



Tau 330 RSC, Tau 330 RSC E

Pre-Installation Guideline

Edition 08.11.2021

durst

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1 About this document

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- ▶ Make sure that this document is always accessible.
- ▶ Insert all supplements received from Durst Group AG into this document.
- ▶ Read and comply with this document and all other documents in the service documentation.

1.1 Validity

This document applies to the following systems:

- Tau 330 RSC
- Tau 330 RSC E

1.2 Purpose and target group

This document is part of the machine documentation and contains information about the site conditions and requirements for a safe and successful installation and commissioning of the printer.

This document must be handed out to the customer prior to the installation.

A filled in and signed form must be returned to Durst not later than two weeks before start of the installation.

This document is intended for the following persons:

- Durst service engineers (service engineer Durst group)
- General service technicians (service technician distributor)
- Trained customer's technicians (in-house technician)






1.3 Revisions

Edition	What is new?	Editor
23.06.2021	First edition	Kr
16.09.2021	Added information about autotransformer	Kr
08.11.2021	Updated information about exhaust connections	Kr

Tab. 1: Revisions

1.4 Symbols and markers





Symbol	Meaning
✓	Pre-requirement for an action
▶	Request for a single-step action
1.	Step within a request for a multi-step action
↪	Result of an action sequence

Symbol	Meaning
→	Cross-reference
	Blank space in command line
df _ -h	Command in terminal
 + 	Key combination or key on controller
10...24VDC	Value range from - to
Thickness: 100mm	Parameter and value
(5)	Reference to a callout on an illustration
	Lighting LED
	Flashing LED
	Note for easier or safer work

Tab. 2: Symbols and markers

1.5 Warnings


1.5.1 Types

Signal word	Meaning
 DANGER!	Immediately dangerous situation, where disregard of the safety measures will lead to death or serious injury.
 WARNING!	Potentially dangerous situation, where disregard of the safety measures may lead to death or serious injury.
 CAUTION!	Potentially dangerous situation, where disregard of safety measures may lead to minor injury.
 NOTE!	Potentially dangerous situation, where disregard of safety measures may lead to damage to property.

Tab. 3: List of signal words

1.5.2 Structure

Warnings are structured as follows (shown here as an example: the warning level "WARNING"):

-  **WARNING! Type and source of the hazard**
- Consequences of the hazard.
- ▷ Measure for avoiding the hazard.

2 Shipping and transport

2.1 Site specifications

Parameter			
Loading ramp		<input type="radio"/> Yes	_____ (height)
Transport way	appropriate	<input type="radio"/> OK	<input type="radio"/> NOT OK
Min. door opening	Min. height 2250 (7'5")	<input type="radio"/> OK	<input type="radio"/> NOT OK
[mm (ft)]	Min. width 2000 (6'7")	<input type="radio"/> OK	<input type="radio"/> NOT OK
Min door opening	(Transport way)	width x height

Tab. 4: Site specifications

2.2 Machine room

Parameter			
Space required	Minimum 6m x 4.5m up to 9m x 4.5m depending on printer version check drawings (→ Chapter 6, p. 21)	<input type="radio"/> OK	<input type="radio"/> NOT OK
	Room size	m x m
Minimum room height	3000 (9'10")	<input type="radio"/> OK	<input type="radio"/> NOT OK
[mm (ft)]			
Required floor loading capacity	Min. 50N/cm ² (325N/sq.in.)	<input type="radio"/> OK	<input type="radio"/> NOT OK

Tab. 5: Machine room specification

2.3 Dimensions

For the dimensions of the machine parts see the drawings (→ Chapter 5, p. 19) in this document.

2.4 Weight

2.4.1 Shipping by truck

The optional ordered parts (external cooling system or external winders) are packed on separate pallets.

If both winders are ordered, they are packed on one pallet.

Printer part	Weight
Printer [kg (lb)]	3300 (7300)
Printer + wooden pallet [kg (lb)]	3700 (8200)
External cooling system + wooden pallet [kg (lb)]	150 (330)
External un- or rewinder + wooden pallet [kg (lb)]	350 (770)
External unwinder + external rewinder + wooden pallet [kg (lb)]	650 (1430)

Tab. 6: Shipping weights truck

2.4.2 Shipping by sea or air freight

All ordered parts are packed onto one pallet and covered with a wooden box.

Printer part	Weight
Printer [kg (lb)]	3300 (7300)
Printer + wooden box [kg (lb)]	4300 (9500)
Printer + external cooling system + wooden box [kg (lb)]	4600 (10100)
Printer + external cooling system + wooden box + external unwinder + external rewinder [kg (lb)]	6300 (13900)

Tab. 7: Shipping weights air or sea freight

2.5 Forklift standard

All necessary equipment to move the unit (forklifts, heavy duty rollers, transport rolls, hydraulic jacks) must be supplied by the customer.

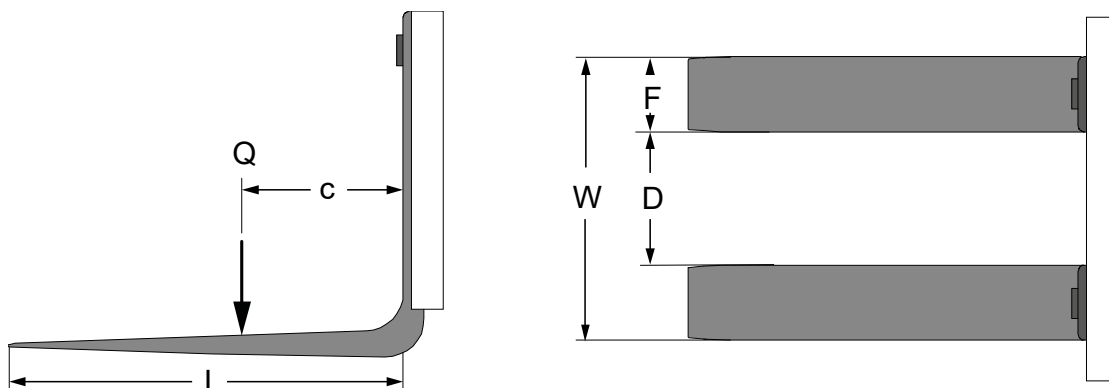


Fig. 1: Forklift dimensions

Parameter	Value
Capacity [kg (lb)]	6000 (13300)
l (min. fork length) [mm (ft)]	2000 (6'7")
w (min. fork dist.) [mm (ft)]	1800 (5'11")
f (max. fork width) [mm (in)]	200 (8)

Tab. 8: Forklift standards



NOTE! Handling of the unit with crane!

