

SACO400

Nitrogen Sample Concentrator with Viewing Slots • Dry Block • RT+5 °C to 160 °C • 12 Tubes • A Valve on Every Needle

SACO400 Nitrogen Sample Concentrator lets you watch the samples while they evaporate: the aluminium dry block is slotted at every position, so the liquid level in each tube stays visible during the run. The block warms the samples while nitrogen from stainless steel needles sweeps the vapour off the liquid surface, 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 every needle has its own valve, so a sample that has reached its end volume is closed off while the rest go on. One block takes 12 tubes; seven interchangeable slotted blocks cover tubes from Ø 10 mm to Ø 20 mm.

NITROGEN BLOW-DOWN

VIEWING SLOTS IN THE BLOCK

DRY BLOCK, NO WATER

RT+5 °C TO 160 °C

$\leq \pm 0.5$ °C AT 40 °C

12 TUBES

VALVE ON EVERY NEEDLE

150 MM NEEDLES

OVER-TEMPERATURE PROTECTION

Document type: **Technical Specification Sheet**

Product: **SACO400 Nitrogen Sample Concentrator with viewing slots**

SKU: **PRO4673**

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

[SACO400 PRODUCT PAGE](#)

[CONCENTRATION — OVERVIEW](#)

[CONCENTRATION CATALOGUE](#)

[REQUEST QUOTE](#)

 **HEATING ONLY** RT+5 °C to 160 °C



SACO400 • slotted block, 12 needles each with its own valve, tube rack



Seven interchangeable slotted blocks, Ø 10 mm to Ø 20 mm tubes

MODEL

SACO400 • PRO4673

ADDRESS / HQ

**Polje ob Sotli 4
SI-3255, Slovenia**

CONTACT

**sales@colo.si
+386 70 713 437**

SACO400 • technical specification

Nitrogen sample concentrator with viewing slots, dry block, RT+5 °C to 160 °C, 12 tubes, a valve on every needle, 7 interchangeable slotted blocks

RT+5 °C TO 160 °C

≤ ±0.5 °C AT 40 °C

12 TUBES

VIEWING SLOTS

VALVE ON EVERY NEEDLE

N₂ UP TO 15 L/MIN

— The liquid level stays in view

Product Overview

Application profile

Concentration to a volume: stop each sample when it reaches the mark, not by time.

Residue analysis: pesticides, mycotoxins and veterinary drugs before GC and LC.

SPE eluates: concentration of fractions after solid-phase extraction.

Food and environment: extracts of food, water and soil samples.

Solvent exchange: evaporation to near 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: 12 needles, 150 mm long, a valve on each; rack-and-pinion height adjustment.

Blocks: 7 interchangeable slotted aluminium blocks, 12 positions, 50 mm deep.

Calibration: temperature deviation calibration.

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

Why a slotted block

Level in view: a slot at every position shows the liquid in the tube.

No lifting out: tubes stay in the heat while you check them.

Each sample on its own: a valve on every needle sets or closes the gas for that tube.

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

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

Core technical summary

Parameter	Specification
Model	SACO400
Product type	Nitrogen sample concentrator, slotted dry block
Temperature control range	RT+5 °C to 160 °C
Accuracy	≤ ±0.5 °C at 40 °C • ≤ ±1 °C at 120 °C
Uniformity	≤ ±0.5 °C
Heating 25 °C to 160 °C	≤ 15 min
Blocks • positions	1 block • 12 tubes
Needle length	150 mm
Nitrogen flow	up to 15 L/min

TEMP. CONTROL
RT+5 °C to 160 °C

ACCURACY AT 40 °C
≤ ±0.5 °C

POSITIONS
12, all visible

GAS CONTROL
valve on every needle

RT = room temperature. The instrument is supplied without a block; the block is ordered separately. Nitrogen supply, pressure regulator, tubes 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.

