakers should ensure that magnetic clamps are kept more than 7 cm (2.75 in.) away from their pacemaker. If you have additional concerns, consult your physician and/or the manufacturer of your implant.

Observe the following safety precautions:

- Keep magnetic data—floppy disks, magnetic stripe cards, watches, and so forth—away from the powerful magnetic trailing-edge clamps. The following label appears on the trailing-edge clamps as a reminder.




Figure 78: Pacemaker Warning label

- When handling the magnetic clamps, do not bring opposite poles near each other. Keep hands and fingers from between opposite magnetic poles.

# Removing a Stuck Plate From the Drum

**To remove a stuck plate from the drum:**

1. In the Print Console Operations palette, select **Unlock**.

   The rear panels and the rear hood unlock.

2. Raise the rear hood.

   See *Opening the Rear Hood* on page 54.

3. Remove the rear panels.

   See *Removing the Rear Panels* on page 56.

4. Put on protective gloves.

   Protective gloves should be clean and lint-free to ensure that the interior of the device is kept clean.

   **CAUTION:** Plate edges are sharp. Failure to wear protective gloves can result in personal injury.

5. Pull the engine cooling fans away from the drum.

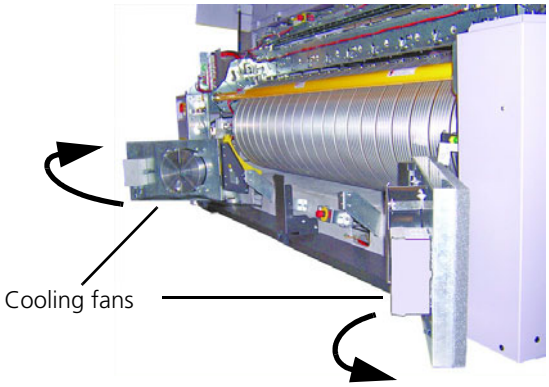



Figure 79: Cooling fans

6. Rotate the drum by hand (in either direction) until the plate and trailing-edge clamps are visible.



Figure 80: Rotate the drum

7. Slide the trailing-edge clamps off the plate.

**Note:** You can skip this step if the plate is not held by the trailing-edge clamps.

If you cannot slide the clamps, use the trailing-edge clamp removal tool to move the clamps to the park position. This tool is stored inside the rear panels below the drum.

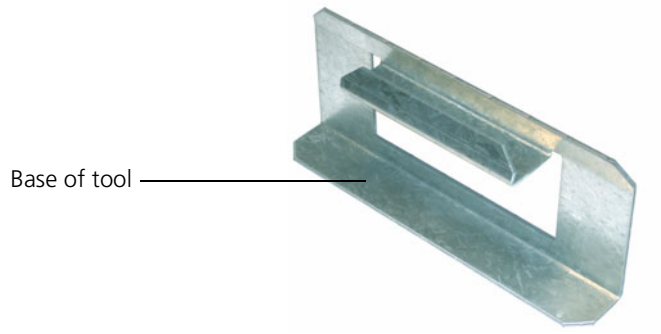



Figure 81: Trailing-edge clamp removal tool

Place the base of the removal tool on top of the trailing-edge clamp. The tool attaches magnetically to the clamp. You can then lift both the tool and clamp, and move them to the park position. For instructions on moving clamps to the park position, see *Repositioning the Trailing-Edge Clamps* on page 108. The park position aligns the marks on the trailing-edge clamps with the registration pins on the leading-edge clamps.



Figure 82: Lifting a trailing-edge clamp using a removal tool

8. Fold over the corners of the free end of the plate.



Figure 83: Fold over the corners

9. While pressing down on the leading-edge clamps, ease the plate out of the clamps.

   The plate comes free of the clamps easily. You should not need to use force.



Figure 84: Easing the plate out of the clamps

10. Inspect the plate edge to see whether plate material is missing.

    If some plate material is missing, open the clamp segments one at a time and inspect them for loose material. If you find loose material, use a vacuum cleaner to remove it from the clamps.



**Note:** Pay special attention to the registration pins and the clamp springs. If any plate material is left here, plate loading problems or misregistration could result.

11. Replace the rear panels.

    See *Replacing the Rear Panels* on page 59.

12. Go to the error message on the **Messages** tab and click **Media Removed**.

    The error message appears again, displaying the message: `move clamps to park position, then select RESUME`.

13. If you have already moved the trailing-edge clamps to the park position, click **Resume**.

    For instructions on moving the trailing-edge clamps to the park position, see *Repositioning the Trailing-Edge Clamps* on page 108.

# Repositioning the Trailing-Edge Clamps

You must reposition the trailing-edge clamps in the device when:

- You lift the clamps to remove the media from the drum
- The clamps slip during imaging
- The following error message appears on the **Messages** tab:

  `move clamps to park position, then select RESUME`



**CAUTION:** Avoid pinching your fingers between the trailing-edge clamps and the drum.

**To reposition the trailing-edge clamps:**

1. Remove the rear panels.

   See *Removing the Rear Panels* on page 56.

2. If there is a plate on the drum, remove it.

   See *Removing a Stuck Plate From the Drum* on page 104.

3. Rotate the drum by hand until the trailing-edge clamps are visible.
4. Place the base of the removal tool on top of a trailing-edge clamp. The tool attaches magnetically to the clamp.



Figure 85: Using a trailing-edge clamp removal tool

5. Lift the tool with the trailing-edge clamp off the drum.

   Instead of lifting, you can slide the tool and the clamp along the drum.

6. Turn the drum until you see the registration pins in front of the leading-edge clamps.

   When placing or sliding a trailing-edge clamp on the drum, always ensure that the steel tabs on the clamps are centered on the steel straps on the drum.