- ▷ Contact Durst Service Department since special equipment and instructions are needed for it.








2.6 Storage

The lowest storage temperature prior to the installation is 4°C (40°F), the highest storage temperature is 40°C (104°F).




The maximum period of storage depends on the shipping method. Contact Durst customer service for detailed information.

3 Requirements for printer

3.1 Power supply

-  Ask your local authorized electrician for
 - Specifying the power supply cables and the safety switches or devices to match the national electrical safety regulations.
 - Carrying out the main power connection of the unit (mandatory)
-  The Durst system is built for solidly earthed neutral supply systems only!
(European systems TN-S, TN-C, TN-CS or American WYE systems)
-  An IEC approved disconnecting device to disconnect all phases (incl. neutral) simultaneously is already mounted on the printer.
-  It is recommended to install a leakage-current device. The leakage-current device must be **500mA type B, all-current sensitive!**
Check this with your local authorized electrician!
-  The Tau 330 RSC, Tau 330 RSC E is built for fixed main connection only. The power cords must enter the unit in the area described in the drawing (→ Chapter 5, p. 19) in this document.
-  The connection of the Tau 330 RSC, Tau 330 RSC E (and the autotransformer) to the main power must be carried out by an authorized local electrician!
All needed cables and connection parts must be supplied by the customer.
All power cords must be IEC/UL approved!
Use copper cables only!
For USA and Canada: The installation must be done according to NEC requirements.
-  If something in electrical installation will be modified after the system was installed, warranty will be void!

Following main power supply is required:




-  Main power must be available at any time (24/7)!
-  If the local available power supply does not fit to the requirements, the customer must provide equipment to fulfill the needs. For some main supplies, transformers can be ordered together with the printer (→ Chapter 3.2, p. 11).
-  A backup fuse with the correct rating (see tab below) must be installed close to the machine. The backup fuse is not supplied with the machine. Check this with your local authorized electrician!

Parameter	Value
Phases	3ph+N+PE
Voltage [V]	230 / 400 ($\pm 10\%$)
Frequency [Hz]	50 / 60
Max. power input [kVA]	30
Max. current per phase [A]	50
Backup fuse (field provided) [A]	60
SCCR value	10kA rms symm.

Tab. 9: Main power supply Tau 330 RSC, Tau 330 RSC E

3.2 Transformer


The following transformer can be ordered together with the printer.

-  There are no cables delivered together with the autotransformer!
-  The autotransformer is built for 2 different supply voltages – the correct supply voltage must be set during installation of the printer.
-  Following table shows the power supply parameters of the installed configuration (Printer + external cooling system) from the autotransformer to the main power supply.

Parameter	Value	Value
Phases	3ph + PE	3ph + PE
Voltage [V]	208 ($\pm 10\%$)	480 ($\pm 10\%$)
Frequency [Hz]	50 / 60	50 / 60
Max. power input [kVA]	37	37
Max. current per phase [A]	120	50

Tab. 10: Main power supply autotransformer




3.3 Air supply

-  Availability of air pressure must be always assured (24/7)!

Parameter	Value
Pressure [bar (psi)]	6.5 – 7.5 (95 – 109)
Max. consumption [l/min (gal/min)]	250 (66)
Class	Particle 2, Water 4, Oil 3
Connection type	Coupling standard MIGNON (adapter for 8mm / 315mil tube is delivered with the machine)
Location of the connection	Top of the machine. Check drawing (→ Chapter 5) in this document.
Min. tube inside diameter [mm (mil)]	8 (315)
Max. tube length [m (ft)] for 8mm / 315mil tube	20 (66)

Tab. 11: Air supply specification

3.4 Exhaust

-  To prevent from over temperature problems and to exhaust possible exhalations the installation of a ventilation system must be done.
-  Exhaust tubes, pipes are not supplied with the machine and must be organized by the customer.
Exhaust fan for the printer unit is not supplied with the machine and must be organized by the customer.
-  A floating contact inside the machine is available which can be used to control the exhaust fan.





Parameter	Value
Performance of air on machine output [m³/h (cu. ft/h)]	Min. 1 x 1500 (53000) – UV-lamps Min. 1 x 500 (18000) – Corona Unit (optional)
Connection diameter of exhaust tubes [mm (in)]	1 x 200 (8) - UV-lamps 1 x 100 (4) - Corona Unit (optional)
Location of the connection	Top of the machine. Flanges are delivered with machine. Check drawing (→ Chapter 5) in this document.

Tab. 12: Ventilation

3.5 Environment conditions

Parameter	Value
Max. altitude (above sea level) [m (ft)]	2400 (8000)
Temperature range [°C (°F)]	18...28 (64...82)
Relative air humidity [%]	40...70 - non-condensing
Ventilation [m³/h (cu. ft/h)] fresh air needed at input of machine room	Min. 1 x 2000 (70000)

Tab. 13: *Environment conditions*

-  Additional measures (air conditioning, air humidifier, ...) might be necessary to fulfill the environment conditions. Make sure that these measures do not influence directly the printer (e.g. air conditioning blowing cold air directly to printer).
-  To avoid odor in the machine room a ventilation with fresh air is necessary. We recommend an air exchange rate inside the Tau room of 4 x size of room per hour.
-  The printer must be protected from dust (especially in production areas with grinding machines).
-  To avoid printing defects caused by wrong tempered material, the material must be stored under printer room conditions for at least 12 hours before it is loaded to the printer.

3.6 Network connections and Durst Workflow

3.6.1 Network connections

There is 1 network port located on the printer where the printer must be connected to the customer LAN.

An additional computer set (workstation, monitor, keyboard, mouse) is sent with the printer, where the Durst Workflow software is running on.

