

Smarter Biobanking Solutions



2D, dual and tri-coded sample storage tubes and racks

Storage boxes, cryoracks and HD trays

Versatile 2D and 1D barcode readers

A range of manual to fully automated cappers and decappers

fluidXTM

From Brooks LIFE SCIENCES

www.brookslifesciences.com

Biobank Workflow: Primary blood sample, cell separation, cryopreservation, storage and retrieval

Biobanks focus on protecting sample integrity through a robust and reliable workflow.
Follow the example below to understand where Brooks Life Sciences solutions optimize Biobank workflows, and the benefits they offer:

Collection and registration



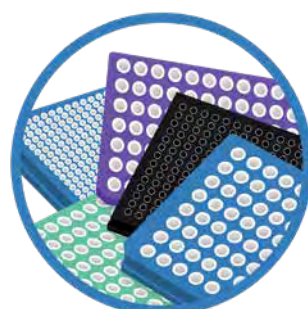
Scope™ single tube reader allows primary vessels to be logged into FreezerPro sample management software. Handling with the Biocision™ range.

Transfer



Automated capping with IntelliXcap™ ensures a secure seal to each tube with individual, precise torque for each tube.

Quality



4titude FrameStar® PCR plates provide highly accurate results and more efficient reagent usage.

Sample tracking



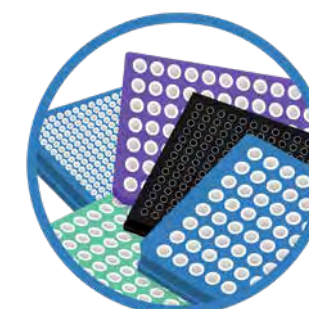
Scan aliquoted samples into FreezerPro quickly with the Perception HD reader, allowing full traceability.

Storage



Store in Automated LN2 cryogenic storage system providing greater protection, accessibility and records for cells at -190°C.

Retrieval and analysis
















Samples can be easily retrieved and sent for liquid handling into 4titude FrameStar® PCR Plates and using the Cryopod to maintain under T_g (glass-phase).

All About the Sample....

A quality sample is the cornerstone in the generation of reliable, reproducible and quantifiable data.

At Brooks Life Sciences our philosophy is to treat every sample as a valuable asset by providing best in class sample storage, tracking and processing solutions which both meet and exceed the needs of customers today and for the future.

																											
Max Fill Volume (ml) 21°C Screw cap	9.2	6.0	6.0	4.6	4.0	2.7	2.3	2.2	2.2	2.0	2.1	1.8	1.2		1.2	1.1	1.1	1.1	0.88	0.80	0.66	0.66	0.58	0.40	0.24	0.31	0.15
Max Working Volume (ml) Frozen Screw Cap	7.6	5.0	6.0	3.8	4.0	2.2	1.9	1.8	1.8	2.0	1.8	1.5	1.0		1.0	0.9	0.9	0.9	0.7	0.65	0.5	0.5	0.48	0.3	0.2	0.26	0.07
Tube Height with Cap (mm)	83.6	62.6	58.9	80.7	50.7	32.1	43.9	47.8	47.1	50.6	48	36.3	41.8		49.6	45.7	52.5	51.8	44.5	45.1	29.8	29.8	34.7	29.3	27.5	18.6	14.7
Part Number Bulk, Capped	66-9302	66-9201	65-9003	65-7517	65-9002	68-4000-31	65-7641	65-7502	65-7501-01	65-9001	65-7505	65-7661	65-7503		68-1003-10	68-1001-10	67-0757-10	66-62345-Y6	66-62318-Y6	67-0755-10	68-0703-10	68-0701-10	67-0753-10	66-62326-Y6	67-0203-10	68-0301-10	Ask for details

Sample Storage Solutions

2D, Dual & Tri-coded Sample Storage Tubes

Under the FluidX brand, Brooks offers an extensive range of sample storage tubes designed to deliver the highest level of sample security and labelling flexibility, including unique patented tri-coded jacket tubes.

