Azenta Life Sciences

FluidX Sample Tube Consumables and Instruments

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Guide to FluidX™ from Azenta Sample Tubes

Tri-coded Tubes

Each tube features a permanent 2D-code laser etched in high-contrast on the tube base, a permanent 1D (linear barcode) and Human-Readable Number laser etched in high-contrast on the tube side.

The tube is manufactured using an advanced manufacturing process which results in a a one-piece tube with a clear window and black side for coding. All three codes are identical and auditing processes guarantee all three codes match. Our standard 2D option is black on white.

Dual-coded Tubes

Each tube features a permanent 2D-code and Human Readable Number laser etched in high-contrast on the tube base or tube side.

The Dual-coded tube is manufactured using an advanced manufacturing technique used to integrate 2 resin colors into the same tube for high resolution coding.

Both codes are identical and auditing processes guarantee both codes match.

Our standard 2D option is white on black.

2D-coded Tubes

2D-code laser etched on the base only. Allows users to add additional information or a second identifier in high-contrast to the tube side. Our standard 2D option is black on white.

Non-coded Tubes

Simply come as they are.

Glossary of Terms

2D Datamatrix code

A 2D code made of black and white cells, for Azenta tubes these are arranged in a square. The L-shape found on the border is its finder pattern, which is used by tube readers and scanners to recognize and read the code.

1D-code / Linear barcode

Unique barcode represented by parallel lines of different widths and spacings printed on the side of a tube, SBS rack or CryoBox. Our standard code is code 128. Code 128 is able to encode alpha-numeric data.

2D-datamatrix

2D Datamatrix code on tube base.

2D4-coded

Quad Code on Acoustic Sample Tube base.

Dual-coded

2D code and Human Readable Number on tube base or tube side.

Tri-coded

2D-code on tube base, 1D (linear barcode) and Human-Readable Number on tube side.

External Thread

Thread is on the outside of the tube so there is no loss in working volume when a cap is added, saving valuable freezer space. Azenta external thread caps feature a double start thread. The thread is fully engaged after a maximum rotation of 180°, making the cap easier to use especially in automated environments.

Internal Thread

Thread is on the inside of the tube.

Working Volume

The maximum sample volume that will still allow space between the sample and underside of the cap for ice expansion during freezing.

Fill Volume

The total capacity of the tube at 21°C.

Introduction

All About the Sample!

As a global leader in innovative sample management solutions Azenta Life Sciences is all about the sample.

Working across a wide range of industries Azenta Life Sciences offers unparalleled knowledge and experience of 2D-coded sample storage tubes, readers and sample management systems. As part of the team that developed the original 2D-coded sample tubes in 1999, we have been at the global forefront of developing sample storage consumables and instruments for over 20 years and we continue our philosophy of innovation to this day.

In addition to the innovation behind our products, we are committed to providing the highest levels of customer service, support and quality. Our Technical Support Team provides expert assistance, making sure our products give the reliable and optimal performance you expect.

We believe that a quality sample is the cornerstone in the generation of reliable, reproducible and quantifiable data – which is why Azenta Life Sciences is all about the sample.

FluidX Sample Storage Consumables and Devices

Azenta tubes are available in a range of formats, including racked, bulk, capped and uncapped. Our robust code management system ensures each and every code is permanently affixed, unique and never duplicated. Tubes are suitable for applications ranging from +121°C to -196°C.

All Azenta tubes are developed with broad compatibility in mind, performing without compromise in conjunction with automated code reading, capping and sample management systems from Azenta and all other industry-recognized manufacturers.

Key Features

Our coding systems are designed to deliver the highest levels of sample security and labeling flexibility. We offer tubes with a choice of code, either 2D-code, 1D (linear barcode) or Human Readable Number (HRN). Our Tri-coded tubes have all three options whilst our Dual-coded tubes, can have a 2D-code and Human Readable Number on the tube base or side. A robust code management system ensures each and every code is unique and never duplicated, preventing any possibility of misidentification involving your samples. All Azenta polypropylene sample storage tubes sealed with a screw cap are suitable for use in cryogenic storage conditions.

