

CADMIA3D

Operating
Instructions



*cad***MIX**

Unique 2 in 1 solution for
refreshing SLS powders and
tumbling finished prints.



Dear customers,

We are glad that you decided to purchase our unique automatic mixing and tumbling device cadMIX.

It is a product that has no parallels in the world of SLS 3D printing. It automates previously manual processes, speeds up print preparation, reduces contamination, and significantly saves your time and energy, which you have to dedicate to printing.

We will be happy to stay in touch with you to help you enjoy the world of SLS 3D printing.

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Release date: 1. 10. 2023

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I. Technical data

Type marked	cadMIX
Height [mm]	700
Width [mm]	420
Depth [mm]	575
Weight [kg]	35
Input power [W]	400
Tension [V]	230 (~ 50 Hz)
Speed range [rpm]	1 - 115

II. Range of delivery

Mixing and tumbling device cadMIX	1x
Electric cable	1x
Bucket (29 cm height 25 cm)	1x
Abrasive material	1x
Sieve	1x
Safety gloves	1x
Operating instructions	1x



III. General safety instructions

Keep this „User guide“ in good condition and with the product, so that the product operator can refer to it again if necessary. If you lend the product to anyone or if you are selling it, never forget to include the complete manual with it.

The following two variants of important messages are used throughout the manual:



This notice is used for instructions that, if not followed, could result in electric shock, fire, or serious personal injury.



This notice is used for instructions that, if not followed, could result in electric shock, fire, or serious personal injury. Furthermore use, contrary to this manual, may result in loss.

Remember and keep these instructions!

1) Work environment

- a) Keep the workplace clean and well lit. Untidiness and dark places in the workplace tend to cause accidents.
- b) Do not use the product in an environment with a risk of explosion, where flammable liquids, gasses or dust are present.
- c) When using the product, prevent access by children and other people. If you are interrupted, you may lose control over the activity you are doing.

2) Electrical safety

- a) The plug of the product's movable supply must match the mains socket. Never modify the plugs in any way. Never use any plug adapters with tools that have a protective ground connection. Plugs that are not impaired by modifications and matching sockets will reduce the risk of electric shock.
- b) Avoid body contact with grounded objects such as pipes, central heaters, stoves and refrigerators. The risk of electric shock is bigger if your body is connected to the ground.
- c) Do not expose the product to rain, moisture or wetness.
If the water gets into the product, the risk of electric shock increases.
- d) Do not use the movable supply for other purposes. Never carry or pull the product by the power cord or pull the plug out of the socket by pulling the power cord. Protect the supply from heat, grease, sharp edges and moving parts.
Damaged or tangled cables increase the risk of electric shock.

e) If the product is used outdoors, use an extension cord suitable for outdoor use. Using an extension cord for outdoor use reduces the risk of electric shock.

3) Safety of people

a) When using the product, be attentive, pay attention to what you are doing, concentrate and think soberly. Do not work with the product if you are tired or under the influence of drugs, alcohol or medication. A momentary inattention when using the product can lead to serious personal injury.

b) Use protective equipment. Always use eye and hand protection. Protective equipment such as a respirator, non-slip safety shoes, hard headgear or hearing protection, used in accordance with the working conditions, reduce the risk of personal injury.

c) Work only where you can safely reach. Always maintain a stable stance and balance. This will allow you to better control the product in unpredictable situations.

4) Product use and care

a) Do not overload the product. Use the right tools that are intended for the work being done. The right product will do the job it was designed for better and safer.

b) Do not use a product that cannot be turned on and off with a switch. Any product that cannot be controlled by a switch is dangerous and must be repaired.

c) Store the unused product out of the reach of children and do not allow people who are not familiar with the product or these instructions to use the product. The product is dangerous in the hands of inexperienced users. Maintain the product. Check the adjustment of moving parts and their mobility, focus on cracks, broken parts and any other circumstances that may endanger the function of the product. If the product is damaged, have it repaired before further use.

d) Use the product, accessories, work tools, etc. in accordance with these instructions and in the manner prescribed for the specific product, taking into account the given working conditions and the type of work performed. Using the product for activities other than those for which it was designed for can lead to dangerous situations.

