Site Preparation Guide

English

Trendsetter VLF Autoloader

73-3319A-F

www.creo.com

Copyright

Copyright © 2004 Creo Inc. All rights reserved. Data subject to change without notice.

Internal 73-3319A-F

Creo and the Creo logo are trademarks or registered trademarks of Creo Inc. The Creo products mentioned in this document are trademarks or service marks of Creo Inc. and may be registered in certain jurisdictions. Microsoft, Windows, and Windows NT are registered trademarks or trademarks of Microsoft Corporation in the U.S. and/or other countries. Other company and brand, product, and service names are for identification purposes only and may be trademarks or registered trademarks of their respective holders.

No copying, distribution, publication, modification, or incorporation of this document, in whole or part, is permitted without the express written permission of Creo Inc. In the event of any permitted copying, distribution, publication, modification, or incorporation of this document, no changes in or deletion of author attribution, trademark legend, or copyright notice shall be made. No part of this document may be reproduced, stored in a retrieval system, published, used for commercial exploitation, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the express written permission of Creo Inc. This document is distributed in Adobe Systems Incorporated's PDF (Portable Document Format). You may reproduce the document from the PDF file for internal use. Copies produced from the PDF file must be reproduced in whole.

Creo Inc.
3700 Gilmore Way
Burnaby, B.C., Canada
V5G 4M1
Tel: +1.604.451.2700
Fax: +1.604.437.9891

http://www.creo.com

Revised August 2004

Contents

Trendsetter VLF Autoloader Site Preparation Guide 1

Introduction 1
Tools Needed 2

Equipment Overview 3

Options 4
Single Cassette Unit 4
Multiple Cassette Unit 4
Straight (S) Conveyor 4
Rotating Straight (RS) Conveyor 4
L-Conveyor 4
Slip Sheet Removal 4
Size and Weight 5
Cables, Connectors, and Receptacles 6

Site Requirements 10

Footprint and Working Area 10
Debris Removal Cabinet 23
Environmental Conditions 23
Floors 24
Floor Level Qualification Procedure 24
Floor Vibration 25
Electrical 26
Power Quality 26
Heat Output 27
Power Line Voltage/Frequency 27
Power Line Disturbances 27
Air Supply 28
Air Supply Qualification Procedure 29
Ventilation 30
Telephone Link 31
Network 31
Media and Processor(s) 31
Plate Registration 32

Shipment and Delivery 33

Responsibilities 33
Forklift 33
IDoors and Hallways 33
Shipping Crates 34

Appendix A: Notice 37

Appendix B: Site Inspection Checklist 39

Trendsetter VLF Autoloader Site Preparation Guide

Introduction

Please take a few moments to read through this document. It provides guidelines for preparing your site for the Trendsetter® VLF Autoloader installation.

Your Creo service engineer will help you to ensure that your site meets all the requirements. Proper preparation will help to prevent unnecessary problems and delays when installing the device.

The following topics are discussed:

- Device configuration
- Floor space requirements
- Device dimensions
- Weight requirements
- Electrical requirements
- Debris removal system requirements
- Environmental conditions
- Ventilation requirements
- Network/modem requirements
- Processor specifications

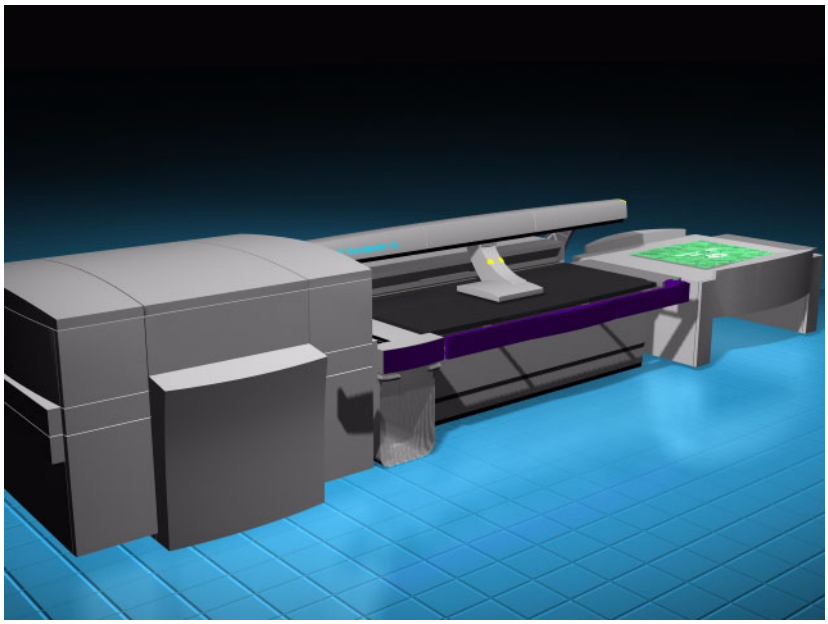
With your Creo service engineer, complete the *Site Inspection Checklist* in Appendix B.

Revised August 2004

Tools Needed

- Air Supply Gauge (part number 92-0373A)—to check the pressure and flow of the site's compressed air supply. See *Air Supply Qualification Procedure* on page 29.
- Floor Level Gauge (part number 92-1187)—a water level to check the flatness and levelness of the floor where the device will be placed. See *Air Supply Qualification Procedure* on page 29.
- Floor Layout Drawings (part numbers 690-00045A to 690-00056A)—full-sized drawings to assist in room layout and floor tests. See *Floor Layout Drawings* on page xx.
- Measuring tape—15 m (50 ft.)

Equipment Overview



The device consists of the following standard components:

- Plate recording output device
- 1200/2400 dpi thermal imaging head
- Cassette unit (single or multiple)
- Conveyor (straight, L-type, or rotating straight)
- Manual bypass functionality
- Debris removal[1] and thermal head cooling systems

1. The debris removal system consists of a vacuum pump and filtration system for removing debris from exposed media. Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).

Options

The six configurations can be built to operate in either a left-to-right or right-to-left direction, as viewed by the operator. See Figures for layout diagrams.

- Single Cassette Unit with Straight Conveyor
- Single Cassette Unit with L-Conveyor
- Single Cassette Unit with Rotating Straight Conveyor
- Multiple Cassette Unit with Straight Conveyor
- Multiple Cassette Unit with L-Conveyor
- Multiple Cassette Unit with Rotating Straight Conveyor

Single Cassette Unit

The Single Cassette Unit (SCU) stores un-imaged plates with slip sheets in a cassette on a cart that interfaces with the output device through a docking station.

Multiple Cassette Unit

The Multiple Cassette Unit (MCU) stores un-imaged plates with slip sheets in four separate cassettes housed in an automated lift.

Straight (S) Conveyor

The straight conveyor transfers plates in a straight line from the output device to a plate processing system.

Rotating Straight (RS) Conveyor

The rotating straight conveyor transfers plates in a straight line from the output device to a plate processing system. It has the capability of rotating large plates to fit into the plate processing system.

L-Conveyor

The L-type conveyor transfers plates from the output device to a plate processing system that is perpendicular (90°) to the direction of travel of the picker. It has the capability of feeding two separate processing lines.

Slip Sheet Removal

The slip sheet removal unit (SSR) removes slip sheets from plates as they move from the cassette onto the output device. The removed slip sheets are stored in a bin for disposal later.

Size and Weight

Table 1 shows the maximum dimensions and weight of the Trendsetter VLF Autoloader components. The measurements are taken facing the system, with the panels installed. Width is in the x-axis direction. Depth is in the y-axis direction.

For measurements of the crates as shipped, see Table 6 on page 34.

Table 1: Size and weight of Trendsetter VLF Autoloader device

Device	Width	Depth	Height	Weight
Base unit	3300 mm (130 in.)	1803 mm (71 in.)	1650 mm (65 in.)	1542 kg (3400 lb)
Multiple Cassette Unit	2180 mm[a] (85.8 in.)	2870 mm (113 in.)	1630 mm (64 in.)	1633 kg (3600 lb)
Single Cassette Unit - Garage	650 mm (26 in.)	2210 mm (87 in.)	1200 mm (47.2 in.)	138 kg (300 lb)
Single Cassette Unit - Cassette & Cart	2300 mm (90.5 in.)	1740 mm (68.5 in.)	960 mm (38 in.)	138 kg[b] (300 lb)
Straight Conveyor	2370 mm (93.3 in.)	2050 mm (80.7 in.)	1000 mm (39.3 in.)	454 kg (1000 lb)
Chiller (all 40-watt heads)	740 mm (29 in.)	370 mm (15 in.)	610 mm (24 in.)	73 kg (160 lb)
Heat Exchanger (all 40-Watt heads)[c]	381 mm (15 in.)	381 mm (15 in.)	610mm 24 in.)	27 Kg (60 lb)
Debris removal cabinet	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).			
Workstation	Varies with configuration			
Optional Equipment				
Slip Sheet Removal Unit	490 mm (20 in.)	1750 mm (68.9 in.)	740 mm (29 in.)	125 kg (275 lb)
L-Conveyor	2500 mm (98.4 in.)	3100 mm (122 in.)	990 mm (39 in.)	545 kg (1200 lb)

a. MCU with side panels removed is 1.7 m (5.66 ft) wide. **Caution:** The panels are difficult to replace. If you must remove them, allow a half day for reassembly.
b. The cassette fully loaded with maximum plates is 308 kg (670 lb).
c. The Chiller is replaced with a heat exchanger effective Sept 12, 2004. If the ambient room temperature exceeds 30° C (86° F), then a Chiller is needed.

Cables, Connectors, and Receptacles

Tables 2–4 list the supplied and required cables and connectors for the output device. Table 5 on page 9 lists the power/air connections.

Table 2: Cables and interconnects—North America

Cables	Supplied by Creo	Supplied by customer[a]
Output device main power (attached to either the Single Cassette Unit or Multiple Cassette Unit)	IEC320, Type C20 appliance inlet. 2.5 m (8.2 ft) power cord with IEC320 Type C19 connector at equipment end and L6-20P connector at other end.	Dedicated 20A, 200-240V circuit (single phase) with L6-20R receptacle.
Workstation power	2.5 m (8.2 ft) power cable with 5-15P connector.	5-15R receptacle and dedicated 120V, 15A branch circuit.
Chiller power (all 40-watt heads)	2.5 m (8.2 ft) power cable with 5-15P connector.	Dedicated 15A, 120V branch circuit with 5-15R receptacle.
Heat Exchanger power (all 40-watt heads)[b]	2.5 m (8.2 ft) power cable with 5-15P connector.	Dedicated 15A, 120V branch circuit with 5-15R receptacle.
Debris removal cabinet power	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).	
Telephone line	Modem and serial cable. Modem power supply can be plugged into UPS.	Two dedicated telephone lines and RJ-11 cables to plug into modem (must be long enough to reach workstation). One line is to connect to the workflow, and the other is to connect to Creo remote support.

a. The tolerances for input voltages are +6%, –10%. The specification for the frequency is 50/60Hz ±1.5%. Branch circuits should have time delay type circuit breakers to avoid nuisance tripping caused by inrush currents. For details, see *Electrical* on page 26.

b. The Chiller is replaced with a heat exchanger effective Sept 12, 2004. If the ambient room temperature exceeds 30° C (86° F), then a Chiller is needed.

