Rowe 3600

SECURITY MANUAL

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- Specification Scanner
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Introduction

The Plotter **Rowe 3600** is state of the art and has been designed and built in accordance with recognized technical norms. Its use can nevertheless represent a hazard to health or to material assets. The plotting system may only be used when it is in perfect technical working order, for the purpose for which it is intended, in a safety and hazard-conscious manner, and in compliance with the instructions given in the operating manual. Any faults which impair the safety of the plotter must be rectified at once.
The plotting system must only be used for the functions described in the operating manual.
Any other use above and beyond that described in the operating manual is deemed improper use. The manufacturer accepts no liability whatsoever for any damage caused by improper use. The user will be held solely responsible for such risks.
The plotting system will be used by different groups of people. As such, the operating manual has been divided up into individual manuals, each containing specific information for the appropriate group. Everyone involved in the installation, start-up, operation, and maintenance of the equipment must be duly qualified and trained.
For **your safety,** it is important that you strictly follow the instructions given in this operating manual**.**

Safety Manual

The safety manual is of overriding importance and everyone who uses or operates this plotter must read it. The safety instructions contained therein must be complied with.
The safety handbook contains all safety data sheets, safety information, CE-certifications, product specifications

Operating Manual

The operator is in charge of the plotter for all daily work. He is responsible for the settings which can only be undertaken on the plotter and on the console. He determines, e.g., the modes of operation, such as Plot, Standby, Switch-Off, Service Scheduling, Manual Sheet Feed. Moreover, he is also responsible for ensuring that there are always enough media, such as toner and plotting material available.

User Manual	The user is a PC workstation and is part of a network group which has been given access to the plotter. The user has printer drivers installed which allow it to print directly from appropriate applications such as MS-OFFICE, AUTOCAD, etc. The user also has client software which allows it to compile so-called plot files from archives and transmit these to the plotter as a block.
Administrator Manual	The administrator incorporates the plotter into the company‘s network and supports the user in the installation of the plot client and the printer drivers. He has unrestricted right of access to the plotter PC and assigns access rights to the individual users.
Service Manual	The service technician is trained byRoth and Weber and is responsible for initial installation and routine, scheduled maintenance of the plotter.

Warnings Symbols

The following terms and symbols are used throughout the operating manuals to indicate particularly important information.

Notes Important

Special information relating to the economic use of the plotting system

Caution

Special information about do‘s and dont‘s to prevent damage.

Table of contents

Safety Instructions

Prior to Installation

Read the operating manual and the safety instructions in it.
Make sure that every machine operator reads the manual.
Always keep the documentation with the machine.

Site of Installation

Make sure that the intended site of installation meets the following conditions:
there is enough space around the equipment (see page 10);
the system has proper ventilation;
the equipment is subjected to as little vibration as possible (it should not be installed next to large presses)
Rel. humidity: 30-75%
Temperature: 10-30^{0}C

Installation and Start-Up

The machine must only be plugged into a VDE-approved socket outlet with earthing contact, which must be located in the immediate vicinity of the machine. Before you plug in the machine, check whether your supply voltage is the same as the voltage specified on the rating plate.
Do not use extension cables.
Please make sure that there is easy and risk-free access to the power plug!

Fusing

16 Amp. screw-in fuse link Tripping characteristic: slow
16 Amp. automatic circuit breaker Tripping characteristic: G

Maintenance, Repair

Never bypass mechanical or electrical disconnectors.
Do not remove any screwed down parts.
Make sure that no foreign objects get into the machine.
Always disconnect the machine from the power supply before doing any work on any of the electrical or mechanical components of the machine.
Only use cleaners which the manufacturer has approved for the cleaning job in question.
Only service technicians may make any modifications to the plotting, scanning and folding systems.
If safety devices have to be removed in order to do repairs or maintenance jobs, they must be reinstalled immediately after the work has been completed

Obligations of the Operators

The operators are required:
to refrain from working in any manner which could impair the safety and efficiency of the system;
to make sure that only duly qualified and authorized personnel work on the systems;
to report any changes which impair the safety and efficiency of the system;
to always disconnect the system from the power supply before doing any maintenance or repair jobs.

Safety Instructions

Proper Use

The equipment is designed for plotting drawings up to a width of 914 mm and a maximum length of 9000 mm on normal paper, transparencies, and copying films.
The plotter can be integrated into a network for this purpose.
The equipment can also be used in connection with the scanning system for copying drawings, sketches, and photos.
Colour originals are output as gray-scale copies.

