

SACO300

Nitrogen Sample Concentrator for 96-Well Plates • Dry Block • RT+5 °C to 160 °C • 96 Needles

SACO300 Nitrogen Sample Concentrator evaporates solvent from a whole 96-well plate in one run: an aluminium dry block warms the plate while 96 stainless steel needles, one above every well, blow nitrogen onto the liquid surface and sweep the vapour away, without oxygen and without a water bath. The block is controlled from RT+5 °C to 160 °C with an accuracy of $\leq \pm 0.5$ °C at 40 °C, and the needle head travels 150 mm on a rack-and-pinion stand, so the needles follow the liquid level. Two interchangeable blocks are available: one for 0.2 mL PCR plates and one for flat-bottom ELISA plates.

NITROGEN BLOW-DOWN

96-WELL PLATES

96 NEEDLES

DRY BLOCK, NO WATER

RT+5 °C TO 160 °C

$\leq \pm 0.5$ °C AT 40 °C

150 MM HEAD TRAVEL

PCR OR ELISA PLATE BLOCK

OVER-TEMPERATURE PROTECTION

Document type: **Technical Specification Sheet**

Product: **SACO300 Nitrogen Sample Concentrator for 96-well plates**

SKU: **PRO4672**

Format: **A4 landscape • CORE-TECHSPEC 1.2**

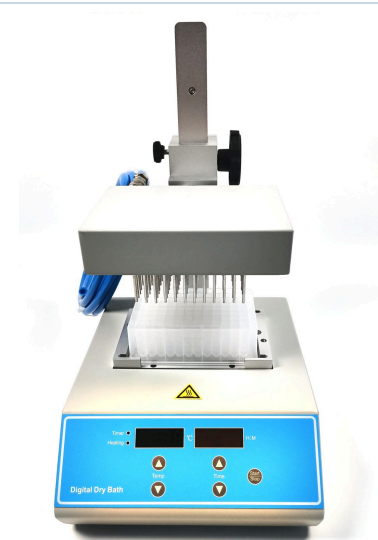
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[CONCENTRATION — OVERVIEW](#)

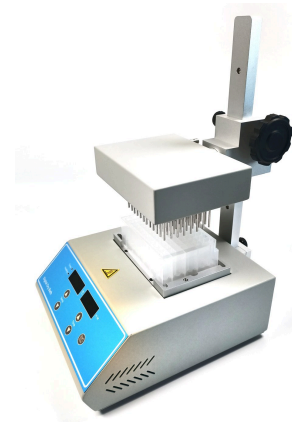
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 **HEATING ONLY** RT+5 °C to 160 °C



SACO300 • front view with a 96-well plate under the needle head



SACO300 • 96 needles, one above every well

MODEL

SACO300 • PRO4672

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SACO300 • technical specification

Nitrogen sample concentrator for 96-well plates, dry block, RT+5 °C to 160 °C, 96 needles, 2 interchangeable plate blocks

RT+5 °C TO 160 °C

 $\leq \pm 0.5$ °C AT 40 °C

96 WELLS PER RUN

96 NEEDLES

N₂ UP TO 15 L/MIN

500 W

— A whole plate in one run

Product Overview

Application profile

LC-MS sample preparation: drying of 96-well extracts before reconstitution.

SPE in plate format: concentration of eluates from 96-well SPE plates.

Bioanalysis: protein-precipitation and liquid-liquid extracts of plasma and serum.

Residue analysis: pesticides and veterinary drugs in high-throughput screening.

Solvent exchange: evaporation to dryness and reconstitution in another solvent.

Key features

Control: microprocessor with PID control; separate temperature and time displays.

Temperature: RT+5 °C to 160 °C, resolution 0.1 °C.

Heating: 25 °C to 160 °C in ≤ 15 min.

Timer: 1 min to 99 h 59 min, or continuous.

Needle head: 96 stainless steel needles in the 8 × 12 plate pattern; rack-and-pinion height adjustment.

Blocks: 2 interchangeable aluminium blocks for 96-well plates.

Calibration: temperature deviation calibration.

Safety: automatic fault detection with alarm; over-temperature protection.

Why nitrogen blow-down

A whole plate at once: 96 wells are dried together, not tube by tube.

A needle for every well: each well gets its own stream of gas.

Gentle: evaporation below the boiling point, under inert gas.

Dry heat: an aluminium block instead of a water bath.

Follows the level: the needle head is lowered over 150 mm as the liquid drops.

Core technical summary

Parameter	Specification
Model	SACO300
Product type	Nitrogen sample concentrator for 96-well plates
Temperature control range	RT+5 °C to 160 °C
Accuracy	$\leq \pm 0.5$ °C at 40 °C • $\leq \pm 1$ °C at 120 °C
Uniformity	$\leq \pm 0.5$ °C
Heating 25 °C to 160 °C	≤ 15 min
Blocks • positions	1 block • one 96-well plate
Head travel	150 mm
Nitrogen flow	up to 15 L/min

TEMP. CONTROL
RT+5 °C to 160 °C

ACCURACY AT 40 °C
 $\leq \pm 0.5$ °C

CAPACITY
96 wells

GAS DELIVERY
96 needles

RT = room temperature. The instrument is supplied without a block; the block is ordered separately. Nitrogen supply, pressure regulator, plates and samples are not part of the instrument. Use in a fume hood. Suitability for a specific method is confirmed in the COLO.Science quotation.