Table 3: Cables and interconnects—Europe, Australia and S.E. Asia

Cables	Supplied by Creo	Supplied by customer[a]
Output device main power (attached to either the Single Cassette Unit or Multiple Cassette Unit)	IEC320, type C20 appliance inlet	Dedicated 16A, 200–240 V branch circuit with IEC 309 16 A receptacle
Workstation power	IEC320, type C14 inlet	IEC320, type C13 connector with 8 A cord Dedicated 8 A, 200–240 V branch circuit
Chiller power (all 40-watt heads)	IEC320, Type C14 appliance inlet. IEC320, Type C13 connector with 2.5 m (8.2 ft) HAR power cord.	Dedicated 8, 240V branch circuit with 8A plug and receptacle.
Heat Exchanger power (all 40-watt heads)[b]	IEC320, Type C14 appliance inlet. IEC320, Type C13 connector with 2.5 m (8.2 ft) HAR power cord.	Dedicated 8, 240V branch circuit with 8A plug and receptacle.
Debris removal cabinet power	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).	
Telephone line	Serial cable for modem	Two dedicated telephone lines and RJ-11 cables to plug into modem (must be long enough to reach workstation). One line is to connect to the workflow, and the other is to connect to Creo remote support. Also requires separate AC power source (UPS provided only with IEC type 320 outlet receptacles).

a. The tolerances for input voltages are +6%, –10%. The specification for the frequency is 50/60Hz ±1.5%. Branch circuits should have time delay type circuit breakers to avoid nuisance tripping caused by inrush currents. For details, refer to *Electrical* on page 26.

b. The Chiller is replaced with a heat exchanger effective Sept 12, 2004. If the ambient room temperature exceeds 30° C (86° F), then a Chiller is needed.

Table 4: Cables and interconnects—Japan

Cables	Supplied by Creo	Supplied by customer[a]
Output device main power (attached to either the Single Cassette Unit or Multiple Cassette Unit)	IEC320, type C20 appliance inlet 2.5 m (8.2 ft.) power cord with IEC320 type C19 connector at equipment end and L6-20P connector at other end L6-20R receptacle	Dedicated 20 A, 200 V branch circuit with L6-20R receptacle
Workstation power	2.5 m (8.2 ft.) power cable with 5-15P connector	5-15R receptacle and dedicated 100V, 15A branch circuit
Chiller power (all 40-watt heads) The chiller uses 120/240V, so a step-up transformer is required.	For 50 Hz, IEC320, Type C14 appliance inlet. IEC320, Type C13 connector with 2.5 m (8.2 ft) HAR power cord. For 60 Hz, 2.5 m (8.2 ft) power cable with 5-15P connector.	For 50 Hz, a dedicated 8A, 240V branch circuit with 8A plug and receptacle. For 60 Hz, a dedicated 15A, 120V branch circuit with 5-15R receptacle.
Heat Exchanger power (all 40-watt heads)[b] The heat exchanger uses 120/240V, so a step-up transformer is required.	For 50 Hz, IEC320, Type C14 appliance inlet. IEC320, Type C13 connector with 2.5 m (8.2 ft) HAR power cord. For 60 Hz, 2.5 m (8.2 ft) power cable with 5-15P connector.	For 50 Hz, a dedicated 8A, 240V branch circuit with 8A plug and receptacle. For 60 Hz, a dedicated 15A, 120V branch circuit with 5-15R receptacle.
Debris removal cabinet power	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).	
Telephone line	Serial cable for modem.	Two dedicated telephone lines and RJ-11 cables to plug into modem (must be long enough to reach workstation). One line is to connect to the workflow, and the other is to connect to Creo remote support. Also requires separate AC power source (UPS provided only with 5-15R receptacles).

a. The tolerances for input voltages are +6%, –10%. The specification for the frequency is 50/60Hz ±1.5%. Branch circuits should have time delay type circuit breakers to avoid nuisance tripping caused by inrush currents. For details, refer to *Electrical* on page 26.

b. The Chiller is replaced with a heat exchanger effective Sept 12, 2004. If the ambient room temperature exceeds 30° C (86° F), then a Chiller is needed.

Table 5: Air and network connections

Other connections	Supplied by Creo	Supplied by customer[a]
Network connection (for connecting to the workflow)	Ethernet: 100 Base-T (RJ-45)	Network connection and cable long enough to reach workstation.
	FDDI: Duplex SC	
Shop air supply (dedicated branch recommended—see *Air Supply* on page 28)	0.5 in. national pipe thread (NPT) female fitting on the device	A flexible airline, 0.75 in. ID min., with 0.5 in. NPT fitting at the end for connecting to the Trendsetter VLF Autoloader. The air line *must* be capable of delivering 20 SCFM @ 90 psi. Keep the airline as short as possible and free from restrictions. If the air line is longer than 6.1 m (20 ft.), use a larger ID airline.

a. For the location of the air supply, see *Footprint and Working Area* on page 10. For further details, see *Air Supply* on page 28 and *Network* on page 31.

Site Requirements

Footprint and Working Area

Refer to Figures for the recommended work area and dimensions. Allow a recommended minimum 1830 mm (72 in.) at the front of device, and 910 mm (36 in.) at the sides of device for operator and service access.

Provide an area close to the device for storing media (for immediate use), disks, paperwork, and so on.

There are 6 configurations for the Trendsetter VLF Autoloader, each with two possible orientations, right-to-left and left-to-right. The orientation is defined as the direction in which the plate moves from cassette to conveyor when standing in front of the Guard Rail and facing the output device.

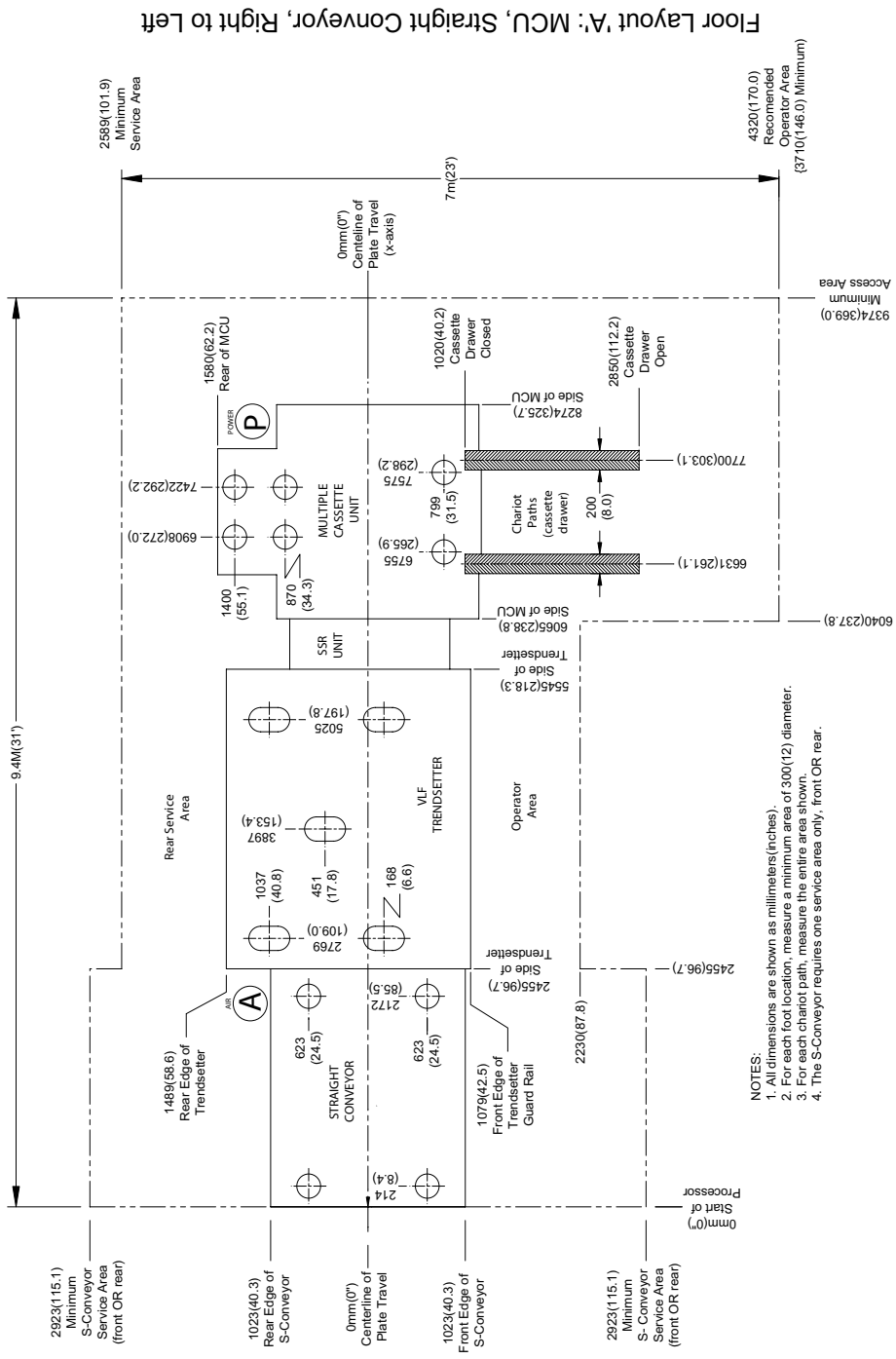
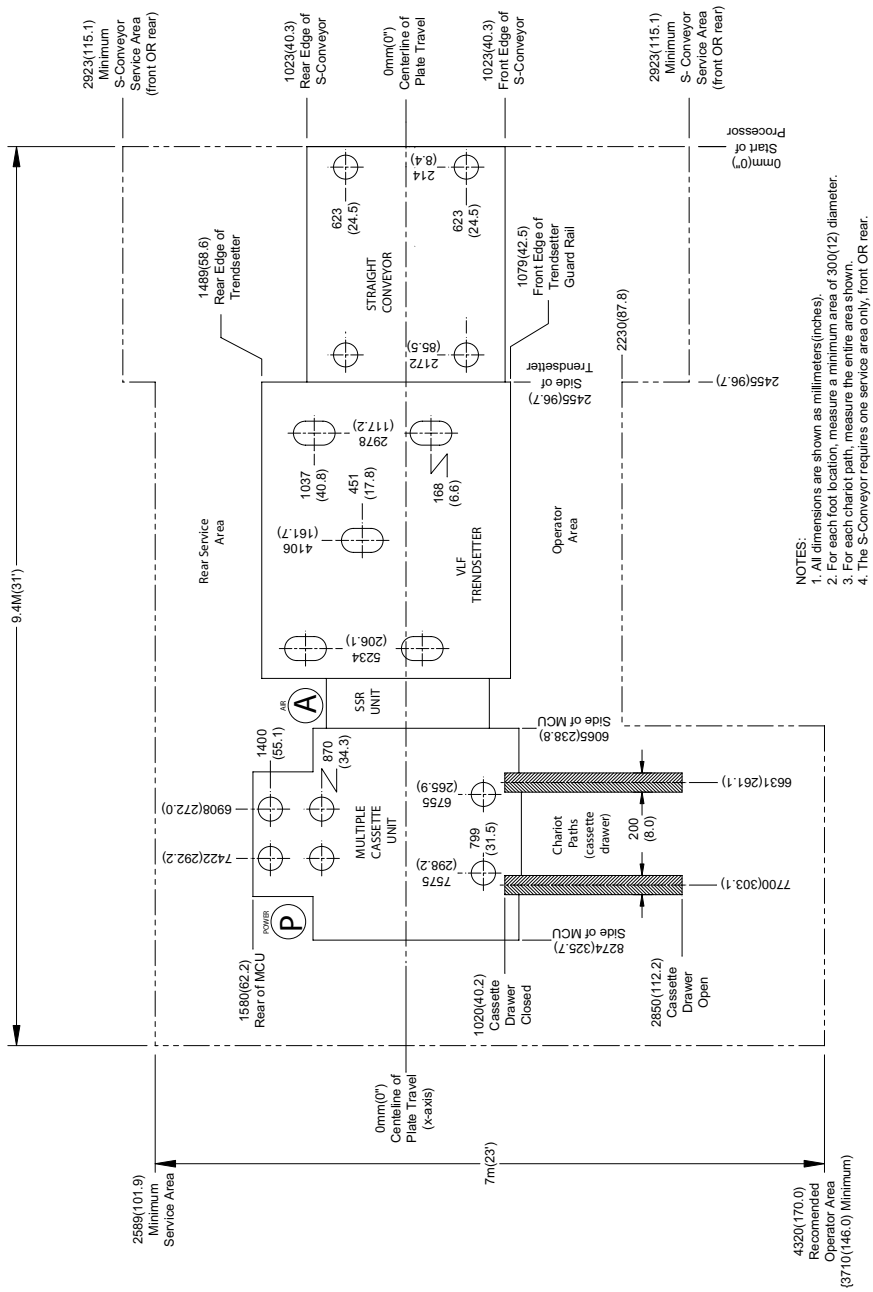