   **NOTICE:** The clamp tabs can damage the drum surface if the tabs are not aligned properly with the steel straps.

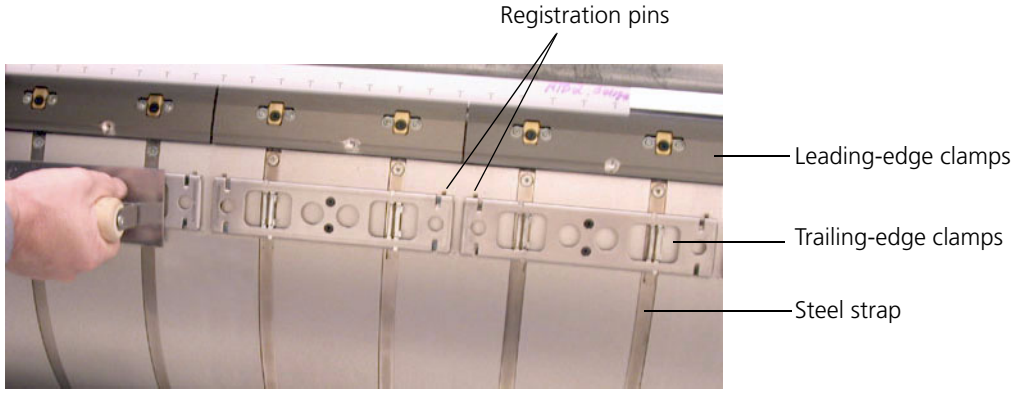



Figure 86: Trailing-edge clamps and registration pins

7. Align the edge of the trailing-edge clamp with the registration pins below the leading-edge clamps. The edges of the trailing-edge clamps should press against the registration pins. This is the park position.

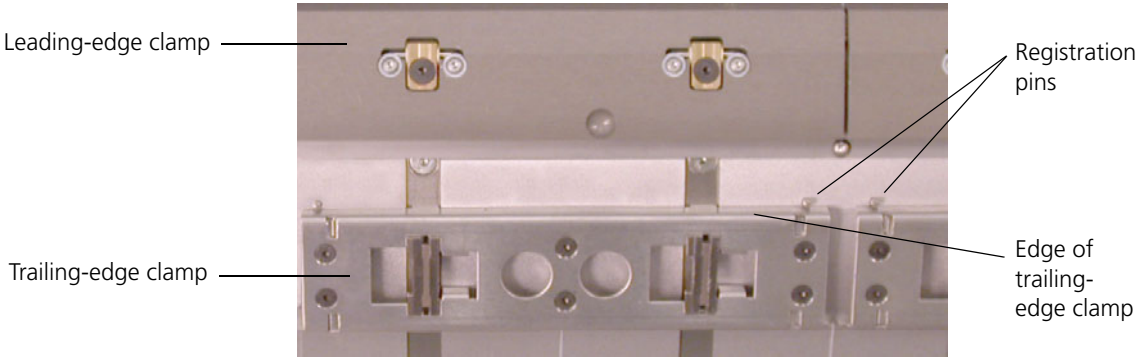



Figure 87: Park position

**Important:** The trailing-edge clamps must be aligned correctly or you can damage your device or cause downtime.

8. Hold the clamp in place while twisting and sliding the removal tool off the clamp.



Figure 88: Taking a removal tool off the trailing-edge clamp

9. Repeat steps 4 to 8 for each of the remaining nine trailing-edge clamps.
10. Check that the trailing-edge clamps are evenly spaced and in a straight line.

    The gaps between the trailing-edge clamps should be aligned with the gaps in the leading-edge clamps above them. (See the position of the clamps in Figure 86 on page 109 and Figure 87 on page 110.)

11. Replace the rear panels.

    See *Replacing the Rear Panels* on page 59.

12. Close the rear hood by pressing it down gently until the latch clicks into place.
13. Go to the error message on the **Messages** tab and click **Resume**.
14. If the device suspends again with one of the following messages, check the clamp alignment and adjust it if necessary:

    ```
    Timeout moving TE cylinder
    TE failed to lock
    TE clamps not on actuator/drum
    ```

# Image Quality Problems

If you experience any image quality problems, contact your service representative immediately.

# Power Failures

If there is a power failure, the Magnus VLF shuts down immediately.

The workstation is equipped with an Uninterrupted Power Supply (UPS). It gives the workstation time to shut itself down in an orderly fashion when the power fails.

However, the device does not have such protection and shuts down immediately. It retains its last state and, if nothing changed while it was off, it attempts to recover when power is restored.

Sometimes automatic recovery is not possible. This occurs, for example, if the power fails when media is partially on the drum. In this case, a message appears in Print Console and you must remove the media. See *Removing a Stuck Plate From the Drum* on page 104.

When a power failure occurs, we recommend that you turn off the device using the Power/Emergency Stop switch shown in Figure 17 on page 36. When power is restored, you can turn on the device again.

# Tripped Circuit Breaker

After a power failure, if the power does not come back on, it's possible that the device tripped a circuit breaker. You can reset the circuit breaker manually by pressing the circuit breaker switch.

The circuit breaker switch is located at the rear of the device below the Power/Emergency Stop switch under the movable circuit breaker switch panel.

**To reset a tripped circuit:**

1. Turn off the device.

   *Turning Off the Magnus VLF* on page 35.

2. Lift the circuit breaker switch panel.

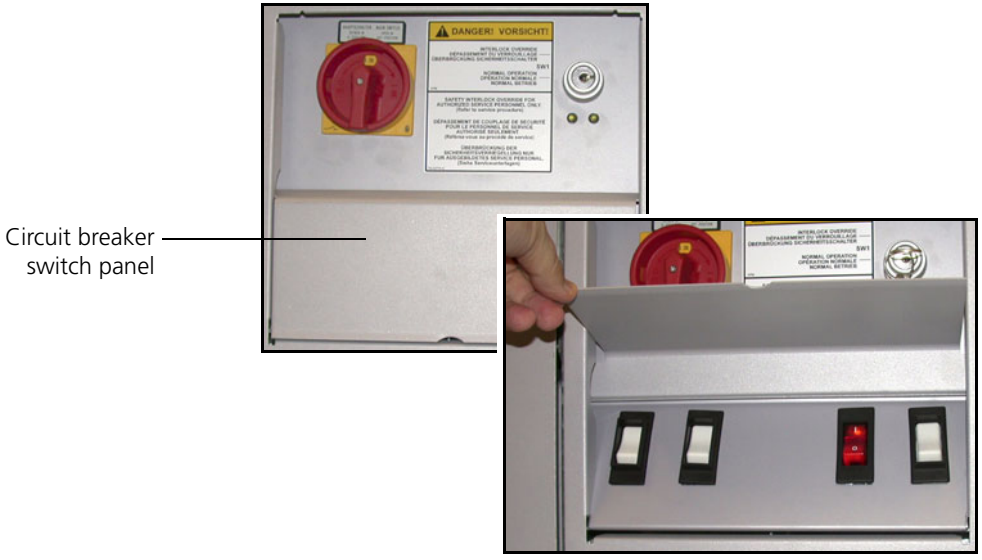



Figure 89: Circuit breaker switch panel

3. Reset the circuit breaker switch.
4. Restart the device.

   See *Turning On the Magnus VLF* on page 34.

   If the device does not start properly, contact your service representative.