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Technical Specifications

Parameter	SACO300	Parameter	SACO300
Temperature setting range	0 °C to 160 °C	Nitrogen flow rate	up to 15 L/min
Temperature control range	RT+5 °C to 160 °C	Nitrogen pressure	0.05 MPa
Temperature accuracy	≤ ±0.5 °C at 40 °C · ≤ ±1 °C at 120 °C	Needles	96, stainless steel, 8 × 12 pattern
Temperature uniformity	≤ ±0.5 °C	Blocks · positions	1 block · one 96-well plate
Display resolution	0.1 °C	Power	500 W
Heating time	≤ 15 min, 25 °C to 160 °C	Voltage	AC 220 V, 50/60 Hz (AC 110 V on request)
Time range	1 min to 99 h 59 min, or continuous	Dimensions (W × D × H)	220 × 310 × 385 mm
Maximum vertical travel	150 mm	Weight	7.5 kg

RT = room temperature; the control range starts 5 °C above the temperature of the room the instrument stands in. Accuracy, uniformity and heating time are supplier data.

Interchangeable blocks

SKU	Plate	Wells	Block size
PRO4531	0.2 mL PCR plate	96	153 × 95.5 × 60 mm
PRO4532	ELISA plate, flat bottom	96	153 × 95.5 × 60 mm

The instrument takes one block. Choose the block by the plate you use; for other plate types send us the plate data sheet.

Needle head and nitrogen

Needles: 96, in the pattern of a standard 96-well plate, fed from one gas chamber.

Height: the head is lowered until the needle tips are just above the liquid, and lowered further as the level drops.

Nitrogen: dry, oil-free gas through a pressure regulator at 0.05 MPa.

Flow: set at the regulator so that the surface dimples without splashing; up to 15 L/min in total.

Run sequence

1 · Block: fit the block for your plate and set the temperature; the block heats up.

2 · Load: place the plate and lower the head until the needles are just above the liquid.

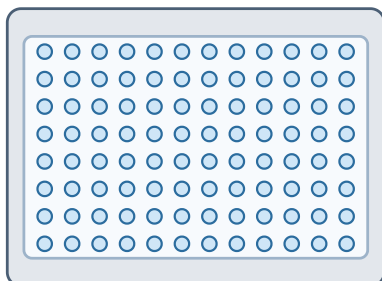
3 · Blow: open the nitrogen, set the flow and start the timer.

4 · End: close the gas, raise the head and take the plate out.

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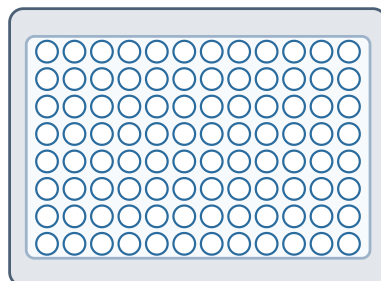
One plate, 96 needles

PRO4531



0.2 mL PCR plate · 96 wells

PRO4532



ELISA plate · 96 wells

Schematic top view. The block holds one 96-well plate; the needles of the head stand in the same 8×12 pattern, one above every well.

Needle head from below



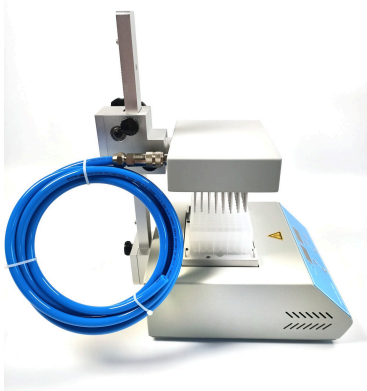
96 stainless steel needles are fixed in the gas distribution head; nitrogen is fed through one hose and divided over all needles.

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SACO300 · side view, stand with rack-and-pinion height adjustment and gas hose

Ordering information

Item	Value
SACO300 nitrogen sample concentrator for 96-well plates, without block	PRO4672
Block for 0.2 mL PCR plate, 96 wells	PRO4531
Block for ELISA plate, 96 wells	PRO4532
Supply	AC 220 V, 50/60 Hz
Delivery	Instrument, stand, needle head with 96 needles, gas hose, mains cable, manual

Configuration checklist

Plate: type and manufacturer of the 96-well plate decide the block.

Temperature: evaporation temperature within RT+5 °C to 160 °C and the limit of the plate material.

Nitrogen: cylinder or generator with regulator, 0.05 MPa, up to 15 L/min.

Tubes instead of plates? SACO100 and SACO200 take tubes from Ø 6 mm to Ø 40 mm.

Place of use: fume hood; 220 × 310 mm footprint, 385 mm high.

SUPPLIER AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send the plate type, the solvent, the volume per well and the temperature. COLO.Science will confirm the block and the delivery time.

QUICK CONTACT

🌐 colo.si
✉ sales@colo.si
☎ +386 70 713 437

COLO.SCIENCE · SAMPLE CONCENTRATION SUPPORT

Drying 96-well plates?

Send the plate type, the solvent, the volume per well and the temperature. COLO.Science will confirm the block and the delivery time.

Web: colo.si

Ask us:

Price and current discount, delivery time, application support and service — write to sales@colo.si or call us.

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