SITE REQUIREMENTS

nano ONE

REVISION VERSION V1.9. | MARCH 2024

Dimensions and Weight

Identify the laboratory bench space before your system arrives based on the table below. Pay special attention to the total height and total weight requirements for all system components you have ordered and avoid bench space with overhanging shelves. Also pay special attention to the total weight of the system you have ordered to ensure your laboratory bench can support this weight.

> **SPECIAL NOTES**
> • Additional bench space may be required for the PC or notebook.

Instrument	Weight	Height	Depth	Width
	kg	cm	cm	cm
NanoOne250	124	65	71	58.5
NanoOne1000	124	65	71	58.5

The system requires additional bench space to access the back of the instrument for filter inspection and change. Minimal wall distance 10 cm.
Further, the system requires additional 20 cm space above the system for the motorized door. To accommodate good ventilation, we recommend 40 cm space above the system.

The wooden shipping crate has the dimensions 120 x 100 x 106 cm^3 and weighs no more than 220 kg. Make sure that the crate fits through all (elevator) doorways and other potential narrow spaces that need to be passed through on the way to the intended installation site.

> **IMPORTANT**
> Please note that the table / workbench must be designed for the surface load of the NanoOne, 124 kg with a footprint of 0.42m². For tables significantly wider than the NanoOne, there must be intermediate support legs to prevent the top plate from bending.

Environmental Conditions

Operating your instrument within the recommended temperature ranges insures optimum instrument performance and lifetime. Operating conditions: clean environment or cleanroom setup.

SPECIAL NOTES
- Performance can be affected by sources of heat & cold e.g., direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
- The site's ambient temperature must be stable for optimum performance.
- The air exchange rate of the installation room must be > 600 m³/h; an air conditioning system must also ensure at least this air exchange volume per hour.

Instrument	Operating temperature	Operating humidity	Rate of room temperature change
	°C	%	K/h
NanoOne250	21 (±2)	< 60	≤ 1
NanoOne1000	21 (±2)	< 60	≤ 1

Storage Conditions

It must be ensured that the NanoOne printing system is stored in the original UpNano transport box in a low-dust indoor area after delivery or in the event of subsequent (interim) storage. The following ambient conditions must be maintained at all times.

Instrument	Storage temperature	Storage humidity
	°C	%
NanoOne250	20 (±10)	< 60
NanoOne1000	20 (±10)	< 60

Power Consumption

The NanoOne must be connected directly to a fixed socket outlet the use of extension cords, distribution sockets or the like is not permitted.

SPECIAL NOTES
- If a computer system is supplied with your instrument, be sure to account for those electrical outlets as well.
- The NanoOne needs one grounded power socket providing 5A (230V) or 10A (100V)
- The NanoOne is a Category II overvoltage device, OVC II

Instrument	Line Voltage	Frequency	Max. Power Consumption	Typical Power Consumption
	V	Hz	W	W
NanoOne250	100-240	50/60	850	< 400
NanoOne1000	100-240	50/60	850	< 400

Required Operating Supplies by Customer

Surface pre-treatment:
Chemicals:
- Water - deionised 1 L (e.g., Sigma Aldrich 38796)
- Ethanol - absolute 1 L (e.g., Sigma Aldrich 02851)
- Acetic acid - glacial 100 mL (e.g., Sigma Aldrich 695092)
- 3-(Trimethoxysilyl) propyl methacrylate 100 mL (e.g., Sigma Aldrich 440159)

Equipment:
- Magnetic stirrer and stirring-bars
- Piston pipette, adjustable between 100 – 1000 µL and disposable tips
- Chemical hood

Postprocessing and cleaning: R 234, G 79, B 61

Chemicals:
- 2-Propanol 2.5L (e.g., Sigma Aldrich 190764-2.5L) *Essential requirement for installation!*
- Acetone 1 L (e.g., Sigma Aldrich 32201-1L-M) *Essential requirement for installation!*
- Propylene glycol monomethyl ether acetate (PGMEA) 1 L (e.g., Sigma Aldrich 484431-1L)
- 1-Propanol 1 L (e.g., Sigma Aldrich 402893-1L-M)

Personal protective equipment:
- Disposable gloves (nitrile)
- Safety spectacles colourless
- Lab coat

Other/Special Requirements

1. Gigabit-network connection (DHCP) between the client/workstation and NanoOne (server) in the same network mask (255.255.255.*)
   Note: WLAN access for service team needed during installation, commissioning, and user training as well as for remote service and service visits in course of the service contracts.

2. An operating computer for the NanoOne that supports OpenGL 4.6. The computer is not included in the scope of delivery and must be provided by the customer. For smooth operation, the computer must meet the following minimum requirements:

Operating System:	*Windows 10 or higher*
CPU:	*x86 64bit Dual-core 2.0 GHz (intel 8th gen or comparable)*
Memory:	*8GB*
Storage:	*1GB*
GPU:	*OpenGL 4.6 class GPU 2GB VRAM*
	Nvidia GeForce 900 series or newer, Radeon RX 400 series or newer
Monitor:	*Resolution Full HD or higher*

3. The system is laser classified as laser protection class I and as such, no additional laser protection is needed during normal operation.

4. The system does not need to be in yellow light condition, the standard materials do not need yellow light condition. Nevertheless, it is advisable to have a shading possibility, for example blinds, available at the installation site.

5. Since solvents containing alcohol are used in sample preparation and post-processing, it is advisable to have a chemical fume hood available. To reduce UV exposure, especially during material preparation and post-processing, it is advisable to replace the lighting of the chemical fume hood with yellow light tubes or to cover it with appropriate foil.

6. The system has earthquake protection anchor points, contact support@upnano.com for bolt dimensions and drawing/drill guide.

Signature Page

Institution: ………………………………………….

Name: ……………………………………….

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Place, Date   Signature