Available in a range of formats including racked, loose, bulk capped and uncapped, our robust code management system ensures no barcode is ever duplicated to prevent mis-identification of samples.

Sample Tube Sealing

From ambient to -196°C, occasional or frequent access, multiple or single use, we can help you select the perfect seal type to meet your storage requirements without compromising sample integrity.

- ✓ Screw caps (Internal or External)
- ✓ TPE septum caps (Internal or External)



Storage Racks

Maximize precious freezer space with FluidX storage racks to accommodate varying throughputs and workflow requirements.

Available in standard SBS formats with standard or space saving low profile lids, optional additional features include: TubeLock, TwistLock, LidLock and 2D rack ID for added sample security.

Did you know?

SBS is one of the only standardized formats in the life science industry. In 1995 a need for clearly defined dimensional standards of a microplate were identified and eventually in 2004 the American National Standards Institute (ANSI) and the Society of Biomolecular Screening (SBS) now named the Society For Laboratory Automation And Screening (SLAS) approved this standard.

The dimensions of an SBS format rack equate to length 127.76mm ± 0.25mm x width 85.48mm ± 0.25mm.

Although Cryo Freeze Boxes are not yet standardized, FluidX has created their own internal standard size for all newly developed polypropylene freeze boxes.

Choose from these polypropylene cryo freeze boxes with clear lids for easy sample location to low cost laminated cardboard boxes with hinged lid for convenient one handed sample selection.

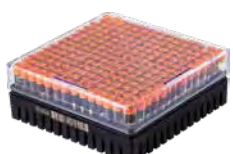
All polypropylene cryo freeze boxes and high density storage trays are open bottomed to allow for rapid identification by 2D barcode readers.



9 x 9 rack



10 x 10 rack



14 x 14 rack

FluidX Sample Storage Tubes

FluidX Sample Storage Tubes offer a wide range of benefits to protect sample integrity and enable efficiency throughout the sample management process:



External Threaded Cap:
Automation Friendly
Our most secure cap
Enables greater working volume
Designed to prevent over tightening

Internal Threaded Cap:
Automation Friendly
Co-molding prevents o-ring 'popping'
Our most secure internal threaded cap



Side Coding:
Linear Barcode
Human Readable Number
Permanent laser etching

High Quality Virgin Polypropylene:
No detectable leachables or extractables
Manufactured in ISO Class 8 clean-room environment
Endotoxin, DNase/RNase & heavy metal free



Clear Window:
Allows visual inspection
Optional space to print direct due to high quality manufacturing

2D Coded /Dual Coded:
Enables whole rack or single tube reading
High contrast enabling reliable reading
Permanent laser etching



Benchtop Workstations and Coolers

The Brooks Life Sciences CoolBox®, Cool Rack® and CoolCell® systems provide controlled rate cooling, thawing and freezing of samples without ice, electricity or batteries for continued, reproducible sample performance. Sample temperatures can be maintained for up to 16 hours.

The portable CryoPod™ carrier maintains a stable cryogenic environment at temperatures <150°C for safe, secure, cryogenic transport around the laboratory, campus and site. The CryoPod recharges in 15 minutes using a dedicated filling station, for hands-free liquid nitrogen handling.



CoolCell



TruCool Accessories



CoolRack



CoolBox



CryoPod and Filling Station



Sample Tube Capping and Decapping

Brooks Life Sciences offers a comprehensive portfolio of manual, semi-automated and automated capping and decapping solutions to meet the format, throughput and budget requirements of every laboratory.

Aperio™ Semi-Automated Systems for Capping & De-capping Screw Capped Tubes

The Aperio range of semi-automated systems are compact, bench top units designed for efficient tube capping in labs with medium throughput. Offering the consistency of an automated de-capping system, but at much lower cost, Aperio can cap a single column of tubes, from a cap carrier, in under 10 seconds and will cap, or de-cap, a complete rack of 96 tubes in under 2 minutes.