5) Service

Have your product repaired by a qualified person who will use identical spare parts. This way, the same level of product safety as before the repair will be ensured.

IV. Characteristics

The cadMIX mixing and tumbling device is intended, a) for the perfect mixing of powders for additive manufacturing by 3D printing, specifically Selective Laser Sintering (SLS) technology, and b) for the post-process treatment of products made by additive manufacturing by 3D printing (SLS, FDM) in the form of tumbling by abrasive material.

Read the following instructions carefully before using the product. Make sure you know how the machine works. Pay attention to the correct maintenance of the machine, as described in the following text. The device can only be used for its intended purpose. Any further use beyond the intended use does not correspond to the intended use. The user/operating person and not the manufacturer is responsible for any resulting damages or injuries of any kind.

V. Policy of use and safety rules

This product operates with life-threatening voltage. Never interfere with the internal parts of the device.

Never use the product in an environment with a risk of explosion.

Do not make any modifications to the product that may result in exceeding the maximum engine speed.

Do not use the product if the outdoor temperature is lower than -5°C and higher than 40°C .

If the product has been stored at a temperature below 0°C , it needs to be allowed to warm up to room temperature before starting.



Upozornění

The maximum permissible inclination from the horizontal position during product operation is 10°

Before connecting the product to the electrical network, check whether the network parameters correspond to the requirements stated in the technical parameters of the product.

Use the product in a dry, dust-free, well-ventilated environment, for example under a shelter. Never use or store the product in such a way that it is exposed to water, moisture and weather conditions such as rain, snow, fog, etc. If water enters the electrical circuits of the product, it may cause electric shock or damage to the product.

Move the product only by lifting it by the handles and pulling on the wheels. (Picture 1)

The working parts of the product may be hot during operation. Leave to cool down after use.

Never use gasoline or other flammable liquids to clean the product.

Vapors may be ignited by a spark in the product and cause an explosion.

Make sure that the product is switched off and disconnected from the power source before troubleshooting, before maintaining the product or when not in use.

This product complies with the relevant safety regulations.

All repairs, especially electrical components of the product, may only be carried out by a qualified technician in an authorized service center of CADMIA 3D s.r.o. using original spare parts. If this condition is not observed, a serious accident may occur.



Upozornění

Save this manual for future reference so that it will be around for the life of the product readable and accessible to the product operator. In case of damage or if the instructions are unreadable, request a new manual from your dealer or find it at www.cadmia3d.cz

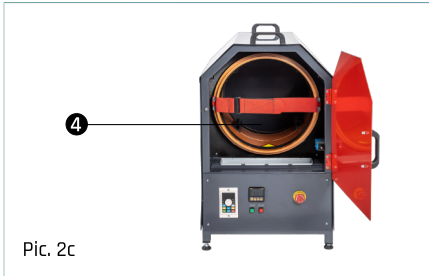
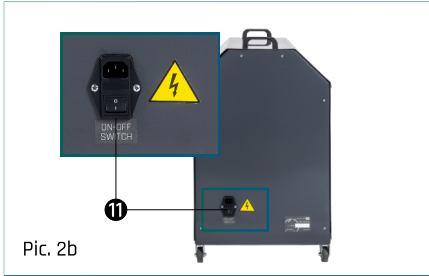
The product may only be used by an individual over the age of 18. The product must never be operated by children!

The product must not be operated by a person who is under the influence of drugs, alcohol, medication or other addictive and psychotropic substances affecting attention and concentration.

VI. Description of components

List of positions (Picture 2a, 2b, 2c)

1. Handles
2. Manipulative wheels
3. Adjustable legs
4. Chamber for mixing/tumbling
5. Chamber door
6. Frequency converter
7. Timer
8. Green button „START“
9. Red button „STOP“
10. „Central STOP“ button
11. Main switch








VII. Links to signs and pictograms

The production label is located on the back. It contains serial number, contact and identification details, as well as safety signs (see table below).



