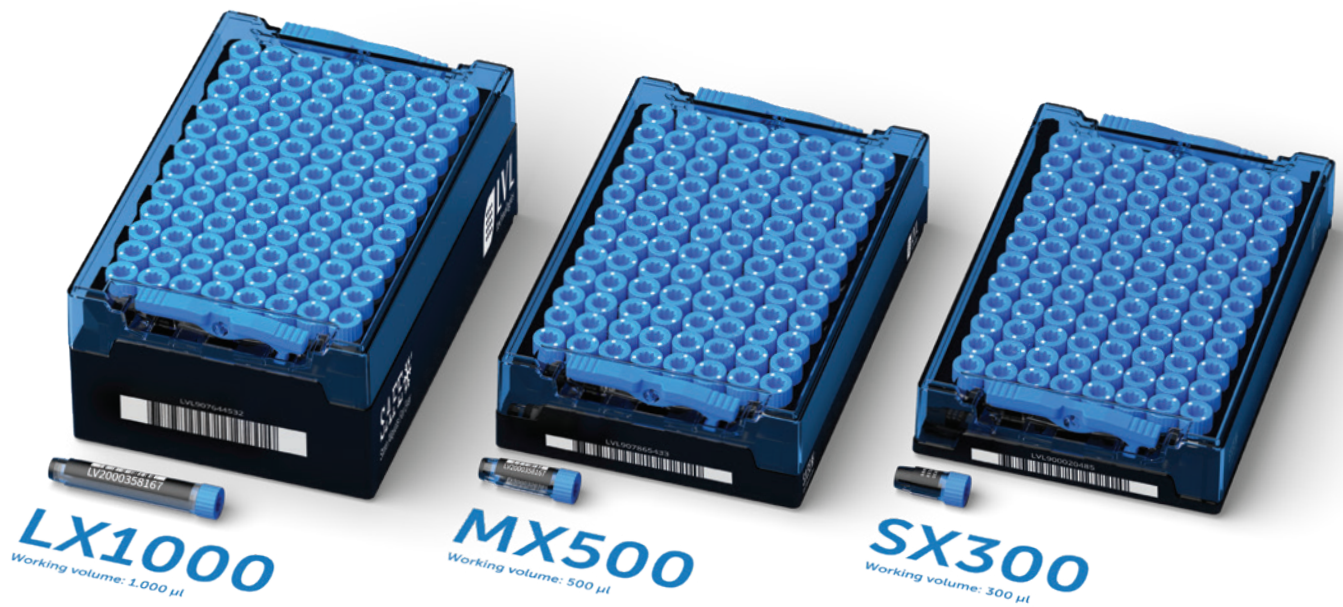


Sample Storage Range

Available from Pathtech

April 2024



Phone 1800 069 161
Email info@pathtech.com.au
pathtech.com.au

 **Pathtech**[™]
First Choice In Science

 **LVL**
technologies

SAFE[®]
Store Aliquots For Ever

What really matters

Biobanking, compound management, cryopreservation, population studies and transfusion medicine are just some of the possible applications for high-quality, long-term storage of biomaterials in the microlitre scale.

If you store large quantities of small samples in the medium to long terms for purposes of research and diagnostics, you generally have to deal with various requirements regarding the sample container to be used, from handling to storage through to the follow-up of the respective sample. The overriding priority must be the best possible conservation of sample quality and quantity,

This means that three things need to be guaranteed for the samples to be stored:

1. Integrity
2. Identifiability
3. Space saving storage

In addition, if automated processability is used in the laboratory, there is no better alternative for modern storage.



