# **Instructions**



# RotoGen 1000

Keep these instructions within immediate reach

Translation of the original instructions E - English



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#### 1. General information

The RotoGen 1000 is a small volume stationary mixer for homogenizing liquid lacquer materials and paints, in particular car repair paints, using mixing cup systems (for example PPS/RPS) for connecting to spray guns.

The sealed container (e.g. mixing toner pots and mixing cups) is placed in a suitable holder/adapter on the RotoGen 1000 and the contents are then homogenized when the container is set in a rotating motion through two axes.

#### 1.1 Symbols used

Important notes and instructions concerned with safety which are used in these operating instructions are indicated by symbols.

It is essential that these notes and instructions relating to work safety are observed and complied with. In all such cases it is important that you take particular care in order to prevent accidents, harm to persons and damage to property.



#### **DANGER!** Risk of injury or death

This symbol indicates notes and instructions which, if not observed, could impair health or lead to injury, lasting bodily harm or death.



#### **CAUTION!** Risk of damage to property!

This symbol indicates notes and instructions which, if not observed, could lead to damage, malfunctions and/or the failure of the machine.



#### Note!

This symbol indicates tips and information which you should observe in order to ensure that the machine provides you with efficient and trouble-free service.

#### 1.2 Information about the operating instructions

These operating instructions describe how to use the machine safely and correctly. The notes and instructions on safety, the regulations relating to the prevention of accidents and the general safety regulations applicable to the area of application in the country of use must be observed.

Before starting any work on the machine you must read the operating instructions in full, in particular the section concerned with safety and the applicable safety instructions.

All information, notes and instructions contained in these operating instructions were prepared with due regard to applicable regulations and state-of-the-art technology and on the basis of the knowledge and experience that we have gained over many years.

These operating instructions must be kept in close proximity to the machine where they must be available to all persons working with or on the machine at all times.

COLLOMIX accepts no liability for any errors in this manual or for any accidental or consequential damages arising from or in connection with the supply, performance or use of this material.

The information contained in this manual may be changed at any time without prior notice.

Should these operating instructions contain anything which you do not fully understand or contain instructions, procedures, notes and instructions on safety which do not make perfect sense to you, please contact our sales and service partner:

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#### 1.3 Copyright protection

All information, texts, drawings, illustrations and other forms of representation are protected under copyright law and may not be reproduced or stored, processed or duplicated in an electronic system without the written permission of COLLOMIX Rührund Mischgeräte GmbH.

# 2. For your safety

The RotoGen 1000 has been developed, manufactured and tested in accordance with fundamental safety requirements.

Nevertheless, it may be a source of danger if misused or used for any purpose other than that for which it is intended by persons who are not suitably qualified and trained.

#### 2.1 Proper use

Provided users pay due regard to general constraints, the RotoGen 1000 is suitable for homogenizing the following:

- Liquid materials, especially paints and lacquers.
- Suitable additives (including hardeners, thinners, etc.).

The RotoGen 1000 must not be operated in any way other than described in this manual. In particular, the following are not permitted:

- Operation in any areas where there is a potentially explosive atmosphere falling under Zone 0 or 1.
- Operation with defective of missing parts.
- To bridge, deactivate or remove any safety devices.
- The use of non-original replacement parts.
- Running the machine for too long, which can potentially lead to damage to the mixing container.
- The use of unsuitable mixing containers and/or unsuitable holding elements.

Observe not only the information provided by the lacquer manufacturer about the mixing formulas and about the processing of the lacquers and paints but also the safety data sheets!

#### 2.2 Place of use

The machine is generally used in an industrial environment.

The RotoGen 1000 is suitable for use in areas with potentially explosive atmospheres falling under Zone 2 as defined in ATEX 137 (European work safety regulations in accordance with Directive 99/92/EC) in accordance with ATEX 95 (Directive 94/9/EC).

An explosion protection document is required to be prepared for the respective business establishment in accordance with ATEX 137. All limits stipulated by the relevant safety authorities concerning the type and amount of material to be processed and regarding the respective specific physical situation at the premises must be complied with.



#### 2.3 Statutory regulations

The statutory regulations, requirements and standards to be complied with revolve mainly around the following:

- The physical environment at the premises
- The materials to be processed
- Other potentially hazardous influences (for example, dust exposure, etc.)

The following statutory regulations, requirements and standards, among other others, must be complied with:

- ATEX 137 (European work safety regulations in accordance with Directive 99/92/EC)
- DIN VDE 0100, especially Part 482 ff.
- IEC 364
- European explosion protection directive in accordance with 94/9/EC (ATEX 95), EN 1127-1:2007, BGR 104:2000 (German BGR Trade Association Regulations 104:2000).