## Loss of Air Pressure in the Device

Compressed air is supplied to the device from an external air compressor. If a power failure also affected the air compressor, air pressure inside the device will be slowly lost. If air pressure does not return to normal, contact your service representative.

A

# Part Numbers

Parts List .....116

# Parts List

For the latest parts list and part numbers, consult the most recent version of the *Maintenance Supplies Price List and Order Form*, available from Creo Order Management (orderdesk@Creo.com).

| Description | Creo Part Number |
|---|---|
| Air supply filter kit (includes):<br>• Particulate filter<br>• O-ring | 55-1279 |
| Chiller intake air filter | 252-04226 |
| Debris removal particulate filter 414.6 mm (16.3 in.) | 57-8792 |
| Debris removal particulate filter spacer | 57-8697 |
| Heat exchanger intake air filter | 55-1293 |
| Filter bowl/guard with automatic drain | 55-0175 |
| Filter bowl/guard with manual drain | 55-0174 |
| Power box intake air filter | 55-1292 |

B

# Labels

Overview ..... 118
Identification and Certification Labels ..... 120
Laser Safety Labels ..... 122
Safety Labels ..... 127
Airborne Emissions Label ..... 134

# Overview

This appendix contains information about the labels that are located on the Magnus VLF. The labels are intended to assist you in safely operating your device. You can access all the labels described in this appendix. Most are located inside the device access panels (within the overall interlocked protective housing).

| For an Illustration Of | See |
|---|---|
| *Dataplate label* | Figure 91 on page 120 |
| *Class 1 Laser Product label* | Figure 92 on page 120 |
| *CDRH Certification label* | Figure 93 on page 121 |
| *FCC Certification label* | Figure 94 on page 121 |
| *Dataplate label for TH2 Model* | Figure 96 on page 123 |
| *Dataplate label for TH3 Model* | Figure 97 on page 123 |
| *Visible and Invisible Laser Radiation label* | Figure 98 on page 124 |
| *Exposure Head Aperture label* | Figure 99 on page 124 |
| *Moving Parts Caution/Laser Hazard Warning/Radiation Output/Class 4 Laser Product label* | Figure 100 on page 125 |
| *Non Interlocked Panel Danger label* | Figure 101 on page 125 |
| *Door Interlock Danger label* | Figure 102 on page 126 |
| *High Leakage Current label* | Figure 103 on page 127 |
| *Keep Hands Out Warning label* | Figure 104 on page 128 |
| *Two Power Supply Cords label* | Figure 105 on page 129 |
| *Hazardous Voltage label* | Figure 106 on page 130 |
| *Solenoid Lock label* | Figure 107 on page 130 |
| *Maximum PSI/BAR label* | Figure 108 on page 131 |

| For an Illustration Of | See |
|---|---|
| *Beware of Moving Parts When Interlock Deliberately Overridden label* | Figure 109 on page 131 |
| *Safety Interlock Override label* | Figure 110 on page 132 |
| *Strong Magnetic Fields label* | Figure 111 on page 133 |
| *Stay Out–Crush Hazard label* | Figure 112 on page 133 |
| *Particulate Airborne Emissions label* | Figure 113 on page 135 |

Most labels are located on the rear of the Magnus VLF device, below the Power/Emergency Stop switch.

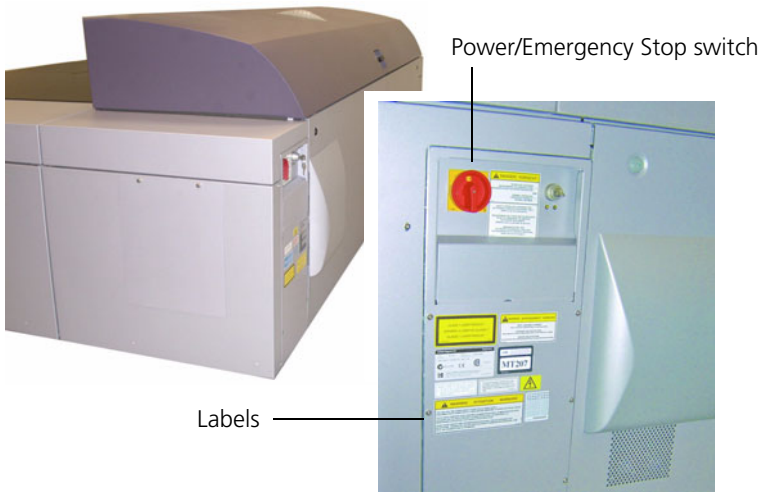



Figure 90: Location of most labels

# Identification and Certification Labels

## Dataplate Label

This label is located at the rear of the device below the Power/Emergency Stop switch, as shown in Figure 90 on page 119.

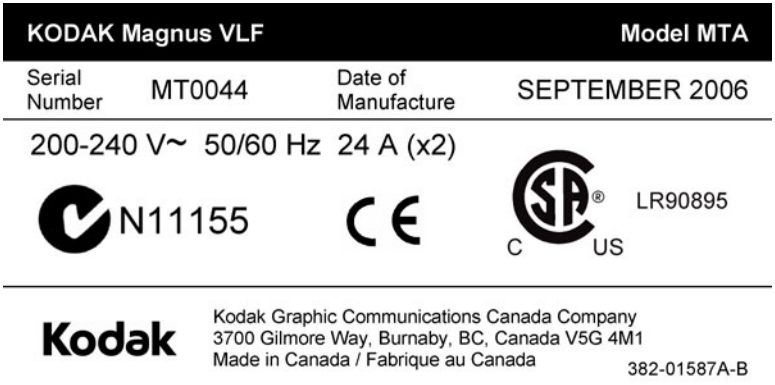



Figure 91: Dataplate label

## Class 1 Laser Product Label

This label is located at the rear of the device below the Power/Emergency Stop switch, as shown in Figure 90 on page 119.




Figure 92: Class 1 Laser Product label

# CDRH Certification Label

This label is located at the rear of the device below the Power/Emergency Stop switch, as shown in Figure 90 on page 119.

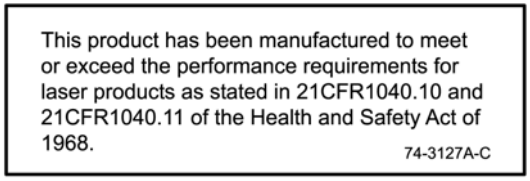



Figure 93: CDRH Certification label

# FCC Certification Label

This label is located at the rear of the device below the Power/Emergency Stop switch, as shown in Figure 90 on page 119.