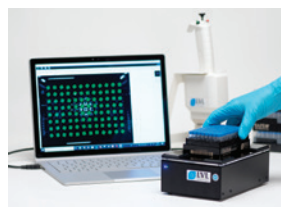
Handling

- › Easy removal of sample container
- › Problem free aliquoting, even when using automated laboratory systems.
- › Minimum risk of cross-contamination
- › Rapid opening and closing of containers
- › Samples reliably assigned without the need for labelling
- › Quick and error free identification of the specified coding



Storage

- › Thermostability of the containers and receptacles
- › Space-saving storage
- › Problem-free transfer to stores even with automated storage systems



Traceability

- › Maximum code security
- › Unique coding
- › Optimal legibility even at cryo-temperatures
- › Optional code redundancy



Sample Quality and Quantity

- › Best possible sealing of the selected closure option at cryo-temperatures and room temperature
- › Best possible sealing during transport under negative pressure
- › High purity of the sample containers
- › Lowest possible concentration of bioactive compounds in the plastic used

SAFE® – Store Aliquots For Ever

SAFE® 2D tubes from LVL technologies offer the greatest possible safety, automation capacity, flexibility and efficiency. Customers worldwide rely on SAFE for long term storage in:

- › Biobanking
- › Epidemiological studies
- › Clinical trials
- › Cohort studies
- › Transfusion medicine
- › Compound management
- › Forensics
- › Kit manufacturing
- › Food industry

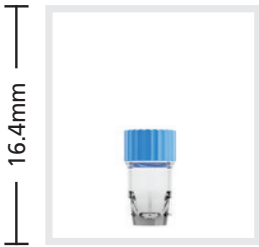
Explore our 2D tubes

Custom 2D coding options are available to meet your laboratory's individual database or tracking requirements. Please contact us to discuss your biobanking needs.

SAFE® 96 XT

Tubes with external thread (96 per rack)

XSX 200



SX 300



MX 500



LX1000



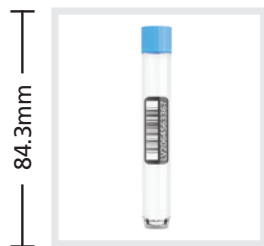
SAFE® 48 XT

Tubes with external thread (48 per rack)

XLX 2000



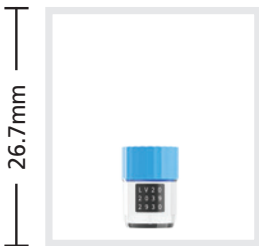
XLX 4000



SAFE® 24 XT

Tubes with external thread (24 per rack)

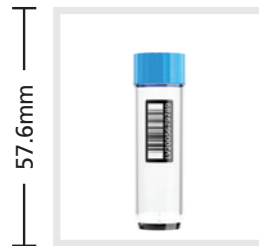
XXLX 2000



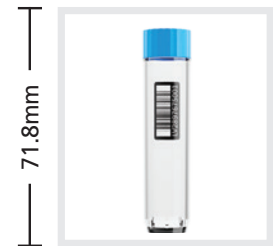
XXLX 0000



XXLX 6000



XXLX 8000



SAFE® 96 IT

Tubes with internal thread (96 per rack)

LI 1000

Tissue Specific Hook



LI 1000

With push cap



MI 500



Coloured Screw Caps XT & IT

Customization available including coloured caps & custom barcoding

Screw Caps XT (96-48-24)

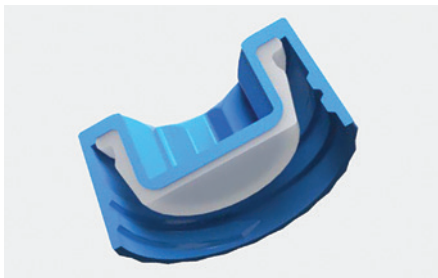
The patented 2-phase TPE compression enables an optimal leak-tightness. The double phase-sealing is a particularly innovative feature. While closing, the first contact between the lateral edge of the tube and screw cap guarantees the seal against liquids (liquid sealing), the contact of the screw connection with the upper end of the tube edge minimises the ingress and leakage of gases (vapour sealing).

In principle, screw caps are delivered in three different forms: pre-screwed, in a cap rack (SBS 96/48) or loosely in a bag.

LVL offers more than 12 different cap colours, which can also be mixed column by column for larger quantities.



