

YRC-9Pro Dental-Grade Milling Machine

Product Manual



First of all, thank you very much for buying this product.

- In order to use this product correctly and safely and fully understand its performance, please be sure to read this book carefully and keep it properly to avoid loss
- It is prohibited to copy/reproduce part or all of the contents of this book without permission
- If you have any doubt about the contents of this product and this book, or find any errors or omissions, please contact us

catalogue

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preface

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About this machine

Features of this machine

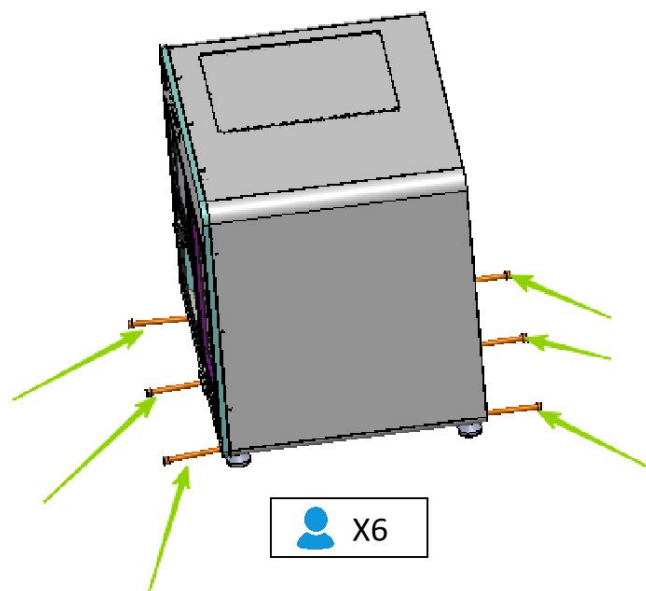
YRC-9Pro is designed for processing dental ceramics, resin materials, casting wax, and non-casting cobalt-chromium alloys. It efficiently produces various dental restorations including crowns, internal crowns, and bridges. Users simply need to install dedicated software on their personal computers and connect the machine to create high-quality restorations effortlessly. Equipped with an automatic material changer, it can manage up to 18 cutting materials simultaneously. This system not only minimizes material waste but also enables continuous processing without interruption, significantly boosting production efficiency.

For the latest information about this machine, please visit our official website ——<https://www.yucera.com/>

Associated information

Pre-installation inspection

About installation and setup



Warning! The host weight of the equipment is 320 kg! There is a risk of pressure injury! When loading, unloading and installation operations, you must strictly follow the operation specifications:

▲ pay attention to

When loading and unloading the machine, it should be gripped according to the diagram and equipped with corresponding personnel to ensure the safety of personnel and equipment.

installation site



The total weight of the machine is over 300 kg. It must be installed on a horizontal, stable load-bearing surface

It is strictly prohibited to install in a position that does not meet the load requirements or is unstable. Installation in an improper position may lead to major accidents such as tipping, falling, collapsing and so on.



Do not install or operate this machine in any location where there is or may be a fire source nearby

Otherwise it may ignite the processing debris. Powder is extremely flammable and even metal can be set on fire.



It is absolutely prohibited to install in flammable or combustible gas environment

Otherwise, there is a fatal risk of fire and explosion.



Do not install in outdoor, easy to splash or high

In case of leakage, secondary risks such as electric shock or **humidity places** fire may occur.



Make sure you can always control the power plug

There must be sufficient and unobstructed operating space in front of the socket to ensure that personnel can quickly approach

- Do not install in an environment with large temperature/humidity changes.
- Do not install in an environment with shaking or vibration.
- Do not install in a dusty environment.
- Do not install in direct sunlight and near refrigeration and heating appliances.
- Do not install in electromagnetic interference such as electromagnetic waves.
- Do not install in an environment where there are polysiloxane substances (oil, lubricant, spray, etc.). Otherwise, the switch contact may be poor or the ion generator may fail.

Temperature and humidity

Please install in a position that meets the specified conditions (temperature, humidity, etc.). Failure to comply may cause the failure of the machine.

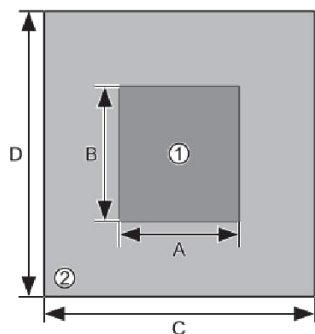
- temperature : 5 ~ 40°C
- Humidity: 35 ~ 80% RH (no condensation)

important

Please use the machine in an environment where the temperature remains constant as far as possible. The processing results will be adversely affected by the temperature fluctuation in the installation environment.

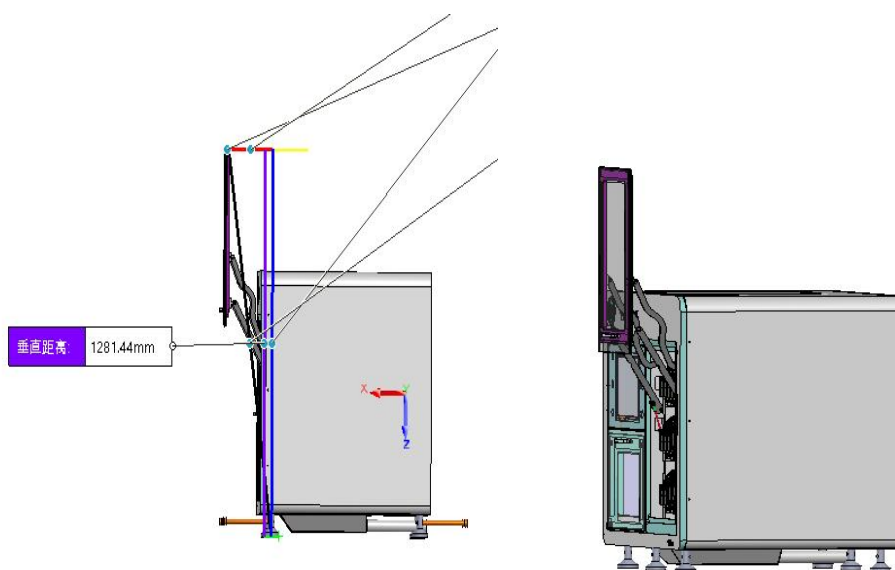
installation space

At least the following minimum space should be left when installing.