This workstation must be connected to the customer LAN.

Main requirements:

- Internet access on all computers to be able to do remote support.
- All network components between Durst Workflow and the printer must have **a minimum data transfer rate of 1Gbit/s**.
For fast network transfer speed (especially for printers with VDP option), a transfer rate of 10Gbit/s is recommended.
- Network specialist must be available during the installation to perform connections to the local network and for the internet connection.

Parameter	Value
Network cable specification between Durst Workflow and Printer-Unit (cables are not supplied with the printer)	Cat6
Minimum data transfer rate of network components for connection via LAN (switches, ...)	1Gbit/s
Recommended data transfer rate	10Gbit/s
Number of needed IP addresses (fixed addresses):	
Without Remote Device Management system	3
With Remote Device Management system	4

Tab. 14: Network specification

3.6.2 Durst Workflow

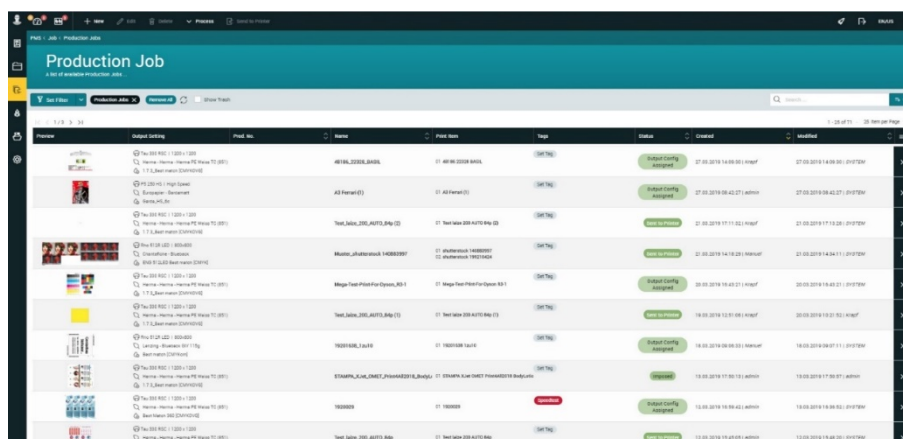


Fig. 2: Durst Workflow

The Durst Workflow software is responsible for file preparation.

A separate workstation is delivered with every printer, where the software is installed.

The software has a web-based user interface that can be accessed from any computer in the local network via a browser (Google Chrome). It is recommended to install the Durst Workflow workstation (tower, monitor, keyboard, and mouse) in the prepress department or in a server room.

Workflow plugin for Adobe Illustrator

A detailed description about system requirements and compatibility of the Workflow plugin can be found in the Workflow Online User Manual following the link:

<https://en.help.durst-group.com/m/81646/l/1126780-system-requirements-and-compatibility>

3.6.3 Durst Analytics

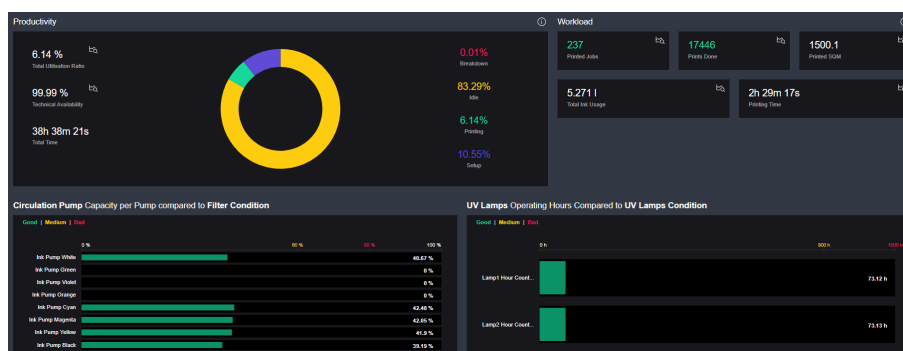


Fig. 3: Durst Analytics

Durst Analytics is a system that analyzes the status and productivity of the printer.

The prepared and anonymized data can be accessed in the local area network via a web browser. On an active internet connection, the data is also forwarded to central Durst Analytics Server which is located at Durst Group AG in Brixen.

3.6.4 Remote Device Management system

The Secomea SiteManager is an industrial IoT gateway to enable remote maintenance.

In case of a machine breakdown the printer operator can unlock the gateway with key-lock-switch.

If the gateway is enabled, the Durst Service stuff can establish a remote connection to the printer internal network.

At the end of the service request the gateway is closed by the printer operator to prevent from unattended access.



Fig. 4: Secomea SiteManager

Required firewall rules

By default, the SiteManager will automatically try a series of different methods and protocols to connect to the GateManager address (internet).

At least one of the ports must not be blocked in the firewall:

Parameter	Specification
GateManager address	83.175.114.21
PORT	<ol style="list-style-type: none"> 1. ACM/PXP (port 11444 TCP) 2. HTTPS/TLS (port 443 TCP) 3. TLS over HTTP (port 80 TCP) 4. TLS via Web-proxy 5. HTTP via Web-proxy

Tab. 15: Open firewall ports for Secomea remote maintenance

4 Requirements for external cooling system (chill roller option)

4.1 Dimensions

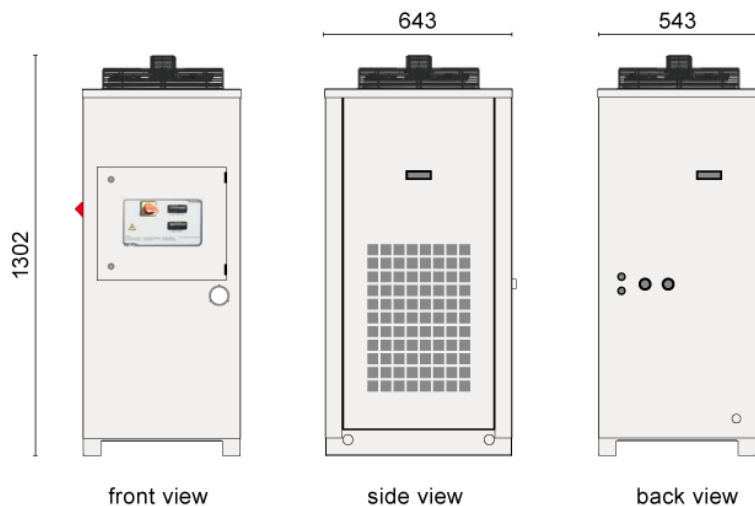


Fig. 5: Dimensions of external cooling system in [mm]

4.2 Placement

The external cooling system stands on its own supporting pillars.