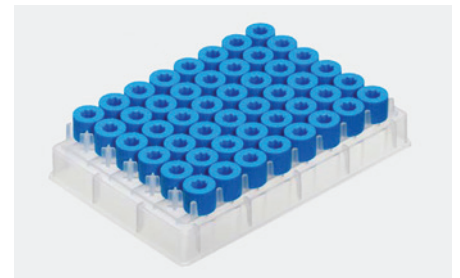
Screw Cap for External Thread



Cap Rack 96 Sorted Colours



Cap Rack 48



Screw Caps IT

In the case of screws caps for internal threaded tubes LVL uses a TPE compression, which forms an indissoluble unit with the polypropylene of the screw cap in the two-component process. The result: the leak-tightness of the tubes was tested multiple times with very good results, inter alia, in the international standardised IATA test. What's more, the construction of the closely interlocking threads prevents the frequently observed over winding of the screw connections in combination with the TPE sealing, particularly in manual caps without a firmly defined torque.



Screw Cap for Internal Thread



LI 1000 Tube with Screw Cap



Push Caps 96

Push or septum caps are the cheaper alternative to screw caps. They are usually used if storage is limited to a few years, the storage temperature does not fall below -80°C and the samples only have to be stored and not shipped.

Through the - also automated - pressing of the caps and the subsequent removal of the foil, the 96 tubes are closed individually at the same time.

Also available as single row and column stripes.



Push Caps Available in 9 Different Colours

Rack LI 1000 with Push Caps



Rack MI 500 with Push Caps



2D RACK SAFE® HD 138

- › HD Rack for 138 tubes
- › SBS Format
- › Rack Material Polycarbonate (PC)

Suitable for SAFE® 96XT:
XSX280, SX300



Suitable for SAFE® 96XT:
MX500



Suitable for SAFE® 96XT:
LX1000



LVL fully automated SAFE[®] Tube AND Tube Rack READER

The new standard for fast and reliable SBS 2D Tube Rack Decoding

› **Scans single tubes:**

As well as racks, single tubes with 2D codes can also be scanned by placing the code anywhere on the reading window.

› **Scans SBS format sample racks:**

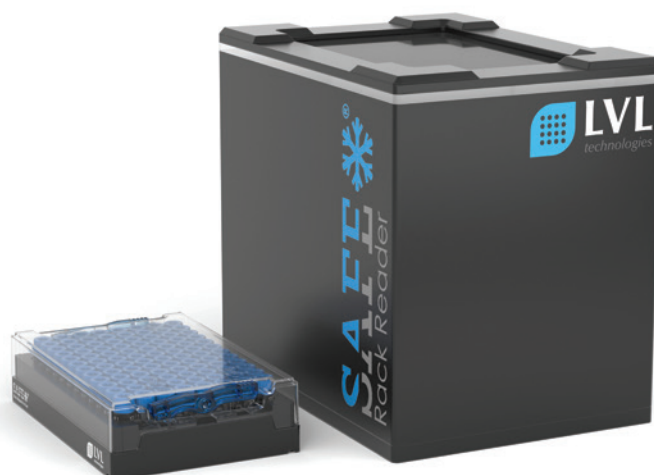
Decodes any 12, 24, 48, 96 or 384 format well racks without any configuration in less than a second!

› **Power supply:**

No additional cable required - connect your scanner to your laptop via USB cable and off you go.

› **Single tubes:**

As well as racks, single tubes with 2D codes can also be scanned by placing the code anywhere.



Technical details

| | |
|-------------------------------|-----------------------------|
| Dimensions (L x W x H) | 180 x 130 x 160 mm |
| Weight | 1.9 kg |
| Supported OS | Windows 10 & 11 |
| Connectivity | USB 2.0 or 3.0 port |
| Power | 5V via USB connection |
| Certification | Conforms to CE & FCC & IP65 |
| Warranty | 2 years |



Interested
in the Reader?
SCAN TO LEARN MORE

SAFE® Capper / Decapper

Easily cap and decap our tubes

Manual 1 Channel Capper/Decapper/Picker



- › Can be used as a picker
- › Enables end to end handling without direct contact with hands, minimizing the risk of contamination and heat transfer



Find out more
on our website

LVL Automated 4, 6 and 8 channel Capper/Decapper



- › Cap 4, 6 or 8 tubes at once
- › Ergonomic design
- › Reliable capping / decapping
- › Power-saving mode
- › Individual motors for standardised closing torque