Proper use also includes:

-Following the instructions given in the operating manual
- Compliance with the safety regulations
- Use of the recommended materials
- Observance of the technical data (page 8-9)
- Making sure that the connected loads specified on the rating plate correspond with the local power supply.
- Compliance with inspection and maintenance schedules
- Unauthorized conversions and modifications are prohibited.

- Safety devices, casings, covers, etc. must not be removed or rendered inoperable.
- All rights to technical changes for safety and improvement purposes reserved.
- **Roth + Weber** reserves the right to make technical modifications and upgrades.
  Roth + Weber is not obliged to upgrade machines which have already been installed.
- The safety regulations and instructions given in the operating manual must be heeded for all work done with or on the machine.
- The plotter may only be used when it is in technically perfect working order, for the purpose for which it is intended, and in compliance with the instructions given in the operating manual. Any faults which impair its safety must be rectified without delay.

service date

- The Rowe 3600 must be serviced regularly. Roth + Weber will specify the service schedule. The message 'service date' appears in the display to tell the operator when a service is due. Servicing is not covered by the legal warranty. If this message is ignored and the required service job(s) is not done, the user will be held solely responsible for any consequential damage which may occur, and the legal warranty will be rendered null and void.

Product specification

Plotter ReproPLOT 3100-2 / 3100-4

Seite 1 von 2

Prozess	Electrostatic dry process LED Printhead 400dpi Organic photo conductor OPC diam. 80mm 2-component dry toner system with magnetic brush Fuser: Heat-pressure Toner management	Closed cartridge system, 3 cartriges each 150 g
Accuracy of the Image	yardstick in front / in the back laterally	+-0,5% +-2mm +-1mm
Media types	Plain paper Transparency film paper roll length With of Media Core diameter	80gr to 110g 80gr to 110g up to 100 micrometer using 75gr/m2 max. 175 m using 110gr/m2 max. 150 m The core diam. must be 72 mm. max. 914mm min. 210mm must be 72mm
Plot lenght	210mm bis 9m, Longplot > 9m	
Feed of Media	feed by 2,4 automatic rolls Single sheet feed	
Speed	5m/min = 4 DIN A0 / Min	
Power supply Consumption Work First Copy	220-240 Volt, 50Hz/60Hz, 16Amp Operation: max. 2800 Watt Stand-by: 500 Watts PowerDown: 200Watts after about 3min	
Dimensions	Width: 1435mm Depth: 595mm Height: 1045mm Weight: 290 / 320 kg	

Product specification

Plotter ReproPLOT 3100-2 / 3100-4

Controller:	Intel Pentium II (or higher) + WindowsNT at least 256MB Ram at least 20 GB hard disc drive memory for file spooling
Interface	LAN Standard Ethernet 10/100 Mbits/s with RJ45 Optionally: TokenRing TCP/IP / SPX / IPX / NOVELL, NetBEUI Protocol
Data format	Controller input Tif Packbit Controller output Row Raster
Functions	Integrated plot management with administration of plot jobs Plot data format converter for HP-GL, HP-GL2, HP-RTL, Calcomp 906/907, TIFF6.0, Cals Type 1 and 2, Optionally: PostScript Level2, CGM, PDF Automatic recognition of formats and positioning Processing of sets 1 x send, 1 x convert, print many times Processing of status and error messages Availability of account data for accounting Stop, deletion and start of current plot jobs Automatic selection of material and roll with change of rolls Plot queue control via listener /scheduler Online folder control PlotClient without any limitation of licences