The maximum distance between the cooling system and the Tau 330 RSC, Tau 330 RSC E is 15m (50ft) (length of cables and tubes delivered with the printer). The maximum difference in height is 7m (23ft).

The cooling system must be installed in an area where the temperature stays in a range of 15...40°C (59...104°F).

There must be a space of at least 1m (3 ft) around the cooling system to ensure a proper air circulation.

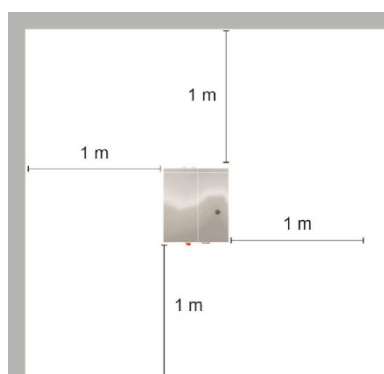








Fig. 6: Space requirement for external cooling system

The area above the cooling system must be free to ensure a good air exhaust with the fan.

The connections (supply voltage, cooling liquid connections, signals to printer) are on the back side of the unit.

4.3 Power supply

-  Ask your local authorized electrician for:
 - Specifying the power supply cables and the safety switches or devices to match the national electrical safety regulations.
 - Carrying out the main power connection of the unit (Mandatory).
-  The system is built for solidly earthed neutral supply systems only.
(European systems TN-S, TN-C, TN-CS or American WYE systems)
-  An IEC/UL approved master switch to disconnect all phases (Incl. neutral) simultaneously is already mounted on the unit.
-  The external cooling system is built for fixed main connection only. The power cords must enter in the back side of the unit.
-  It is recommended to install a leakage-current device. The leakage-current device must be **500mA type B, all-current sensitive!**
Check this with your local authorized electrician!
-  In case an autotransformer is used to connect the external cooling system to the power supply, the external cooling system must be connected to the same autotransformer which is used for the Tau 330 RSC, Tau 330 RSC E.

Following main power supply is required:

Parameter	Value
Phases	3ph+N+PE
Voltage [V]	230 / 400 ($\pm 10\%$)
Frequency [Hz]	50 60 Correct version must be ordered!
Max. power input [kW]	6
Max. current per phase [A]	14
Max. cable length [m (ft)]	50 (164)

Tab. 16: Main power supply

5 External unwinder / External rewinder (optional)

5.1 Dimensions

The unwinder and the rewinder have the same footprint dimensions. The values in the drawings below fit for both devices.

5.1.1 Front view (unwinder)

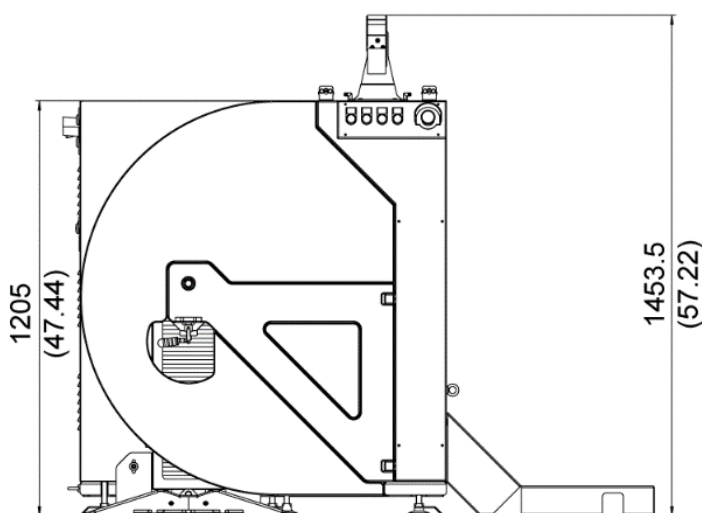


Fig. 7: Dimensions of external winder front view

5.1.2 Top view (unwinder)

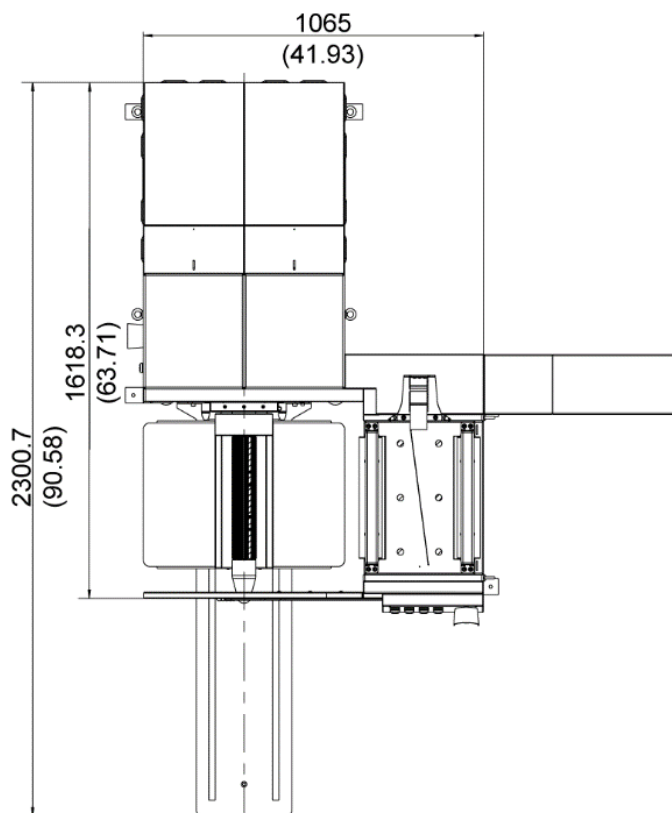


Fig. 8: Dimensions of external winder top view

5.2 Shipping and transport

See → Chapter 2.4, p. 8 for shipping weights.