LVL Automated 96, 48 & 24 Channel Capper/Decapper Quickly cap / decap one rack at a time



- › Available in SBS 96, 48 and 24 formats for all models of LVL SAFE® 2D barcoded tubes
- › Fully automated
- › Standalone or integrated
- › Processes a full rack
- › Automatic height detection

Say Goodbye to Tag & Pen

The LVL Tube Laser Marker TLM 864

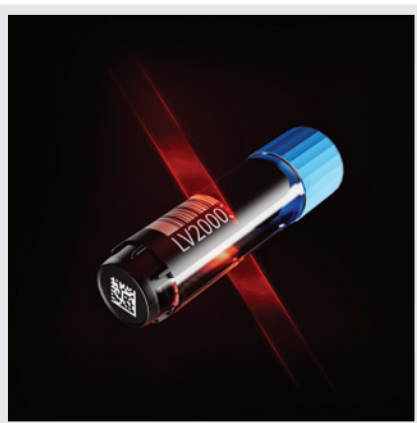


Although the automation-friendly data matrix code on the bottom of storage tubes has now been standard for many years – and has considerably simplified the handling of samples, many users still want to mark tubes with their own specific information. At the same time, they want to get away from time consuming and non-secure methods of labelling and lettering.

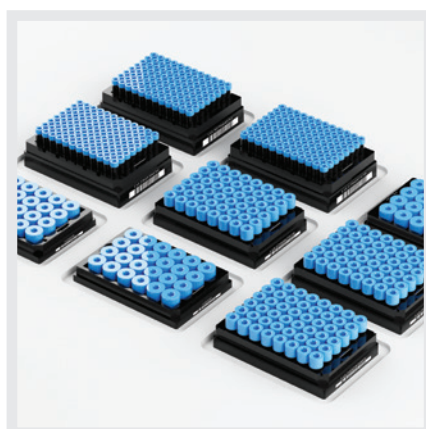
To meet precisely this need, LVL has developed a fully automatic tube laser marker. The TLM 864 can automatically laser-code SAFE® tubes in SBS 96, SBS 48 and SBS 24 formats from two sides and link the information in a database to the 2D code that was previously lasered-on during production. Up to 500 tubes per hour can be coded from nine SBS/ANSI positions.

The information to be applied is created and transmitted from an external PC, and the device is configured via an integrated touch screen.

Customer double-sided laser coding



Label up to 9 racks at once



Key specifications

- › Affixing of labels no longer necessary
- › Flexible for three SBS/ANSI formats: SBS 96, 48 and 24
- › Can laser code tubes from two sides
- › Up to 500 tubes per hour
- › Convenient CSV data exchange format

Technical data laser marker

| | |
|----------------------|--------------------------------------|
| Dimensions | 910 mm x 815 mm x 720 mm (H x W x D) |
| Weight | 120 kg |
| Power supply | 100-240V, 50/60Hz max. 16A at 230V |
| Noise level | < 72 dB (A) |
| Rack Positions | 9 |
| Rack types | SAFE® SBS 96, 48, 24 |
| Speed | approx. 500 tubes per hour |
| File exchange format | CSV |

Technical data suction device

| | |
|-------------|--------------------------------------|
| Dimensions | 880 mm x 350 mm x 350 mm (H x W x D) |
| Weight | 55 kg |
| Noise level | < 62 dB (A) |



Interested in the TLM?
Scan to learn more.

LVL'D UP

The next generation of 2D tubes



Watch Video

Check out our new

GEN3

- Automation friendly
- Protective rim against mechanical influences
- 1D side code / HR side code
- Open space for customized coding
- SAFE® low leachables medical polypropylene