①	Installation Space
②	Working space
A	932 mm
B	750 mm
C	1932 mm
D	1750 mm

Regarding height, make sure that the space is open when opening the handle area cover or tool area cover.



H	1300 mm
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Associated information

Installation height position

Please install it more than 0.6m above the working ground.

This machine is a desktop model. Please install it in a position where you can easily reach the power switch and other operating parts during operation.

Preparation before using this machine

Pre-operation check

dust arrestor

The equipment will generate a large amount of dust and debris during the cutting process. In order to maintain cleanliness, ensure normal operation of the equipment and guarantee processing accuracy, users need to provide a separate dust collector. Please firmly insert the hose of the dust collector into the dust collection interface on the back of the machine before starting work.

important

This machine can not complete the processing without a dust collector.

⚠ warn

When operating the equipment, ensure that the dust collector is started and operated normally throughout the whole process

Otherwise, the processing debris and workpiece may catch fire/harm to human body.

⚠ warn

Do not use a vacuum cleaner to absorb processing debris.

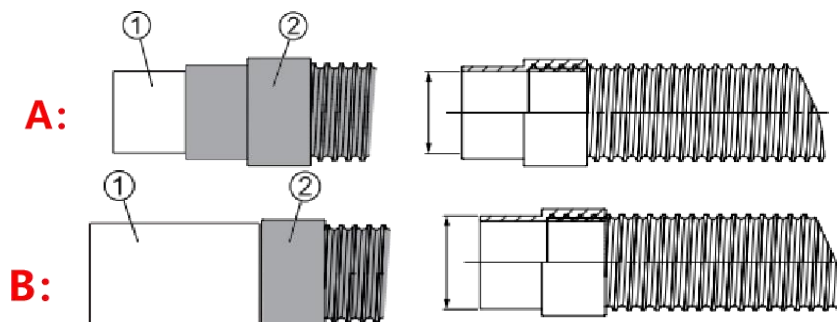
Using a regular vacuum cleaner to suck up fine dust can cause fires or explosions.

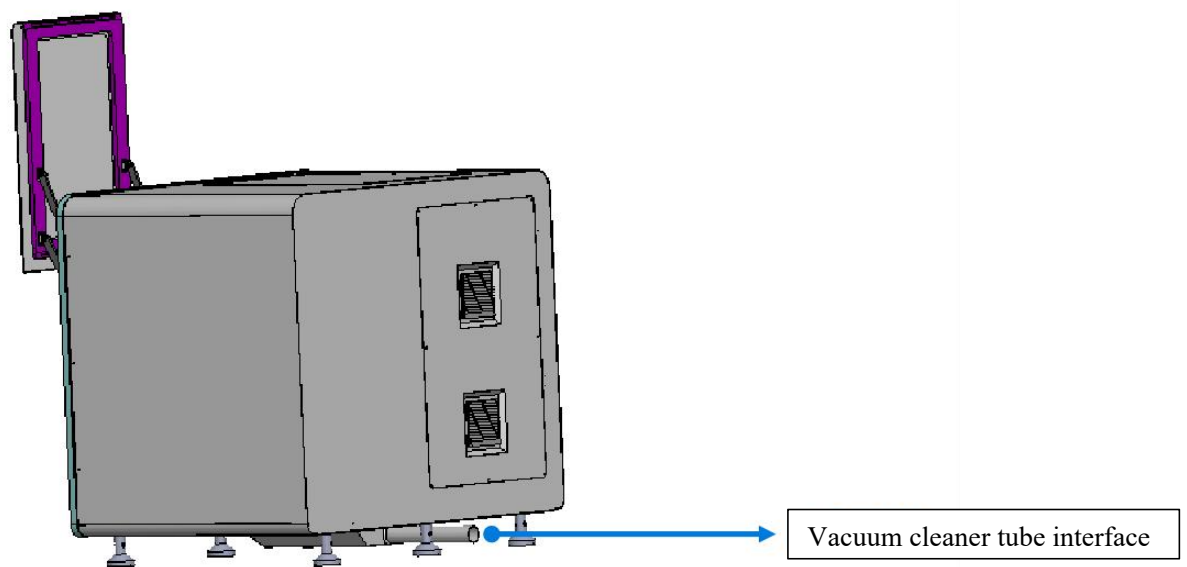
Please provide a dust collector that meets the following conditions.

- Static pressure: above 26 kPa
- 4 m²/min or more
- Dust collecting hose that meets the inner diameter or outer diameter of the dust collecting pipe

[A]: When the dust collecting hose is ② covered on the outside of the dust collecting pipe① (the inner diameter of the dust collecting hose: 50.8 mm)

[B]: When the dust collecting hose is ② inserted into the inner side of the dust collecting pipe① (the outer diameter of the dust collecting hose: 35.6 mm)





Compressor (source of compressed air)

This machine requires compressed air. Users must provide a separate compressor.