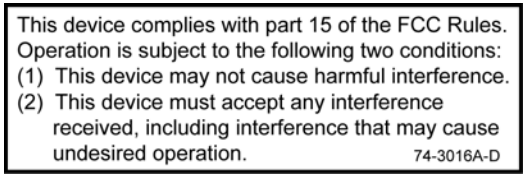



Figure 94: FCC Certification label

# Laser Safety Labels

Laser safety labels are located on the imaging head.

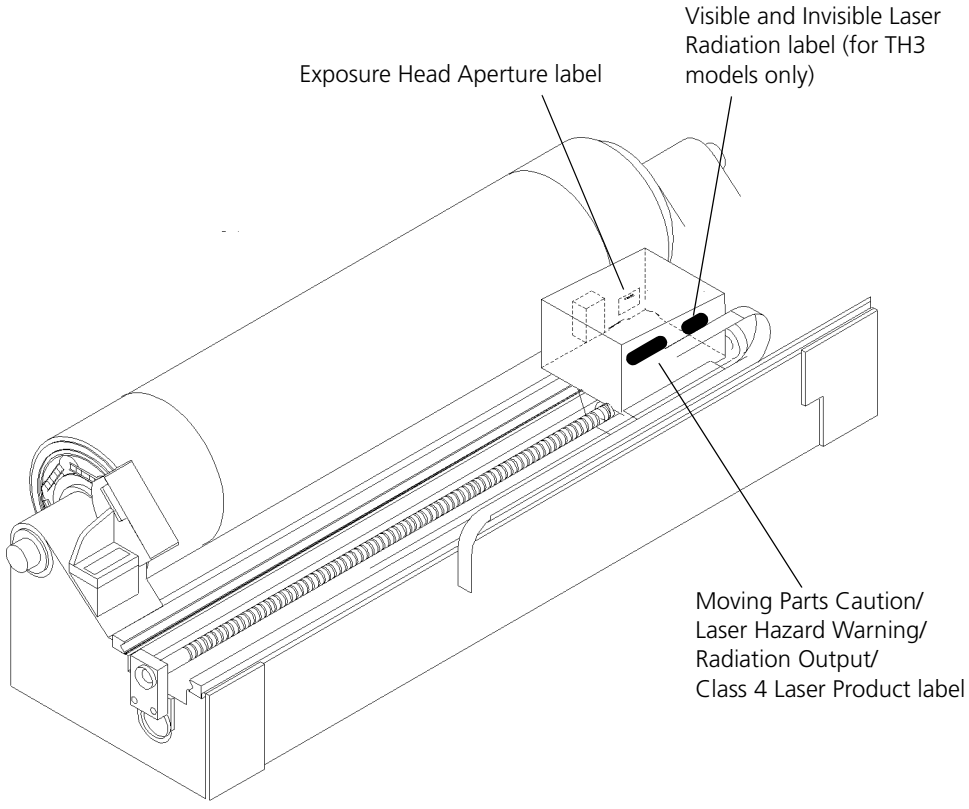



Figure 95: Laser safety labels

# Dataplate Label for Thermal 2 Head (TH2) Model

This label is only located at the rear of the TH2 imaging head.

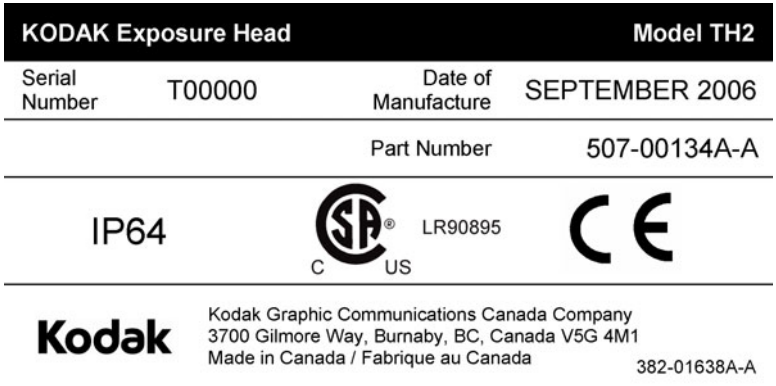



Figure 96: Dataplate label for TH2 Model

# Dataplate Label for Thermal 3 Head (TH3) Model

This label is only located at the rear of theTH3 imaging head.

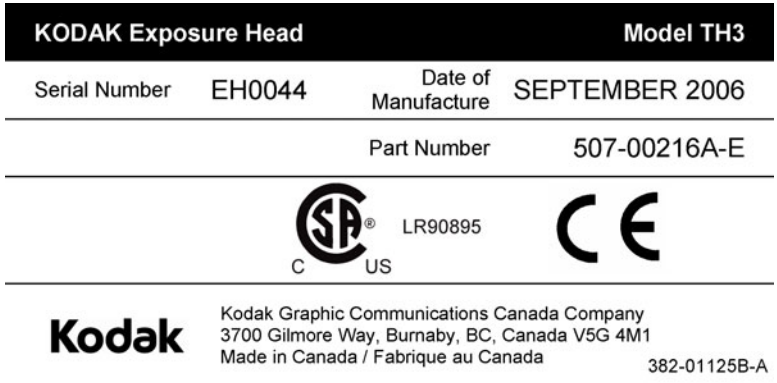



Figure 97: Dataplate label for TH3 Model

# Visible and Invisible Laser Radiation Label

This label is only located at the rear of the TH3 imaging head.




Figure 98: Visible and Invisible Laser Radiation label

# Exposure Head Aperture Label

This label is located on the front of the imaging head protective housing, adjacent to the shutter and aperture. See Figure 95 on page 122 for a diagram showing the location.




Figure 99: Exposure Head Aperture label

# Moving Parts Caution/Laser Hazard Warning/Radiation Output/Class 4 Laser Product Label

This label is located at the rear of the imaging head protective housing. See Figure 95 on page 122 for a diagram showing the location.