5.3 Supplies and connection

The external unwinder and rewinder are supplied and controlled from the Tau printing unit.

Supply cables for electrical supply and tubes for compressed air are delivered with the system. Bus cables and signal cables are delivered with the system. Cable trays for guiding the cables and tubes between the units are delivered with the system.

5.4 Adjustment feet (unwinder bottom view)

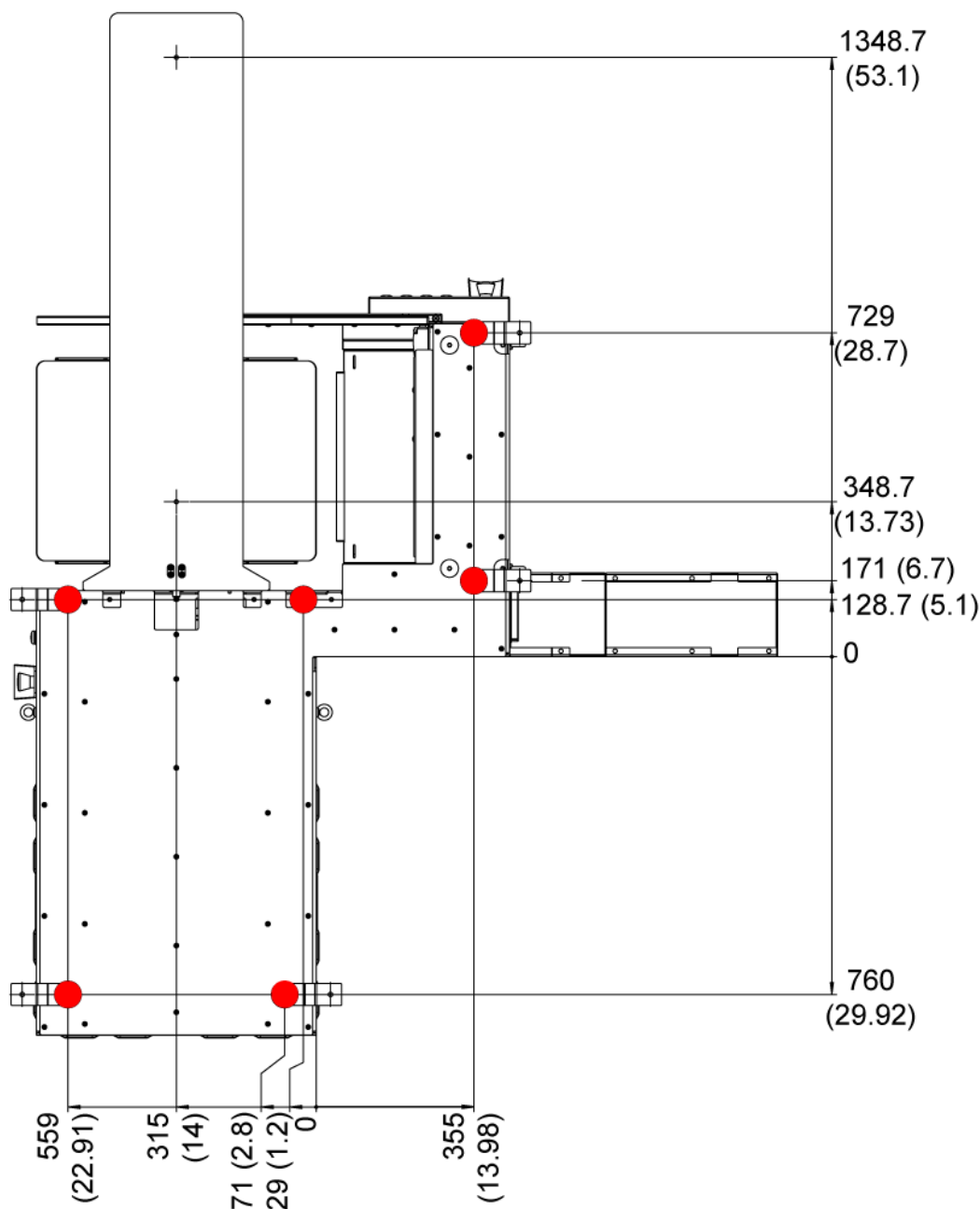


Fig. 9: Adjustment feet unwinder

6 Dimensions / space requirements

6.1 Working space (top view)

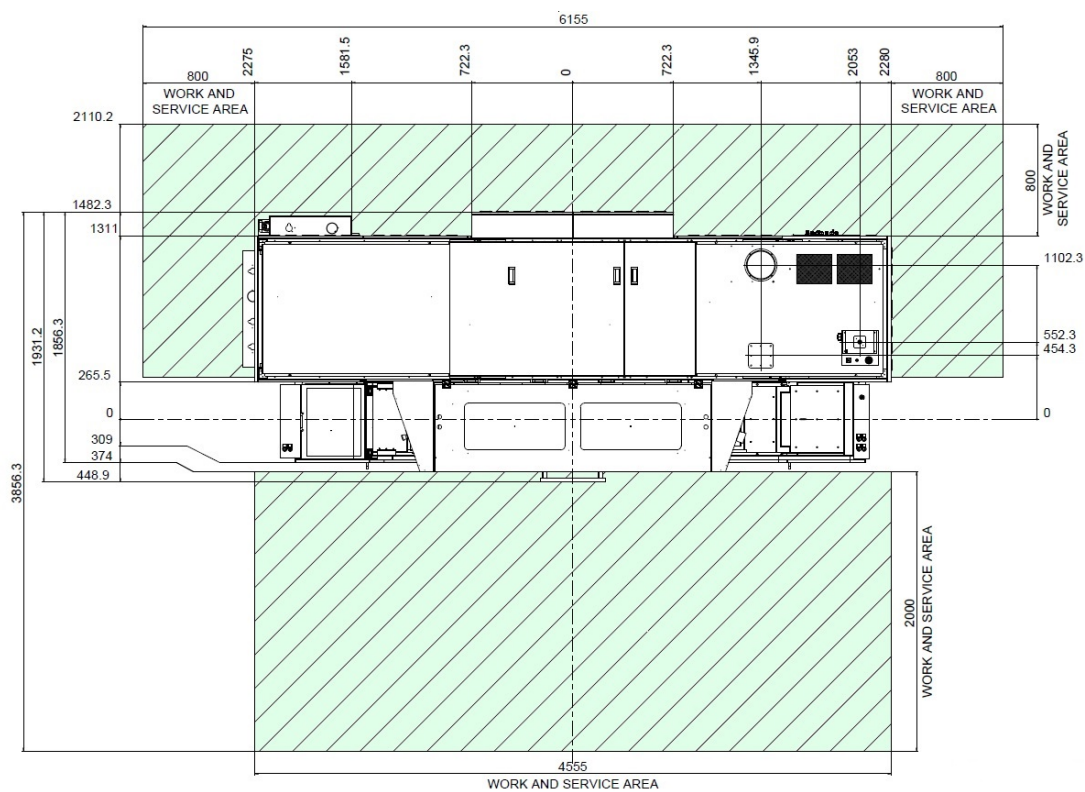


Fig. 10: Space requirements for working

6.2 Working space with external winders (optional)

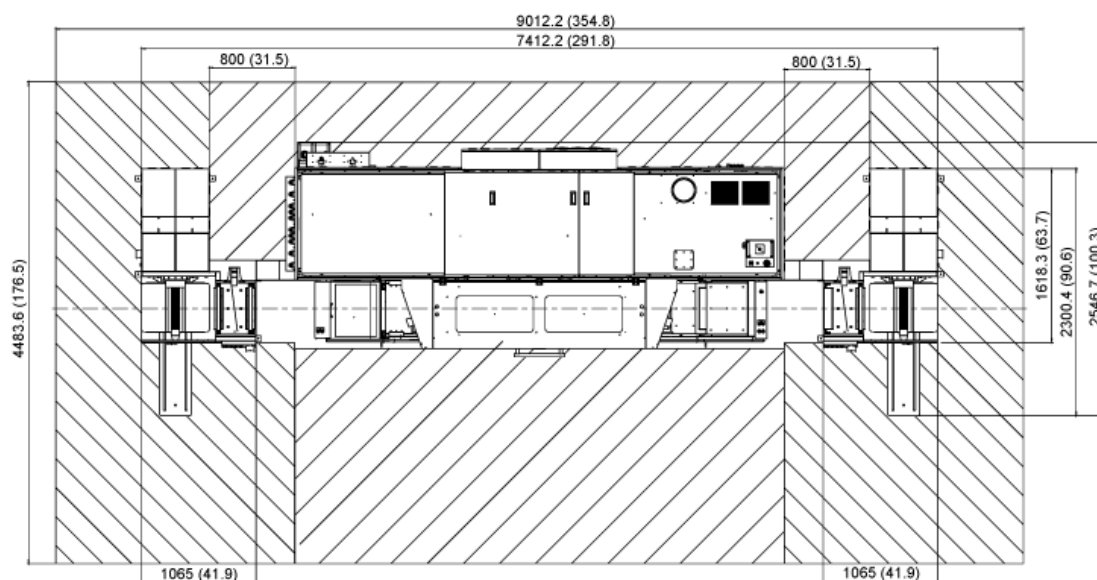


Fig. 11: Space requirements for working with external winders

6.3 Front view

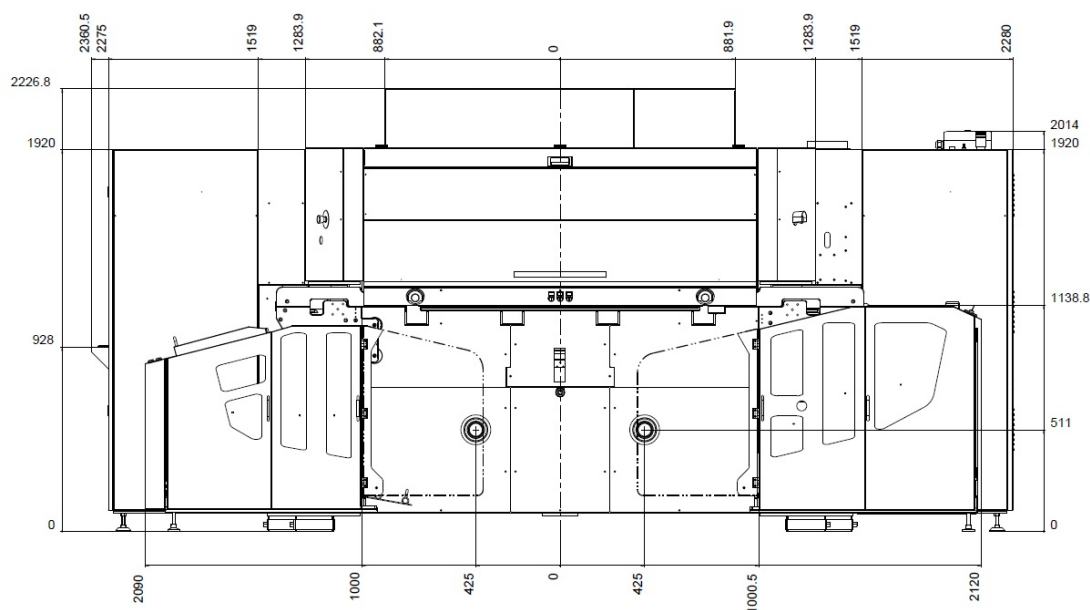


Fig. 12: Front view

6.4 Lifting and transport roller position

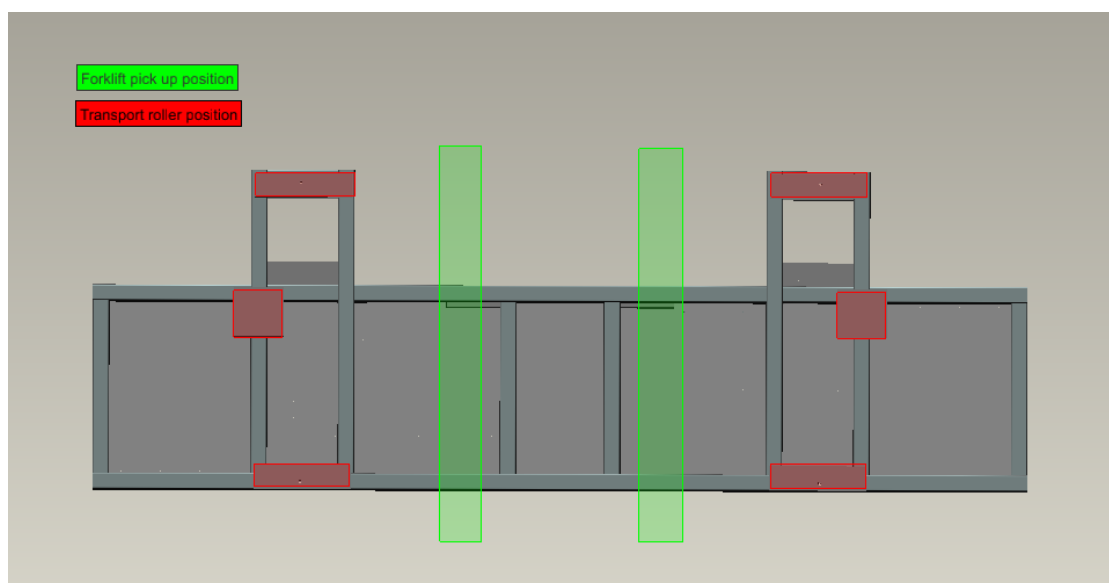


Fig. 13: Lifting positions

6.5 System levelling points (bottom view)

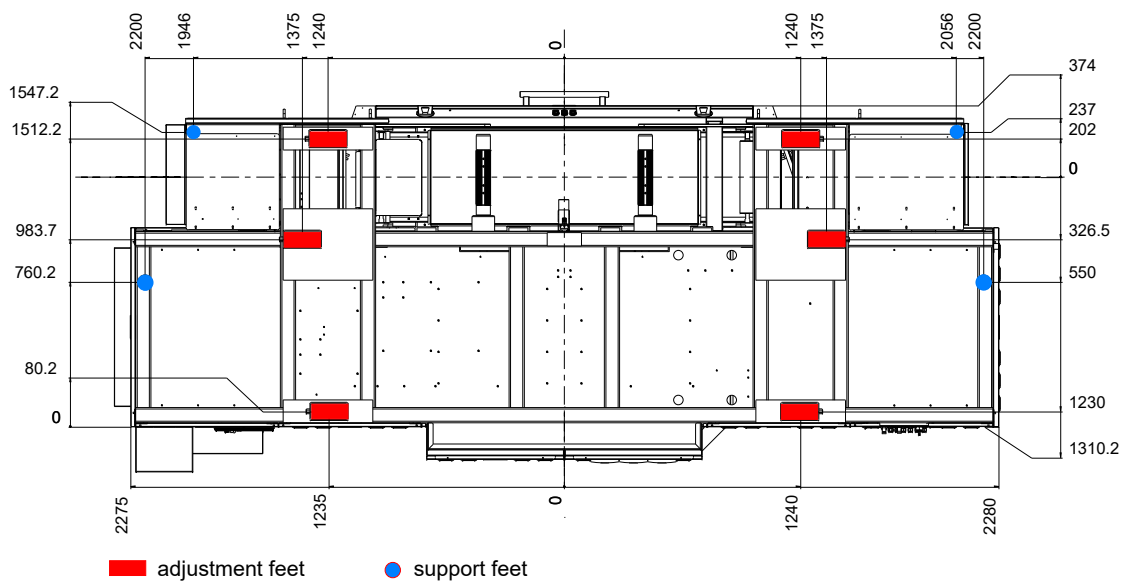