The pressure of the compressed air should be less than 1.0 MPa.

Once the limit is exceeded, it can lead to major accidents such as hose rupture.



It is prohibited to mix water, oil, medicine and foreign matter into the compressed air supplied. Otherwise, it may cause the deterioration of components and rupture, or the foreign matter will fly around and cause damage.



Do not supply compressed air before the air hose is actually connected. Otherwise, accidents may occur.

Please provide compressors that meet the following conditions.

- Control pressure: 0.5 ~ 1.0 MPa range
- Air volume: more than 66 L/min (per unit)
- Oil-free type (no foreign matter should be mixed in compressed air.)
- Built-in dryer (moist air can cause parts to rust.)

air hose

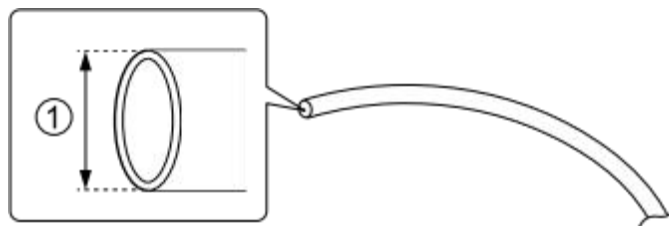
Air hose connecting compressor and regulator (1)

Please provide air hoses that meet the following conditions.

- Outer diameter ① of hose (): 6 mm (polyurethane resin tube)

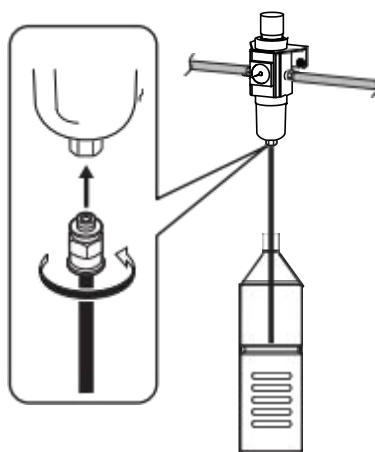
important

Be sure to use the attached regulator to supply compressed air.



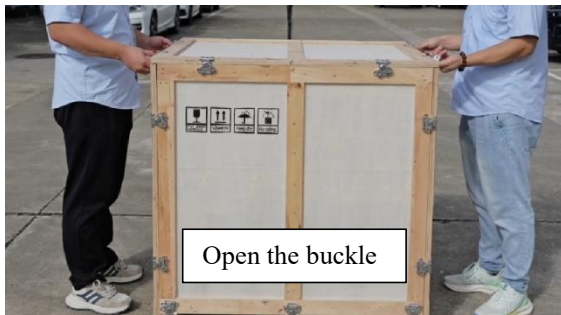
Water collection containers

Prepare a collection container to drain the water accumulated in the regulator cup bit by bit.



install machinery

Remove stationary fixtures



Connect the power cable

 warn

Connect to a socket that meets the rated conditions (voltage, frequency, current) of the machine. Incompatible voltage or insufficient current may cause fire and electric shock.

 warn

Please use the power cord, plug and socket carefully. Do not use damaged parts

Otherwise, fire and electric shock may occur.

 warn

Use extension cords and power strips that are higher than the rated conditions (voltage, frequency, current) of the machine. Overloading wiring and excessive extension cords may cause fire.

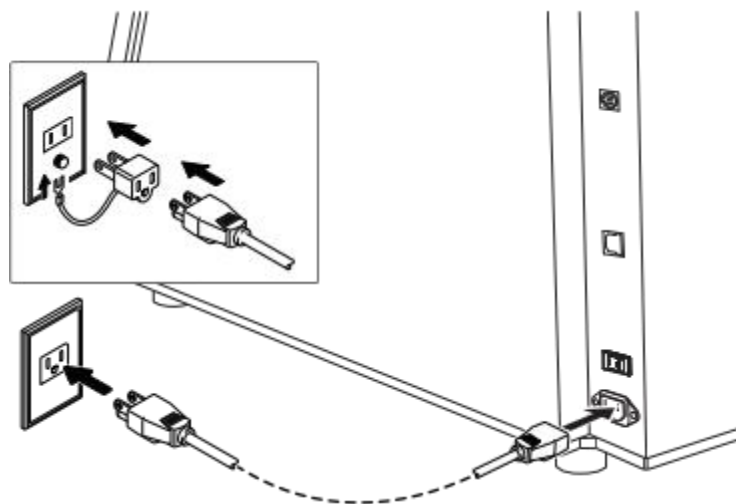
 warn

Please ground the machine.