Aperio 4



Aperio 6



Aperio 8

IntelliXcap™ Fully Automated Capping & De-capping of Screw Capped Tubes

IntelliXcap is a next-generation capper and de-capper, engineered for increased throughput, ease of use and high system reliability, making the system ideal for any laboratory managing compound libraries or biological sample stores.

Advanced Automation Means Increased Throughput

- ✓ IntelliXcap is extremely fast and works with multiple tube types from a range of tube manufacturers in 24, 48 and 96 format
- ✓ The only 96-format full rack capper and de-capper capable of de-capping a complete rack of 96 tubes in as little as 20 seconds
- ✓ Automation and high speed reduces sample handling time, increasing sample throughput workflow



IntelliXcap Automated Capper & De-capper for 96, 48 and 24 format Screw Capped Tubes

Barcode Readers

From small, portable single tube readers, to multi-rack scanning platforms, the FluidX™ range of 2D and linear barcode readers rapidly scan and decode samples to meet the needs of every laboratory.

Every FluidX™ reader is compatible with any 2D coded tube, regardless of brand, make or size.

Rack readers come supplied with intuitive IntelliCode™ software, providing ultrafast decoding, audit trail and secure data export compatibility.

Orbit™ Single Tube Barcode Reader

The entry-level Orbit single tube reader is a high-performance, easy to use, benchtop reader. Orbit has the dual capability of decoding any 2D datamatrix coded tube and reading any tube carrying a 1D linear barcode.



Orbit

Scope™ Single Tube Barcode Readers

The Scope tube reader range comprises high-performance, easy to use, portable readers. Scope has the dual capability of decoding any 2D data matrix coded tube and reading any tube or rack carrying a 1D linear barcode.



Scope

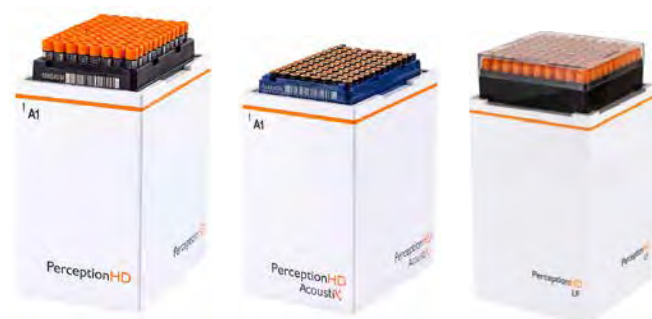
Scope BT Wireless

Impression™ Whole Rack 2D & 1D Barcode Scanner

Designed and developed entirely with the end user in mind, the FluidX Impression offers fast identification of SBS-format racked, 2D-coded sample storage tubes, without the need to remove tubes from racks. The Impression also includes a Linear Barcode Reader for the simultaneous reading of rack linear 1D barcodes. Impression offers the very best optical quality barcode scanning for 2D coded tubes and 1D linear barcodes on SBS racks within a small footprint rapid whole-rack scanner format.



Perception™ HD Range of Whole Rack 2D & 1D Barcode Readers



Perception HD, HD AcoustiX and HD LF

The Perception HD range of compact whole rack 2D & 1D barcode readers offer fast identification of racked, 2D-barcode sample storage tubes, without the need to remove tubes from racks.

Using advanced camera-based imaging systems, Perception whole rack readers are ideal for challenging applications and environments, such as integrating into robotic systems or when speed and size of reader are important.

Perception readers form the backbone of many sample storage and tracking systems, for applications including biobanks, compound libraries and other high-throughput storage environments. An integrated multi-position Linear Barcode Reader is available for the simultaneous reading of rack linear 1D barcodes.

Tube Labelling



IntelliXmark

IntelliXmark™

Tube labels or stickers are no longer required for sample identification - IntelliXmark™ is designed to print text, 1D linear barcodes, 2D data matrix codes and / or graphics directly onto polypropylene sample storage and general-purpose laboratory tubes. Using Thermal Pixel Printing technology, IntelliXmark prints directly onto the surface of tubes sized from 0.5ml to 50ml.