Figure 1: Floor layout A: MCU, straight conveyor, right to left

Floor Layout 'B': MCU, Straight Conveyor, Left to Right



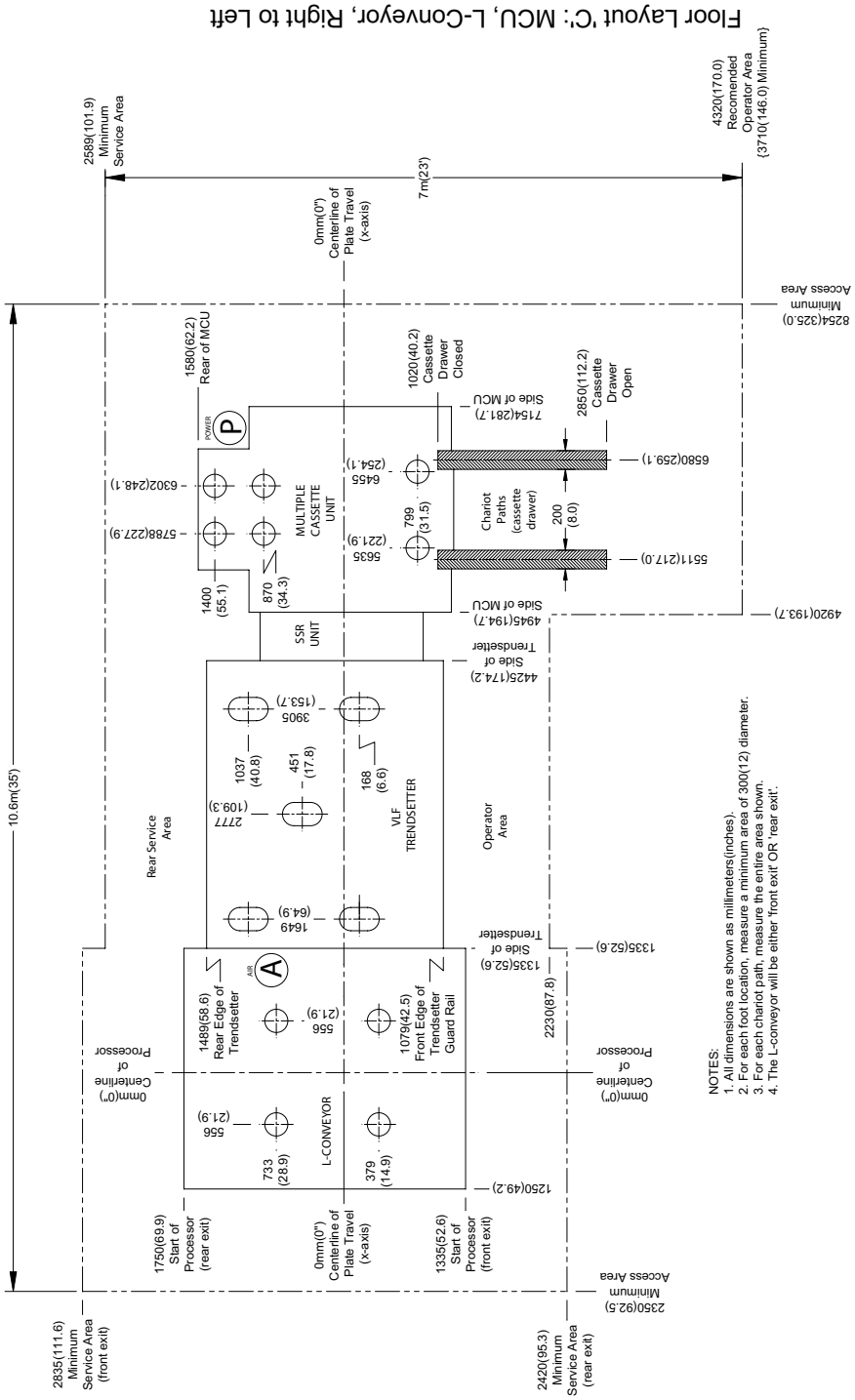


Figure 2: Floor layout C: MCU, L-conveyor, right to left

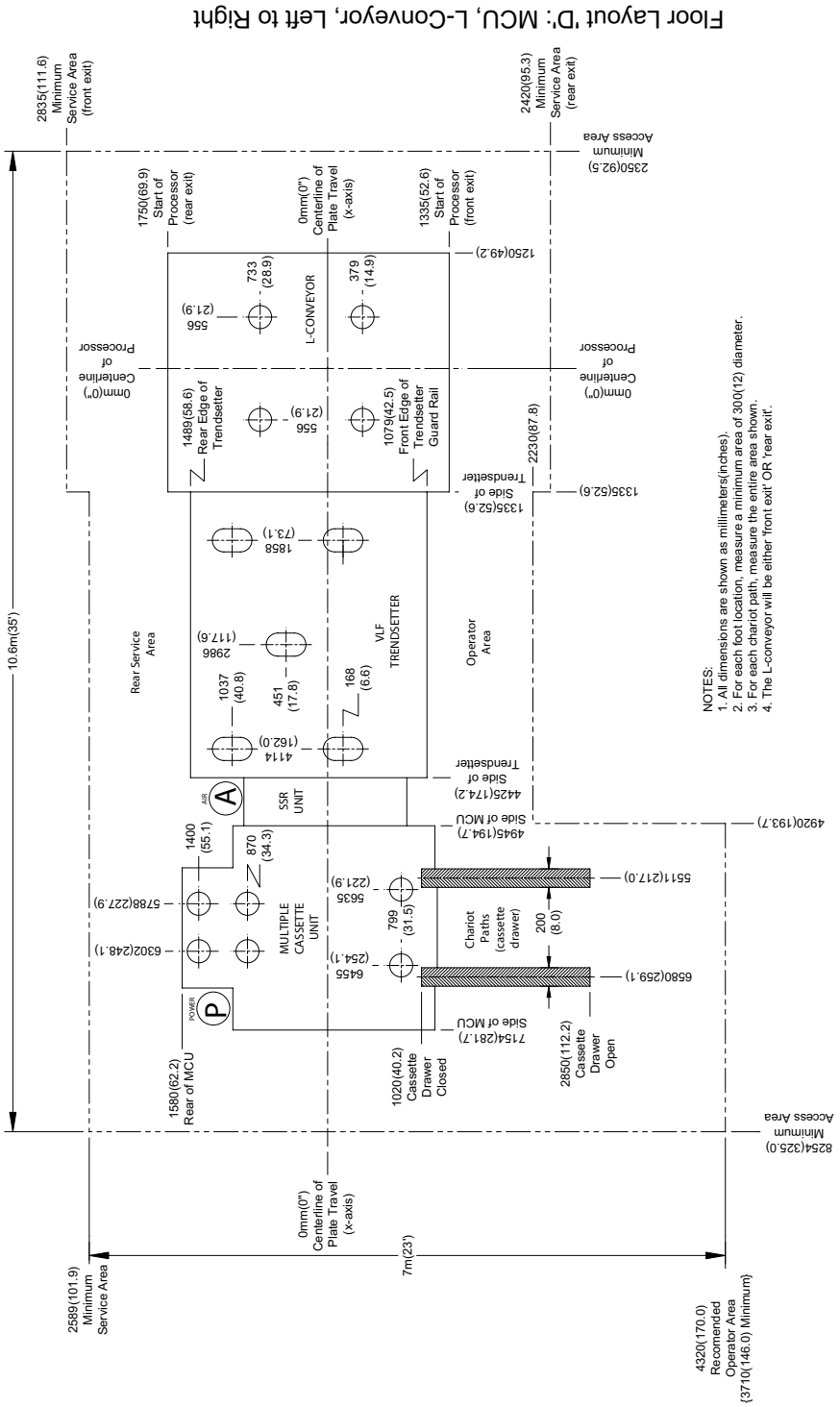


Figure 3: Floor layout D: MCU, L-conveyor, left to right

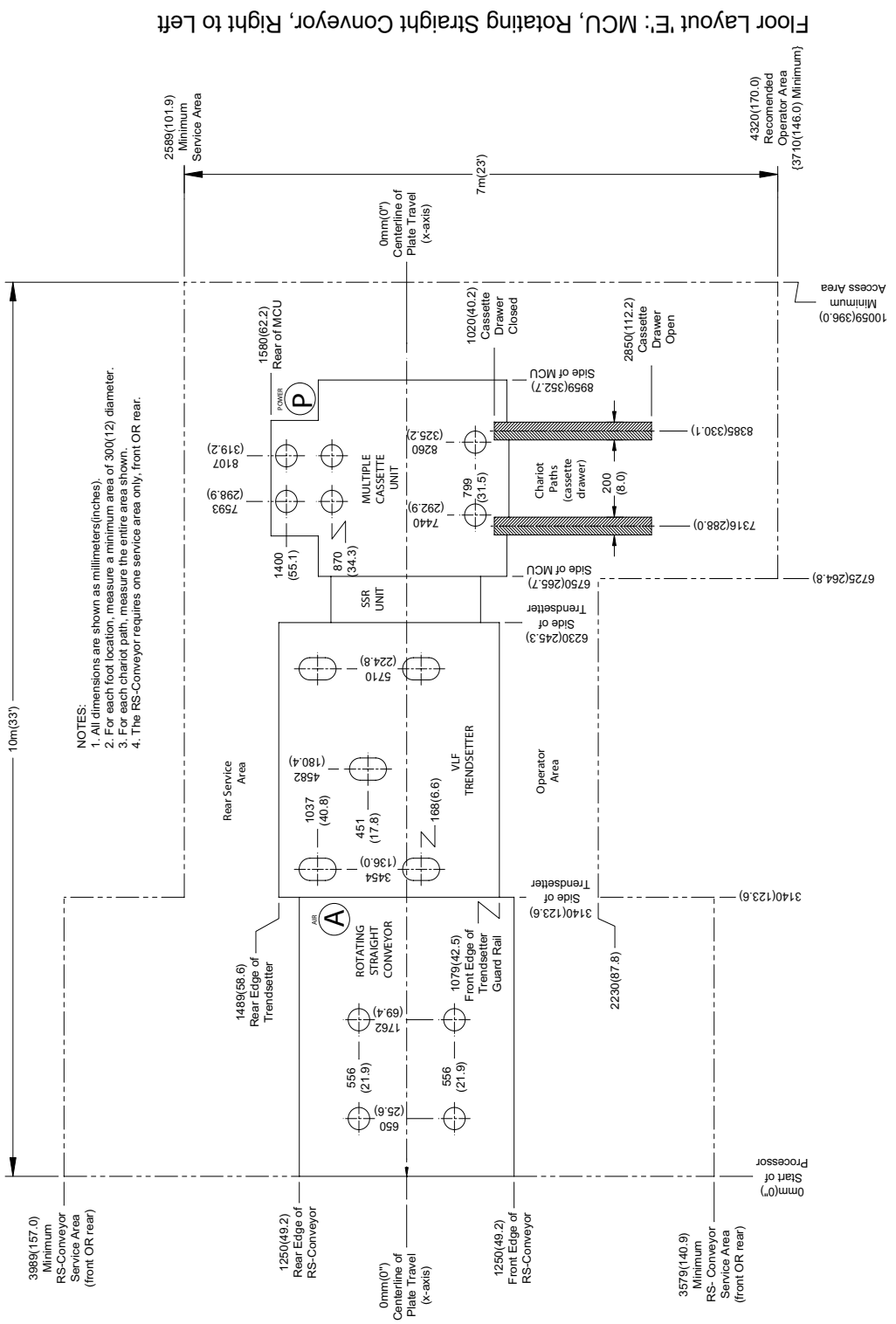


Figure 4: Floor layout E: MCU, rotating straight conveyor, right to left

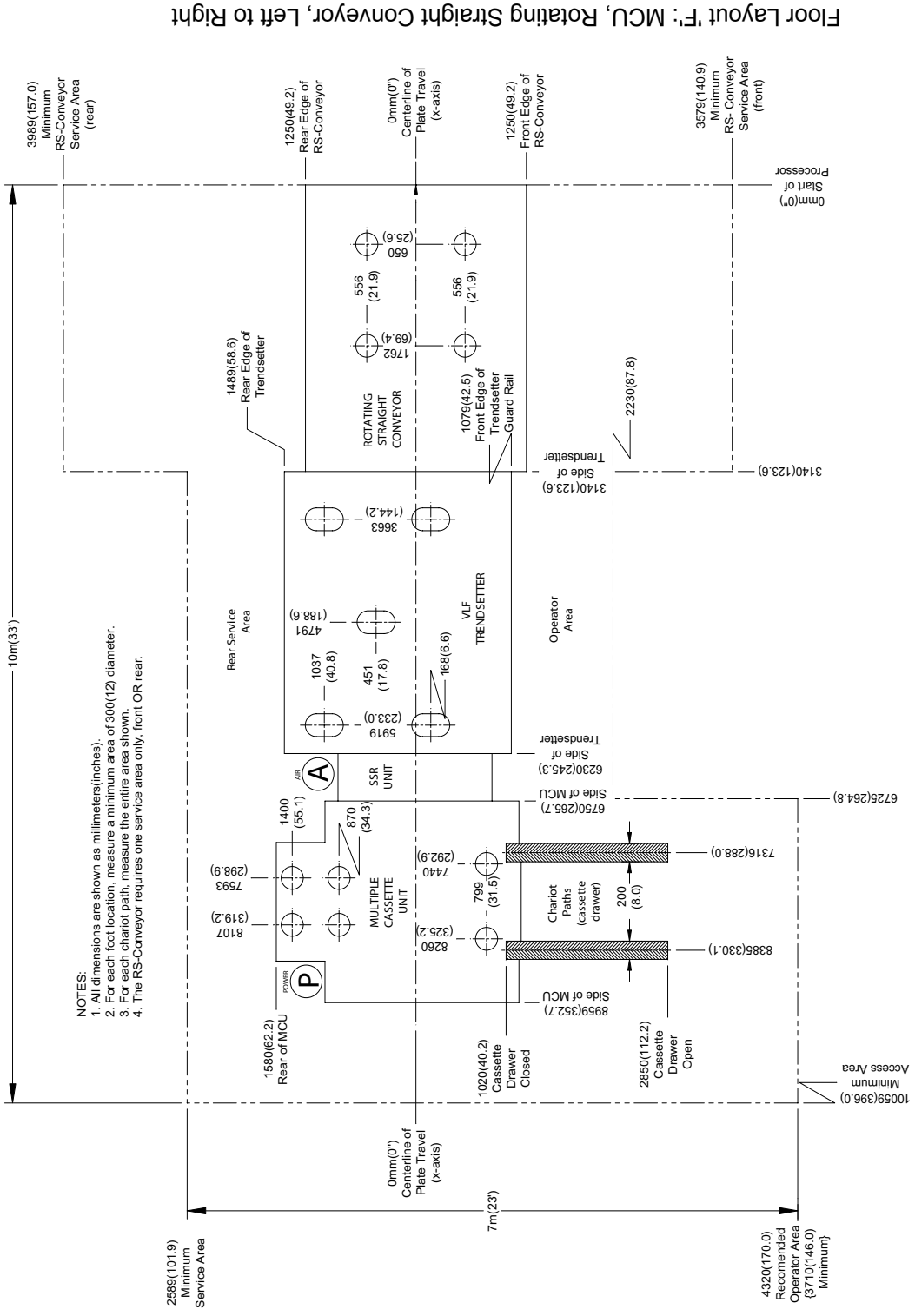


Figure 5: Floor layout F: MCU, rotating straight conveyor, left to right

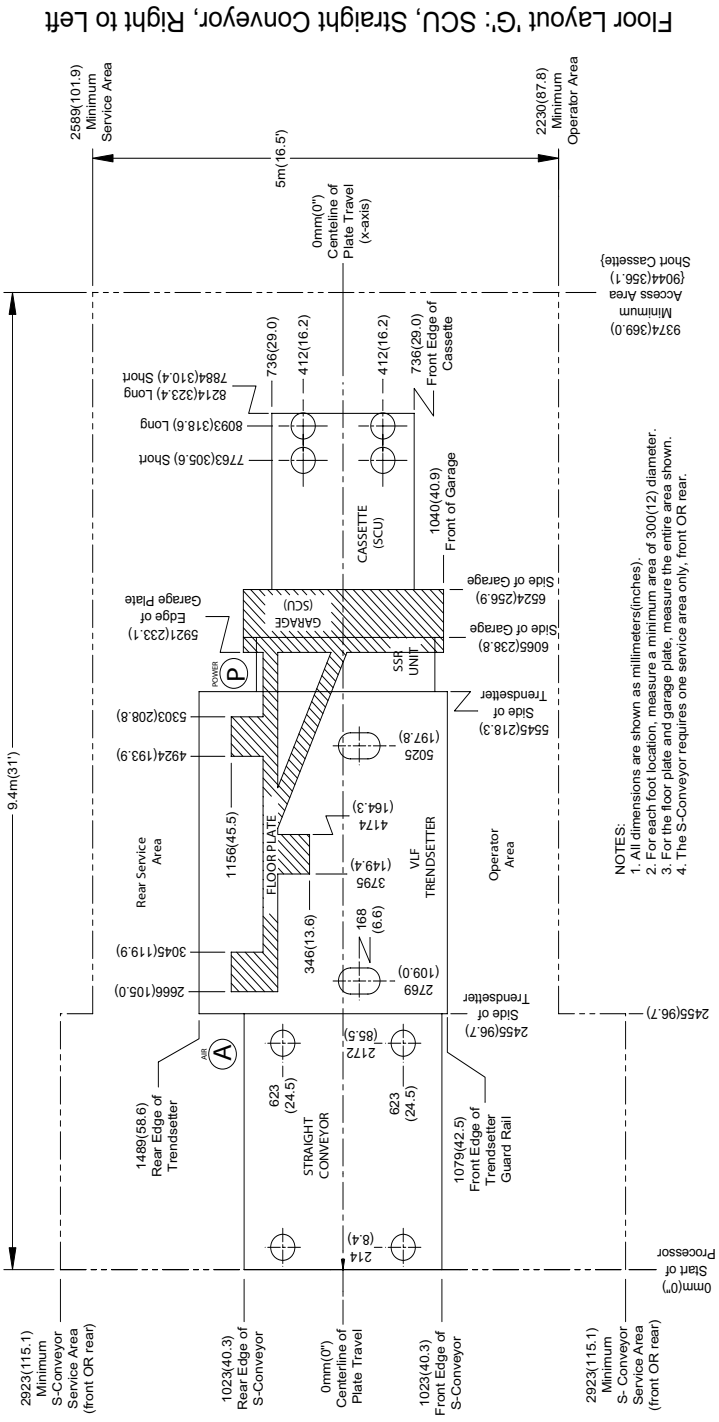


Figure 6: Floor layout G: SCU, straight conveyor, right to left

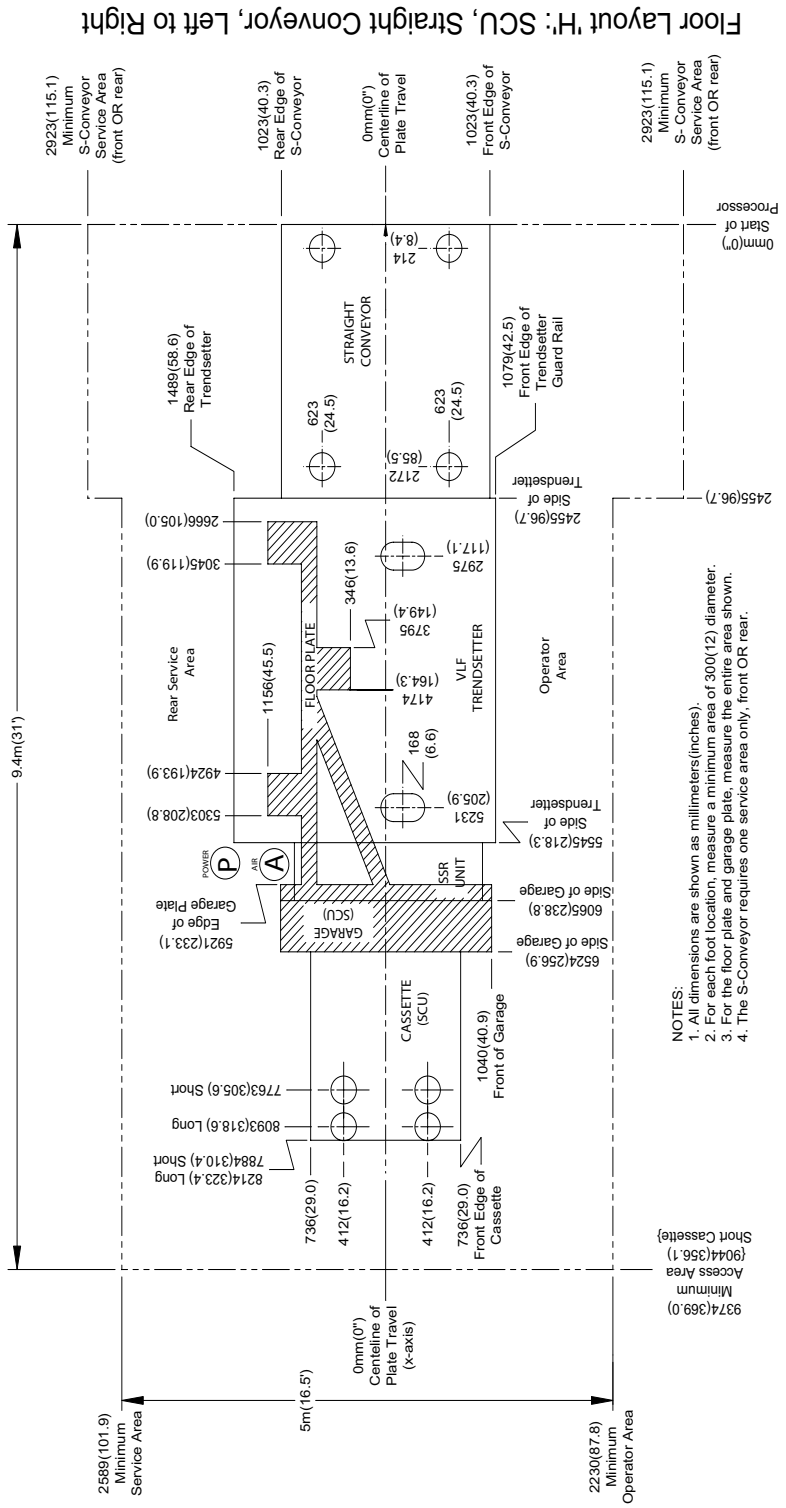


Figure 7: Floor layout H: SCU, straight conveyor, left to right

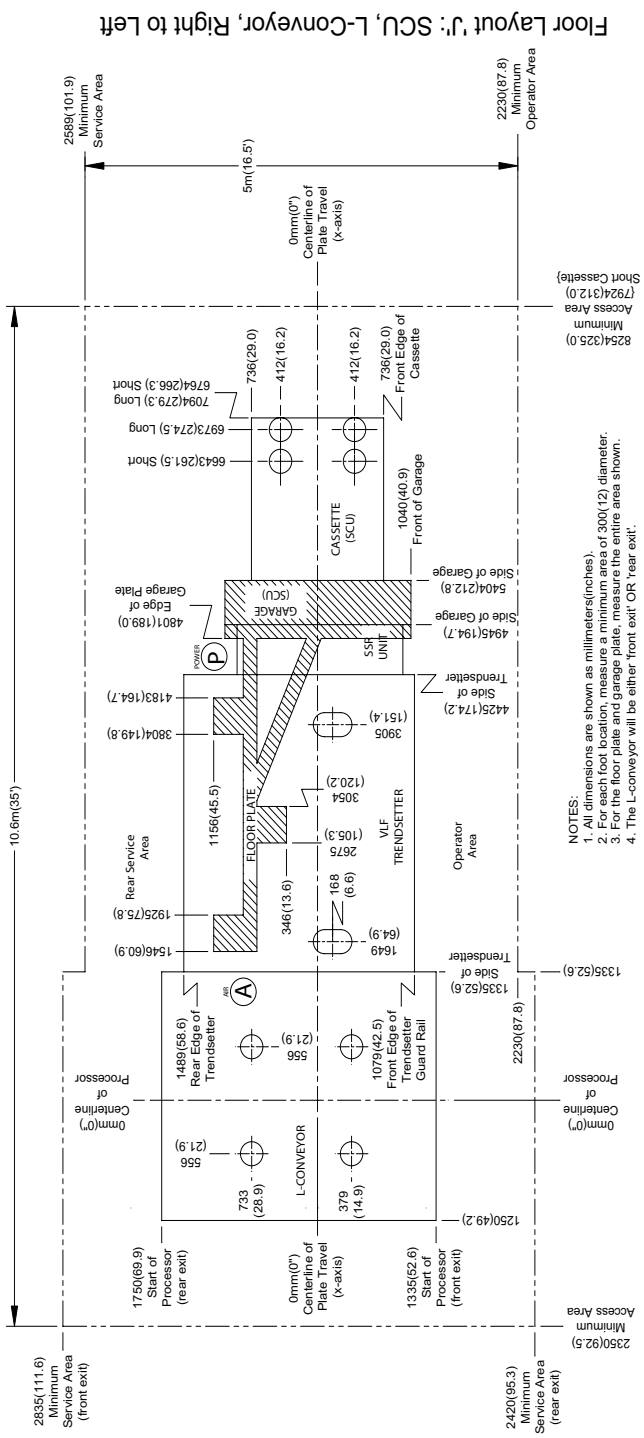


Figure 8: Floor layout J: SCU, L-conveyor, right to left

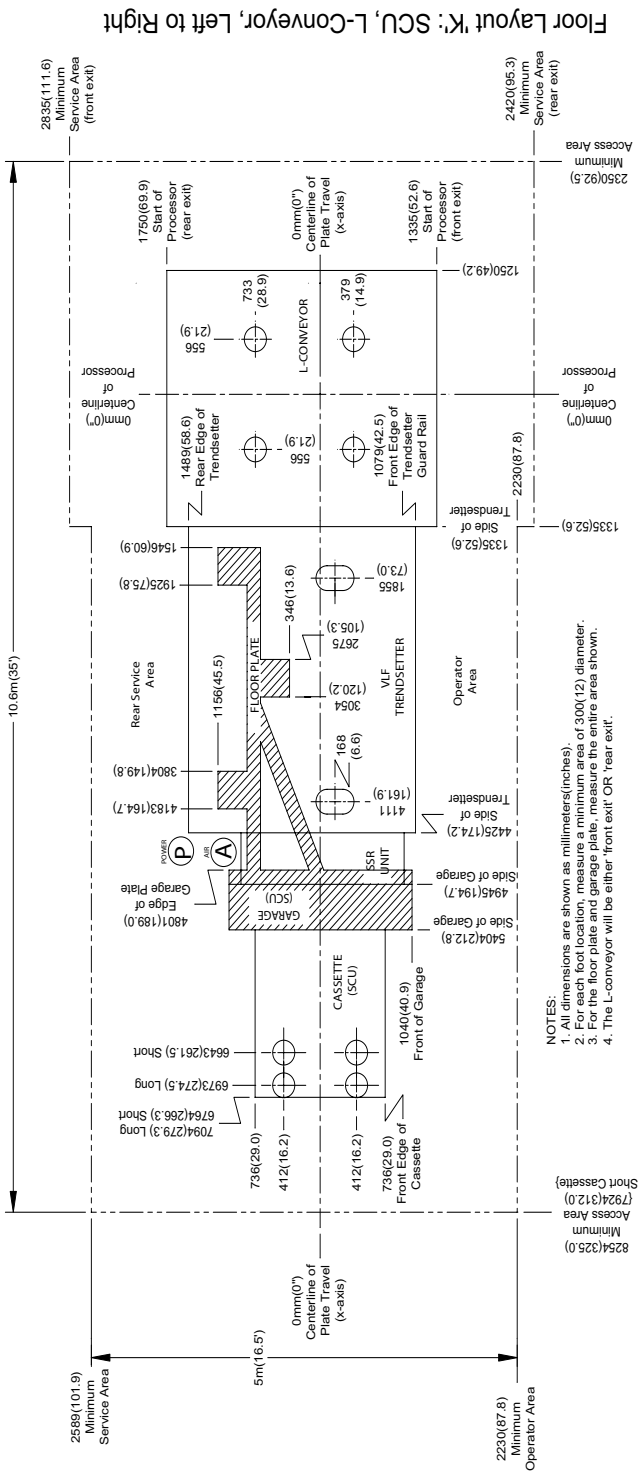


Figure 9: Floor layout K: SCU, L-conveyor, left to right

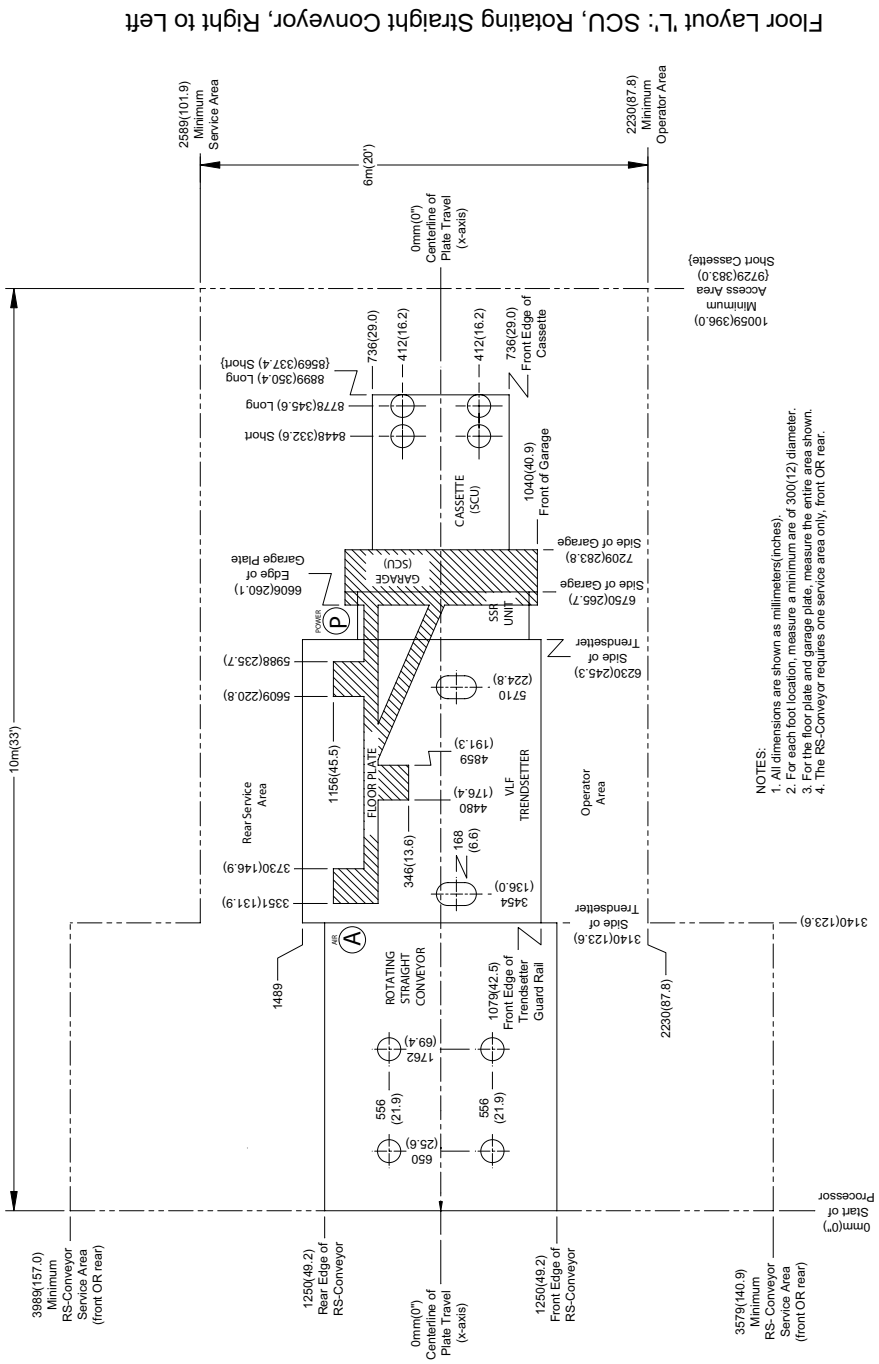


Figure 10: Floor layout L: SCU, rotating straight conveyor, right to left

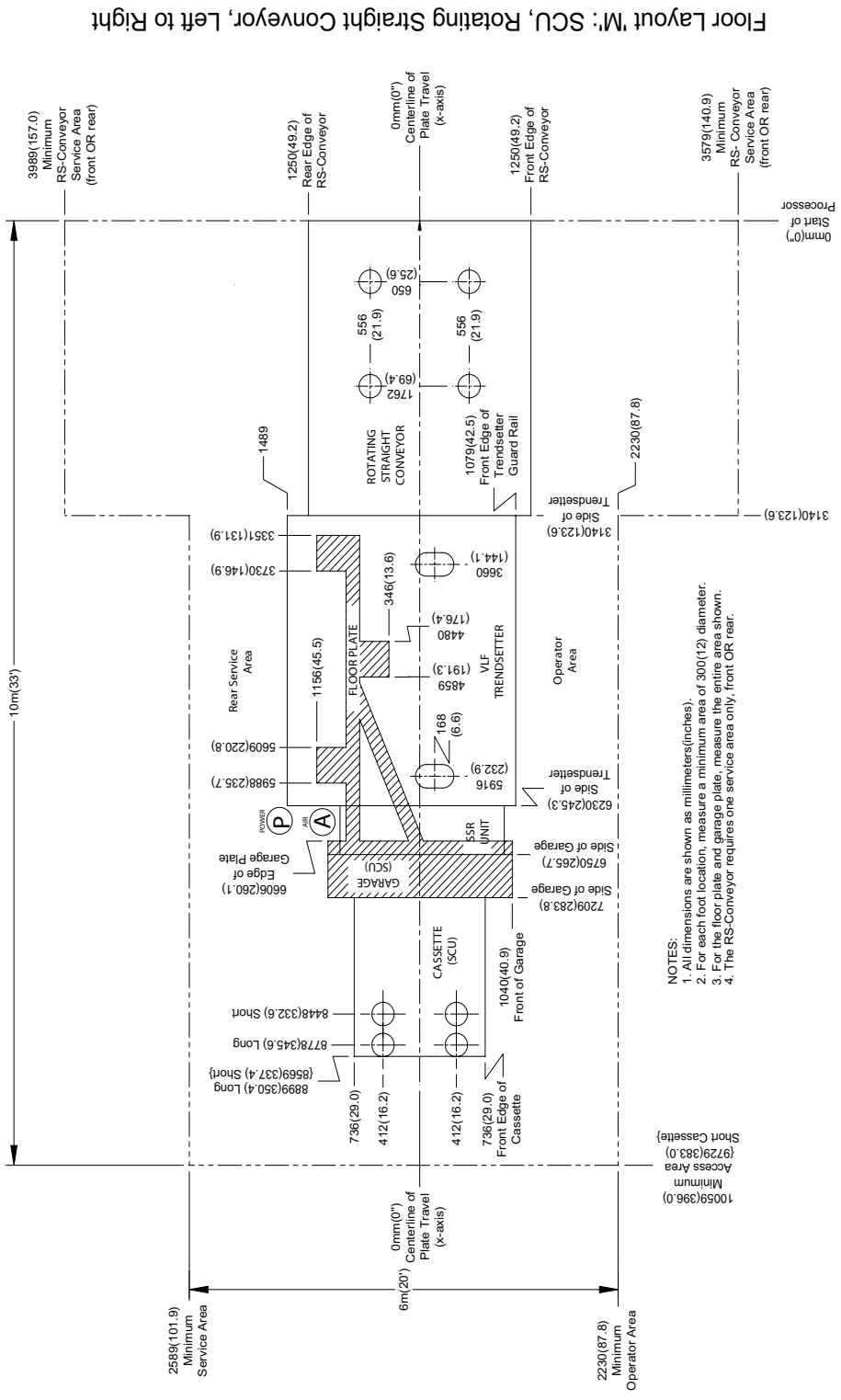


Figure 11: Floor layout M: SCU, rotating straight conveyor, left to right

Debris Removal Cabinet

Certain printing media (plates or film) may release airborne emissions during the imaging process. Creo output devices are supplied with—or may be able to be upgraded to—a debris removal system containing a collection nozzle located on the thermal head and a filtration unit, such as the Universal Debris Removal Cabinet (UDRC).



WARNING: Emissions, either particulate or gaseous, that are not properly filtered can endanger your health. For a list of airborne emissions that pertain to the media you are using, refer to the media MSDS or contact the media manufacturer or distributor directly.

The debris removal system is designed to extract and filter the airborne emissions, thus contributing to a healthier working environment, consistent image quality, and general reliability and cleanliness of the imaging device. Some types of media typically release both particulate and gaseous emissions. Other types of media, under certain imaging conditions, may release largely particulate emissions.



WARNING: Filtration of airborne emissions is not 100% efficient and must be complemented by adequate outdoor air room 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 UDRC configuration may include various filter options tailored to suit specific qualified media types. The configuration for a particular customer site is typically specified in a Creo proposal, sales agreement, order form, product specification, or equivalent document.

The cabinet must be located within the cable and hose limitations.

For more information on the debris removal cabinet, please refer to the *UDRC Site Preparation Guide* (part number 725-00089A).

Environmental Conditions

Install the system in a clean prepress area wherever possible. It is not advisable to install the device in a pressroom environment.