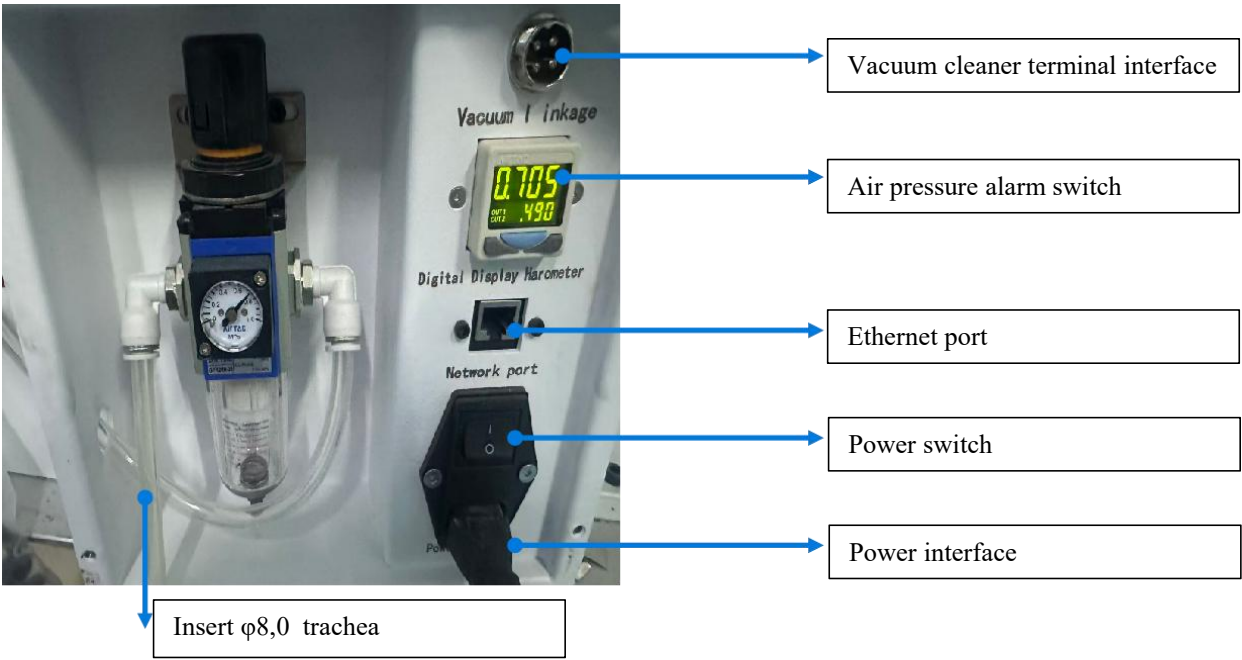
Once the fault leakage, can avoid fire and electric shock.

 warn

Should be connected to the socket. Do not directly connect to a distribution panel or other fixed wiring device. Otherwise, in case of an accident, the risk of fire and electric shock will increase.



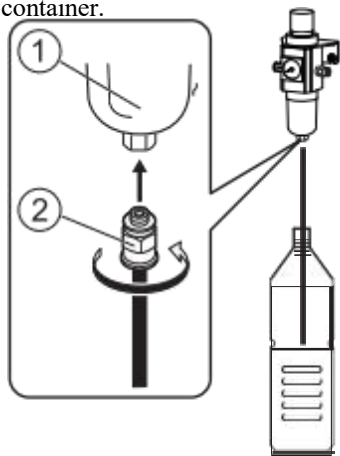
Turn on the power



1. **Insert the regulator bracket (②) into step 2 and temporarily fix the screw.**
Tighten until the torque screwdriver idles.

2. **Install the drain hose (②) onto the regulator adjustment cup (①)**

If water accumulates in the adjustment cup, it will be discharged from the drain hose. Please set up a collection container.



3. **Please insert the air hose into the machine.**



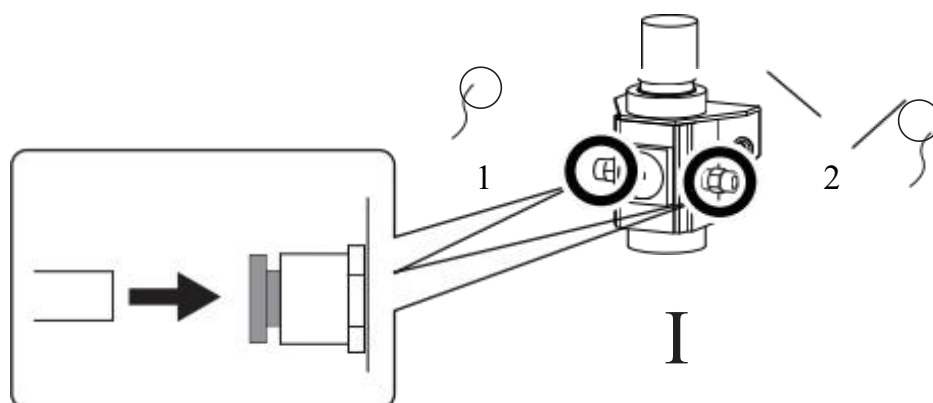
Insert the air hose completely. Pull gently to make sure it doesn't fall off. Not enough depth may cause it to fall off.

Please attach the air hose to the machine.

4. Press the connector ring into the regulator while inserting the air hose into the regulator.

Insert the air hose completely. Pull gently to make sure it doesn't fall off. Not enough depth may cause it to fall off.

Install the air hose (①) that comes with your compressor on the left side of the regulator. Attach the other end of the air hose (②) installed on this unit to the right side of the regulator.

**5. Supply compressed air and confirm whether the connection part is leaking.**

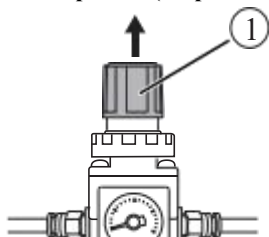
When removing the air hose from the regulator, press in the connector of the regulator while slowly pulling out the air hose.

2. Setting the air pressure

After receiving the CAM data, the machine automatically switches the air pressure according to the processing material.

step

1. Lift the top knob (air pressure adjustment knob) (①).



2. Adjust the air pressure.

- Slowly turn the top knob to set the air pressure to 0.3 MPa.
- Slowly turn the top knob to raise the pressure to 0.6 MPa.



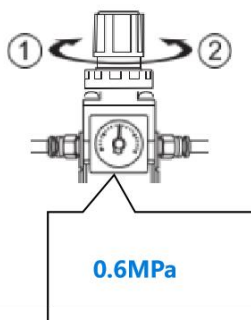
warn

Turn the pressure adjustment knob slowly and carefully.