# 2.4 Assembly



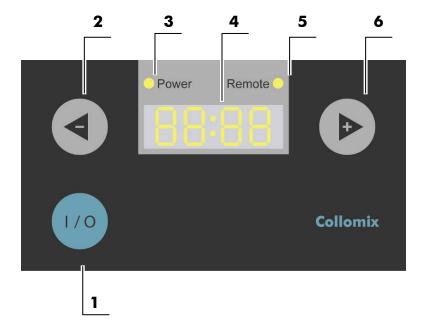
#### **Machine components**

1. Control panel	2. Holding element
3. Guard	4. Housing

# 2.5 Technical data

Mains connection:	~ 230 V / 50-60 Hz
Power rating:	60 VA
Speed:	320 rpm
Mixing capacity:	50 ml – 1000 ml (max. container weight 1.4 kg)
Noise level:	< 70dB (A)
Machine weight:	Approx. 14 kg
Dimensions:	W = 270 x D = 320 x H = 310 mm
Ambient temperature:	+5°C - +40°C
Ex designation:	ξχ II 3 G Ex nA ic IIB T4 Gc

# 2.6 Control and display components



1	I/0 button	<ul> <li>Switches on the RotoGen 1000.</li> <li>Starts the homogenization process.</li> <li>Stops the homogenization process.</li> <li>Switches off the RotoGen 1000 when pressed for longer.</li> </ul>	
2	- button	For selecting the homogenizing time.	
3	Power	Illuminated when the RotoGen 1000 is connected to the mains power supply.	
4	Display	<ul> <li>Displays the selected homogenizing time when at rest.</li> <li>Displays the remaining homogenizing time while homogenization is in progress.</li> <li>Displays operational messages and error messages.</li> </ul>	
5	Remote	Illuminated when the RotoGen 1000 is in remote control mode.	
6	+ button	For selecting the homogenizing time.	

# 3. Using for the first time

#### 3.1 Unpacking

Please check the RotoGen 1000 immediately after unpacking for any visible signs of external damage. Should you discover any damage, please advise the forwarding agent and contact your dealer without delay.

We would also recommend that you record any damage with a digital camera.



Keep the packaging material just in case you need it for further delivery purposes in future, for example if any repairs are needed.

# 3.2 Setting up

Set the RotoGen 1000 up on a firm, horizontal and vibration-free surface. If required, the machine can also be set up on a wall bracket which is available as an option.

Ensure that the operating temperature range is between +5°C and +40°C (ideally 20°C) and ensure that the machine is not exposed to direct sunlight or excessive temperature fluctuations which might cause it to heat up beyond permissible levels.

#### 3.3 Mains power connection for operation outside a potentially explosive area

Connect the mains power cable from the RotoGen 1000 to a socket outlet with earthing contact which has a 10A fuse.

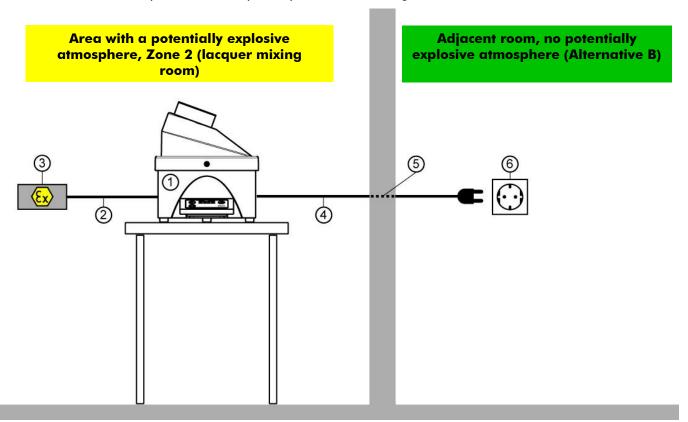
If the RotoGen 1000 is used within an area with a potentially explosive atmosphere falling under Zone 2, the notes and instructions provided in "3.4. Mains power connection for operation in an area with a potentially explosive atmosphere falling under Zone 2" must be observed.

Never connect up to the mains power system within an area with a potentially explosive atmosphere (EX zone) by connecting to a standard commercially available socket outlet!



# 3.4 Mains power connection for operation in an area with a potentially explosive atmosphere falling under Zone 2

If the RotoGen 1000 is connected to the mains power system within an area with a potentially explosive atmosphere falling under Zone 2, the connection work must be carried out by a qualified electrician. The specific form of the connection itself will depend on the physical circumstances at the premises. The two alternatives A and B shown below are therefore provided as examples only and are not binding for all cases.