Please pay close attention to the markings on the production label.

	Follow the instructions for use
	Conformité européenne European conformity
	Life threatening high voltage!
	It does not belong in sorted or municipal waste. Hand it over to the dealer or for ecological disposal
	A warning before automatic start-up

VIII. Before putting the device into operation

Installation

After unpacking from the box, check the condition of the product for signs of damage.

Place the product on the undercarriage on a horizontal and firm surface.

Use the adjustable legs to set the product in a horizontal position, use flat wrench size 13. (Picture 3)

Connect the product to a power source. Make sure you follow the requirements product label values 230 V, 50 Hz.

Open the product mixing chamber door and remove the bucket with abrasive material and other accessories.

Make sure there is no object inside the chamber.



Upozornění

Machine operation

Check if there is no object inside the chamber. Insert a bucket with powder for mixing or a bucket with abrasive material into the chamber for tumbling.

Insert the bucket according to the red marked triangle in the chamber with the bucket's ear always at the top. (Picture 4)

Secure the bucket with a strap (Picture 5) and close the chamber door.

Set the frequency converter to the desired value depending on the type of use. For mixing mode 10-20 Hz depending on the weight of the filling. For the tumbling mode 20-40 Hz depending on the weight of the filling and the desired intensity of tumbling.

Use the green START button to start the machine operation. The timer is set for 30 minutes of machine operation. After the time has passed, the machine will turn itself off.

Open the product door, unbuckle the strap and remove the bucket from the chamber. Repeat the steps, or close the door.



Upozornění

Turn off the product after finishing work.

Switching the device on and off

You turn on the device with the switch on the back panel of the device to the "1" position (Picture 6).

Start the product by pressing the green "START" button. (Picture 7)

You can turn off the product in several ways, namely

- a) by pressing the red "RESET" button (Picture 8)
- b) by pressing the "CENTRAL STOP" button (Picture 9)
- c) with the main switch on the back panel of the device to the "0" position (Picture 10)
- d) after 30 minutes have passed since the product was switched on.

In case of problems when starting the product, proceed as follows:

- 1) On the frequency converter (Picture 11), increase the engine speed by slightly turning the converter knob to the right.
- 2) In case of major problems, call customer service.

IX. Removing malfunctions

If the product is not working properly, follow the troubleshooting instructions below. If you are unable to solve the problem yourself, contact your dealer or an authorized service center.

The engine will not start:

Check that the product is connected to the network and at the same time

- a) the main switch on the back panel of the product is in position "1" - on
- b) the "CENTRAL STOP" button is unlocked
- c) the chamber door is closed

Check that the supply voltage corresponds to the voltage indicated on the nameplate of the product.

Check that the fuses in the distribution box are functional.

Check that no extension cables are used that do not comply with applicable regulations.

Check if the working environment is not too cold or that the product has not been stored at temperatures below freezing.

X. Cleaning and maintenance

Clean the surface of the product with a damp cloth.

Check the product regularly for possible damage.

XI. Waste disposal

After the end of the product's useful life, it is necessary to proceed in accordance with the applicable legislation when disposing of the generated waste.

The product contains electrical / electronic components.

Do not throw in mixed waste, save at a take-back or separate collection of this type of waste.

XII. Warranty period and conditions

Warranty period

The company CADMIA 3D, s.r.o. in accordance with all legal regulations, the product purchased by you is guaranteed for a period of 2 years from the date of sale, provided that you are a non-entrepreneur (consumer) and a guarantee for a period of one year in all other cases (buyer). If the warranty conditions (listed below) are met, the product will be repaired free of charge by the contractual service of CADMIA 3D, s.r.o. during this time.