Otherwise the machinery could suddenly start

important

Be sure to set the pressure to 0.6 MPa. Once it exceeds 0.6 MPa, it may cause a failure. When the pressure is low, it cannot be achieved well.



- ①: Increased pressure
- ②: Lowering the pressure

3. Press the top knob.

Power-on interface

2025-09-09 11:08:39

自动

返回主页

报警

YUCERA

导入

系统操作

校准

断点加工

加工列表

正在加工:

置顶

上移

下移

置底

删除

机械坐标

绝对坐标

X0.000

Y0.000

Z0.000

A0.000

B180.000

X0.000

Y0.000

Z0.000

A0.000

B180.000

当前刀号:

主轴转速

加工时间

加工进度

0

0

00:00:00

0%

进给速度 100%

-

+

启动

暂停

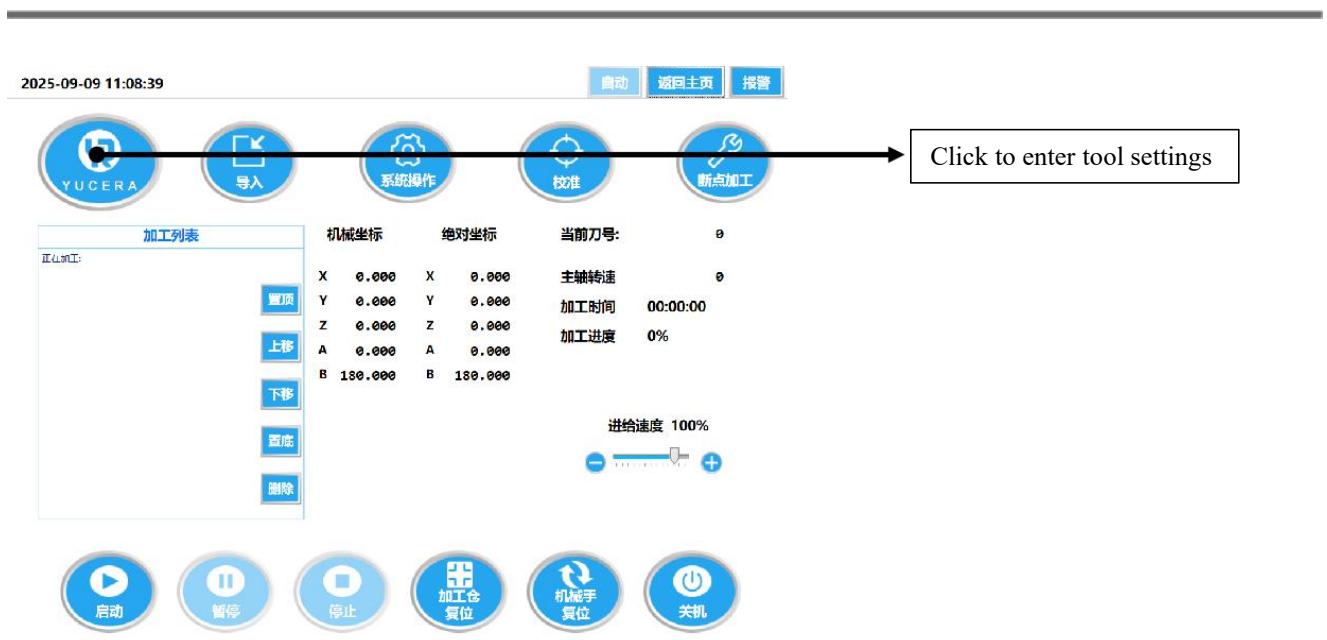
停止

加工仓 复位

机械手 复位

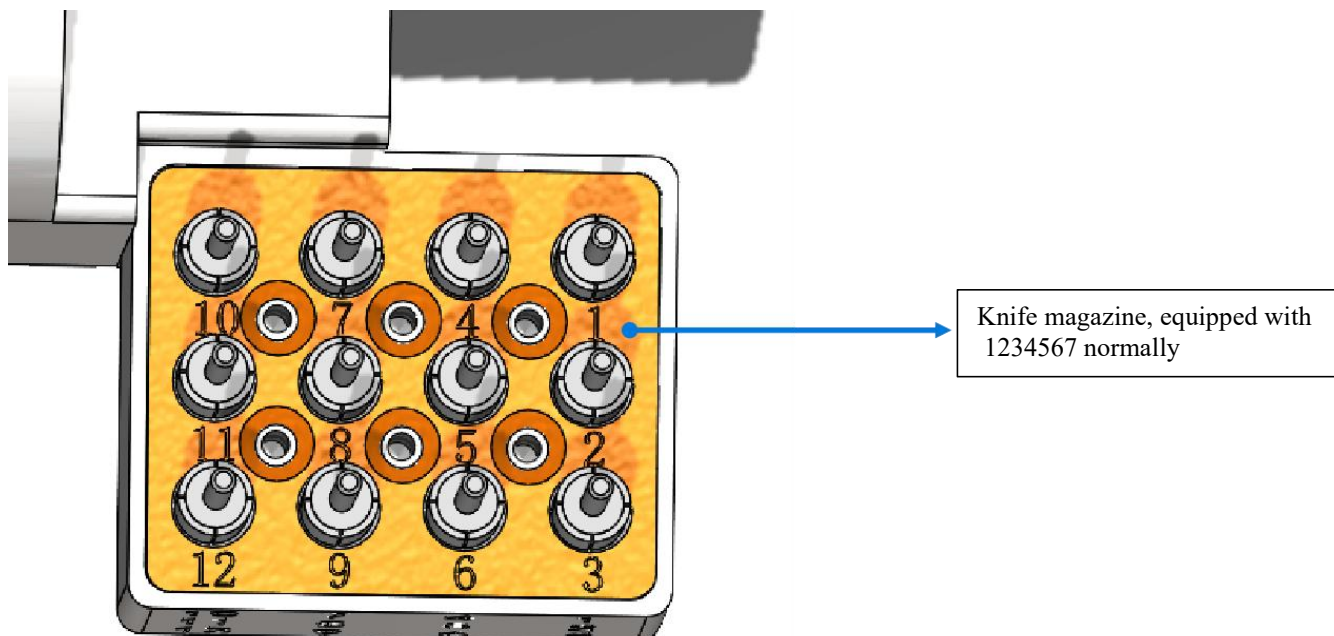
关机

Installation 36



刀具							
编号	刀具名称	刀具长度	长度磨损	刀具直径	直径磨损	刀具偏置	刀具组别
1		0	0	0	0	0	1
2		0	0	0	0	0	1
3		0	0	0	0	0	1
4		0	0	0	0	0	1
5		0	0	0	0	0	1
6		0	0	0	0	0	1
7		0	0	0	0	0	1
8		0	0	0	0	0	1
9		0	0	0	0	0	1
10		0	0	0	0	0	1
11		0	0	0	0	0	1
						刀具寿命	退出

Tool group setting, this machine delivers a total of 7 needles T1-T7