The operating environment for the Trendsetter VLF Autoloader device must be:

Temperature 17°C-30°C (63°–86°F)

Humidity 20%–70% RH, non-condensing



Note: Some media types may restrict the operating environment of the Trendsetter VLF Autoloader system. Consult the media manufacturer for their recommended temperature and humidity ranges for plate operation and storage.

For the UDRC operating environment, please refer to the *UDRC Site Preparation Guide* (part number 725-00089A).

Floors

The floor must be level, with a maximum incline or waviness of ±12.7 mm (±0.5 in.) across the footprint, except for the cassette, garage plate and floor plate areas (SCU only) which should have a maximum incline or waviness of only ±6.35 mm (±¼ in.). To measure the levelness and waviness of the floor, perform the procedure below using the Floor Level Gauge (90-1187)[1].

Determine the location of each foot (contact areas) by referring to the Floor Layout Drawings. Check on each contact area with the Floor Level Gauge. Also carefully check to ensure that the conveyor and cassette cart (SCU) or chariot (MCU) will be able to roll easily.

Note: The floor must be checked before installation begins. The Trendsetter VLF Autoloader may not function on an inadequate floor.

The maximum floor loading specifications for the device are:

- Maximum concentrated load: 1100 kg (2425 lb.)
- Loading pressure: 1460 kPA (212 psi) per area of one support foot
- Floor load (entire system): 209 kg/m^2 (43 lb/ft^2)
- Floor load (MCU only): 354 kg/m^2 (73 lb/ft^2)

Floor Level Qualification Procedure

This procedure helps determine whether the floor at the customer site is adequate for supporting the Trendsetter VLF Autoloader. It requires a layout drawing, a measuring tape and water level gauges (Floor Level Gauge 90-1187 can be ordered).

1. Unpack the two water level gauges and the 7.5 m (24.6 ft) hose from the carrying case, and straighten the hose out.
2. Place both gauges in a sink and fill the system with water.
3. Lift the gauges out of the water and place them together on an elevated surface (desk, table, etc).
4. Let the hose hang freely and spread out on the floor to remove any air bubbles.
5. Open the cap on each gauge (2 turns), to allow the gauges to vent. Do not remove the caps. The water in both gauges will be at an equal level.
6. Slide the external o-ring until it is centered at the water level.
7. Move both gauges to the floor, placing them near the center of the Autoloader system.

1. Any calibrated water level that is accurate to ± 3 mm can be used.

8. Leave one gauge stationary as a reference and slide the other gauge across the whole floor area.

   Watch the gauge carefully as you slide it. Mark the floor whenever the water level goes beyond the mark provided, which indicates that it is out of spec. To determine how much deviation there is; use a ruler to measure from the waterline to the center of the o-ring.

   Use the layout drawing to determine whether any floor deviation is near the support feet.

