Colorado 1650

Site Preparation Guide

Contents

Chapter 1	
Introduction	
Use of the Site Preparation Guide	
Important Site Preparation Guide updates	
Notes for the reader	
Copyright and Trademarks	10
Chapter 2	
Shipping and Handling	11
Dimension and weight of the crate	
Difficultion and weight of the orateminiminiminiminimini	14
Chapter 3	
Specifications and Requirements	15
Printer dimensions	
Floor space requirements	
Electrical requirements	
Environmental requirements	
Connectivity requirements	
RIP applications for the system	
Security requirements	
Training requirements	
Chapter 4	
Site Preparation checklists	25
Shipping address and contact information	
Hardware checklist and floorplan	
Connectivity checklist	
Security checklist	
RIP application checklist	
License checklist	36
Service Organization ID (SOID) checklist	
Application checklist	
Media checklist	39

Contents R3 - INTERNAL

Chapter 1Introduction

Use of the Site Preparation Guide

Colorado 1650

This guide contains information, which helps an educated service technician or consultant to prepare the installation of the Colorado 1650 system.

The Colorado 1650 is a designed 64" roll-to-roll system for the Graphic Arts market, based on UV gelling ink technology.



Use of the content

The manual contains 2 chapters with additional information regarding the system requirements:

- Shipping and Handling.
 - This chapter contains all shipping information like printer crate sizes and weights.
- Specifications & Requirements.
 - The required infra structure for the Colorado 1650.

Site Preparation Checklists.

The last chapter in this manual contains the Site Preparation Checklist.

Fill in and check together with the customer and the system administrator the hardware, connectivity, security, RIP application, License, service organization and media checklists.

Important Site Preparation Guide updates

Introduction

This page is used to inform you about important updates in the Site Preparation Guide of the Colorado 1650

Latest Site Preparation Guide updates

Item	Description	Date
Update	Canon branding	2020-01
New	Release of the Site Preparation Guide.	2019-08

Notes for the reader R3 - INTERNAL

Notes for the reader

Typography

This manual uses the following typography to indicate elements that are part of the user interface.

Typography	Indicates
[Text between square brackets]	Name of a button, tile, setting, value, or other option of the user interface
<text angle="" between="" brackets=""></text>	 Name of a key on a keyboard Name of a variable: item that varies according to the context
Text displayed in courier font	File pathCommand Prompt comment
[Text] →[displayed in] →[menucascade]	Names of options to be used in a fixed order

Safety symbols

Before you use this product, make sure you read and understand the safety information that belongs to the product. Find the safety information on "http://downloads.cpp.canon". Also be sure to follow all warnings and instructions marked on the product.

This manual uses the following safety symbols to indicate hazards and precautions.

Symbol	Type of symbol	Indicates
	WARNING	Indicates a warning concerning operations that may lead to death or injury to persons if not performed correctly. To use the machine safely, always pay attention to these warnings.
	CAUTION	Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions. This indication can concern hazards that have a specific CAUTION symbol. The 'hot surface', 'electric shock', 'moving parts' and 'laser beam' cautions are listed below.
<u>III</u>	CAUTION	Hot surface Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
4	CAUTION	Electric shock Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
	CAUTION	Moving parts Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.

R3 - INTERNAL Notes for the reader

Symbol	Type of symbol	Indicates
*	CAUTION	Laser beam Indicates a caution concerning operations that may lead to injury to persons if not performed correctly. To use the machine safely, always pay attention to these cautions.
	IMPORTANT	Indicates an operational requirement or restriction. Read these items carefully in order to prevent damage to equipment, software, data, media, or property.
	NOTE	Indicates a clarification of an operation or contains additional explanations for a procedure. Reading these notes is highly recommended.

Body protection symbols

This manual uses the following body protection symbols to indicate that it is important to protect yourself before performing a specific task or action.

Symbol	Type of symbol	Indicates
	IMPORTANT	Hand protection Wear the mentioned type of gloves when you perform this task or action.
	IMPORTANT	Eye protection Use the mentioned type of eye protection when you perform this task or action.
	IMPORTANT	Body protection Wear the mentioned type of body protection when you perform this task or action.
	IMPORTANT	Foot protection Wear the mentioned type of safety footwear when you perform this task or action.

Copyright and Trademarks

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Language

Original instructions that are in American English.

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Chapter 2Shipping and Handling

Dimension and weight of the crate

Introduction

This section is about the dimensions and weight of the printer crate, forklift and uncrate requirements.