Product specification

ReproScan ROWE 3550

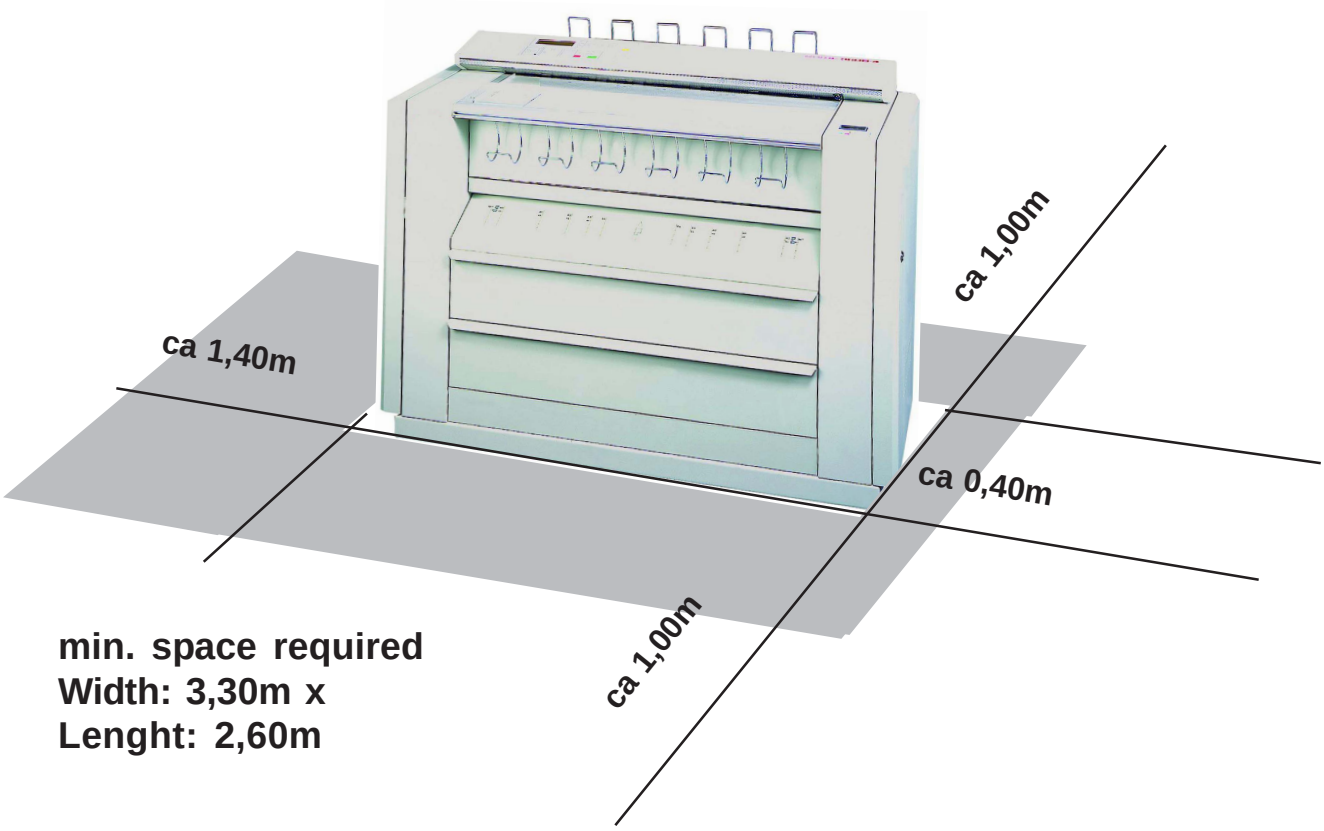
Procedure	Pass-through scan procedure for large formats Contact Image Linear Sensor C I S	
	Resolution	200 / 400 dpi
	Grey scales	256
	Scan width	max. 914 mm
	Scan length	depending on memory capacity
	Scan speed	5 m/min at 400 dbi 10 m/min at 200 dbi
	Reflector	Roller
Accuracy	X axis	0,5%
	Y axis	0,5%
Operation	via keys / display Option: Monitor / software	
Power supply	220 – 240 Volts, 50 – 60 Hz 1,1 Amp	
Power-consumption	250 VA	stand-by: 100W
Warm-up time	none	
Original	Feed	left-sided
	Output	rear
	Width	965 mm
	Length	unlimited
	Thickness	3 mm
Edge shifting	25 mm	
Width definition	via sensors	
Feed table	Height:	1040mm
	Depth:	400mm