2D coded tube bottoms

Working Volume

with Screw Cap
with Push Cap

Storage Temperature

with Screw Cap
with Push Cap

Outer Diameter

Tube Height

without Cap
with Screw Cap
with Push Cap

Side code

barcode 1D
human readable

Screw Caps



pre-capped
on Cap Rack
Bulkware

Optional Sterilization

Availability

Rack Height








non capped Tubes
screw capped Tubes
with Rack Lid

| | SX 300 | MX 500 | LX 1000 | MI 500 | LI 1000 |
|------------------------|--|------------|----------|---|------------|
| |  | | |  | |
| | GEN3 | | | Tissue Collection Cap (middle) available for MI 500 & LI 1000 | |
| Working Volume | 300 µl | 500 µl | 1,000 µl | 480 µl | 1,000 µl |
| Storage Temperature | | - 196°C | | | - 196°C |
| Outer Diameter | | 9.00 mm | | | 9.00 mm |
| Tube Height | 18.5 mm | 26.4 mm | 46.8 mm | 27.0 mm | 45.1 mm |
| Side code | n/a | Optional | Optional | Optional | Optional |
| Screw Caps | | Yes | | Yes | Yes |
| Optional Sterilization | | Beta / ETO | | Beta / ETO | Beta / ETO |
| Availability | | Rack, Bulk | | Rack, Bulk | Rack, Bulk |
| Rack Height | 18.8 mm | 26.8 mm | 47.1 mm | 27.6 mm | 45.6 mm |
| | 20.6 mm | 28.6 mm | 48.9 mm | 34.2 mm | 52.3 mm |
| | 24.6 mm | 32.5 mm | 52.6 mm | 38.6 mm | 54.5 mm |



SAFE® 48 XT

SAFE® 24 XT

| SAFE® 48 XT | | | SAFE® 24 XT | | | |
|--|---|---|---|--|---|---|
| XLX 500 | XLX 2000 | XLX 4000 | XXLX 2000 | XXLX 4000 | XXLX 6000 | XXLX 8000 |
|  |  |  |  |  |  |  |
| GEN3 | Gen 2 | Gen 1 | Gen 2 | Gen 2 | Gen 2 | Gen 2 |
| 500 µl | 2,000 µl | 4,000 µl | 2,000 µl | 4,000 µl | 6,000 µl | 8,000 µl |
| n/a | | | n/a | | | |
| - 196°C | | | - 196°C | | | |
| n/a | | | n/a | | | |
| 13.00 mm | | | 17.80 mm | | | |
| 16.1 mm | 44.0 mm | 82.9 mm | 25.0 mm | 39.4 mm | 55.7 mm | 69.9 mm |
| 18.3 mm | 45.6 mm | 84.4 mm | 26.7 mm | 41.2 mm | 57.8 mm | 72.0 mm |
| n/a | | | n/a | | | |
| n/a | Optional | | Optional | | | |
| n/a | Optional | | Optional | | | |
| Yes | | | Yes | | | |
| Yes | | | Yes | | | |
| Yes | | | Yes | | | |
| Beta / ETO | | | Beta / ETO | | | |
| Rack, Bulk | | | Rack, Bulk | | | |
| 16.7 mm | 44.5 mm | 83.7 mm | 25.5 mm | 39.8 mm | 56.0 mm | 70.8 mm |
| 18.9 mm | 46.0 mm | 85.4 mm | 27.2 mm | 41.8 mm | 58.2 mm | 72.8 mm |
| 23.7 mm | 50.2 mm | 87.3 mm | 29.9 mm | 43.8 mm | 60.6 mm | 74.5 mm |

All tubes are represented true to scale | Effective 2022/10/17 | Subject to change



SAFE® 2D tubes

High performance fiber laser coding for unmatched contrast and readability.

1. 2D bottom code
2. 1D side code / HR side code
3. Open space for customized coding
4. SAFE® low leachables polypropylene

- › Protection rim against mechanical influences (scratches)



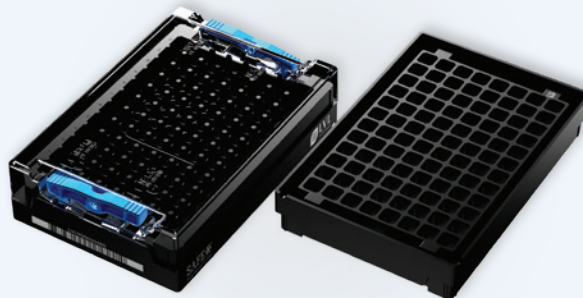
New Cap Design

- › Excellent sealing (100% IATA and CO2 test)
- › Easy manual handling
- › Automation friendly cap