#### Alternative A: Electrical connection within the EX zone

- 1 RotoGen 1000 compact mixer
- 2 Mains power cable 3 m; remove earthing pin plug
- 3 Hazardous-duty terminal box or hazardous-duty plug (each with ON/OFF function and separate fuse)

#### Alternative B: Electrical connection outside the EX zone

- 1 RotoGen 1000 compact mixer
- 4 Mains power cable 3 m with earthing pin plug
- 5 Sealed wall opening
- 6 Socket outlet with earthing contact, separate fuse and switch

Never connect up to the mains power system within an area with a potentially explosive atmosphere (EX zone) by connecting to a standard commercially available socket outlet!



The work of connecting to the mains power supply must always be carried out by a qualified electrician!

To fully switch the RotoGen 1000 on and off, always use the mains switch on the hazardous-duty terminal box or the ON/OFF switch if used in a non-EX zone.

# 3.5 Holding elements

The RotoGen 1000 is equipped with interchangeable holding elements and adapters for enabling toner pots, mixing cups and other containers from different manufacturers to be used for mixing.

Make sure that you always use the right element/adapter for the respective mixing cup system. The use of an unsuitable holding element may lead to damage to the machine and/or incomplete homogenization!



# Holding element and adapter for 3M™ PPS – red • PPS cup, 900 ml • PPS cup, 700 ml • PPS mini cup, 200 ml +

Holding element and adapter for SATA® RPS — yellow			
• RPS cup, 900 ml • RPS cup, 600 ml			
• RPS cup, 300 ml		+	

Holding element for mixing toner pots - blue (Glasurit, DuPont, Spies Hecker, Standox, among others)			
• Toner pot, 0.5 l, metal/plastic, diameter ±1.5mm	110mm		
• Toner pot, 1.0 l, metal/plastic, diameter ±1.5mm	110mm		
Plastic bottle, 0.125 ml (Glasurit/R-M)	+		
Laboratory cup, 300 ml	+		



Pull out the holding element you wish to replace from the quick-change mount. Insert the new holding element in the quick-change mount, turn it until you feel it latch in and then press until it is fully locked in place.

#### 3.6 Trial run

To check that the machine is in good working order, you must carry out a trial run with an mixing container when you are starting up the RotoGen 1000 for the first time or after carrying out maintenance work or repairs.

# 4. Operation

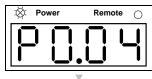
Check that all safety-relevant parts of the RotoGen 1000 are in good working order before beginning with your work. Arrange for authorized service partners to replace defective or damaged parts before you work with the machine again.

Do not reach into the rotating parts of the machine while mixing.



#### 4.1 Switching the RotoGen 1000 on and off

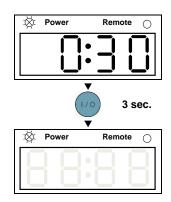
Once the RotoGen 1000 has been connected to the mains power supply, the software version number appears for a moment on the display. The compact mixer then shows a message to indicate that it is ready for operation, with the homogenization time which was used last.





Initialization

To **switch off** the RotoGen 1000, press the I/O button and keep it pressed until the display goes off and only the power LED shows that the machine is still on standby.



Switching off

To **switch on** the RotoGen 1000, press the I/O button momentarily; the machine then shows a message to indicate that it is ready for operation, with the homogenization time which was used last.



Switching on

# 4.2 Selecting the homogenization time

Press the + **button** or - **button** to select the homogenization time in 10 second increments.



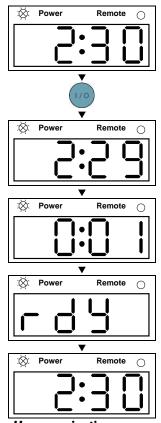
Changing the homogenization cycle time

# 4.3 Starting the homogenization cycle

To start the homogenization cycle, press the **I/O button** momentarily. The display shows the remaining homogenizing time while homogenization is in progress.

When the homogenization time comes to an end, the display shows **rdy** and the mixing speed reduces until the compact mixer comes to a complete stop.

The next mixing cycle can then be started with the homogenization time which was used last.



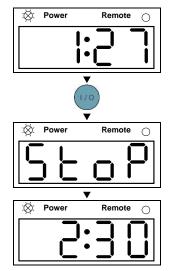
Homogenization cycle

# 4.4 Stopping the homogenization cycle prematurely

The homogenization cycle can be stopped prematurely at any time by pressing the I/0 button momentarily.

This quickly slows down the homogenization cycle and brings it to a stop. Until the compact mixer has come to a complete stop, the display shows **Stop**.

The next mixing cycle can then be started with the homogenization time which was used last.



Stopping the homogenization time prematurely

# 5. Trouble-shooting

Using the trouble-shooting tables listed in this chapter, you can check whether you are able to correct the errors yourself or whether you need to call the customer service department.