Product specification

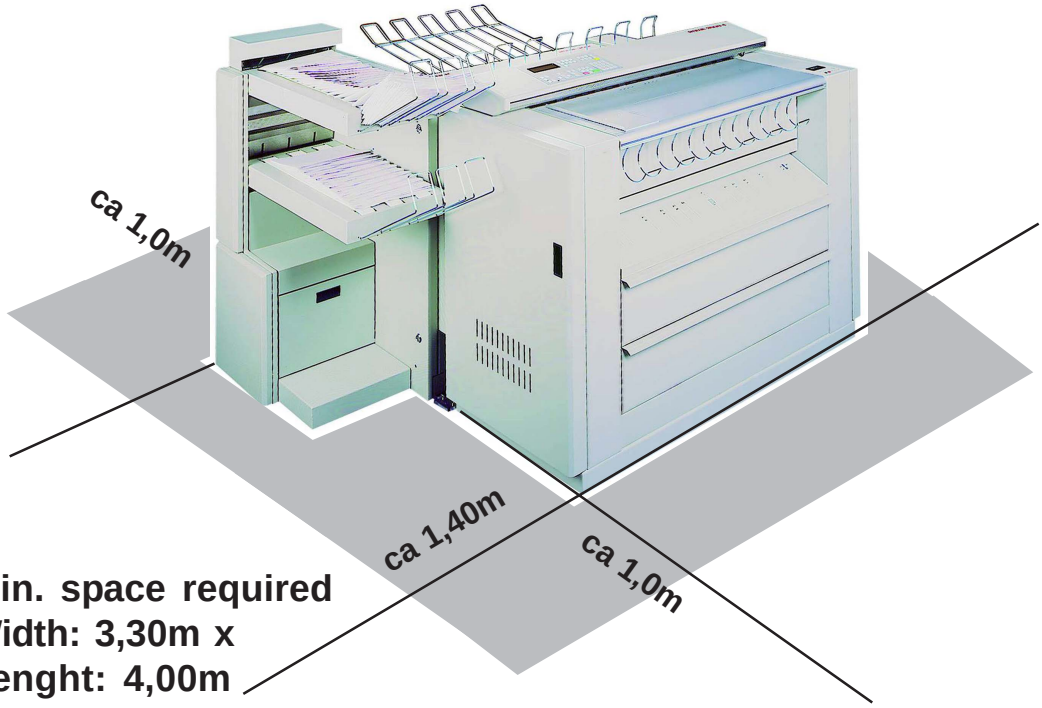
ReproScan ROWE 3550

Controller:	Intel Pentium II (or higher) + WindowsNT at least 256MB Ram at least 20 GB hard disc drive memory for file spooling	
Interface:	LAN Standard Ethernet 10/100 Mbits/s with RJ 45 Optionally: TokenRing TCP/IP / SPX / IPX / NOVELL, NetBEUI protocol	
Data formats:	Row Raster PackBIT	
Functions:	Print interruption	Yes
	Dithering	Hardware
	Thresholding	Selectable
	Scan to file	Yes
	Pre scan possible	Yes
	Scaling	25%-400%
	Scaling X or Y	0,1%
	Mirroring	Yes
	Rotating	Yes
	Inverting	Yes
	Set processing	Yes
	Pile scan	Yes
	Simultanuous scan/copy	Yes
	Scanning fix formats	Yes
	Automatic format size	Yes
	Multiple copy	Yes
	Re-copy	Yes
	Automatic exposure	Yes
	Roll media selection	Yes
	Roll status message	Yes
	Front/rear edge	+/- 400mm
	Stamp configuration	Yes
	Edge texts	Yes
	Selection folding	Yes
	Accounting	Yes
	Click cost counter	Yes