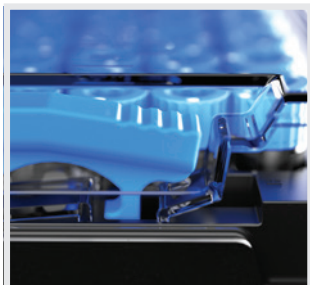
SAFE® SBS Racks

Fitting 24, 48 or 96 tubes

- › Durable and clear polycarbonate lid
- › Orientation Code

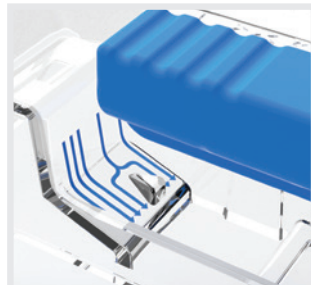


Key Features:



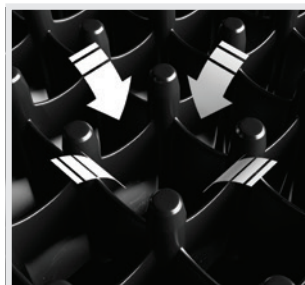
Easy Lock

One simple move to open and close



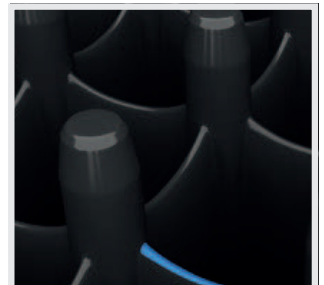
Anti-freeze Gradient

Prevents ice formation



Tube Centering

Automation friendly beveled domes



Curved Well Rim

Safely guides tube and reduces collisions

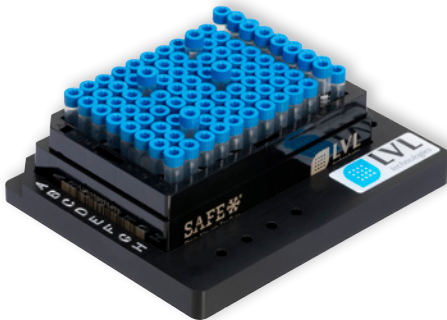
SAFE® Accessories

Simple accessories that make life easier

Accessories Available:

Manual Tube Presenter

Product code: 114-TP96



Find your test tube at the first go

It is not unknown, under the busy everyday conditions in the lab, for the wrong tube to be inadvertently removed from the tightly packed SBS rack. D5 quickly turns into E6. Even if the error is detected during the scan, the process flow is interrupted. However, even the careful selection of the tube to be removed can become strenuous in the long run.

The use of the manual tube presenter overcomes all of these possible errors in the lab.

SAFE® Access Manual Tube Reformat 8

Manual 8-channel reformer Grips up to 8 tubes simultaneously

Product code: 114-RF8



For gripping and safely rearranging 2D tubes in the rack. Individual rows of tubes can be removed from the rack and rearranged manually with ease. The device is inserted closed tips into the tube lids. To hold the tubes in place, simply squeeze the handle with light force and the tubes can be moved to another rack for processing. This way you can immediately put the rest of your valuable samples back in the freezer and work with only the sample tubes you need.

Manual Defrost Roller SBS

Product code: 114-DFR2-SBS



The formation of ice on the bottom of the tubes can make the reading process difficult. This is especially true, if the samples are stored in the nitrogen gas phase. So that the 2D codes can be read quickly in such cases, it not only requires a good reader but also the rapid removal of ice from the bottom of the tube.

The defrost roller is the perfect accessory for this purpose. Three rollers revolutionize the optimal application and usability.

SAFE® Access Metal Frames

Metal Frames for SBS and CRYO Racks



LVL offers individually manufactured metal frames for sample storage in freezers and LN2 tanks for the optimum storage of tube racks whether in the SBS or CRYO format. These customer-specific solutions guarantee the optimum use of available space, taking the existing infrastructure into account. We can, of course, also take charge of configuration for new devices.

Phone 1800 069 161
Email info@pathtech.com.au
pathtech.com.au