T1=2.0mm,T2=1.0mm,T3=0.6mm,T4=1.5mm Zirconia needles are divided into one group
T5=2.0mm,T6=1.0mm,T7=0.6mm为PMMA The knife magazine can hold 12 car needles
8, 9, 10, 11, and 12 are spare needles, set the same group of needles, and when the needle's lifespan is exhausted, it will automatically grab the corresponding spare needle



Tool group setting, this machine delivers a total of 7 needles T1-T7

2025-09-09 11:20:52

自动返回主页报警

YUCERA

导入

系统操作

校准

断点加工

加工列表

机械坐标

绝对坐标

当前刀号: 0

编号	刀具名称	刀具长度	长度磨损	刀具直径	直径磨损	刀具偏置	刀具半径
1		0	0	0	0	0	1
2		0	0	0	0	0	1
3		0	0	0	0	0	1
4		0	0	0	0	0	1
5		0	0	0	0	0	1
6		0	0	0	0	0	1
7		0	0	0	0	0	1
8		0	0	0	0	0	1
9		0	0	0	0	0	1
10		0	0	0	0	0	1
11		0	0	0	0	0	1

刀具寿命

Can predict tool life and set the unit (seconds) by yourself

Click on the tool life

2025-09-09 11:28:04

自动返回主页报警

YUCERA

导入

系统操作

校准

断点加工

加工列表

机械坐标

绝对坐标

当前刀号: 0

正在加工:

置顶

上移

下移

到底

删除

X	0.000	X	0.000	主轴转速	0
Y	0.000	Y	0.000	加工时间	00:00:00
Z	0.000	Z	0.000	加工进度	0%
A	0.000	A	0.000		
B	180.000	B	180.000		