Clear and durable marking with consistently legible text and barcodes printed at high resolutions is easier and faster than marking by hand. IntelliXmark's permanent printing is resistant to water, alcohols (methanol, ethanol, isopropanol), DMSO*, haematoxylin, liquid nitrogen and mechanical abrasion. Printed information is stable over a wide temperature range from -196°C to 100°C and markings do not transfer when tubes are manually handled.

IntelliXmark™ HT

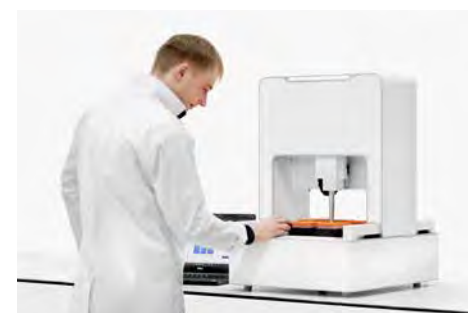
Automated, flexible, durable marking for sample storage tubes.

Designed with flexibility and ease of use in mind, the IntelliXmark HT is an automated platform capable of permanently marking a wide range of sample tubes with supplementary information such as; batch ID, collection site information or even custom graphics or barcodes.

Complete with bespoke, quick release tube picking heads IntelliXmark HT is able to pick a large range of tubes from 0.5mL screw cap tubes all the way up to 50mL. Interchangeable Rack Nests can accommodate 6 x SBS racks, 4 x Cryo Racks or custom racks.

A 2D barcode scanner scans 2D codes on the tube base to determine print information or to link information through a LIMS system.

A multi voltage system suitable for 110 to 240V, IntelliXmark HT does not require an external compressed air supply, is LIMS compatible and comes with LED lighting to indicate the operative state of the instrument. The intuitive, simple to use, IntelliXmark HT software allows for creating a marking 'label' design, importing CSV files from LIMS and also alerts the user to when the ribbon is running low.



IntelliXmark HT



Frost Removal

With quality samples critical to the generation of reliable, reproducible and quantifiable data, improve sample quality with highspeed, controlled frost removal from samples in SBS format racks.

FrostX²

FrostX² is designed to quickly remove ice and frost from SBS-format racks of frozen sample tubes, to ensure complete readability of 2D datamatrix codes in cold-storage environments. Sample thawing is not necessary for accurate barcode reading and the FrostX² de-icing process takes 10 to 15 seconds whilst your sample remains frozen.



FrostX2



About Brooks:

Brooks is a leading worldwide provider of automation and cryogenic solutions for multiple markets including semiconductor manufacturing and life sciences. Brooks' technologies, engineering competencies and global service capabilities provide customers speed to market and ensure high uptime and rapid response, which equate to superior value in their mission-critical controlled environments. Since 1978, Brooks has been a leading partner to the global semiconductor manufacturing market as a provider of precision automation and cryogenic vacuum solutions. Since 2011, Brooks has applied

its automation and cryogenics expertise to meet the sample storage needs of customers in the life sciences industry, through Brooks Life Sciences. Brooks Life Sciences offerings include a broad range of products and services for on-site infrastructure for sample management at temperatures of 20°C to -190°C, as well as comprehensive outsource service solutions across the complete life cycle of biological samples including collection, transportation, processing, storage, protection, retrieval and disposal. Brooks is headquartered in Chelmsford, MA, with operations in North America, Europe and Asia.



Ordering Information

For ordering information please contact your local Brooks Life Sciences representative.

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**Automated
Storage Systems**

**Cryopreservation &
Cold Chain Solutions**

**Informatics &
Technical Solutions**

**Sample Storage,
Lab Services & Transport**

**Sample Consumables
& Instruments**

Learn more – www.brookslifesciences.com

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