Superior Datamatrix code quality:

Azenta sample storage tubes are easy to read even in harsh conditions or when damaged. Our 2D-codes adhere fully to the ECC200 standard. All codes are generated using the latest and most sophisticated error correction methods and high quality, permanent laser etching provides sharp detail.

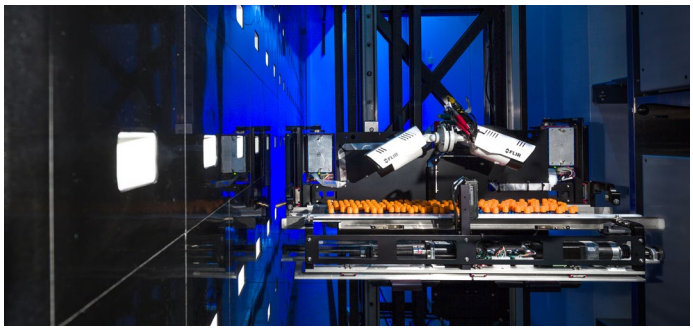
Automation Friendly:

Screw capped tubes are compatible with our range of cappers and de-cappers, including our IntelliXcap range. Available in 24, 48, and 96 format to automatically remove and re-cap a complete rack of tubes. The TwistLock feature prevents the tubes rotating in the rack during capping and de-capping.

Every tube is quality checked to ensure they meet our exacting standards for readability.

Excellent Sealing: Tubes work equally well with either TPE septum or screw caps. A double start thread engages in a maximum rotation of 180°, facilitating automation.

Ideal for Cold Storage: Temperature range from -196°C (with screw cap) to 121°C. All our polypropylene tubes are suitable for cryogenic storage, but not for submersion in liquid phase nitrogen.



Integration Friendly

Choice of Coding Options

Tri-coded:

Each tube features a permanent 2D-code laser etched in high-contrast on the tube base, a permanent 1D (linear barcode) and Human-Readable Number laser etched in high-contrast on the tube side.

Each tube is manufactured using an advanced process which results in a one-piece tube with a clear window and black side for coding. All three codes are identical and auditing processes guarantee all three codes match. Our standard 2D option is black on white.

Dual-coded:

Each tube features a permanent 2D-code and Human-Readable Number laser etched in high-contrast on the tube base or side.

The Dual-coded tube is created using an advanced manufacturing technique used to integrate 2 resin colors into the same tube for high resolution coding.

Both codes are identical and auditing processes guarantee both codes match.

Our standard 2D option is white on black.

Non-coded – simply come as they are.

2D datamatrix code – a 2D code made of black and white cells, for Azenta tubes these are arranged in a square. The L-shape found on the border is its finder pattern, which is used by tube readers and scanners to recognize and read the code.

1D-coded / Linear barcode – unique barcode represented by parallel lines of different widths and spacings printed on the side of a tube, SBS rack or CryoBox. Our standard code is code 128. Code 128 is able to encode alpha-numeric data.

2D-coded – 2D-code on tube base.

Dual-coded – 2D-code and Human-Readable Number on tube base or side.

Tri-coded – 2D-code on tube base, 1D (linear barcode) and Human-Readable Number on tube side.

Dual-Coded (white on black)

2D-Orientation Coded (black on white)

Unique 2D4 Code allows code reading without interfering with Acoustic dispensing window

2D orientation coded rack base allows automatic detection of orientation by instrumentation

SBS Storage Racks

SBS Storage Rack Options

Azenta tubes are compatible with industry standard SBS sized racks in either: 24, 48, 96, 240 or 384 format. Dependent upon tube type, the following rack options are available.

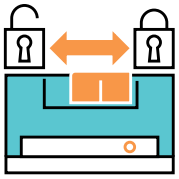
TwistLock:

Prevents tubes rotating within the rack to enable automated capping and de-capping of screw caps. TwistLock is provided as standard with the option available to remove.

TwistLock

LidLock:

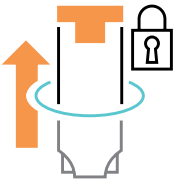
Racks fitted with a LidLock latch are designed to withstand a 1m drop for added sample security.



