

### SAFE® 96 XT

XSX 200 SX 300 MX 500 LX 1000

### SAFE® 96 IT

MI 500 LI 1000

### SAFE® 48 XT

XLX 2000 XLX 4000

### SAFE® 24 XT

XXLX 2000\* XXLX 4000\* XXLX 6000\* XXLX 8000\*

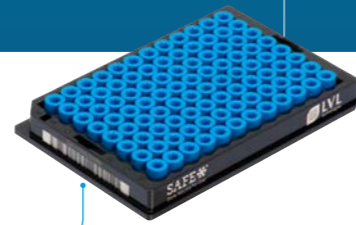
\*Available Q2 2019

2D Sample Storage and Biobanking Solutions for Demanding Long-term Sample Archiving Requirements



|                         |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
|-------------------------|-------------|-------------|----------------------|----------------------|----------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| Working Volume          |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| with Screw Cap          | 220 µl      | 300 µl      | 500 µl               | 1,000 µl             | 480 µl               | 1,000 µl             | 2,000 µl    | 4,000 µl    | 2,000 µl    | 4,000 µl    | 6,000 µl    | 8,000 µl    |  |
| with Push Cap           | 220 µl      | 300 µl      | 500 µl               | 1,000 µl             | 550 µl               | 1,070 µl             | n/a         | n/a         | n/a         | n/a         | n/a         | n/a         |  |
| with Heat Seal          | 250 µl      | 330 µl      | 530 µl               | 1,030 µl             | 600 µl               | 1,120 µl             | 2,000 µl    | 4,000 µl    | 2,000 µl    | 4,000 µl    | 6,000 µl    | 8,000 µl    |  |
| Type of Rack            | 96 SBS Rack | 96 SBS Rack | 96 SBS Rack          | 96 SBS Rack          | 96 SBS Rack          | 96 SBS Rack          | 48 SBS Rack | 48 SBS Rack | 24 SBS Rack | 24 SBS Rack | 24 SBS Rack | 24 SBS Rack |  |
| Type of Rack Lid        | Slide Lock  | Slide Lock  | Slide Lock Push Lock | Slide Lock Push Lock | Slide Lock Push Lock | Slide Lock Push Lock | Slide Lock  | Slide Lock  | Slide Lock  | Slide Lock  | Slide Lock  | Slide Lock  |  |
| Storage Temperature     |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| with Screw Cap          | - 196°C     | - 196°C     | - 196°C              | - 196°C              | - 196°C              | - 196°C              | - 196°C     | - 196°C     | - 196°C     | - 196°C     | - 196°C     | - 196°C     |  |
| with Push Cap           | - 80°C      | - 80°C      | - 80°C               | - 80°C               | - 80°C               | - 80°C               | n/a         | n/a         | n/a         | n/a         | n/a         | n/a         |  |
| with Heat Seal          | - 80°C      | - 80°C      | - 80°C               | - 80°C               | - 80°C               | - 80°C               | n/a         | n/a         | n/a         | n/a         | n/a         | n/a         |  |
| Outer Diameter          | 8.65 mm     | 8.65 mm     | 8.65 mm              | 8.65 mm              | 8.65 mm              | 8.65 mm              | 12.80 mm    | 13.00 mm    | 17.80 mm    | 17.80 mm    | 17.80 mm    | 17.80 mm    |  |
| Tube Height             |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| without Cap             | 14.6 mm     | 18.2 mm     | 26.2 mm              | 44.3 mm              | 26.9 mm              | 44.8 mm              | 44.2 mm     | 82.5 mm     | 24.5 mm     | 39.0 mm     | 55.5 mm     | 69.7 mm     |  |
| with Screw Cap          | 16.0 mm     | 19.5 mm     | 27.5 mm              | 45.6 mm              | 33.1 mm              | 51.2 mm              | 45.5 mm     | 83.8 mm     | 25.9 mm     | 40.4 mm     | 56.9 mm     | 71.2 mm     |  |
| with Push Cap           | 16.0 mm     | 19.5 mm     | 27.5 mm              | 45.6 mm              | 28.0 mm              | 45.9 mm              | n/a         | n/a         | n/a         | n/a         | n/a         | n/a         |  |
| Side code labelling     |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| Barcode 1D              | No          | No          | Optional             | Optional             | Optional             | Optional             | Yes         | Yes         | Optional    | Optional    | Optional    | Optional    |  |
| Human Eye Visible       | No          | Optional    | Optional             | Optional             | Optional             | Optional             | Yes         | Yes         | Optional    | Optional    | Optional    | Optional    |  |
| Screw Caps              |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| Pre-capped              | Yes         | Yes         | Yes                  | Yes                  | Yes                  | Yes                  | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| on Cap Rack             | Yes         | Yes         | Yes                  | Yes                  | Yes                  | Yes                  | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| Bulkware                | Yes         | Yes         | Yes                  | Yes                  | Yes                  | Yes                  | Yes         | Yes         | Yes         | Yes         | Yes         | Yes         |  |
| Available presterilized | Optional    | Optional    | Optional             | Optional             | Optional             | Optional             | Optional    | Optional    | Optional    | Optional    | Optional    | Optional    |  |
| Availability            | Rack, Bulk  | Rack, Bulk  | Rack, Bulk           | Rack, Bulk           | Rack, Bulk           | Rack, Bulk           | Rack, Bulk  | Rack, Bulk  | Rack, Bulk  | Rack, Bulk  | Rack, Bulk  | Rack, Bulk  |  |
| Rack Height             |             |             |                      |                      |                      |                      |             |             |             |             |             |             |  |
| without Cap             | 15.1 mm     | 18.7 mm     | 26.7 mm              | 44.8 mm              | 27.4 mm              | 45.3 mm              | 44.7 mm     | 83.2 mm     | n/a         | n/a         | n/a         | n/a         |  |
| with Screw Capped Tubes | 16.5 mm     | 20.2 mm     | 28.0 mm              | 46.1 mm              | 33.6 mm              | 51.7 mm              | 46.0 mm     | 84.5 mm     | 26.4 mm     | 40.9 mm     | 58.7 mm     | 73.0 mm     |  |
| with Rack Lid           | 22.3 mm     | 22.3 mm     | 30.3 mm              | 48.3 mm              | 36.3 mm              | 54.3 mm              | 48.4 mm     | 87.0 mm     | 29.9 mm     | 43.8 mm     | 60.6 mm     | 74.5 mm     |  |