Illustration



Dimensions and weight of the crate with the printer

	Dimensions
Length	3181mm 125.3"
Width	1143mm 45"
Height	1560mm 61.5"
Weight	925 kg 2039.3 lbs

Forklift guidelines:



IMPORTANT

Never use a forklift or pallet jack when the printer is off the pallet.

Use only a forklift or pallet jack that complies with the following specifications.

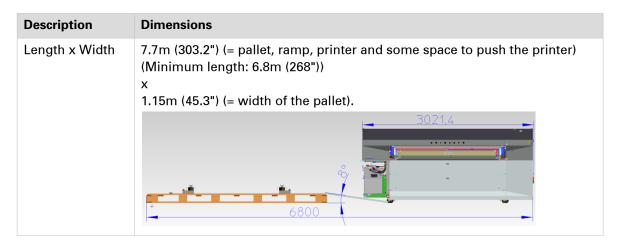
- Long side lift fork length minimum of 1.45m (57").
- Short side lift fork length minimum of 3.3m (130").

Uncrate requirements

The printer can only be rolled off the crate in one direction. Check the "Exit side" label on the crate.



Required dimensions to be able to roll the printer of the pallet:



Chapter 3

Specifications and Requirements

Printer dimensions R3 - INTERNAL

Printer dimensions

Introduction

This section gives an overview of the printer dimensions in different build stages.

Printer only dimensions

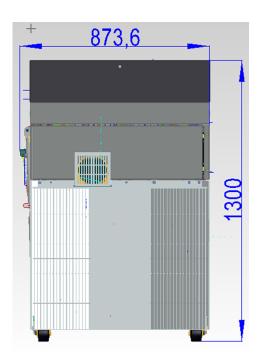
The printer on the wheels (including the winder) has the following dimensions:

Description	Specification
Width	3022mm (119")
Depth	1093mm (43")
Height	1300mm (51.2")
Weight	740 kg (1631 lbs)

The printer on the wheels (including winder and excluding the winder drive and user operator panel) has the following dimensions:

Description	Specification
Width	3022mm (119")
Depth	957mm (37.7")
Height	1300mm (51.2")

The printer on wheels (without winder and user operator panel) has the following dimensions:

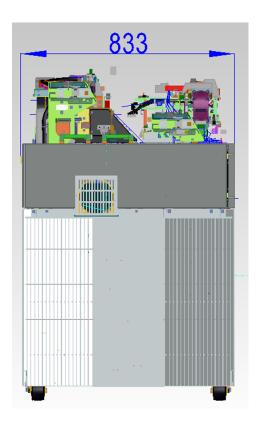


Description	Specification	
Width	3022mm (119")	1

R3 - INTERNAL Printer dimensions

Description	Specification
Depth	874mm (34.4")
Height	1300mm (51.2")

The printer on wheels (without winder, user operator panel, top cover and top cover hinges) has the following dimensions:



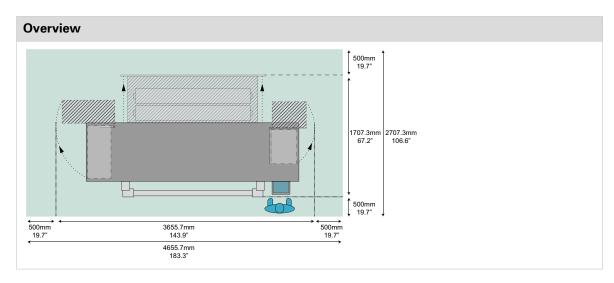
Description	Specification
Width	3022mm (119")
Depth	833mm (32.8")
Height	-

Floor space requirements R3 - INTERNAL

Floor space requirements

Overview

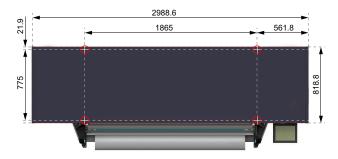
The following floor space and height is required:



Description	Specification
Width	4655mm (183.4")
Depth	2707mm (106.6")
Height	1310mm (51.6") = Top cover closed 1800mm (70.9") = Top cover opened 1884mm (74.2") = Top cover in service position.

Location feet

Location of the 4 feet in mm.



R3 - INTERNAL Electrical requirements

Electrical requirements

Introduction

This section gives an overview of the electrical requirements and the location of the power supply.