LidLock

TubeLock:

Tubes can be locked into the rack to prevent falling out, even when there is no lid present. Tubes can be placed in either locked or unlocked positions. TubeLock is used in manual workflows and is activated by applying pressure to the tube top, clicking the tube into place. Racked tubes can be ordered either pre-locked or non-locked.



TubeLock

Automatic Rack Orientation:

Racks can be supplied with a unique 2D-code identifier which can be read at the same time as the tube 2D-code. This provides automatic rack orientation and more secure sample tracking.

Direct Laser Etching:

A cutout window on the rack sides allow the linear barcode to be read more easily; linear barcodes can be laser etched directly onto racks.

Cryo Boxes

In addition to industry standard SBS boxes, a range of tube and application specific cryo boxes are available. Each cryo box incorporates:

- Open bottom for 2D-code decoding on camera-based readers
- Direct laser etched 1D linear barcode and Human-Readable Number on rack side and 2D box orientation ID on base of rack.

9 x 9 Cryo Storage Boxes

- 136.2mm x 136.2mm polycarbonate cryo box option for cryogenic sample storage
- Holds 81 tubes in 9 x 9 array

9 x 9 Box

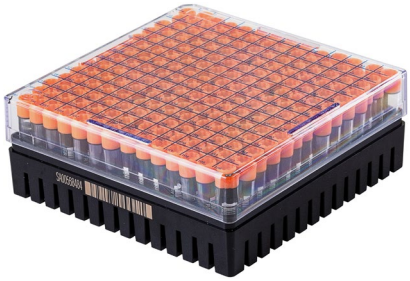
10 x 10 Cryo Storage Boxes

- 136.2mm x 136.2mm polycarbonate cryo box option for cryogenic sample storage
- Holds 100 tubes in 10 x 10 array

10 x 10 Box

14 x 14 Cryo Storage Boxes

- 136.2mm x 136.2mm polycarbonate cryobox box option for cryogenic sample storage
- Holds 196 tubes in 14 x 14 array



14 x 14 Box

Ordering Information

66-1801	**Cryo Box 9x9,** black, polycarbonate, 10 boxes per case, suitable for 1.5ml, 1.6ml and 1.9ml External Thread Tubes
66-1802	**Cryo Box 9x9,** black, polycarbonate, 10 boxes per case, suitable for Taller Cryo Tubes
66-1800	**Cryo Box 10x10,** black, polycarbonate, 10 boxes per case, suitable for 1.9ml External Thread Tubes
66-1803	**Cryo Box 10x10,** black, polycarbonate, 10 boxes per case, suitable for Taller Cryo Tubes
66-0196-01	**Cryo Box 14x14,** black, polycarbonate, 10 boxes per case, suitable for 0.3ml and 0.48ml Internal Thread Tubes and 0.5ml External Thread Tubes
66-0196-02	**Cryo Box 14x14,** black, polycarbonate, 10 boxes per case, suitable for 0.8ml External Thread Tubes
66-0196-03	**Cryo Box 14x14,** black, polycarbonate, 10 boxes per case, suitable for 1.0ml External Thread Tubes

WARNING

Do not store tubes in liquid phase nitrogen

Ingress of nitrogen into the tube can occur causing the tube to rupture when taken out of storage

May cause injury and loss of tube contents.

Anatomy of a FluidX Tube – Internal Thread, Dual-Coded

96-format, Internal Thread, Dual-coded tubes have a range of features that are only possible with advanced manufacturing techniques. Co-molded caps offer a far superior seal over traditional O-ring caps, which can 'pop' when a sample is frozen or the cap is overtightened.

Internal Threaded Cap:

- Automation friendly
- Co-molding prevents o-ring 'popping'
- Our most secure internal threaded cap

High Quality Virgin Polypropylene:

- No detectable leachables or extractables
- Manufactured in ISO Class 8 clean-room environment
- Endotoxin, DNase/RNase, heavy metals & animal free

Clear Window:

- Allows visual inspection
- Optional space to print direct due to high quality manufacturing

Dual-coded:

- 2D-code and Human-Readable Number (HRN) on tube base
- Enables whole rack or single tube reading
- High contrast enabling reliable reading
- Permanent laser etching

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Anatomy of a FluidX Tube – External Thread, Tri-Coded

The External Thread Tri-coded tube offers our most secure seal. This highly secure design also offers significant benefits over internal thread caps including, a higher working volume.