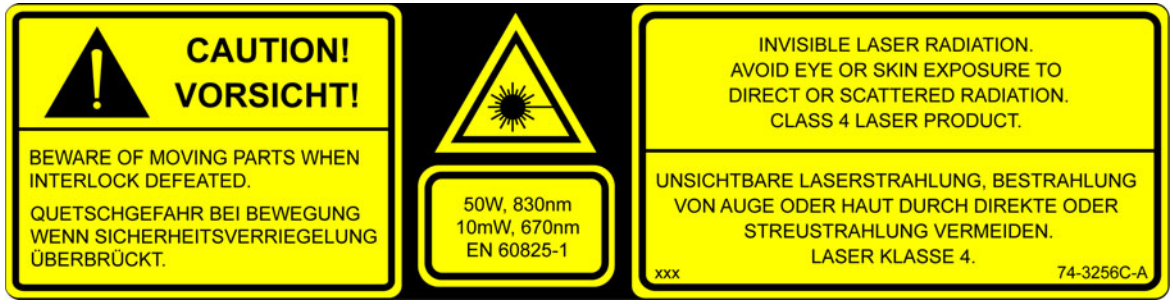



Figure 100: Moving Parts Caution/Laser Hazard Warning/Radiation Output/Class 4 Laser Product label

# Non Interlocked Panel Danger Label

These labels are located on all non interlocked service panels. These panels are all screw secured and are not operator accessible.




Figure 101: Non Interlocked Panel Danger label

**DANGER: The service access panels can be removed only by a service representative. Unauthorized panel removal can expose you to high-powered laser radiation which could result in death or serious injury.**

# Door Interlock Danger Label

These labels are located beside the safety interlock switches, inside the interlocked protective housing.




Figure 102: Door Interlock Danger label

**DANGER: Never attempt to operate the device with any of the access panels open, and never attempt to open or remove access panels while the device is imaging media. Tampering with the interlock system can result in serious injury from visible and invisible high-powered laser radiation and/or moving mechanical parts.**

# Safety Labels

## High Leakage Current Label

This label is located at the rear of the device below the Power/Emergency Stop switch, as shown in Figure 90 on page 119.




Figure 103: High Leakage Current label

# Keep Hands Out Warning Label

The label is located at each end of the tilt bar behind each of the two rear panels.




Figure 104: Keep Hands Out Warning label

# Two Power Supply Cords Label

This label is located at the rear of the device below the Power/Emergency Stop switch.




Figure 105: Two Power Supply Cords label

# Hazardous Voltage Label

This label is located on the following service access panel covers:

- Power box cover
- Service access cover to the debris removal unit
- Front and rear power entry panel
- Barrier access to the power box
- Service access cover of the junction box for the cooling system

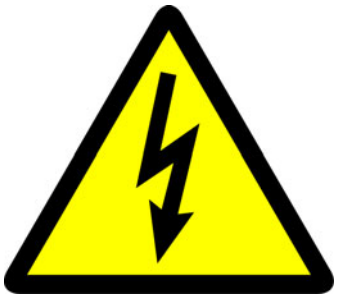


Figure 106: Hazardous Voltage label



**DANGER: The service panel and the service access cover can be removed only by a service representative. Do not remove the panel or cover bearing this label because these areas contain high-voltage components that can cause severe electrical shock, which could result in death or serious injury.**

# Solenoid Lock Label

This label is located on the rear hood beside the handle.

**Important:** Opening the front hood or rear hood while a job is in progress will terminate the job.

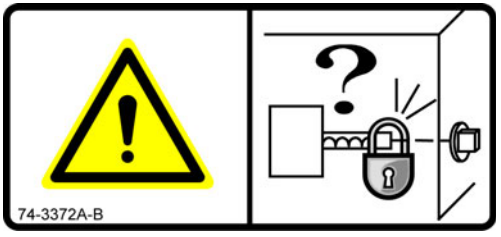



Figure 107: Solenoid Lock label

# Maximum PSI/BAR Label

This label is located at the bottom-rear of the device near the compressed air inlet connector.




Figure 108: Maximum PSI/BAR label

# Beware of Moving Parts When Interlock Deliberately Overridden Label

This label is located in the middle of the tilt bar behind the rear panels and on the engine frame behind the front-left panel.




Figure 109: Beware of Moving Parts When Interlock Deliberately Overridden label

# Safety Interlock Override Label

This label is located at the rear of the device beside the Power/Emergency Stop switch, as shown in Figure 90 on page 119.

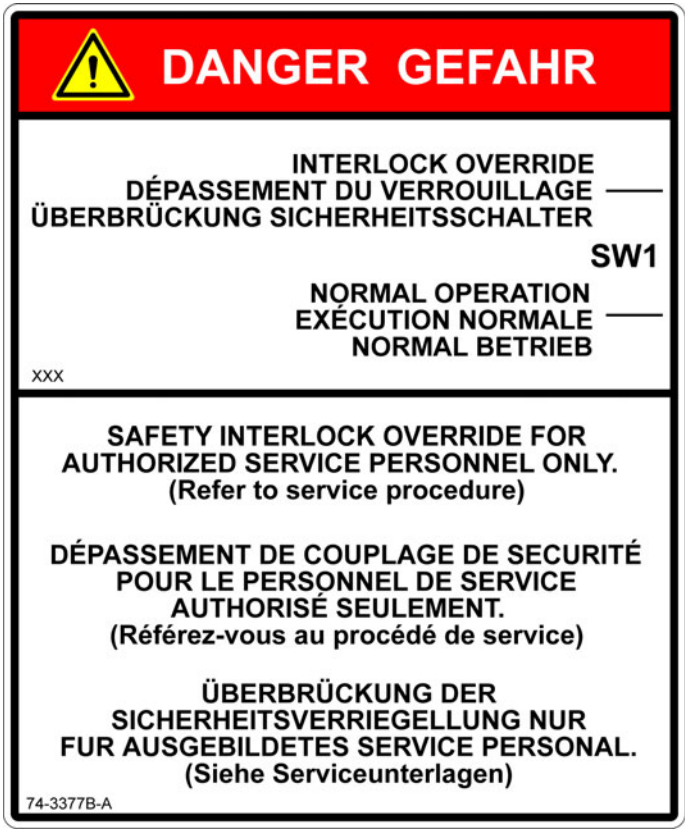



Figure 110: Safety Interlock Override label

**DANGER: The service key switch is for use only by an authorized service representative. Unauthorized use can expose you to serious danger from high-powered laser radiation, moving mechanical parts, and/or electrical shock, which could result in death or serious injury.**

# Pacemaker Warning Label

This label is located on the magnetic clamps of the trailing-edge clamp assembly.

**CAUTION:** Operators with implanted cardiac pacemakers should ensure that magnetic clamps are kept more than 7 cm (2.75 in.) away from their pacemaker. If you have additional concerns, consult your physician and/or the manufacturer of your implant.




Figure 111: Strong Magnetic Fields label

# Stay Out–Crush Hazard Label

This label is located on the top rail on each side of the multi-cassette unit when the unit is open.