AC Power and wiring

50Hz version

Description	Specification
Rated voltage	200 - 240V, 2 Phase/N
Rated current	16A/6A
Building fuse value	16A/16A

60Hz version

Description	Specification
Rated voltage	200 - 240V, 2 Phase/N
Rated current	16A/6A
Building fuse value NOTE Building fuse value for standard U.S. or Canadian source must be rated 125% of the rated current of the machine as declared on power marking label.	20A/20A

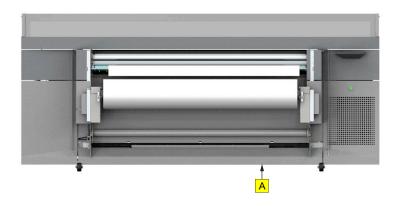
Mains connection: cable with plug.

Safety class: I.

Protection class: IP20.

Location power supply

Location power supply connection at A:



Delivered with the system: 2 x cable with C20/C19 plugs.

Environmental requirements

Introduction

This section gives an overview of the environmental requirements for the print room and the ink storage conditions.

Print room conditions

Description	Specification
Temperature	18 - 30 °C (64 - 86 °F) Recommended: 20 - 27 °C (68 - 81 °F)
Humidity	20 - 80% (no condensation) Recommended: 30 - 60%
Air pressure	Between 850 mbar and 1050 mbar
Ventilation	Regular room ventilation 420 m³/hour (14832 ft³/hour). NOTE Always required.
Ventilation of the external exhaust of the system:	 Minimum 120 m³ / hour and maximum 200 m³/hour Minimum 4238 ft³ / hour and maximum 7063 ft³/hour

Ink storage conditions

Description	Specification
Temperature	18- 30 ⁰ C (64 - 86 ⁰ F) Recommended: 20 - 27 ⁰ C (68 - 81 ⁰ F)
Humidity	20 - 80% Recommended: 30 - 60%
Air pressure	Between 850 mbar and 1050 mbar

Connectivity requirements

Introduction

This section gives information on the IT connection of the printer, IT connectivity requirements and supported interfaces.

Location IT connection

The IT connection is at location [A].



IT connectivity

- Network connection: Ethernet 100 or 1000 Mbits/sec (preferred) and RJ45.
- Network protocol type: TCP/IP V4 or TCP/IP V6.
- Printer and RIP workstation network connection: on the customer network (highly recommended).



NOTE

Do not use 10 Mbit network connections.

A printer not connected to the customer network is a non-standard installation with impact on the following controller features which request access to the customer network:

- On Remote Service/Technical Service manual update (with associated Proxy settings if required).
- · Automatic download of software updates.
- · Mail server (with eventually trusted certificates).

Supported interfaces

- · Support for a proxy server.
- · Connection to external RIP: via the Colorado API and port 9100
- · Web user interface via HTTP
- On Remote Service (ORS).
- · Automatic update of service documentation

RIP applications for the system

Introduction

Here is an overview of the supported RIP applications.

Overview supported RIP applications

Name	Support
ONYX Minimum supported version ONYX 19	For detailed information: See: "http://www.onyxgfx.com/"
ONYX products supported by the Colorado printers: Thrive 111 Oce Edition, Thrive 211 and up [recommended], Postershop and ProductionHouse with an active Advantage.	Check if an ONYX installation supports the Colorado printers? See "http://owa.onyxgfx.com/webkey/ Default.aspx"
	For ONYX related questions contact: "oceadvantage@onyxgfx.com" For latest information on the Onyx RIP software: See "http://www.onyxgfx.com" and login with your myonyx account.
Caldera Minimum supported version: V12.1	For detailed information: See "http://www.caldera.com" NOTE For latest information on the Caldera RIP software: See "http://www.caldera.com" or Caldera Usernet/Extranet
Other supported RIP vendors	Check with the RIP vendor whether the Colorado 1650 is supported

R3 - INTERNAL Security requirements

Security requirements

Connected device

The operating system used to connect to the network is Windows 10 IoT Enterprise LTSB 2016.