External Threaded Cap:

- Automation friendly
- Our most secure cap
- Enables greater working volume
- Designed to prevent over tightening

High Quality Virgin Polypropylene:

- No detectable leachables or extractables
- Manufactured in ISO Class 8 clean-room environment
- Endotoxin, DNase/RNase, heavy metals & animal free

Side Coding:

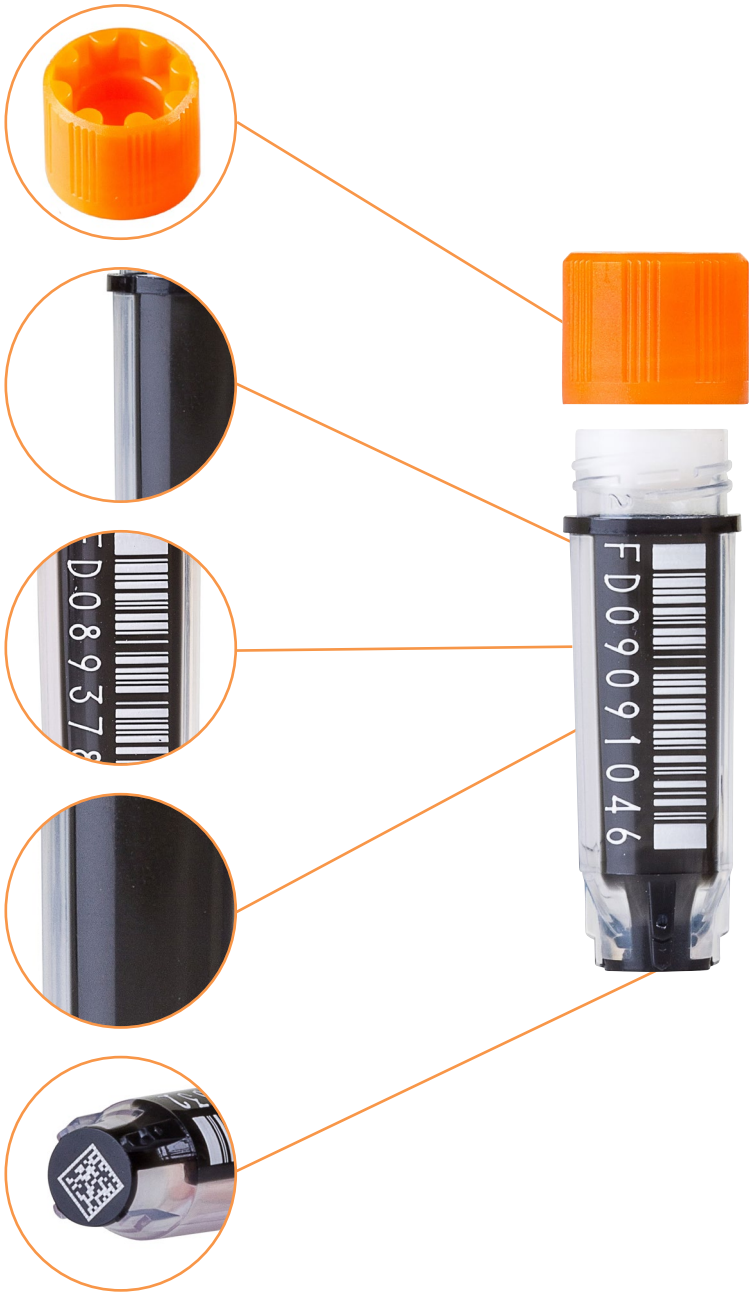
- Linear Barcode
- Human-Readable Number
- Permanent laser etching

Clear Window:

- Allows visual inspection
- Optional space to print direct due to high quality manufacturing

2D-coded:

- Enables whole rack or single tube reading
- High contrast enabling reliable reading
- Permanent laser etching



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Anatomy of a FluidX Tube – External Thread, Dual-Coded

The Dual-Coded tube with external thread cap offers our most secure seal. This highly secure design also offers significant benefits over internal thread caps including, a higher working volume.