Figure 112: Stay Out–Crush Hazard label



**DANGER: When the multi-cassette unit is open and the cart is pulled out, do not enter or crawl into the multi-cassette unit. Entering the multi-cassette unit can expose you to crushing loads, which could result in death or serious injury.**

# Airborne Emissions Label

## Particulate Airborne Emissions Label

The Particulate Airborne Emissions label warns you that airborne emissions may be released when imaging some printing media. It is located inside the debris removal unit.



**Important:** Do not attempt to use printing media that have not been qualified by Creo.

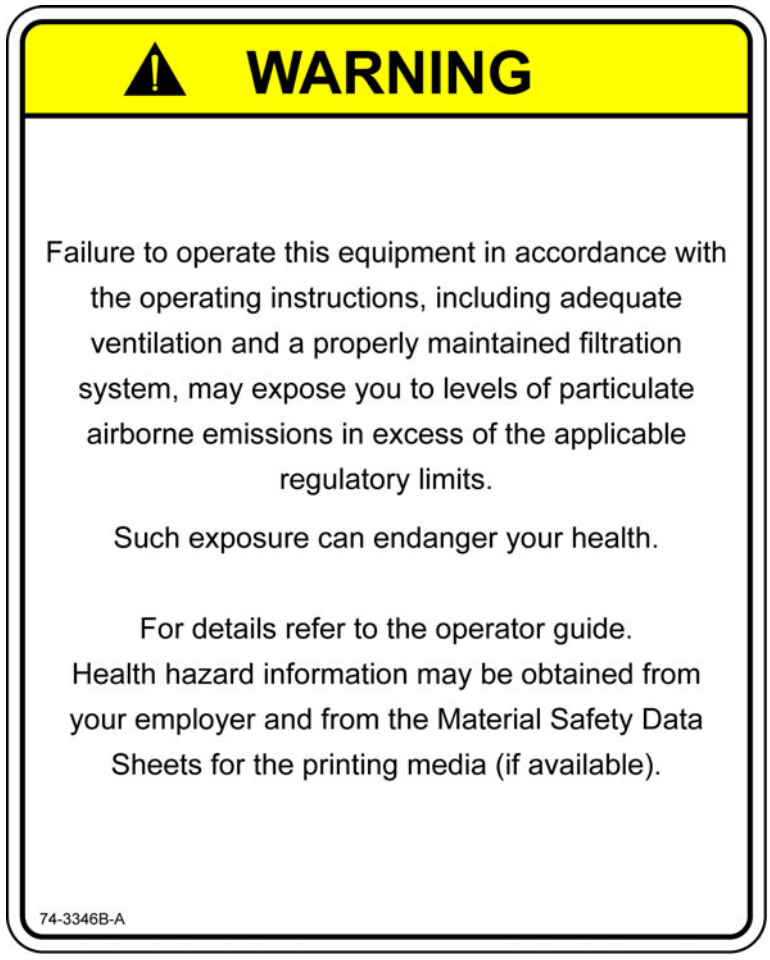



Figure 113: Particulate Airborne Emissions label

C

# Regulatory Compliance

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# Regulatory Approval Model Designation

MTA is the regulatory approval model designation for the Magnus VLF. The regulatory approval model designation name appears on the Dataplate label (see Figure 91 on page 120) and all regulatory approval documents.

# Electrical Safety

The Magnus VLF has been designed, tested, and evaluated for compliance with the following electrical and mechanical safety standards:

- CSA 60950-1, *Information Technology Equipment —Safety—Part 1*
- UL 60950-1, *Information Technology Equipment—Safety—Part 1*
- EN 60950-1, *Information Technology Equipment—Safety—Part 1*
- EN 60204-1, *Safety of Machinery, Electrical Equipment of Machines*

The CSA International "c CSA US" mark on the Dataplate label on the device indicates compliance with these standards:

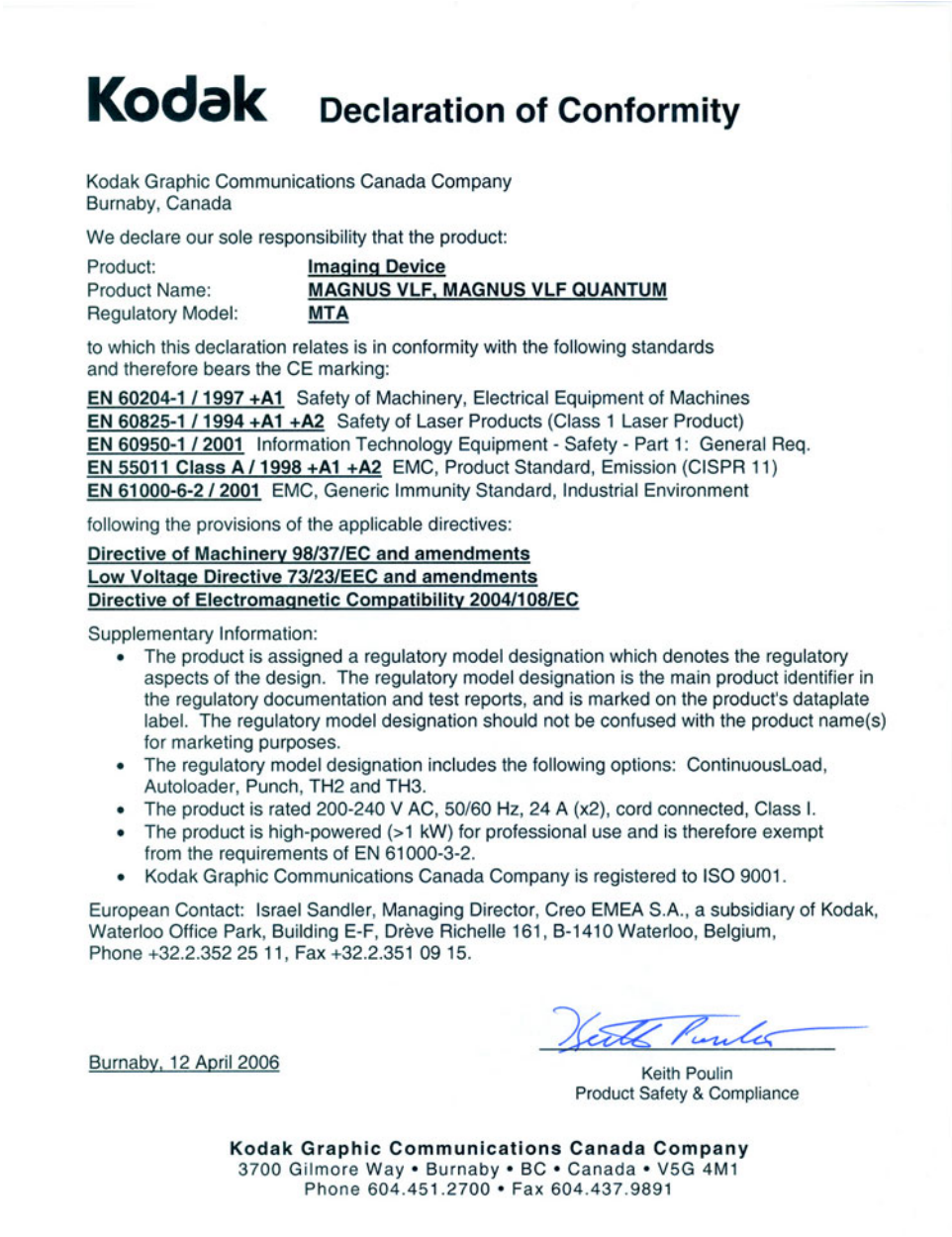
- CSA 60950-1, *Information Technology Equipment —Safety—Part 1*
- UL 60950-1, *Information Technology Equipment—Safety—Part 1*