TCP ports used

Incoming connections:

- TCP port 9100 (TCP RAW printing)
- TCP port 80 (HTTP for Back channel and Web user interface)
- TCP port 443 (HTTPS for secure Web user interface)

Outgoing connections:

- TCP port 443 (HTTPS for On Remote Services, and On device Technical Service Manual updates)
- TCP port 25 (Connection to Mail Server for password recovery).
- UDP port 123 (NTP protocol for time synchronization)

URL white list for Firewall/Proxy outbound connection (for On Remote Service)

URL white list for Firewall/Proxy outbound connection (for On Remote Service):

- remoteservices.cpp.canon (for Remote Service Data Connection)
- remoteservices-cs.cpp.canon (for Functional Logging retrieval -including Tracedata)
- robin.cpp.canon (for Technical Service Manual update)
- Cmtime.codemeter.com (for Code meter Time Server used for licenses)
- *.teamviewer.com (for Remote Assistance)
- <NTP server name> (NTP server configured in Settings Editor if NTP client is enabled)

Training requirements R3 - INTERNAL

Training requirements

Product training

Maximum performance on the printer requires a properly trained operator.

We train the operator in the use of the printer's hardware and provides a general orientation for using the software at installation. However, this is not a substitute for formal training.

Onyx application

Operators of the printer should be fully experienced in the operation of ONYX ProductionHouse® or THRIVE. For any operator unfamiliar with its operation, ONYX training is required.

On-site or off-site training courses are available; contact ONYX Graphics Corporation for more information:

See "http://www.onyxgfx.com/".

Caldera application

Operators of the printer should be fully experienced in the operation of the Caldera application.

See "http://www.caldera.com/"

Chapter 4Site Preparation checklists

Shipping address and contact information

Shipping address

Company name
Gate number / name
Street name and number
Zip code
City

Contact person for the delivery / installation

Company name	
Contact name	
Telephone number	
E-mail address	

Canon / reseller

Service technician for installation / support

Contact name	
Telephone number	
E-mail address	

Application specialist / user trainer

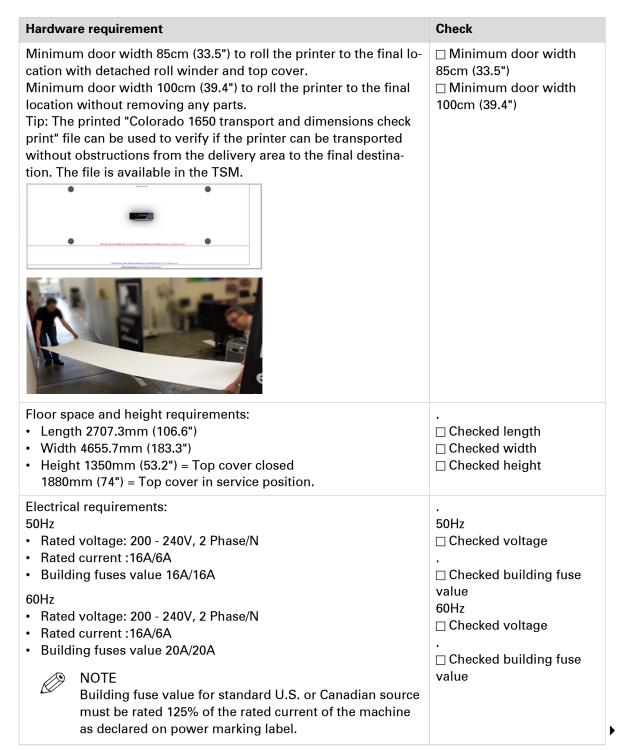
Contact name	
Telephone number	
E-mail address	

Hardware checklist and floorplan

Introduction

This is the Colorado 1650 hardware requirements checklist.