9. Drain all the water out of the gauges, tighten both caps securely, check for leaks, and place the hose and gauges back into the carrying case.

Floor Vibration

If the customer site is close to heavy car or rail traffic routes, or is near an industrial site, the device may be exposed to high levels of vibration through the floor. To check the vibration levels:

1. Hook up an accelerometer probe with a sensitivity of 1000 mV/g (such as the Kistler® PiezoBEAM® accelerometer, Model 8628B5) to a signal analyzer.
2. Attach the probe to a metallic block that is approximately 50 mm^3 (2 $in.^3$).
3. Place the block on the floor near the output device, so that vibration in the vertical direction can be measured.
4. Set the analyzer range to 0–200 Hz (x-axis) and 0–10 mg (y-axis).
5. Measure and record the floor vibration spectrum from 0–200 Hz when there are maximum peaks of seismic activity at the site.
6. Repeat step 5 at least 5 times.

   These tests will show what shock acceleration gets transmitted to the engine in the frequency range of 30 Hz to 150 Hz. If it is more than 2 mg, send the vibration spectra results to a Creo representative for further analysis.

Electrical

The dedicated branch circuit for the following components must be supplied from the same AC supply panel to ensure that both branch circuits are at the same ground potential:

- Output device main power
- External heat exchanger/chiller power
- Workstation main power

Figure 12 shows the configuration of the receptacles used by the output device and peripheral equipment.

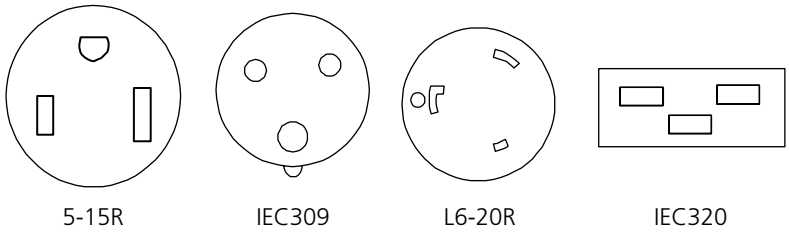


Figure 12: Receptacles used on Trendsetter devices

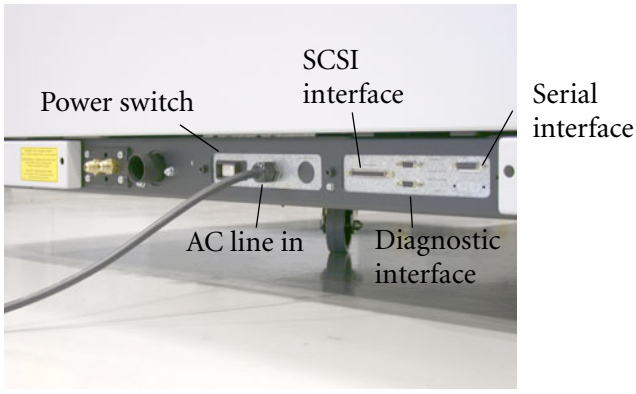


Figure 13: Power and network connections (right side of device)

Power Quality

Before installing the device, a power monitor should be placed at the site to measure power quality for one week[1]. If the power quality at the customer site is outside Creo specifications (+6%/–10%), the customer should purchase a line conditioner for the Trendsetter VLF Autoloader circuit from a local Sola/Hevi-Duti

1. Creo America has a contract with Rx Monitoring Services in Manchester, NH to provide power and environmental site surveys for the NAFTA region. The monitoring service includes voltage, current, temperature, humidity, dust and air pressure. Rx Monitoring Services will provide the equipment to be installed at the customer site for a maximum of 10 days. They will then monitor it and send a report via e-mail. Outside North America, contact your local product support specialist.

supplier. The Sola/Hevi-Duty MCR Hardwired 3000 VA series line conditioner provides adequate protection for any Trendsetter device. Outside North America, contact your local product support specialist.