Distance measure for operation and service works

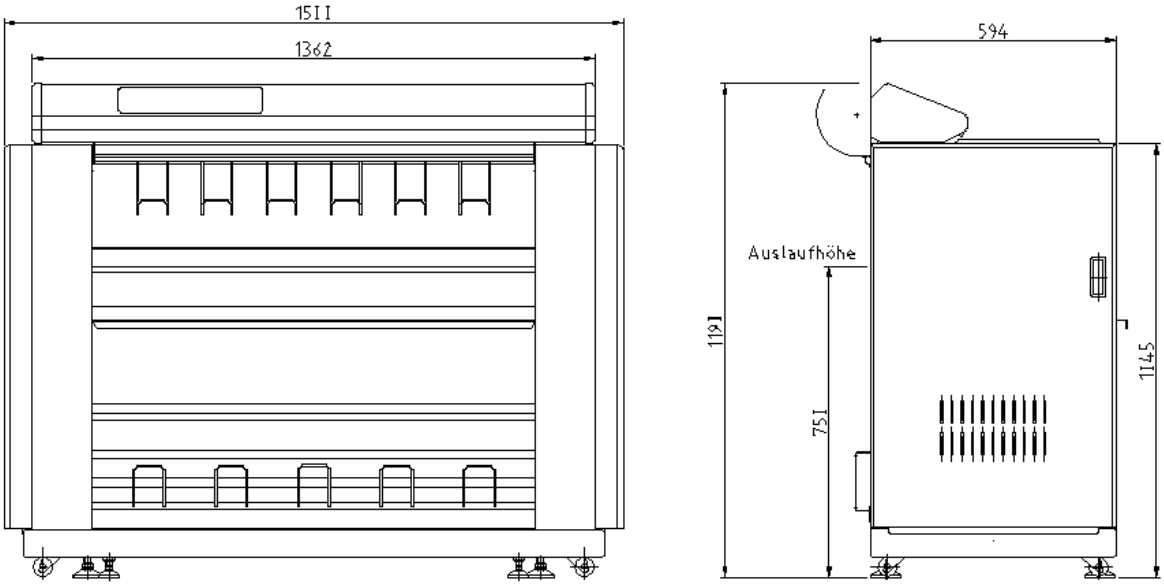


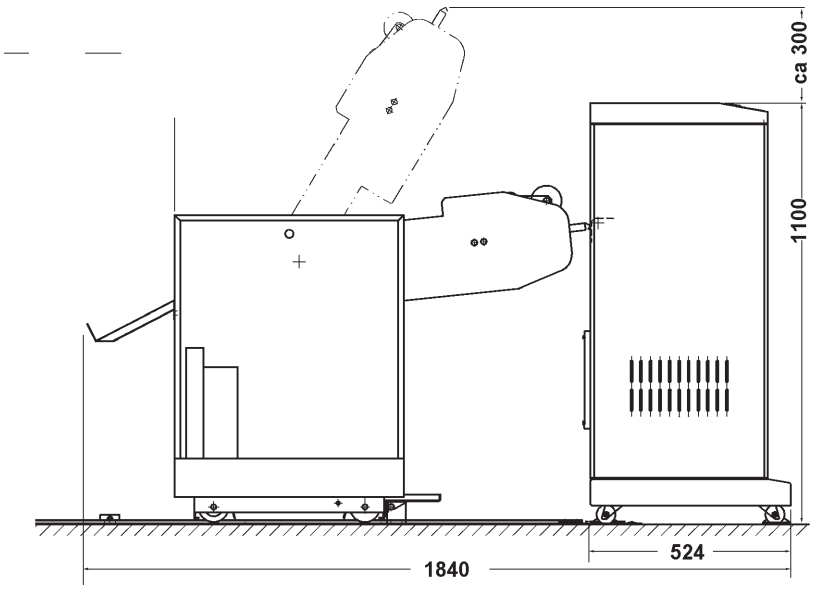
min. space required
Width: 3,30m x
Lenght: 2,60m



min. space required
Width: 3,30m x
Lenght: 4,00m

Dimensions





Safety data sheet

Plotter **ReproPLOT** 3100-2 / 3100-4

Date

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Manufacturer:	Roth + Weber Maschinenfabrik GmbH 57520 Niederdreisbach, Germany		
Description	Electrostatic plot system, stand-alone unit, plan paper		
Dimensions	Width: 1.495 mm	Depth: 595 mm	Height: 1.045mm
Weight:	260 / 290		
Voltage	220 – 240 V		
Frequency	50 – 60 Hz		
Current max.	16 A		
Power consumption			
During operation	2.800 W		
Stand-by	500 W		
PowerDown	200 W		
Mains supply	Connection cable with protective plug		
Sound level	45 dB (A) stand-by, in operator level 55 dB (A) during operation, pulses 3 dB (A), operator level		
Heat emission			
Ozone emission	lower than 0,1 ppm		
Volume space	50 m³ recommended		
Fresh-air inlet	30 m³ / h recommended – natural fresh-air inlet		
Room temperature	18°C – 25°C recommended		
Relative humidity	30% - 75% recommended		
Plotvolumen	appr. 300 m² per day during 8 hours		
Working materials	ROWE organic photo conductive drum		ET70.006
	ROWE toner		ET 70.001
	ROWE developer		ET 70.002
	ROWE copy materials		
Approval lables	CEEG low voltage directive (73/23 and 93/68 EWG) EN 60950 EMC regulation (89/336 EWG) CE (EG89/392 EWG)		
Remarks	Operation instructions must be observed Operation instructions and safety notices must be observed		

Der Inhalt dieses Sicherheitsdatenblattes unterliegt dem Gewährleistungsausschluß.