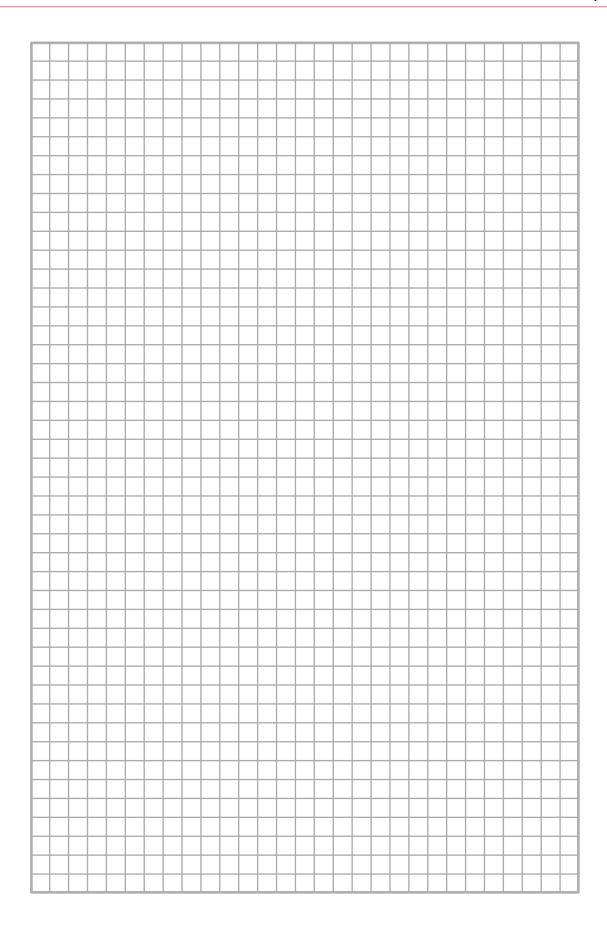
Requirements



Hardware requirement	Check
External exhaust: Air outlet of the system connected to an external exhaust. Specification: Diameter outlet: 140mm (5.5") Minimum ventilation 120m³/ hour (4238ft³/hour) Maximum ventilation 200m³/ hour (7063 ft³/hour)	☐ Connected to external exhaust
 Environmental requirements: Temperature 18 - 30 °C (64 - 86 °F). Recommended: 20 - 27 °C (68 - 81 °F) Humidity 20 - 80%. (no condensation) Recommended: 30- 60% Air pressure between 850 mbar and 1050 mbar Room ventilation 420 m³/hour (14832 ft³/hour). 	

Map of the location

Please draw the floor plan.



Connectivity checklist R3 - INTERNAL

Connectivity checklist

Before you begin

A Network Administrator must be present during the installation of the printing solution.

Requirements

The Colorado 1650 requires a standard Ethernet cable to connect to the customer's 100 / 1000 Base-T network.

The IT connection is at location A.



Legend:

: to be checked with the network administrator: to be filled with the network administrator

Connectivity type	Requirement	
Network media	☐ Ethernet 100 MB/s ☐ Ethernet 1000 MB/s	
Network protocol type	☐ TCP/IP V4 ☐ TCP/IP V6	
Network protocols	 ☐ HTTP (TCP port 80) for Web user interface ☐ HTTPS (TCP port 443 [*]) for Web user interface ☐ (CA) signed certificate (mandatory). [See Security section for Certificate] 	
	 ☐ HTTPS (outgoing connection over Internet) for On Remote Service ☐ SMTP (outgoing connection to Mail Server) Port (TCP port 25 [*]): 	
	 Mandatory Raw TCP (TCP port 9100) for printing HTTP (TCP port 80) for Back channel with RIP workstation 	
	[*] Default value, can be changed	

R3 - INTERNAL Connectivity checklist

Connectivity type	Requirement				
Network parameters	Printer MAC address: Hostname: DHCP enabled / DHCP disabled IP address: Subnetmask: Gateway: DNS suffix: Primary DNS server: Secondary DNS server:				
Time synchronization (NTP client)	☐ disable				
chenty	☐ enable NTP server name: (by default: time.windows.com)				
On Remote Service / Tech-	□ disable				
nical Service Manual up- date	□ enableAutomatic download of software updates□ disable □ enable				
Proxy settings Used for On Remote Service and update of Service documentation.	 □ Proxy Server: □ Proxy hostname:				
Mail Server (used in case of system administrator password loss) NOTE If omitted the system administrator password can not be recovered if it is lost.	Mailserver Hostname/IP address: Port: Mail recipient (Sender): Connection with Mail Server Not secured Secure via SSL/TLS Request server to switch to SSL/TLS Username: Password: [is provided by System administrator] Mail Server Certification Authority (Root and/or intermediate certificates):				

Connectivity checklist R3 - INTERNAL

Connectivity type	Requirement
Web Browser(s) for the settings editor. (The Web user interface).	 ☐ Internet Explorer 11 or greater ☐ Edge ☐ Firefox v.44 or greater ☐ Chrome v.48 or greater

R3 - INTERNAL Security checklist

Security checklist

Introduction

The Colorado 1650 is connected to the network, please find below the checklist related to security.

Before you begin

A Network Administrator must be present during the installation of the printing solution.