Warranty conditions

1. The seller is obliged to show the consumer/buyer the goods and properly fill out the warranty card. All data must be indelibly written in the warranty card at the time of sale of the goods.
2. When choosing a product, carefully consider what functions and activities you require from the product. The fact that the product does not meet your later technical requirements is not a reason to make a complaint about it
3. When making a claim for warranty repair, the goods must be handed over with a properly filled out original warranty card or other proof of purchase.
4. In the event of making a complaint, the goods must be handed over in a clean condition, free of dust or dirt and packed preferably in the original packaging so that there is no damage during transport. In interest of the exact diagnosis of the defect and its perfect removal, send it together with the product original accessories.
5. The service is not responsible for goods damaged by the carrier.
6. Furthermore, the service is not responsible for the sent accessories that are not a part of the basic equipment of the product. The exception is cases where the equipment cannot be removed due to a product defect.
7. The warranty applies exclusively to defects caused by defects in material, production assembly or processing technology.
8. This warranty does not affect statutory rights, but is in addition to them.
9. Only an authorized service designated by CADMIA 3D s.r.o. is authorized to carry out the warranty repair.
10. The manufacturer is responsible for the fact that the product will have the properties and parameters specified in the technical data throughout the warranty period if the instructions for use are followed. At the same time, it reserves the right to make design changes without prior notice.

11. The warranty claim expires if:

- a) the product was not used and maintained according to the user manual.
- b) any intervention in the construction of the machine was carried out without prior written permission published by CADMIA 3D s.r.o. or contractual service.
- c) the product was used in other conditions or for other purposes than those for which it is intended.
- d) some part of the product has been replaced with a non-original part.
- e) damage to the product or excessive wear occurred due to insufficient maintenance.
- f) the product crashed or was damaged by force majeure.
- g) damage caused by external mechanical, thermal or chemical influences.
- h) defects were caused by improper storage or manipulation with the product.
- i) the product was used (for the given type of product) in an aggressive environment, for example dusty, humid.
- j) the product was used beyond the permissible load.
- k) any falsification of the warranty card or proof of purchase has been carried out.

12. The manufacturer is not responsible for product defects caused by normal wear and tear or using the product for purposes other than those for which it is made for.

13. The warranty does not cover items where wear and tear can be expected as a result of its normal functions (for example painting, etc.)

14. The provision of a guarantee does not affect the buyer's rights, which apply to the purchase of the item according to special legal regulations.

Warranty and post-warranty service

You can find the nearest service point on the website www.cadmia3d.cz or request their summary at the place where you purchased the product.



Pic. 1



Pic. 3



Pic. 4

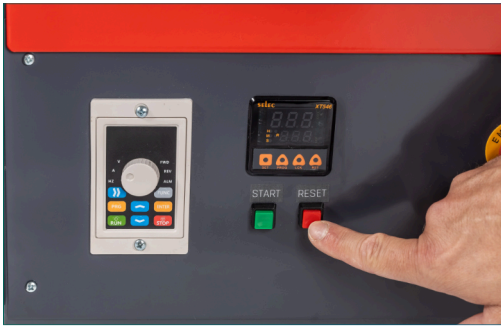


Pic. 5

Pic. 6

Pic. 7





Pic. 8



Pic. 9



Pic. 10



Pic. 11

XIII. Declaration of conformity

CADMIA 3D s.r.o., Nádražní 1958/48d, 78501 Šternberk, ID number 29451442 declares that the subsequently marked device, based on its concept and construction, as well as the version put into circulation, meets the relevant basic safety requirements of the government regulation. If the device is changed without our approval, this declaration loses its validity.

cadMIX

mixing and tumbling device

has been designed and manufactured in compliance with the following standards and regulations:

CD 2006/95/EC
89/336/EEC
91/263/EEC
92/31/EEC
93/68/EEC
CD 2006/42/EC)
EN 5501-1:2006
EN 6204-1:1997
EN 60204-1:2006
IEC 60204-1:2005
EN ISO 12100-1
EN ISO 12100-2

The product is safe under the conditions of usual and intended use.

Conformity assessment was carried out according to ES č. 768/2008/ES, modul A

In Šternberk on September 5, 2023

CADMIA3D s.r.o.
Pavel Nikl, executive
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Šternberk, 78501
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