External Threaded Cap:

- Automation friendly
- Our most secure cap
- Enables greater working volume
- Designed to prevent over tightening

High Quality Virgin Polypropylene:

- No detectable leachables or extractables
- Manufactured in ISO Class 8 clean-room environment
- Endotoxin, DNase/RNase, heavy metals & animal free

Clear Window:

- Allows visual inspection
- Optional space to print direct due to high quality manufacturing

Dual-Coded:

- 2D-code and Human-Readable Number (HRN) on tube base
- Enables whole rack or single tube reading
- High contrast enabling reliable reading
- Permanent laser etching

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Anatomy of a FluidX Acoustic Sample Tube – Echo® Qualified Consumable

Internal Threaded Cap:

- New internal co-molded design
- Increases capping and de-capping performance to over 500 cycles

Optimized Geometry:

- Optimized tube geometry for Acoustic dispensing technology
- 70µl working volume

High Quality Virgin Polypropylene:

- No detectable leachables or extractables
- Manufactured in ISO Class 8 clean-room environment
- Endotoxin, DNase/RNase, heavy metals & animal free

2D4 Coded:

- Unique 2D4 Code allows reading of the code without interfering with Acoustic dispensing window
- Linear barcoded rack with Tube Retention for sample handling with Acoustic Dispenser and traditional liquid handlers
- Permanent laser etching

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Anatomy of a FluidX Maximum Recovery Tube

Featuring a novel design, the 1.6ml Maximum Recovery tube is ideally suited for automated workflows using liquid handling, where more sample can be retrieved due to the unique shaped bottom.

External Threaded Cap:

- Automation friendly
- Our most secure cap
- Enables greater working volume
- Designed to prevent over tightening

High Quality Virgin Polypropylene:

- No detectable leachables or extractables
- Manufactured in ISO Class 8 clean-room environment
- Endotoxin, DNase/RNase, heavy metals & animal free

Maximum Recovery:

- Unique tapered design with combined ‘v’ and ‘u’ shaped bottom
- Enables higher amount of sample retrieval
- Design creates a reduction in sample wastage resulting in cost savings

Tri-Coded:

- 1D code and Human-Readable Number (HRN) on tube base
- 2D datamatrix code on tube base
- Enables whole rack or single tube reading
- High contrast enabling reliable reading
- Permanent laser etching

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Customization Options

In addition to standard catalogue products the Azenta range can also be customized to provide tubes and racks ideally matched to your particular workflow. Available customization options are detailed below.

Tube Coding

Custom prefixing with user defined two letter prefix followed by an 8 digit number sequence determined by Azenta. e.g. AB12345678.

Full custom coding with a user generated 10 digit alphanumerical sequence, e.g. ABC1234567.

Choice of Black on White or White on Black 2D datamatrix coding.

Rack Coding

Code 128 barcodes applied by Laser etching or labelling.

Barcode position selectable on any or multiple sides.

Cap Colors

In addition to Orange, caps are available in a variety of user selectable colors.

96 format caps available in: Natural, Clear/Light Blue, Dark Blue, Green, Purple, Red, White, Yellow, Amber and Black.

48 format caps available in: Dark Blue, Green, Red & Yellow for externally threaded tubes and in Natural for Internally threaded tubes.

24 format caps (automation friendly) for externally threaded tubes available in Natural.

TPE Septum caps available in Dark Blue, Green, Red, and Yellow.

Treatment Options

Gamma Irraditaion, Ethylene Oxide, Dual Ethylene Oxide, or Electron Beam treatment treatments are available.

Special Options

Further options may be available depending upon product selection and details of requirements including custom product packaging and user definable tube/rack combinations.

Please note that for all custom products a minimum order quantity will be applied.