Requirements

Legend:
\square : to be checked with the network administrator
: to be filled with the network administrator

Security specifications					
Operating system	Windows 10 IoT Enterprise LTSB 2016				
Customer system administrator password	☐ Inform the customer that we recommend to change the default system administrator password				
OS patches	Consult "http://downloads.cpp.canon" to get the list of securit patches to be applied to the printer with the associated instal procedures.				
TCP ports used	 Incoming connections: TCP port 9100 (TCP RAW printing) TCP port 80 (HTTP for Back channel and Web user interface) TCP port 443 [*] (HTTPS for secure Web UI) Outgoing connections: TCP port 443 (HTTPS for On Remote Services, and on device Technical Service Manual update) TCP port 25 [*] (Connection to Mail Server for password recovery) [*] Default value, can be changed 				
Service role authorization	☐ Allow software reinstallation from USB				
Identity Certificate	☐ Inform customer that a valid certificate is mandatory for Printer settings editor access with a Web Browser via HTTPS				
Intermediate / Root certificates (for Mail server and / or Proxy)	ROOT certificates :				

Security checklist R3 - INTERNAL

Security specifications	
URL white list for Firewall/ Proxy outbound connec- tion (When On Remote Service is enabled)	remoteservices.cpp.canon remoteservices-cpp.canon remoteservices-rdv.cpp.canon remoteservices-firmware.cpp.canon robin.cpp.canon Cmtime.codemeter.com *.teamviewer.com

R3 - INTERNAL RIP application checklist

RIP application checklist

Introduction

A RIP application is used to generate the print files that are transmitted to the Colorado 1650 printer.

Please check the following RIP and operating system parameters.

 \square : to be checked with the network administrator

Before you begin

A Network Administrator must be present during the installation of the printing solution.

Requirements

Legend:

: to be filled with the network administrator			
RIP specifications			
RIP	☐ Onyx version☐ Caldera version☐ Other :		
Operating system of RIP	☐ Windows ☐ Unix ☐ macOS		

License checklist R3 - INTERNAL

License checklist

Introduction

The printer is managed through a license. The BASE license is mandatory, otherwise you cannot print.

Ren	uirement	c
neq	unement	>

IIICIIC	
Legend: : to be checked: to be filled	
License	
BASE license (mandatory)	
In case the Base license is mi	ssing, it can be ordered afterwards.
Information required to obtain license	
License number	
Dongle summary file (which must be generated after having entered the Li- cense number in the set- tings editor)	

Service Organization ID (SOID) checklist

Introduction

This code is mandatory for printer identification in On Remote Service by the NSO/dealer:

Requirements

Legend:
: to be filled in at installation time.

SOID	
SOID number	
Verification code	

Application checklist R3 - INTERNAL

Application checklist

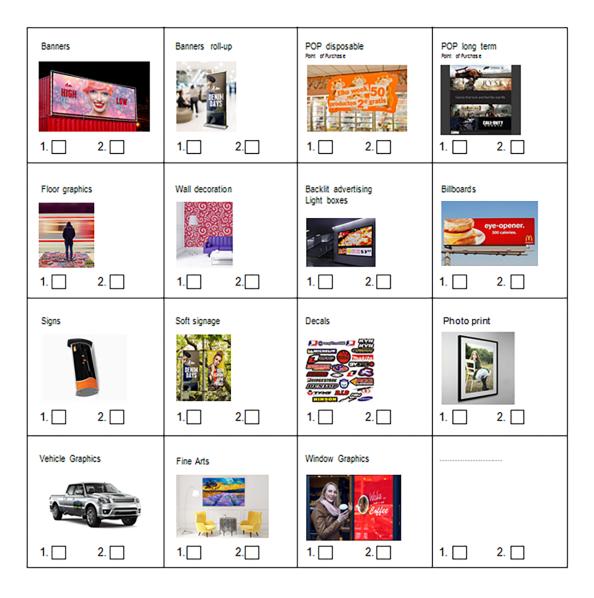
Introduction

This overview is important to check the product fit.

Requirements

Which applications are produced at this customer site?

1. General for customer side and 2. Planned for the Colorado 1650.



R3 - INTERNAL Media checklist

Media checklist

Introduction

Overview of the media, the customer would like to use.

Overview

Write down the media types the customer would like to use.

List the first 3 in order of volume-priority. So the media that is printed on most of the volume, is on line 1, etc.

Alternatively, differentiate between the must-do's and the nice-to-have's.

Media brand / supplier	Media type	Media name	Media width	Media thickness	Media verified	Media profile available
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No
					□ Yes/□ No	□ Yes/□ No

Media checklist R3 - INTERNAL