[SACO400 PRODUCT PAGE](#)

[CONCENTRATION — OVERVIEW](#)

[CONCENTRATION CATALOGUE](#)

[REQUEST QUOTE](#)

Technical Specifications

Parameter	SACO400	Parameter	SACO400
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	0.1 MPa
Temperature accuracy	≤ ±0.5 °C at 40 °C · ≤ ±1 °C at 120 °C	Gas control	Valve on every needle
Temperature uniformity	≤ ±0.5 °C	Blocks · positions	1 block · 12 tubes, slotted
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)	260 × 220 × 475 mm
Needle length	150 mm	Weight	7.3 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 slotted blocks

SKU	Bore · depth	SKU	Bore · depth
PRO4675	12 × Ø 10.5 mm · 50 mm	PRO4679	12 × Ø 16.5 mm · 50 mm
PRO4676	12 × Ø 12.5 mm · 50 mm	PRO4680	12 × Ø 19.5 mm · 50 mm
PRO4677	12 × Ø 13.5 mm · 50 mm	PRO4681	12 × Ø 20.5 mm · 50 mm
PRO4678	12 × Ø 15.5 mm · 50 mm	—	—

Every block has 12 positions in two rows of six, each with a viewing slot. Choose the bore just larger than the outer diameter of your tubes.

Needle head and nitrogen

Valves: one on every needle; turn to set the flow for that tube or to close it.

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 0.1 MPa.

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

Run sequence

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

2 · Load: place the tubes, lower the head and close the valves of empty positions.

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

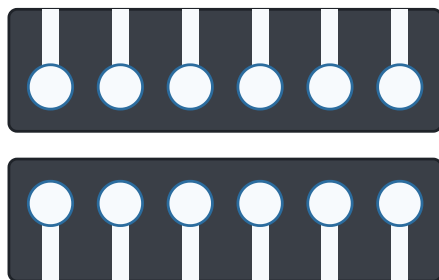
4 · Watch and end: close each valve when its level reaches the mark; then close the gas and raise the head.

[SACO400 PRODUCT PAGE](#)[CONCENTRATION — OVERVIEW](#)[CONCENTRATION CATALOGUE](#)[REQUEST QUOTE](#)

Slotted Block and Needle Head

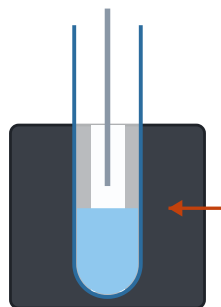
Twelve positions, each with a slot

Top view



2 × 6 positions

Side view



level visible in the slot

Schematic. Left: top view of the block, two rows of six positions with slots open to the outside. Right: a position seen from the side, the liquid level visible through the slot.

Needle head with valves



Each of the 12 needles has a valve on top of the head: the gas flow is set for every tube, and a finished position is closed.

[SACO400 PRODUCT PAGE](#)

[CONCENTRATION — OVERVIEW](#)

[CONCENTRATION CATALOGUE](#)

[REQUEST QUOTE](#)



SACO400 · slotted block in the instrument, temperature and time displays

Ordering information

Item	Value
SACO400 nitrogen sample concentrator with viewing slots, without block	PRO4673
Slotted blocks	see table of interchangeable blocks
Supply	AC 220 V, 50/60 Hz
Delivery	Instrument, stand, needle head with 12 needles and valves, gas hose, mains cable, manual

Configuration checklist

Tubes: outer diameter decides the block; depth in the block is 50 mm.

Temperature: evaporation temperature within RT+5 °C to 160 °C.

Nitrogen: cylinder or generator with regulator, 0.1 MPa, up to 15 L/min.

More tubes? SACO200 takes 24 tubes, SACO100 up to 48; for 96-well plates see SACO300.

Place of use: fume hood; 260 × 220 mm footprint, 475 mm high.

SUPPLIER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send the tube diameter and length, the solvent, the end volume 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

Concentrating to a set volume?

Send the tube diameter and length, the solvent, the end volume 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.

[SACO400 PRODUCT PAGE](#)

[CONCENTRATION — OVERVIEW](#)

[CONCENTRATION CATALOGUE](#)

[REQUEST QUOTE](#)