If there are concerns about power quality (blackouts or brownouts) at the customer site, an online uninterruptible power supply (UPS) device can be ordered directly from a local supplier. A UPS is designed to allow the correct and complete shutdown of the device, as opposed to a line conditioner that is designed to allow the device to function for extended periods of time where the power conditions may be outside of the Trendsetter specifications.

UPS specifications are available from the supplier.

Special Precautions

The plug(s) on the power cord(s) of the workstation are intended to be the disconnect device. Therefore, the branch circuit receptacle(s) must be installed near the workstation and be easily accessible.

Heat Output

The nominal heat output of the output device itself is 2600 watts (8870 BTU/hr.), while the Autoloader components give off approximately 2600 watts (8870 BTU/hr.) of additional heat.

For heat output of the UDRC, please refer to the *UDRC Site Preparation Guide* (part number 725-00089A).

Power Line Voltage/Frequency

Line voltage at the customer site must remain within +6%/–10% of the Trendsetter VLF Autoloader rated voltage of 200 V–240 V, or between 180V and 254 V. The frequency is 50/60 Hz ±1.5%.

The electrician at the customer site should install the correct outlet to provide power to the device. The device must be powered from a different line than the workstation. Tolerances for the specified input voltages require balanced power inputs (L1–G=L2–G, or L1G=L1–N).

Power connectors must be of the locking type in North America and Industrial type B in Europe, due to the high leakage current of the equipment. Frequency is 50/60Hz ±1.5%.

Power Line Disturbances

The reliable operation of computer systems depends on the availability of relatively noise-free AC power. Lightning, line faults, or power switching commonly found in machinery, office equipment, and factory environments, can generate line transients that far exceed the peak value of the applied voltage. If not attenuated, these microsecond pulses can disrupt system operation. The power line to the machine should be run away from electrically noisy power cables. If power line disturbances are affecting the operation of the machine, the use of a power stabilizer is highly recommended.

Dips in power should not exceed 30% of nominal voltage, having maximal duration of 10 ms. Fast transient disturbances on the power line should not exceed 1.0 kV.

Air Supply

The output device requires a clean, dry air supply of 570 liters/min @ 620 kPA minimum to 830 kPA maximum (20 SCFM @ 90 psi dynamic minimum to 120 psi dynamic maximum) of shop air.[1]

If more than one output device will be hooked up to the air supply from one compressor, multiply the minimum required compressor horsepower (HP) and reservoir capacity by 1.5 for each additional output device. For example, if 2 additional devices are added to one air supply (for a total of 3 devices), the required compressor HP and reservoir capacity would be:

3 HP x 1.5 x 2 devices = 9 HP

30 gallons x 1.5 x 2 devices = 90 gallons

A screw-type or scroll-type compressor is preferred. The air supply should conform to ISO class 4.