Rack XSX 200



Rack XLX 2000



Rack XXLX 2000



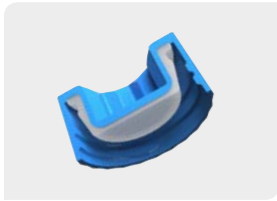
SAFE® 2D tubes from LVL technologies offer the greatest possible safety, automation capacity, flexibility and efficiency. In combination with attractive pricing, we have already convinced many customers all around the world, including in the following areas, to rely on SAFE® in the long-term:

- Biobanking
- Epidemiological studies
- Cohort studies
- Transfusion medicine
- Compound management
- Forensics
- Kit manufacturing

### Tightness

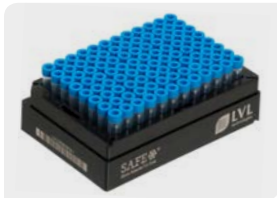


- Internal thread: best sealing- and closing capability through injected TPE compression ring and enlarged contact surface by ring of tube.



- External thread: best sealing- and closing capability through injected patented two-phase TPE compression with Liquid Sealing and Vapour Sealing.

### Stability



- Tubes with enlarged wall thickness
- Racks dimensionally stable
- Optional Polycarbonate or Polypropylene
- Storage at temperatures from -196°C

### Identifiability



- Unique 2D code laser edged
- Optional side code labelling
- Rack with 1D code and 2D orientation code

### Decapping



### Aliquoting / Dispensing



### Capping



### Storing



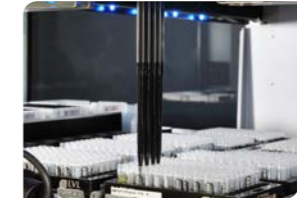
### Efficiency



- Much more efficient compared to classic primary or warehouse tubes
- Tubes with external thread particularly efficient because of the low profile closure

## WORK FLOW CIRCLE

### Compatibility and Automation Capacity



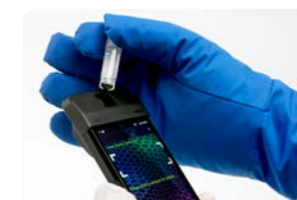
- SBS format of the tube racks
- Racks can be stacked
- 1D bar code on different rack sides, optional
- 2D orientation code on the base of the rack
- 2D codes of the tubes in the ECC200 standard and decodable using current scanners
- Tubes can be locked in the rack ready for screwing
- Screw caps constructed for the bit receptacle with semi-automated and fully automated cappers/decappers
- Screw caps can also be delivered in the SBS cap rack, optional
- Compatibility (e.g. picking) guaranteed with all current automated storage systems (certificates can be requested)

### Flexibility and Customisation



- Customized coding
- More than 12 different cap colours
- Tubes can be closed optionally with Screw Caps, Push Caps or Heat Sealing Foil

### Technical Infrastructure available



- Code Reader incl. software
- Capper / Decapper
- Accessories

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