The CE mark on the Dataplate label on the device indicates compliance with the following directives:

- Low Voltage Directive 73/23/EEC
- Directive of Machinery 98/37/EC
- Directive of Electromagnetic Compatibility 2004/108/EC

See *Appendix B, Labels* for examples of these labels.

# EC Declaration of Conformity



**Kodak** **Declaration of Conformity**

Kodak Graphic Communications Canada Company
Burnaby, Canada

We declare our sole responsibility that the product:

| | |
|---|---|
| Product: | **Imaging Device** |
| Product Name: | **MAGNUS VLF, MAGNUS VLF QUANTUM** |
| Regulatory Model: | **MTA** |

to which this declaration relates is in conformity with the following standards and therefore bears the CE marking:

**EN 60204-1 / 1997 +A1** Safety of Machinery, Electrical Equipment of Machines
**EN 60825-1 / 1994 +A1 +A2** Safety of Laser Products (Class 1 Laser Product)
**EN 60950-1 / 2001** Information Technology Equipment - Safety - Part 1: General Req.
**EN 55011 Class A / 1998 +A1 +A2** EMC, Product Standard, Emission (CISPR 11)
**EN 61000-6-2 / 2001** EMC, Generic Immunity Standard, Industrial Environment

following the provisions of the applicable directives:

**Directive of Machinery 98/37/EC and amendments**
**Low Voltage Directive 73/23/EEC and amendments**
**Directive of Electromagnetic Compatibility 2004/108/EC**

Supplementary Information:

- The product is assigned a regulatory model designation which denotes the regulatory aspects of the design. The regulatory model designation is the main product identifier in the regulatory documentation and test reports, and is marked on the product's dataplate label. The regulatory model designation should not be confused with the product name(s) for marketing purposes.
- The regulatory model designation includes the following options: ContinuousLoad, Autoloader, Punch, TH2 and TH3.
- The product is rated 200-240 V AC, 50/60 Hz, 24 A (x2), cord connected, Class I.
- The product is high-powered (>1 kW) for professional use and is therefore exempt from the requirements of EN 61000-3-2.
- Kodak Graphic Communications Canada Company is registered to ISO 9001.

European Contact: Israel Sandler, Managing Director, Creo EMEA S.A., a subsidiary of Kodak, Waterloo Office Park, Building E-F, Drève Richelle 161, B-1410 Waterloo, Belgium, Phone +32.2.352 25 11, Fax +32.2.351 09 15.

Burnaby, 12 April 2006

Keith Poulin
Product Safety & Compliance

**Kodak Graphic Communications Canada Company**
3700 Gilmore Way • Burnaby • BC • Canada • V5G 4M1
Phone 604.451.2700 • Fax 604.437.9891

Figure 114: EC Declaration of Conformity

# Laser Safety

The Magnus VLF has been designed, tested, and evaluated for compliance with the following laser safety standards:

- U.S. Federal Regulations 21 CFR 1040.10 and 1040.11, in accordance with the regulations of the Center of Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration
- EN 60825-1, *Safety of Laser Products*

The Class 1 Laser Product label on the device indicates compliance with the above standards. See *Appendix B, Labels* for an example of this label.



**WARNING:** Use of controls or adjustment or performance of procedures other than those specified in this operator guide may result in hazardous radiation exposure.

# EMI/EMC

The Magnus VLF has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this guide, may cause harmful interference to radio communications. Operation of the device in a residential area is likely to cause harmful interference. You must correct the interference at your own expense.

The FCC Certification label on the device indicates compliance with these limits. See *Appendix A, Part Numbers* for an example of this label.

The Magnus VLF has been designed, tested, and evaluated for compliance with the Directive of Electromagnetic Compatibility 2004/108/EC. It complies with the following EMC standards:

- EN 55011 Class A
- EN 61000-6-2

# Noise Emissions

The Magnus VLF has been designed, tested, and evaluated for compliance with the maximum noise emission limit permitted for a light industrial environment, 80 dB(A). Noise emissions from the Magnus VLF will not exceed 76 dB(A) when tested in accordance with EN ISO 7779:2001, *Acoustics—Measurement of airborne noise emitted by information technology and telecommunications equipment*.

# Glossary

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| airborne emissions | Refers to particulate debris (fine dust particles) or chemical substances (noxious gases). Can be a combination of the two or each separately. |
| CFR | Code of Federal Regulations of the United States |
| CMYK | Cyan, magenta, yellow, black. Printing colors for process color production. |
| crazing | Stress lines that appear on plastic parts, usually caused by inappropriate cleaning. |
| debris removal system (DRS) | Extracts and filters airborne emissions that are released when imaging some types of printing media. |
| debris removal unit (DRU) | The key component of the debris removal system. It consists of the filter compartment, filter, blower, and electrical controls. |
| device | A platesetter, proofsetter, or filmsetter that is part of an imaging system. |
| DRS | See *debris removal system (DRS)*. |
| DRU | See *debris removal unit (DRU)*. |
| drum | The device on which a plate is mounted for imaging by the laser. |
| exposure head | See *imaging head*. |
| file | An electronic text description of one or more images, using the PostScript language. At this time, the Magnus VLF does not support files containing multiple PostScript showpage operators. |
| firmware | Computer code stored in read-only memory (ROM) or programmable ROM (PROM). Easier to change than hardware but harder to change than software stored on disk. Firmware is often responsible for the behavior of a system when the system is turned on. |