Safety data sheet

Magnet roller

Date

General	Permanent magnets and magnetic materials are technical products of which handling is subject to safety measures.
Danger notice	Persons with pacemakers (heart) must not be exposed to magnetic fields. Magnetic data carriers must be kept away from magnet fields. Electronic devices may be affected in their functionality by magnetic fields. Risk of injury through contusion! Irreversible damage of the magnet roller may result from inadequate handling!
Handling notice	Do not put magnet roller near to iron filings, iron tools, etc. Bring magnet roller cautiously to other magnets or magnetic iron items in order to avoid possible contusions.

Safety Data Sheet
OPC - Photoconductor Drum

Date

General

The coating on the OPC- photoconductor drum is not for protection or decoration purposes, but is primarily a semiconductor.
These OPC photoconductor drums are therefore extremely sensitive to dirt, chemical reactions, and physical contact.

Instructions

Store in a cool dry place!
Avoid direct exposure to light and chemically agressive gases and fumes!
Do not touch the surface of the photoconductor drum!
Do not open the packaging until the photoconductor drum is actually needed!
Avoid scratching!
Improper handling will result in irreparable damage!

Benefit - Risk Analysis

Regular cleaning of the drums (e.g. when servicing the equipment) will only minimally increase the serviceable life or reliability of the drum. Some drums may perform slightly better after cleaning. However, cleaning could also cause damage to the drums, in which case, they would have to be exchanged without delay.
Cleaning will not extend the average serviceable life expectancy of a drum

.

When must the drums be cleaned?

The OPC - drums will only need to be cleaned if the toner, developer, paper, or wipers are of a poor quality.

Cleaning Procedure

Never touch the surface of the drum with your bare hands. During the cleaning process, the drums should only be held at the flanges.
The drum must never come into contact with water, oil , or organic solvents, because there is a high risk that residues could contaminate the surface and chemical reactions with the coating could occur. This would lead to premature drum wear.
The drum must never be exposed to direct sunlight and should preferably be stored in a dark room.
Take extreme care not to scratch the drum surface.

Recommendations

The drum manufacturers recommend that you refrain from cleaning the OPC-drums, if at all possible.
If the drum nevertheless has to be cleaned for any reason, proceed as follows:

First clean the surface with a lint-free cotton cloth soaked in alcohol (Athanol).

It is imperative that you only clean the drum in its direction of rotation. Never clean it in the opposite direction .

Then thoroughly dry the drum and wipe over it again with a lint-free cotton cloth.

After cleaning the drum with Athanol, wipe over it again with a damp, lint-free cotton cloth, following the procedure described above.

Safety data sheet

Toner - according to EU-Directive 91/155

Datum Jan 2002

1. Product- / Manufacturing- and Company designation

Product Identity: TONER ET 70/00/001
Manufacturer Source: Roth + Weber

2. Composition/ Information on ingredients

Chemical Characterization	Weight%(about)	CAS.NO
Styrene acrylate copolymer	88,3%	25036-16-2
Carbon black	6,0%	13333-86-4
Polypropylen	3,0%	9003-07-0
Inorganic pigment	1,0%	25869-00-5

3. Hazardous Identification

No dangerous in normal use. In case of high concentration may cause risk of dust explosions.

4. First Aid Messures

Inhalation: Remove to fresh air if effects occur.
Eye contact: Immediately flush eyes with water for about 5 minutes.
if necessary, medical attention.
Ingestion: Rinse mouth with water.
Skin cantact: In case of contact, usually specia! care is not necessary.
If it dirty skin. clean with water and soap.

5. Fire Fighting Messures

Extinguishing media: This material will burn in the case of fire.
The decomposition products are
HA CO, COj and Hydrocarbon. COj dry chemical, foam or water.

6. Accidental Release Messures

After Spilling out: Sweep up clean up with a vacuum cleaner and wash with cold water. In caSe of spilled out of large quantity of toner:The explosion may arise by dust clouds, remove all sources of fire until the complete cleaning has taken place. Do not use solvente.

7. Handling and Storing

Avoid dust, keep away from ignition sources. Storage in dry room under 35 C. No special storage requirenments for safety reasons.