For further information on how to order please contact your local Azenta Life Sciences representative

FluidX Sample Storage Tubes from Azenta Life Sciences

	 24-format, 7.6ml External Thread, Tri-coded	 48-format, 3.8ml External Thread, Tri-coded	 48-format, 1.9ml External Thread, Tri-coded	 48-format, 1.6ml External Thread, Maximum Recovery	 48-format, 1.5ml External Thread, Tri-coded	 96-format 1ml External Thread, Tri-coded	 96-format 0.9ml Extenal Thread, Dual-coded	 96-format, 0.9ml Internal Thread, Tri-coded
Further details see Page:	32	31	30	29	28	27	40	35
Max Fill Volume 21°C (ml) Screw Cap	9.2	4.6	2.3	2.0	1.8	1.2	1.0	1.1
Max Working Volume (ml) Screw Cap Frozen	7.6	3.8	1.9	1.6 Approx.	1.5	1.0	0.9	0.9
Max Working Volume (µl) Screw Cap	7660	3830	1910	1600	1500	1000	911	916
Max Working Volume (µl) Septum Cap	-	-	-	-	-	916	887	999
Tube Height (mm)	77.4	75	38.2	38.2	30.6	46.2	42.3	44.2
Tube Height with Cap (mm)	83.6	80.7	43.9	43.9	36.3	49.6	45.7	52.5
Tube Height with Septum Cap (mm)	-	-	-	-	-	47.4	43.5	45.4
Inner Diameter (mm)	13	9.6	9.6	9.6	9.6	6.5	6.5	6.8
Outer Diameter with Cap (mm)	17	12.8	12.8	12.8	12.6	8.7	8.7	8.6
Center to Center (mm)	18	13.5	13.5	13.5	13.5	9	9	9
Min Temperature °C Screw Cap	-196	-196	-196	-196	-196	-196	-196	-196
Min Temperature °C Septum Cap	-	-	-	-	-	-80	-80	-80
2D-coded	Base	Base	Base	Base	Base	Base	Base	Base
Human Readable Number	Side	Side	Side	Side	Side	Side	Base	Side
Linear Barcode	Side	Side	Side	Side	Side	Side	-	Side
Product Codes								
Bulk, Uncapped	65-9303	65-7516	65-7640	65-7650	65-7660	68-1003-00	68-1001-00	67-0757-00
Bulk, Capped	66-9302	65-7517	65-7641	65-7651	65-7661	68-1003-10	68-1001-10	67-0757-10
Racked, Uncapped	-	65-7514	65-7642	65-7652	65-7662	68-1003-01	68-1001-01	67-0757-01
Racked, Capped	-	65-7515	65-7643	65-7653	65-7663	68-1003-11	68-1001-11	67-0757-11

										
96-format, 0.9ml Internal Thread, Dual-coded	96-format, 0.8ml External Thread, Tri-coded	96-Format 0.7ml Internal Thread, Dual-coded	96-format 0.65ml Internal Thread, Tri-coded	96-format, 0.5ml External Thread, Tri-coded	96-format, 0.5ml External Thread, Dual-coded	96-format, 0.48ml Internal Thread, Tri-coded	96-format, 0.3ml Internal Thread, Dual-coded	96-format, 0.2ml External Thread, 2D-coded	96-format, 0.26ml External Thread, Dual-coded	Acoustic Sample Tube,Echo® Qualified Consumable
40	26	39	34	25	41	33	38	45	37	44
1.1	0.96	0.88	0.80	0.66	0.66	0.58	0.40	0.24	0.31	0.15
0.9	0.8	0.7	0.65	0.5	0.5	0.48	0.3	0.2	0.26	0.07
929	800	731	666	552	550	482	336	204	261	70
1018	-	821	749	525	525	572	425	-	238	-
43.5	36.9	36.2	36.8	26.4	26.4	26.4	21	24.1	15.2	13.4
51.8	40.3	44.5	45.1	29.8	29.8	34.7	29.3	27.5	18.6	14.7
44.7	-	37.4	38	27.6	27.6	27.6	22.1	-	16.4	
6.8	6.5	6.8	6.8	6.5	6.5	6.8	6.8	3.9	6.5	6.5
8.6	8.7	8.6	8.6	8.7	8.5	8.3	8.7	5.8	8.7	7.6
9	9	9	9	9	9	9	9	9 (96)	6 (240)	9
-196	-196	-196	-196	-196	-196	-196	-196	-196	-196	-80
-80	-	-80	-80	-80	-80	-80	-80	-	-80	-
Base	Base	Base	Base	Base	Base	Base	Base	Base	Base & Side	2D4 Quad Code
Base	Side	Base	Side	Side	Base	Side	Base	-	Side	-
-	Side	-	Side	Side	-	Side	-	-	-	-
66-62345	68-0801-00	66-62318	67-0755-00	68-0703-00	68-0701-00	67-0753-00	66-62326	67-0203-01	68-0303-00	-
66-62345-Y6	68-0801-10	66-62318-Y6	67-0755-10	68-0703-10	68-0701-10	67-0753-10	66-62326-Y6	67-0203-10	68-0303-10	-
66-62330	68-0801-01	66-62319	67-0755-01	68-0703-02	68-0701-02	67-0753-02	66-62325	67-0203-02	68-0303-01	-
66-62330-Y6	68-0801-11	66-62319-Y6	67-0755-11	68-0703-12	68-0701-12	67-0753-12	66-62325-Y6	67-0203-11	68-0303-11	69-0200-11