进给速度 100%

启动

暂停

停止

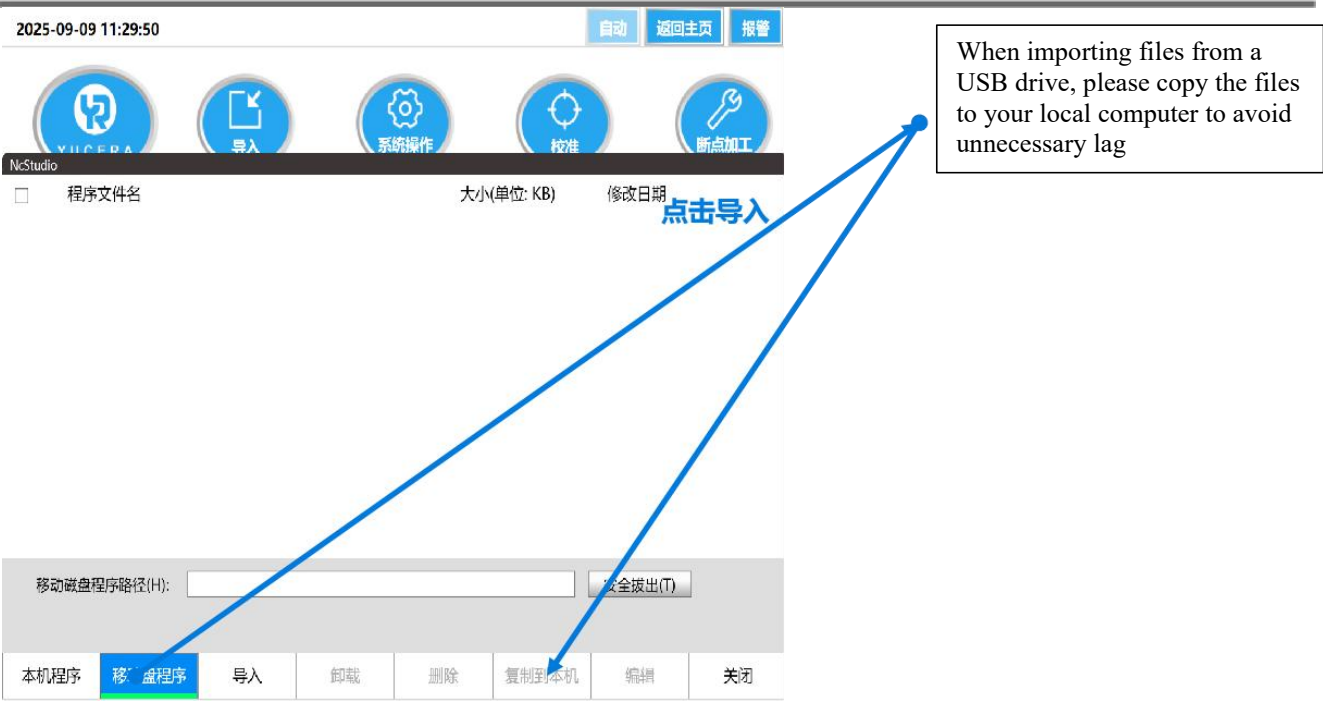
加工仓复位

机械手复位

关机

Click to import

This list can only hold one folder in single machine mode, while in material warehouse mode, it can hold one or multiple folders for sequential processing



注意：本机分为自动上下料模式和单机模式。单机模式文件名可随意取名，而自动上下料需要注意命名规则（如：A-001-xxxxx）

Indicate the tray number

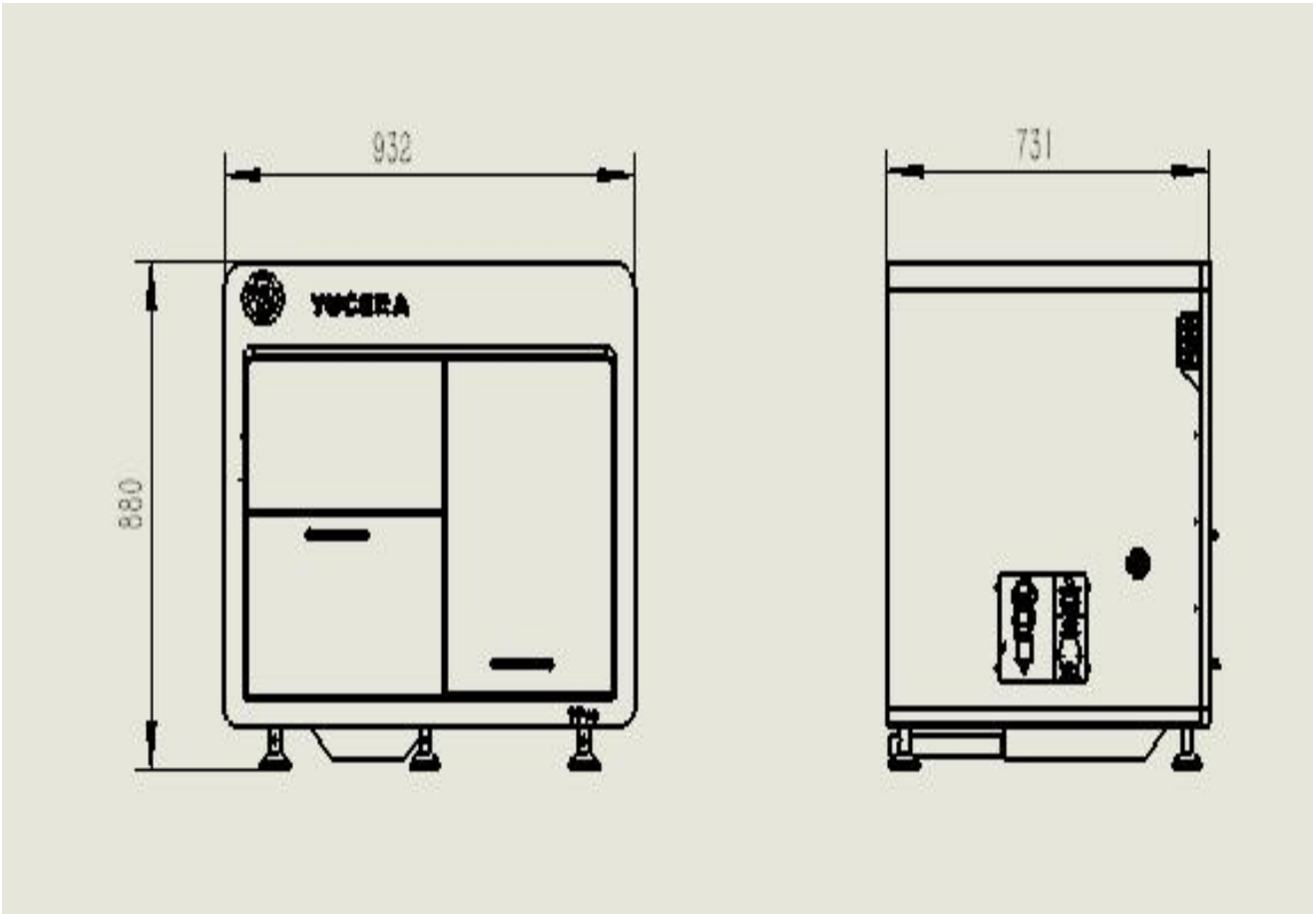
Before starting work



Flip the door upwards, made of tempered glass. Please open and close it gently, and do not impact it with gravity