- Maximum particle size 15 µm (<0.0006> in.)
- Concentration of solid contaminants: 8 mg/m^3 (0.000216 $oz./yd.^3$)
- Maximum pressure dew point 3°C (37.4°F)
- Maximum oil content 5 mg/m^3 (<0.000135 $oz./yd.^3$)



Note: Do not add lubricant to the compressor.

1. Guidelines for achieving these specifications for air cleanliness, volume and pressure are provided in *Air Compressors for Creo Output Devices* (part number 750-00006A).

The temperature of the air from the compressor should not exceed normal room temperature to prevent oil vapor transmission to the Trendsetter VLF Autoloader.

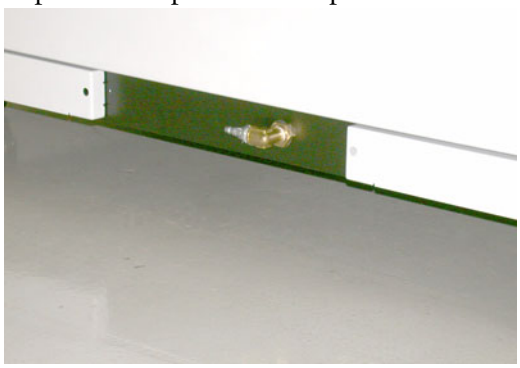


Figure 14: Air input nozzle

Note: To prevent very large quantities (a "slug") of liquid contaminants from overwhelming the air filter system, an"oil trap" may be purchased from Creo (part number 10-3765A). This trap is to be installed just upstream of the output device. Please have a professional pipe fitter perform this installation using the instructions included with the kit.

Air Supply Qualification Procedure

This procedure helps determine whether the customer's air supply is adequate for satisfactorily running the output device. It requires a measurement tool (92-0373A) made specifically to test the output device's air supply.

1. Mount the device to the end of the air hose or pipe that would normally be connected to the output device. A few extra adapter fittings and a roll of Teflon® tape have been included for this purpose.
2. Turn on the valve on the tool.
3. Record the results in Table on page 49.
4. Repeat this test two more times during the day at well-spaced intervals to confirm that the air supply is not being compromised by other machines, and so on.

The gauge must never fall below 90 psi at any time during the tests. If the air supply fails to maintain this pressure at a minimum, it is below specifications for the output device.

Ventilation

No filtration can be 100% efficient (for example, carbon monoxide is not captured by Creo filters). That is why outdoor air ventilation is required with the debris removal system. Air exhaust vents (where air is drawn out of the room) should be located as close to the debris removal cabinet and output device as possible.

The Trendsetter VLF Autoloader device requires a minimum of 1.1 m^3/min (40 cfm)[1] outdoor air ventilation. This air ventilation prevents the accumulation of airborne emissions that may be released when certain media are imaged .[2]

Outdoor air ventilation must not be confused with air circulation in the room that results from temperature control or humidity control. Outdoor air ventilation may be roughly estimated to be 10% to 30% of the air circulation rate in the room. To achieve adequate air mixing, Creo recommends at least 3 ACH (air changes per hour).

These recommendations apply to a single device with no other equipment in the room. Other imaging equipment, processors, ovens, HVAC systems, and so on, may contribute additional emissions to the work environment, increasing the amount of outdoor air ventilation required.

The customer is responsible for assessing the level of airborne emissions in the room to ensure that, upon installation of the Trendsetter VLF Autoloader, the requirements of local, state, provincial, regional, and national regulations for occupational health and safety are satisfied. In the event of any uncertainty about the levels of airborne emissions, the customer should arrange for an indoor air quality assessment to be conducted by a qualified industrial hygienist.

1. This is a default value. Certain media, such as chemistry-free media, may require higher ventilation; to check the recommended value for specific media, please refer to CTP Media Imaging Performance Database (available from your Creo representative), where it will be specified if different from default.
2. Information on the hazardous compounds released by a particular media during imaging should be available from the media manufacturer's Material Safety Data Sheet or equivalent document.

Telephone Link

The customer must maintain a "direct dial" analog telephone line that is dedicated to the workstation (no other devices sharing this line) for use with Creo dial-in support. See Tables 2–4 for the required phone jack connector. The customer should also provide a separate voice phone line to the output device location for communication with Creo service representatives during dial-in support.



Note: Remote dial-in support to the output device is dependent upon a dedicated, direct dial-in telephone line. Creo can only offer remote support to machines that do not share telephone lines with other equipment.

Network

The customer must provide a Local Area Network (LAN) to the output device for supplying files from the workstation.

See Table 5 on page 9 for supported network interfaces.

Media and Processor(s)

The customer must provide an appropriate supply of media and processor(s) with an adequate supply of development chemistry, water, and drain/electrical connections as specified by the manufacturer.

The customer must provide a list of all media sizes and types to be used.



Note: This does not apply where chemistry-free plates are being used.

Plate Registration

For optimal registration, the reference points used by the output device should also be used by plate bending and punching equipment. Refer to Figure 15 for the plate registration points.

The customer is responsible for satisfying the requirements for achieving optimal plate registration on press.

For further assistance with specifying punches and benders to be used with the Trendsetter VLF Autoloader output device, contact a Creo customer service representative.

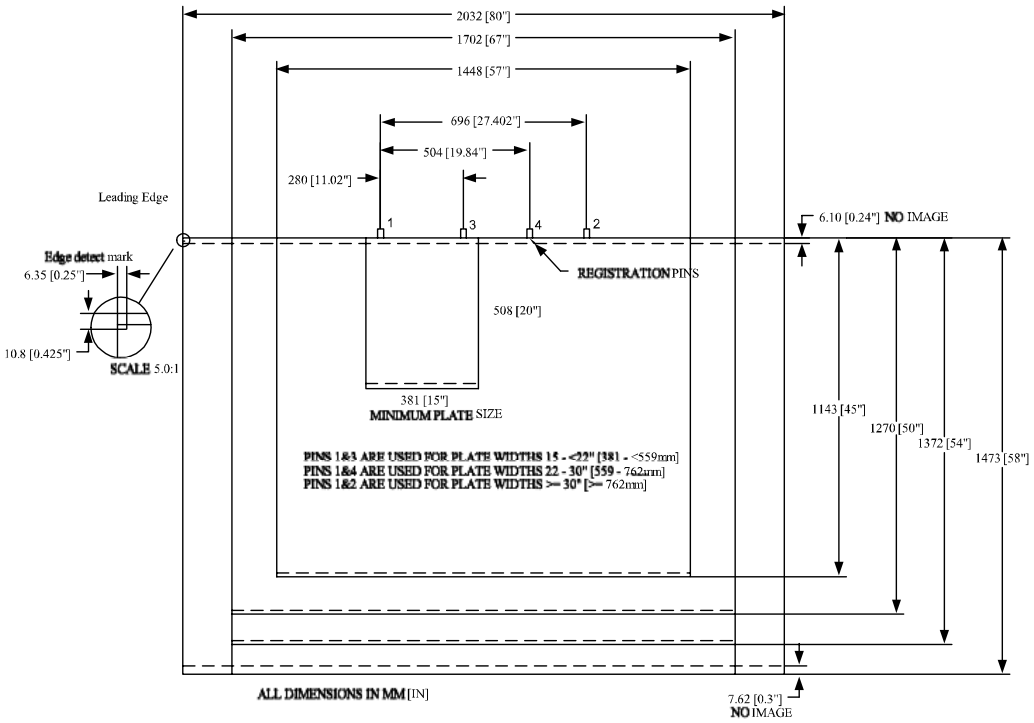


Figure 15: Plate registration points

Shipment and Delivery

Responsibilities

It is the customer's responsibility to provide Creo with delivery instructions. The customer is responsible for transporting all the shipping crates to the installation location and for unloading the shipping crates, but must not unpack them. Creo recommends that the customer use professional riggers to unload the crates. Dock level is required (a vertical distance from ground to dock of 1.2 m (4 ft.), and the ability to handle a 15.9 m (53 ft.) trailer.

Creo engineers will unpack the shipping crates and install the device.

Forklift

The customer must provide a forklift or crane with a minimum 2273 kg (5000 lb.) capacity for unloading of the equipment. The forks must be 1.8 m (6 ft.) long and no more than 152 mm (6 in.) wide, and the span must be 910 mm (36 in.).

If a Multiple Cassette Unit is being installed, the forks must be no wider than 127 mm (5 in.).

IDoors and Hallways

The customer must provide free access through doors and hallways from the entrance to the Trendsetter VLF Autoloader location so that the whole pallets can be transported to the installation location. Creo recommends that the customer furnish a drawing of the route. A minimum clearance of 2.4 m (8 ft.) wide by 2.1 m (7 ft.) high is needed to move all the crates. See *Shipping Crates* on page 34 for maximum crate dimensions.

Once the components are uncrated, they may be moved through smaller doorways. See Table 1 on page 5 for dimensions of individual components.



Note: Walk the entire route from the loading dock to the installation area. Measure all doorways, openings and aisles to ensure that there is adequate space to move all of the components safely.

Shipping Crates

The output device is normally shipped in 8-14 crates, depending on the options ordered. Table 6 lists the individual dimensions (L x W x H) and weights of air-shipped crates. Table 7 lists the individual dimensions (L x W x H) and weights of gound-shipped crates.

Table 6: Dimensions and weights of crates (air shipment)

Crate Contents	Length	Width	Height	Weight
Trendsetter VLF Autoloader output device[a]	3270 mm (128.7 in.)	2000 mm (78.7 in.)	2080 mm (81.9 in.)	1705 kg (3750 lb.)
Device upgrade (field retrofit)	3260 mm (128.3 in.)	1000 mm (39.3 in.)	640 mm (25 in.)	227 kg (500 lb)
Panels (field retrofit)	1750 mm (68.9 in.)	880 mm (34.6 in.)	1330 mm (52.3 in.)	227 kg (500 lb)
Autoloader miscellaneous	1830 mm (72 in.)	1170 mm (46 in.)	1120 mm (44 in.)	180 kg (400 lb)
Chiller	840 mm (34 in.)	640 mm (25 in.)	840 mm (34 in.)	110 kg (245 lb)
Heat Exchanger	620 mm (25 in.)	500 mm (20 in.)	920 mm (36 in.)	64 kg (141 lb)
Thermal head	840 mm (33 in.)	840 mm (33 in.)	810 mm (32 in.)	75 kg (165 lb.)
Track	4270 mm (168.1 in.)	340 mm (13 in.	540 mm (21 in.)	115 kg (250 lb)
Conveyor, straight	2540 mm (100 in.)	2260 mm (89 in.)	1320 mm (51.9 in.)	612 kg (1350 lb)
Conveyor, L-type	2410 mm (94.8 in.)	3070 mm (120.9 in.)	1250 mm (49.2 in.)	770 kg (1700 lb)
Conveyor, rotating	3070 mm (120.9 in.)	2410 mm (94.8 in.)	1250 mm (49.2 in.)	770 kg (1700 lb)
Single cassette unit - Garage	2370 mm (93.3 in.)	770 mm (30 in.)	1480 mm (58.2 in.)	250 kg (550 lb)
Single cassette unit - Cassette plus cart	2470 mm (97.2 in.)	1860 mm (73.2 in.)	1320 mm (51.9 in.)	320 kg (750 lb)
Multiple cassette unit	2930 mm (115.4 in.)	2380 mm (93.7 in.)	1880 mm (74 in.)	1860 kg (4100 lb)
Four cassettes (for MCU)	2240 mm (88.2 in.)	1860 mm (73.2 in.)	1120 mm (44 in.)	635 kg (1400 lb)

Slip sheet removal unit	2260 mm (89 in.)	660 mm (26 in.)	1370 mm (53.9 in.)	227 kg (500 lb)
Toolbox (part number 04-0018A)	1710 mm (67.3 in.)	870 mm (34 in.)	840 mm (33 in.)	250 kg (550 lb)
Workstation	Varies with configuration			
Debris removal cabinet	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).			

a. Trendsetter VLF Autoloader with an extended table, heavier counterweight, new hood, new p-door with y-axis.