Azenta Sample Storage Tubes

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Introduction to FluidX External Thread Tri-Coded Tubes

Overview

External Thread Tri-coded tubes have been developed to exceed the demands of sample security, management and tracking in modern high-density storage applications. Each tube features a permanent 2D-code laser etched in high-contrast on the tube base, a permanent 1D (linear barcode) and Human-Readable Number laser etched in high-contrast on the tube side. The tube is manufactured using an advanced process which results in a one-piece jacket tube, therefore, you never lose the code. All three codes are identical and auditing processes guarantee all three codes match. Our standard 2D coding option for these tubes is black on white.

The tubes provide a lifelong and secure chain of custody for samples in biobanks, compound libraries and a broad range of biological and chemical stores, including cryogenic storage.

Designed and developed with broad compatibility in mind, the tubes perform without compromise in conjunction with automated barcode reading, capping and sample management systems from Azenta and all other industry-recognized manufacturers.

Key Features

- Permanently laser etched, 2D-code on base, 1D (linear barcode) and Human-Readable Number on the side
- Tri-coded tubes offer unequalled sample audit traceability, enabling sample tracking and data sharing between multiple users, labs, locations and automation capabilities
- 100% Quality Control, each tube is tested to ensure both readability and uniqueness
- Manufactured using an advanced process which results in a one-piece jacket tube from high-quality virgin polypropylene
- External thread tubes provide greater working volume than internal thread tubes
- Suitable for cryogenic storage as low as -196°C*
- Secure sample storage and tracking
- Available bulk uncapped or capped
- Available pre-racked and capped in 96, 48 and 24 well format SBS racks
- 2D-codes readable without removing tubes from racks
- Suitable for sealing with either screw caps or TPE septum caps

**not for use in liquid phase Nitrogen*

External Thread Tri-coded tube

Capping options

Screw Caps

- A deforming compression seal more effective than a silicone alternative
- A non-silicone seal means the cap can never be over-tightened
- Caps and tubes are manufactured from the same material, preventing differential expansion during freeze-thaw cycles
- A double-start thread engages in a maximum rotation of 180°, thereby facilitating automation

Introduction to FluidX Internal Thread Tri-Coded Tubes

Overview

Internal Thread Tri-coded tubes have been developed to exceed the demands of sample security, management and tracking in modern high-density storage applications and comply with ISBER standards. Each tube features a permanent 2D-code laser etched in high-contrast on the tube base, a permanent 1D (linear barcode) and Human-Readable Number laser etched in high-contrast on the tube side. The tube is manufactured using an advanced process which results in a one-piece jacket tube, therefore, you never lose the code. All three codes are identical and auditing processes guarantee all three codes match. Our standard 2D coding option for these tubes is black on white.

The tubes provide a lifelong and secure chain of custody for samples in biobanks, compound libraries and a broad range of biological and chemical stores, including cryogenic storage.