Fig. 14: System levelling points

6.6 Side views

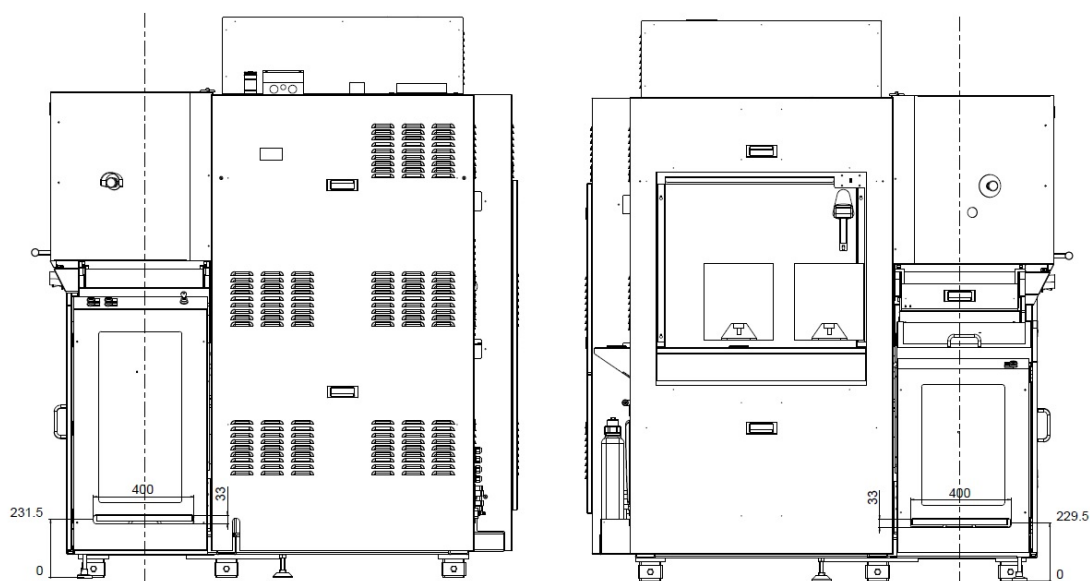


Fig. 15: Material inlet and outlet for external devices

6.7 Machine connections (top view)

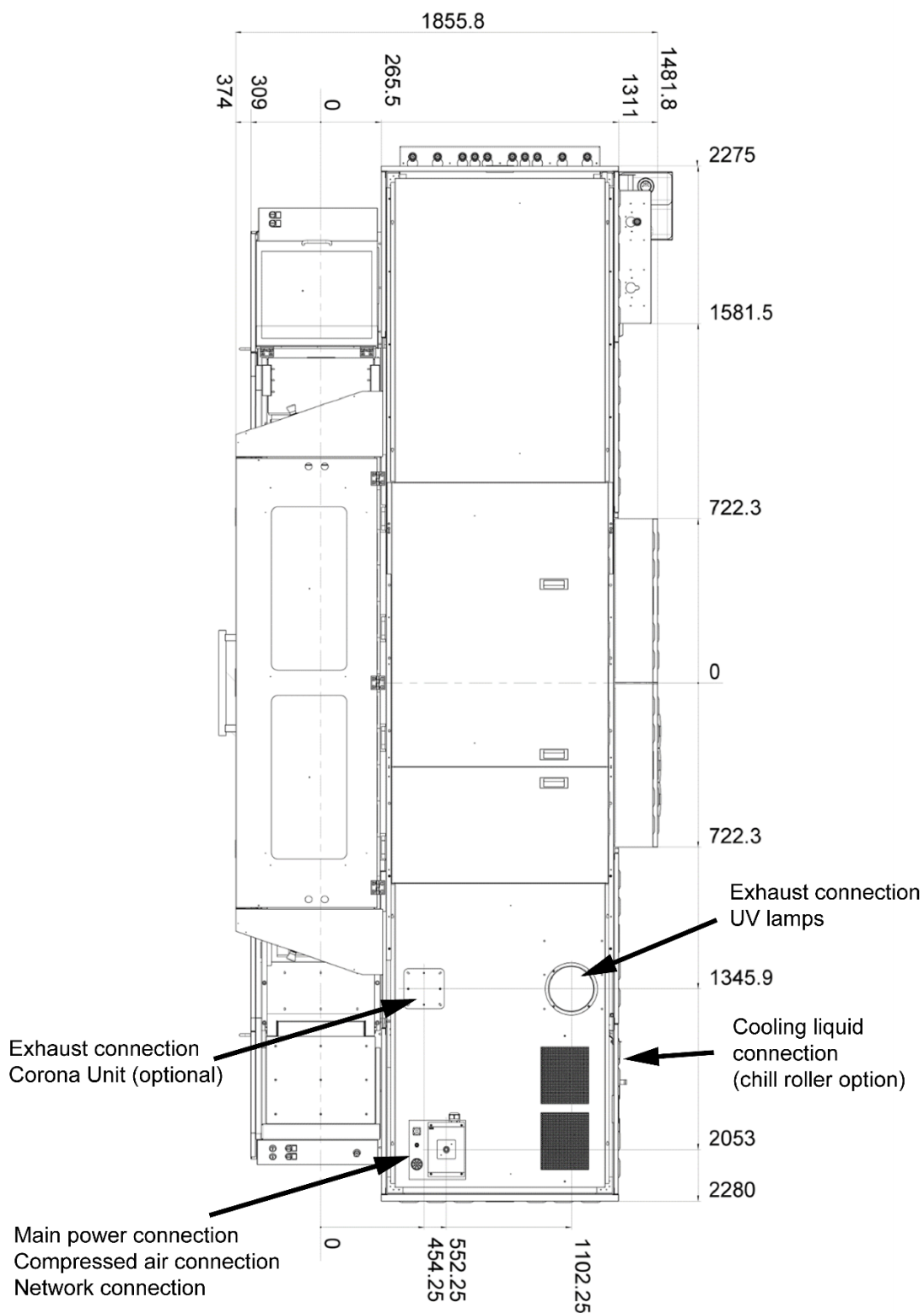


Fig. 16: Machine connections on top of the printer

7 Health and safety at work

For some work during installation and maintenance platforms and ladders must be used. These utilities must be provided by the customer and must fulfill national safety regulations.

For safety reasons during installation, it might be necessary to create a barrier around the machine to avoid persons to access to the machine area.

The customer must provide warning tape and pillars to have the possibility to separate the machine area.

Persons who support Durst staff during installation or maintenance work must be qualified for this kind of work and must wear adequate PPE (personal protective equipment) following to national safety regulations.

The customer must announce a person which is responsible for safety related issues and questions and can be contacted by service staff if necessary.