Table 7: Dimensions and weights of crates (ground shipment)

Crate Contents	Length	Width	Height	Weight
Trendsetter VLF Autoloader output device	3350 mm (132 in.)	1980 mm (78 in.)	1350 mm (53.1 in.)	1519 kg (3350 lb.)
Thermal head	810 mm (32 in.)	810 mm (32 in.)	790 mm (31 in.)	45 kg (100 lb.)
Workstation	Varies with configuration			
Debris removal cabinet	Refer to the *UDRC Site Preparation Guide* (part number 725-00089A).			

A Notice

The imaging of some media may result in airborne emissions. This notice is intended to provide general information relating to these emissions only. For information specific to particular media, please refer to the media manufacturer's MSDS or other documentation.

The by-products of the imaging of printing media may include one or more of: aldehydes (formaldehyde, acetaldehyde); oxides (nitrogen dioxide, nitric oxide, carbon monoxide); volatile organic compounds and olefins (benzene, 1,3-butadiene); other gaseous compounds (hydrogen cyanide, and so on); and particulate matter (dust). This list is not comprehensive, and other compounds may be present in the emissions, depending on particular media.

To help prevent contamination and to improve reliability of imaging, the Creo output device may include a debris removal system containing a filtration unit, either internal or external (for example, a universal debris removal cabinet), corresponding to qualified media used at a particular site. Depending on the configuration of the filtration unit, the unit may trap dust only (for example, UDRC-BP), or it may trap dust and a number of gaseous by-products of the imaging process (for example, UDRC-LC). It is critical to change the filters in the filtration unit on a regular basis.

Not all emissions can be efficiently captured by filtration. Sufficient outdoor air ventilation must be provided in rooms where Creo output devices and filtration units are located. The requirements to ventilation rate are contained in either the output device *Site Preparation Guide* or another applicable document.

Creo cannot assure occupational safety under all operational conditions because of factors that are outside the control or knowledge of Creo. These factors include, but are not limited to:

- Inadequate air ventilation or poor air mixing in the imaging room, which may cause higher than expected emissions concentrations in all or parts of the room
- Imaging of media that were not qualified or pre-approved by Creo; in particular, media not qualified for use with a debris removal system or a filtration unit specified in the Creo Sales Agreement, Customer Agreement, Order Form, Service Agreement, Output Device Configuration, or similar applicable document
- Changes to the qualified printing media formulation or manufacturing process made by the media manufacturer after qualification, resulting in emissions changes (this may cause different or greater emissions than expected)
- Incorrect or incomplete specification of potential emissions to Creo by the media manufacturer, which may cause different or greater emissions than expected
- Combined action of airborne emissions from multiple compounds, which may—through cumulative or synergistic effects—cause greater than expected effects on human health
- Airborne emissions from other sources combining with the imaging system's emissions to exceed occupational health regulations or having cumulative effects on human health greater than those expected for individual emissions
- Variation in individual sensitivity to airborne emissions that may cause greater effects in susceptible individuals
- Tampering with, misuse of, or incorrect maintenance of imaging equipment or emissions safety systems, which may cause additional emissions to occur
- Non-compliance with instructions in user guides, warning labels, site preparation, or other Creo documents, which may cause excessive emissions levels
- Changes in occupational health regulations or industrial hygiene practices that may result in a system that is considered safe upon original installation, but is found to be unsafe at a later date.

Because of variables such as those listed above, many of which are in the control of the end user or the media manufacturers, Creo cannot warrant that, under all imaging system installations and operating conditions, including the use of a filtration unit, and with all media types, media will not release emissions while being imaged that an operator or other persons may find objectionable or may claim to be injurious. CREO'S ONLY WARRANTY AND LIABILITY, IF ANY, SHALL BE AS PROVIDED UNDER ITS STANDARD TERMS OF SALE OR CUSTOMER AGREEMENT, AS APPLICABLE. Neither this notice nor the *Site Preparation Guide* or other similar document is a promise or guarantee of a particular level of performance, and neither this notice nor the *Site Preparation Guide* or other similar document is a warranty of any kind whatsoever. It is the end user's responsibility to ensure continuing compliance with all Occupational Health and Safety regulations and guidelines in its work environment.

B

Site Inspection Checklist

Full completion of this checklist will greatly assist in building, delivering, and installing the Trendsetter VLF Autoloader and all its accessories.

Site Information

Company name: _____

Site address:

Shipping address:

Directions to site:

Nearest airport:

Local hotels:

Local restaurants:

Contact Information

Contact name: _____

Position: _____

Telephone/fax: _____

E-mail: _____

Prepress manager: _____

Maintenance manager: _____

Network manager: _____

Device operators: _____

_____

_____

_____

General background and computer skills of operators:



Note: All operators must be capable of running a personal computer with a Microsoft® Windows® operating system. If there are more than four operators to be trained, an extra day will be required after the installation.

Machine Usage

Number of shifts per day: _____

Shift 1 hours: _____

Shift 2 hours: _____

Shift 3 hours: _____

Shift 4 hours: _____

Media Supported

List all plate types and sizes to be used for each device.

Measurements are in:

☐ mm ☐ in.

Media type[a, b]	Plate size	Average # of plates per day	Average length of press run	Type of work (4-color; spot color; halftones; Staccato®; text only)

a. Creo-approved media only. Imaging speed can be affected if media sensitivity or processing is inconsistent with Creo's qualification testing. See your Creo representative for specific media information.

b. Some plates may restrict the operating environment of the system. Consult the plate manufacturer for their recommended temperature and humidity ranges for plate operation and storage.

Is a plate punch to be used?

☐ Yes ☐ No

Punch name and model: _____

Installation date: _____

Comments on punch condition:

Is a plate bender to be used?

☐ Yes ☐ No

Plate bender name and model: _____

Installation date: _____

Are the registration points of the plate bender and punch the same as those of the device?

☐ Yes ☐ No

Comments:

Press(es) Supported

Press name and model: _____

Processor Supported

Processor name and model: _____

Delivery date: _____

Has the customer met the power and plumbing requirements for the processor?

☐ Yes ☐ No

Comments:

Other Creo Equipment On Site

Are any other Creo products already installed?

☐ Yes ☐ No

Comments:

Will Creo be installing other new equipment during the installation of the Trendsetter VLF Autoloader?

☐ Yes ☐ No

If yes, what will be installed?	When?	Who at Creo is doing the install?

Other Non-Creo Equipment in Prepress Room

Are any other non-Creo products already installed in the prepress room?

☐ Yes ☐ No

Comments:

Planned Installations Nearby

Will any other new equipment be installed in the vicinity of the device (for example, a processing line)?

☐ Yes ☐ No

If yes, what will be installed?	When?	Who is doing the install?

Output Device Configuration

Model of output device (check the model that applies):

☐ 4557 ☐ 5067 ☐ 5080 ☐ 5467 ☐ 5880

Type of workstation ordered: _____

Type of workflow ordered: _____

Imaging Head Configuration

What type of thermal head was ordered?

☐ 20 W ☐ 40 W

Options

Which autoloader options were ordered?

☐ Single cassette unit ☐ Multiple cassette unit

☐ Slip sheet removal

☐ Straight conveyor ☐ L-conveyor ☐ Rotating straight conveyor

Extra cassettes ordered? (SCU only) ☐ Yes ☐ No

If yes, how many? _____

Cassette will be docked on the ☐ Left ☐ Right

Site Requirements



Note: Install the device in a clean prepress area.

1. Is there sufficient area for the device? Measure the available space at the site location.

   ☐ Yes ☐ No

   Comments:

2. Is the working area free from support beams or other obstacles?

   ☐ Yes ☐ No

   Comments:

3. Is the customer aware that they are responsible for transport of shipping crates from their shipping dock to the installation area?

   ☐ Yes ☐ No

4. Does the forklift to be used meet requirements? (See *Forklift* on page 33.)

   ☐ Yes ☐ No

5. Do the doors and hallways between the shipping dock and the installation have sufficient area to allow passage of the shipping crates? (See *IDoors and Hallways* on page 33.)

   ☐ Yes ☐ No

   Comments:

6. Can the receiving area accommodate a typical air ride truck—that is, does it have dock level? (See *Shipment and Delivery* on page 33.)

☐ Yes ☐ No

Comments:

7. What is the expected range of temperature that the device will be used in?

Temperature range: _____

8. Will the room's temperature control system be able to handle the heat load generated by the device and the processor line? (See *Heat Output* on page 27.)

☐ Yes ☐ No

Comments:

9. What is the expected range of humidity that the device will be used in?

Humidity range: _____

10. Will the room's humidity control system be able to handle the moisture load generated by the processor line?

☐ Yes ☐ No

Comments:

11. Is the installation area flat to the required specification? (See *Floors* on page 24.)

☐ Yes ☐ No

Comments:

12. Does the floor meet the maximum peak loading specification? (See *Floors* on page 24.)

☐ Yes ☐ No

Comments:

13. Is there large machinery or a forklift throughway inside the site, or any traffic or industry near the site that may transmit vibration to the device?

☐ Yes ☐ No

Comments:

14. What are the AC mains voltages?

AC mains voltage for workstation: _____

AC mains voltage for device: _____

15. Is power conditioning required?

☐ Yes ☐ No

If yes, has a line conditioner been ordered?

☐ Yes ☐ No

16. Is UPS required?

☐ Yes ☐ No

If yes, has the UPS been ordered?

☐ Yes ☐ No

17. Is a 20 A service (16 A in Europe) with a slow-blow fuse or breaker installed, and a dedicated ground for the device?

☐ Yes ☐ No

Comments:

18. Is the AC service for the workstation installed and originating from the same supply panel as the device AC service?

☐ Yes ☐ No

Comments:

19. Does the air supply flow (tested using air supply gauge <92-XXXXA>) meet specifications? (See the *Air Supply Qualification Procedure* on page 29.)

☐ Yes ☐ No

Record the test results below.

Air supply qualification test results

Part number of measurement tool: _____

First Test		Second Test		Third Test	
Time on	Pressure	Time on	Pressure	Time on	Pressure
10 Sec		10 Sec		10 Sec	
20 Sec		20 Sec		20 Sec	
30 Sec		30 Sec		30 Sec	
40 Sec		40 Sec		40 Sec	
50 Sec		50 Sec		50 Sec	
60 Sec		60 Sec		60 Sec	

20. Is the air supply filtered and dried as per specification? (See *Air Supply* on page 28.).

☐ Yes ☐ No ☐ Prefilter ordered

Comments:

21. Are the voice and data telephone lines installed?

☐ Yes ☐ No Modem number: _____

Comments:

22. What type of network connection is used?

_____

Follow Up

Is follow-up required?

☐ No — The location described in this document meets all criteria for a timely and successful installation of the Trendsetter VLF Autoloader.

☐ Yes — Some follow-up is required to ensure that the site requirements are met **prior** to the installation of the device.

The outstanding items from the Site Requirements list are:

Name of customer contact: _____

Telephone/fax: _____

E-mail: _____

Date of next follow-up contact: _____

Site Inspection Completed

The presite inspection was performed on _____ by a representative of Creo and witnessed by at least one representative of the customer.

Creo representative: _____

Signature: _____

☐ The Customer understands and hereby agrees to the requirements outlined in the *Trendsetter VLF Autoloader Site Preparation Guide* (part number 73-3319A-F), including any appendix attached thereto, as acknowledged by the Customer's signature herein or, alternatively, by the customer's signature on a Creo Sales Agreement, Customer Agreement, Service Agreement, Order Form, or similar applicable document.

Customer representative: _____

Signature: _____