| | |
|---|---|
| free field | A term used to describe the conditions under which noise level measurements are made. A free field is an area where there are no surfaces that will reflect sound. |
| GATF | Graphic Arts Technical Foundation |
| image | In Magnus VLF, an electronic bitmap that is plotted onto a printing media. The device receives images from the workstation and produces exposed, undeveloped plates. |
| imaging head | The device that uses a laser to write data to media. Also called an *exposure head*. |
| imposition | A means of arranging pages on the front and back of a press sheet to ensure the correct order after the printed sheet is folded and trimmed. |
| initialize | To set the computer program counter to its starting position, value, or configuration. |
| input method | A channel used for communication between workstation software and an imposition workstation. Also called *input channel* or *input mechanism*. |
| laser exposure | Refers to the laser power value that the imaging head should be set to for a particular plate type. See also *plate type*. |
| Magnus VLF system | Creo's high-speed, PostScript-compatible platesetter that can handle large media sizes. It includes a workstation, device, and Print Console. |
| media | Refers to the physical material—plates—onto which an image is plotted. |
| media type | Refers to a certain type of plate or film. Media types are typically configured during installation of the device by a service representative. |
| medium index | Used to identify which calibration curve to apply to a particular job or file. |
| MSDS | Material Safety Data Sheet. A document published by a media manufacturer that contains information about hazards pertaining to particular media types. |

| | |
|---|---|
| Murray-Davies function | The equation that is used to calculate the effective dot area in a halftone tint. It compares the light-absorbing power of a tint to that of a solid. For example, an effective dot area of 75 percent means the tint absorbs 75 percent of the light that is absorbed by solid ink. |
| native application file | A file for a job that was created using page layout software, such as QuarkXPress® software. |
| OSHA | Occupational Safety and Health Administration of the United States |
| page buffer | A file on disk that is used to store a page of interpreted output, before it is printed or previewed. Depending on the page buffer mode you run workstation software in, page buffers can be either retained on disk to allow reprinting or deleted after printing to save space on your hard disk. Also called an *interpreted raster image of a PostScript flat*. |
| page imposition | The process of printing several pages onto one sheet of media to minimize the amount of trimming required. |
| page setup | In Print Console, a collection of specifications for a page, including resolution and orientation. |
| particulate debris | Fine solid particles that are released when imaging some printing media. |
| particulate filter | Contains a porous material that traps the particulate debris released during imaging. |
| PCW | Plate Control Wedge |
| PDF | Adobe® Portable Document Format. A cross-platform file format for storing line art, images, and text (including all required fonts). |
| plate | A physical medium upon which an image is exposed. The Magnus VLF produces one exposed plate for each image that it receives. |
| plate gain | The net change in the effective area of the halftone dot when imaged onto a plate. This results from: a) a change in the area of halftone dot from workstation software to the plate, and b) the emulsion at the edges of a “soft-edged” halftone dot that is not holding ink. |
| plate processor | Equipment used with the Magnus VLF to develop plates. Also known as a developer. |
| plate type | Refers to the media type and the media size and thickness. |

| | |
|---|---|
| POC | Particulate Only Collection—firmware functionality for the UDRC-B |
| PostScript | A page description language developed by Adobe Systems that is used to describe type and visual elements so that they can be output on devices with PostScript interpreters. |
| PostScript file | A file written in a page description language created from a native application file. |
| ppb | Parts per billion |
| PPD file | PostScript Printer Description file. A computer file containing information on the parameters and options associated with a specific PostScript device, such as the Magnus VLF. |
| ppm | Parts per million |
| PPX file | Similar to the PPD file and created automatically when you generate a PPD file. The PPX file contains punch location information which is used by Preps imposition software. |
| pre-separated PostScript file | A PostScript file that contains information for a single-color image. Any spot colors require an additional pre-separated PostScript file. For example, to produce a final four-color image, you would require four pre-separated PostScript files. One file contains the information for the cyan, one for the magenta, one for the yellow, and one for the black image. |
| Preps | An imposition software package |
| Print Console | A device control software that delivers files to the device for imaging. Print Console creates a rasterized image of a PostScript file—a PostScript 3™ software RIP (raster image processor). The software RIPs PostScript files to create the images that are exposed onto media. |
| process colors | See *CMYK* |
| prompt number | A number that identifies an error message |
| raster | Digitized (bitmapped) images defined pixel by pixel in rows and columns. See also *RIP*. |
| registration | The alignment of the plotted separations (to each other on a media) that produce one printed image. |

| | |
|---|---|
| reinitialize | To reset the computer program counter to its starting position, value, or configuration. |
| resolution | The degree of detail with which an image is reproduced, usually measured in dots per inch (dpi) or lines per inch (lpi). The higher the resolution, the greater the detail in which the image will be reproduced. |
| RGB | Red, green, and blue color model used by computer monitors to display color. |
| RIP | Raster Image Processor. Creates bitmap images from PostScript files, which are then sent to the device for imaging. |
| rosette | The pattern in which halftone cells are arranged in a separated image. |
| SA | Refers to the Magnus VLF Semi-Automatic device. |
| screen angle | The angle at which a halftone screen is set when making screened images for printing halftones. Proper screen angles are critical to minimizing moiré patterns. |
| SCSI | Small Computer System Interface. With the Magnus VLF, this type of connection is used to send image data from the workstation to the device. |
| separation | Refers to a color or layer in a file. A separation can be compared to film; there is one film for each color. For example, a basic CMYK job will require four films, four separations. Each spot color has its own film, that is, its own separation. If multiple black films exist for a job, then multiple black separations are created for the job. All separations for a job must be registered to each other. |
| spot color | A color that requires a special ink—that is, an ink which cannot be created using process colors. |
| spread | The process of printing a narrow border just outside the edges of graphics to make them look bigger. Spread and choke are often used as part of trapping to protect against misregistration of color separations. |
| submitting | In Print Console, the process of putting a file in the queue for imaging. |
| suspend condition | A condition that prevents the device from continuing to image a media. |

| | |
|---|---|
| SWOP | Specifications for Web Offset Publications |
| thermal head | Located inside the device, it uses an infrared laser to plot an image to media. |
| throughput | The efficiency with which images are interpreted and produced. |
| UGRA | Swiss Association for the Promotion of Research |
| UPS | Uninterruptible Power Supply. The device used to supply power temporarily to the workstation during a power failure. |
| workstation | A high-speed computer running the Windows NT® operating system and Print Console. It is the computer that provides the operator's console, queueing management, Raster Image Processor (RIP), and system control. The computer is connected to a Local Area Network (LAN) over which it receives PostScript files. |

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