Open the door downwards, made of tempered glass material. Please open and close gently, and do not impact it with gravity

dimensional drawing

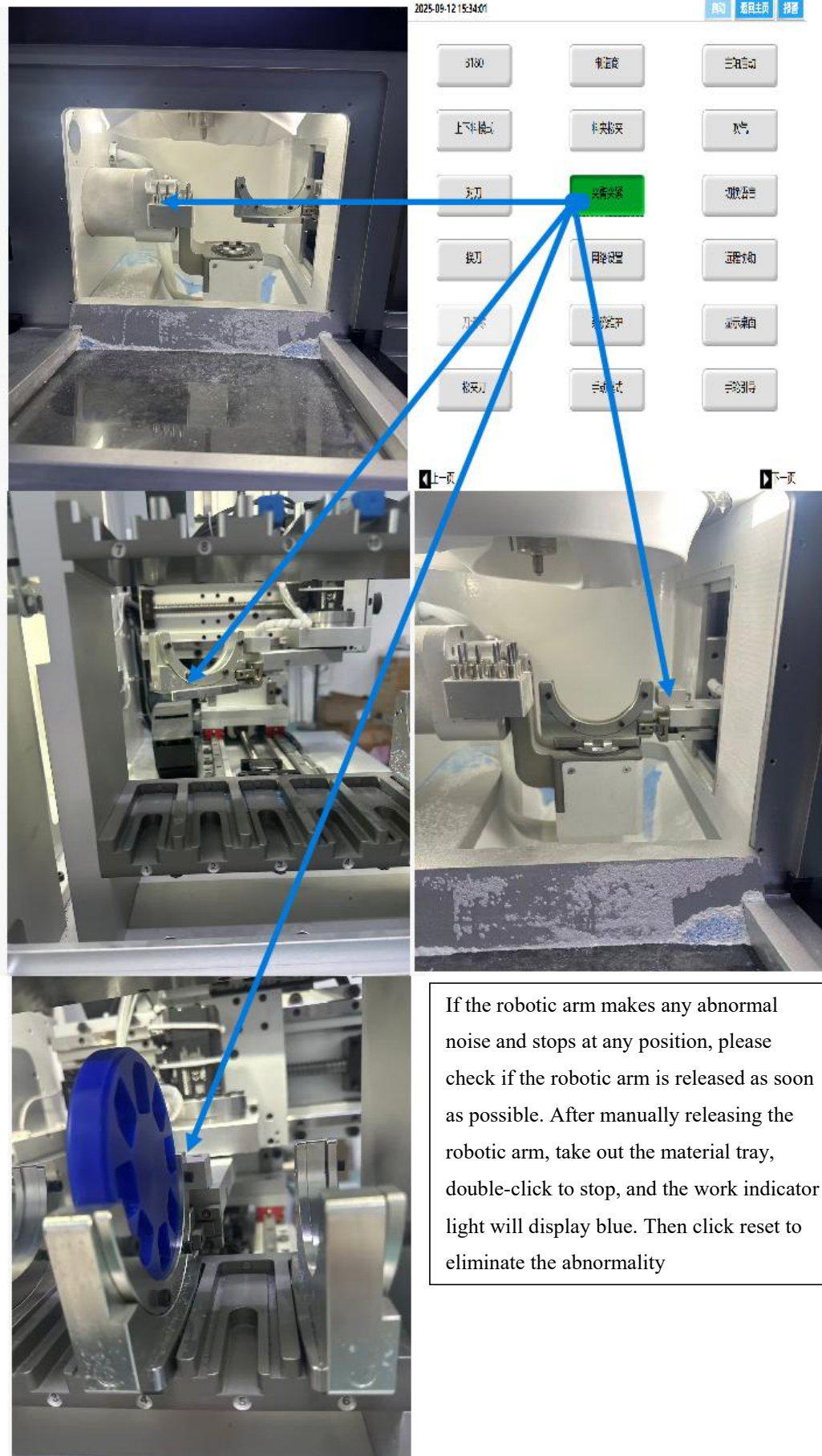


Specifications overview

	YRC-9PRO	
Processable materials* 1	Ceramics for dental cutting Resin materials for dental cutting and machining Dental casting wax Dental non-casting cobalt-chromium alloy (before sintering) (zirconia, wax, PMMA, composite resin, PEEK, glass fiber reinforced resin, PEEK, gypsum, polycarbonate)	
Shape of installable material	Disc (with shoulder) workpiece	Shoulder section: Diameter 98.5 mm, Height 10±0.3 mm; Main body section: Diameter 95 mm, Maximum height 35 mm
	Pin materials	Plug pin diameter 6 mm
Weight of installable material	Under 850g	
Installable handle	6	
working speed	XY: ~3,000 mm/min, Z: ~2,700 mm/min	
spindle motor	Brushless DC motor	
Spindle speed	6,000 ~ 30,000 rpm	
Number of tools accommodated	12 shares	
Cutting tools available	Handle diameter: φ4 mm, length: 40 ~ 55 mm	
Applicable compressed air pressure	0.5-0.7MPa	
joggle	USB	
control instruction	RML-1、NC code	
Power conditions	100 ~ 240 VAC ± 10%, 50/60 Hz (overvoltage type: distinguish II, IEC60664-1), 2.8 A	
consumed power	About 1800 W	
Decibel for work	At work: below 70 dB (A) (when not cutting) Standby: below 45 dB (A)	
outline dimension	Length x width x height: 932 x 763 x 880 mm	
weight	300 kg	
Installation environment	Indoor use, height: below 2,000 m Temperature: 5 ~ 40°C, humidity: 35 ~ 80% (no condensation) Environmental pollution degree: 2 (based on IEC60664-1) Short-term transient overvoltage: 1,440 V, long-term transient overvoltage: 490 V	

*1 Even if the material is recorded in the instruction manual, it may be impossible to process due to the influence of specifications and physical properties. For details, please consult our authorized distributor or customer service

Handle abnormal treatment such as gas cut, power cut and emergency stop





The red light indicates an abnormal alarm



The blue light is in standby mode



Green light indicates normal processing status