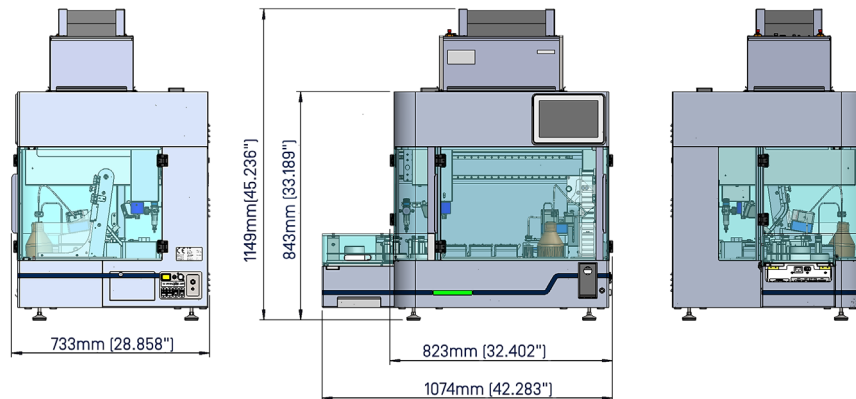


TECHNICAL DATASHEET

X-TubeProcessor®_Smart



DEVICE

Dimensions

Height:	84 cm [33.2"] standard size / 115 cm [45.24"] with HEPA-filter
Depth:	73 cm [28.86"]
Width:	82 cm [32.40"] standard size / 107 cm [42.28"] with labeler

Weight

Without labeler:	approx. 72 kg [159 lbs]
With labeler:	approx. 85 kg [187 lbs]
With labeler and HEPA-Filter:	approx. 95 kg [209 lbs]

Operating Data

Operating voltage:	100-240 VAC, 50/60 Hz
Power consumption:	280 W
Air supply:	min. 50l/min. @ 6-8bar (according to DIN ISO 8573-1:2010)
Temperature/humidity:	15 °C - 30 °C / 10% - 80%; non-condensing

Interfaces

- 1 Ethernet port for connecting internet to the device
- 1 Ethernet port for connecting external network / computer to the labeler
- 1 USB A port for connecting peripherals to the device
- 1 USB A port for service access

Housing

Powder coated aluminum, anodized aluminum & Plexiglas, Cleanable with regular detergents (housing only)

Human Machine Interface

10.1" WXGA capacitive touch panel with 16:10 aspect ratio
Linux-based integrated control software

MODULES

Robotic Arm Module

Cartesian coordinate robotic arm with a universal rotating gripper (patent pending)

Rack Module

Capacity of 6 SBS format racks with 48 tubes each
Aluminum racks or PP racks, depending on the user requirement
(customer specific racks after technical evaluation)

Cap-Feeder Module

Individual cap sorting unit with a storing capacity of 1000 caps and with a quick-empty function

Liquid-Handling Module*	Watson-Marlow peristaltic pump
Dispensing volumes:	max. 2000µl
Pump calibration:	Inbuilt pump calibration tool
Dispensing accuracy:	<1% - 5% of the dispensing volume (depends on the dispensing volume, density of the liquid and tubing sizes)
Available tubing sizes:	Wall thickness: 1.6mm Inner diameter: 0.5 mm, 0.8 mm & 1.6 mm
Source vessel:	max. 1l within the device (passive cooling for smaller vessels possible) *
Suction-/dispensing canula:	Available per each size of tubing Stainless steel & Autoclavable
Additional options:	Wall-Touch unit*

Labeling Module*	CAB Axon 1.1 thermal transfer printer
Printing resolution:	600 dpi
Tube diameter	7 mm – 22 mm
Label core diameter:	min. 76 mm
Label roll diameter:	max. 205 mm
Label height:	max. 25.4 mm (1")
Label design software:	Cablable S3 (other software after individual clarification)
Operating voltage:	100-240 VAC, 50/60 Hz
Power consumption:	100 W

HEPA-Filter Module*	HEPA-Filter H14 with pre-filter
Sterility Class	DIN EN ISO 14644 Class 5
Operating voltage:	100-240 VAC, 50-60 Hz
Power consumption:	85 W

UV-C Light Module*	UV-C air & surface disinfection with 13W high efficiency emitter
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Feedback Units*	Acoustic alarm unit Fault detection connection unit E-Mail notifications Virtual Network Computing
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COMPACTIBLE TUBES/VIALS & CAPS

Tubes/Vials	Micro screw tubes, cryo vials, HPLC vials or similar
Tube/Vial height:	max. 65mm (2.559")
Caps	Screw caps
Cap Height:	approx. 6mm (0.236")
Manufacturer	Sarstedt, SSI, Biozym, Greiner, VWR, Thermo Fisher Scientific, Nunc (other after technical evaluation)

THROUGHPUT†

Filling Capping Labeling	Filling Capping	Capping Labelling	Labelling
200 tubes/hour	310 tubes/hour	220 tubes/hour	370 tubes/hour

* Optional modules / units

† Might vary depending on the filling and labeling process. Complete throughput process is performed on 2.0ml Sarstedt tubes in six HTI 48 SBS racks with additional options disabled. Filling process is performed by filling 1000µl distilled water at 24°C using dispensing set ID: 1.6 mm. Labelling process is performed using a 25x30mm labels with thermos transfer option.