For emergency cases the national emergency number (e.g. 112) must be announced.

Responsible safety contact person

Name:.....

Telephone number:.....

National emergency number:.....

Place, Date:.....

Signature Customer:.....

8 Acceptance

The latest technical developments are constantly being incorporated into Durst products. Illustrations and descriptions are therefore subject to modification.

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The buyer herewith confirms to the seller that he has read attentively the Pre-Installation Guideline for the implementation of the installation of the printing machine. Buyer shall be obliged to arrange before or at the latest until the delivery date of the printing machine all the preparatory measurements mentioned in this Pre-Installation Guideline.

In addition, the buyer herewith declares that the responsibility for the preparatory measurement's rests solely on the shoulders of himself. The seller shall neither assume any responsibility nor liability if the buyer fails to fulfil the preparatory measurements.

8.1 Confirmation of preparation

Especially following preparations must be done until the installation date:

- ☐ Min door opening between unloading area and installation place appropriate.
- ☐ Floor level and space requirement at installation place appropriate.
- ☐ Forklift and transport equipment for unloading and moving the unit available / organized.
- ☐ Electrical power supply / authorized electrician for installation available.
- ☐ Correct printer version ordered (50Hz or 60Hz).
 - 50Hz version
 - 60Hz version
- ☐ IT specialist for installation available.
- ☐ Compressed air supply available.
- ☐ Exhaust system available.
- ☐ Ink ordered for installation.

Special notes:

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Distributor info

Distributor Name:

Salesperson:

Customer info

Company name:

Street:

City, State, Country:

1st contact person:

Phone:

E-Mail:

Web:

Place, Date:

Signature Customer:

Signature Distributor:

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