8. Exposure Controle / Personal Protection

8.1 Recommended Exposure Limits: MAK-value 6mg/m3
8.2 Work- / Hygienic Practices: Keep away from food
8.3 Personal Protection: None
8.4 Technical Protection: None

Safety data sheet

Toner - according to EU-Directive 91/155

9. Physical and Chemical Properties

9.1 Appearance and odeur	Fine black powder, hight apparent odour
9.2 Meiting range:	110-150^{0}C
9.3 Specific gravity (H2O=1):	1,1-1,5
9.4 Explosion Limits:	not applicable
9.5 Solubillity in water	Negligible
9.6 Flammablte limlts:	under explosion limit = 0,035-0,1 kg/qm upper explosion limit = 2 kg/qm

10. Stability and Reactivity

Can be dropped

11. Toxicological Information

Inhalation:	LC5o(4-hour) is in excess of 1,5 mg /1Practically non - toxic.
Ingestion:	LDso l$ greater than 5,0 g / kg. Practically non-toxic.
Skin irritation:	The result is classified äs non-irriant
Eyes:	The result is non-irrtation.
Further information	No mutagenic effect. Negative in the Ames lest.

12..Ecological Information

Non environmental affect under normal use.

13. Disposal Considerations

Waste material may be dumped or incinated conditions which meet all federal. state and local environmental regulations

14.Transport Information

No specific precautionsy transport messures for safety reasons.
As to storaga conditions. see item 7.

15.Regulations

15.1 Mark according to EC - directive:	not required. no R-phrases, no S-phrases
15.2 National requirements:	no specific regulations or restrictions

16.Other Information

The ‘Information herein is given in good faith, but no warranty if used any process.Final determination of suitability is the sole responsibility of the user.
Although certain Information are described herein, we cannot guarantee that these are the only hazzards which exist.
Information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions.

Safety data sheet

Developer - according to EU-Directive 91/155 Date: Jan 2002

1. Product- / Manufacturing- and Company designation

Product Identity: Developer for RowePlotter
Manufacturer Source: Roth + Weber

2. Composition/ Information on ingredients

Chemical Characterization	Weight%(about)	CAS.NO
Ferrit	95%	7439-39-6
Ferrit powder (OSV-2035LR)		
Toner	5%	built up out
Styrene acrylate copolymer	88,3%	25036-16-2
Carbon black	6,0%	13333-86-4
Polypropylen	3,0%	9003-07-0
Inorganic pigment	1,0%	25869-00-5

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No dangerous in normal use. In case of high concentration may cause risk of dust explosions.

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Inhalation: Remove to fresh air if effects occur.
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7. Handling and Storing

Avoid dust, keep away from ignition sources. Storage in dry room under 35 C. No special storage requirenments for safety reasons.

8. Exposure Controle / Personal Protection

8.1 Recommended Exposure Limits: MAK-value 6mg/m3
8.2 Work- / Hygienic Practices: Keep away from food
8.3 Personal Protection: None
8.4 Technical Protection: None

Safety data sheet

Developer - according to EU-Directive 91/155

9. Physical and Chemical Properties

9.1 Appearance and odeur	Fine black powder, hight apparent odour
9.2 Meiting range:	> 1400* C
9.3 Specific gravity (H2O=1):	7,6 (25%)
9.4 Explosion Limits:	not applicable
9.5 Solubillity in water	Negligible
9.6 Flammablte limlts:	in Air. N /A

10. Stability and Reactivity

Can be dropped

11. Toxicological Information

Inhalation:	LC5o(4-hour) is in excess of 1,5 mg /1Practically non - toxic.
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Information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions.

Service - An Important Part of Your System

We attach great importance to durability, a high rate of availability, and convenience of service when we develop our products.
We guarantee exceptional efficiency and cost effectiveness, but of course:

.... even the best machine is only as good as its service.

Therefore:

Always have your machine serviced through your local, authorized dealer only, whose service technicians have been trained in our factory.

Make sure that only the recommended consumables and genuine, approved spare parts are installed and used.

Always make sure that cleaning and maintenance jobs are done on schedule.

Declaration of Receipt

confirming delivery of the operating manual to the end customer

Model .....

Serial No. .....

Date of delivery .....

Customer

Address:

.....

.....

.....

I have purchased the above machine. All operating manuals were given to me when the machine was delivered.

Customer‘s signature .....

Customer Service Dealer .....

.....

The machine has been delivered to the above-named customer

Customer Service Representative‘s Signature