Display read-out	Status of the machine	Check the following
<b>FF</b>	The machine stops during the homogenization cycle and the display shows <b>tErr</b> .	The machine was overloaded. Give the lacquer mixer several minutes to cool down.
		Check whether the maximum permissible load of 1.4 kg was exceeded.
		Check whether the right holding element for the mixing container was used.
		Check whether the holding element is fully locked in place in the mount.
		Check whether the compact mixer is exposed to additional heat from sunlight or any sources of heat, which cause it to switch off because the temperature of the machine gets too high.
	The machine stops during the homogenization cycle and the display shows <b>SErr</b> .	The mixing motor has been forced out of cycle because of imbalance or overloading.
	SHOWS SETT.	Check whether the maximum permissible load of 1.4 kg was exceeded.
		Check whether the right holding element for the mixing container was used.
		Check whether the holding element is fully locked in place in the mount.
		The spring clips in the holding element are defective.
5:58	The homogenization time on the display is running but the container fails to be mixed.	There is a fault in the electronics; please contact the service team.



Before calling the customer service department, please make a note of the serial number of the RotoGen 1000 and the error code being shown in the display.

# 6. Service and maintenance

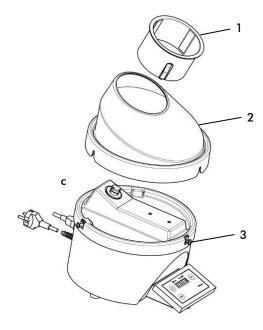
The machine does not contain any components requiring regular servicing.

#### 6.1 Cleaning

Remove all residual traces of lacquer immediately. Clean the foil on the front of the control panel with a damp cloth.

To make it easier to clean the compact mixer, the guard (2) can be removed. To do so, pull off the holding element (1) and undo the three fastening screws (3).

Reassemble by following these procedures in reverse order, taking care to ensure that the holding adapter moves freely!



Always disconnect the RotoGen 1000 from the mains power supply before starting any cleaning work.

Always fit the guard back in place immediately after completion of any such work. Never use the machine without the guard attached.



#### 6.2 Service address

In the event of any faults or defects, please contact our sales and service partner:

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Servicing work may only be carried out by the manufacturer or an authorized sales and service partner.



#### 7. Annex

# 7.1 Warranty

The warranty is for 24 months from the date of delivery or the date of receipt by the customer/user, but shall not exceed 27 months from the date of dispatch by the sales partner. The warranty covers repair at no charge (costs of work and materials) by COLLOMIX or by a sales and service partner authorized by COLLOMIX. Repairs shall be carried out at the premises of COLLOMIX or its sales and service partner and shall be completed within a reasonable period of time. The costs of transportation from the customer/user to COLLOMIX or the sales and service partner shall be paid for by the customer; the costs of return transportation to the customer/user shall be paid for by COLLOMIX or the sales and service partner. The type and extent of the warranty shall not be valid for damages caused by the customer/user.

The following are excluded from the warranty:

- Damages caused in transit.
- Improper setting up or starting up.
- Improper handling, impact of fire, water or force majeure.
- Defects which are caused by improper tampering or improper methods of working and which would jeopardize or potentially compromise the suitability and approval of the RotoGen 1000 for use in areas with potentially explosive atmospheres falling under Zone 2.
- Defects caused by external equipment (accessories).
- All defects caused by unauthorized tampering by a third party.
- All defects where the original serial number of the product was changed or removed.
- Repairs or faults arising out of or in connection with a change of machine location.

# 7.2 Recycling and disposal

At the end of the working life of the RotoGen 1000, the machine must be professionally disposed of and the materials used in its construction must be properly recycled. If you have any questions concerning the disposal of any materials, please contact the sales and service partner directly.

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# 7.3 EC Declaration of Conformity

We declare herewith that this product, the RotoGen 1000, conforms with the following standards and standard-setting documents:

EN 953, EN 1037, EN ISO 12100, DIN EN 1127-1, DIN EN 13463-1, DIN EN 13463-5, DIN EN 60079-0, DIN EN 60079-11, DIN EN 60079-15, DIN EN 61010-1, EN 60529, TRBS 2153

in accordance with directives: 94/9/EG (ATEX95), 2006/42/EG, 2004/108/EG, 2011/65/EU

Ex designation:

⟨Ex⟩ II 3 G Ex nA ic IIB T4 Gc

Technical documentation can be requested from: Collomix Rühr- und Mischgeräte GmbH, Abt. Technische Entwicklung, Daimlerstr. 9, 85080 Gaimersheim, Germany

Alexander Essing Managing Director

2000.

Gaimersheim, 2014-10-27

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This declaration of conformity will lose its validity if any changes or modifications are made to the RotoGen 1000 without the manufacturer's approval.



RotoGen 1000

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