Designed and developed with broad compatibility in mind, the tubes perform without compromise in conjunction with automated barcode reading, capping and sample management systems from Azenta and all other industry-recognized manufacturers.

Key Features

Secure Sample Storage and Tracking

- Permanently laser etched, 2D-code on base, 1D (linear barcode) and Human-Readable Number on the side
- Tri-coded offers unequalled sample audit traceability, enabling sample tracking and data sharing between multiple users, labs, locations and automation capabilities
- 100% Quality Control, each tube is tested to ensure both readability and uniqueness
- Manufactured using an advanced process which results in a one-piece jacket tube from high-quality virgin polypropylene
- Suitable for cryogenic storage as low as -196°C*
- Secure sample storage and tracking
- Available bulk uncapped or capped
- Available pre-racked and capped in 96 well format SBS racks
- 2D-codes readable without removing tubes from racks
- Suitable for sealing with either screw caps or TPE septum caps

**not for use in liquid phase Nitrogen*

Internal Thead Tri-coded tube

Capping options

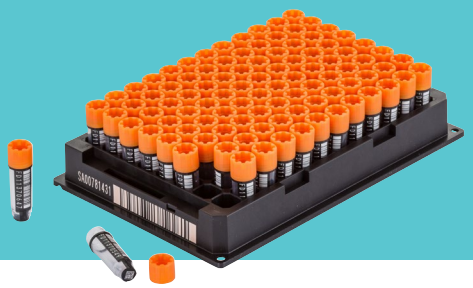
Screw Caps

- Automation friendly co-molded screw caps for internal thread tubes eliminate the possibility of over tightening
- Co-molded caps eliminate the failures in caps using a silicone O-ring
- A double-start thread engages in a maximum rotation of 180°, thereby facilitating automation

TPE Septum Caps

- Cost-effective sealing option for samples that are only accessed occasionally
- Septum caps are supplied in 96-format back mats to facilitate automation

0.5ml Tri-coded Tube, 96-format, External Thread



- Supplied in 96-well format SBS racks or bulk
- Securely sealed using screw caps or TPE septum caps

	0.5ml screw cap	0.5ml TPE septum cap
		
	0.5ml Tri-coded Tube, 96-format, External Thread with screw cap	**0.5ml Tri-coded Tube, 96-format, External Thread with TPE septum cap**
Max Working Volume (ml)	0.52	0.50
Tube Height (mm)	26.4	26.4
Tube Height with Cap (mm)	29.8	27.6
Inner Diameter (mm)	6.5	6.5
Outer Diameter with Cap (mm)	8.7	8.7
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	30.3	28.1
Overall Rack Height including lid (mm)	32.9	32.9

Ordering Information

68-0703-00	**0.5ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
68-0703-10	**0.5ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
68-0703-02	**0.5ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026
68-0703-11	**0.5ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped, 10 racks per case,** LowBase rack, empty rack part number: 66-51004
68-0703-12	**0.5ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026
68-0704-00	**0.5ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **bulk**, 960 tubes per case
68-0704-10	**0.5ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped**, **bulk**, 960 tubes per case
68-0704-02	**0.5ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026
68-0704-12	**0.5ml 2D-coded Tube, 96-format**, External Thread, 2D Code on base, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026

0.8ml Tri-coded Tube, 96-format, External Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed using screw caps or TPE septum caps

	0.8ml screw cap	0.8ml TPE septum cap
		
	0.8ml Tri-coded Tube, 96-format, External Thread with screw cap	**0.8ml Tri-coded Tube, 96-format, External Thread with TPE septum cap**
Max Working Volume (ml)	0.8	0.7
Tube Height (mm)	36.9	36.9
Tube Height with Cap (mm)	40.3	38.1
Inner Diameter (mm)	6.5	6.5
Outer Diameter with Cap (mm)	8.7	8.7
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	41.2	39
Overall Rack Height including lid (mm)	43.9	43.9

Ordering Information

68-0801-00	**0.8ml Tri-coded Tube, 96-format, External Thread**, 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk,** 960 tubes per case
68-0801-10	**0.8ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk,** 960 tubes per case
68-0801-01	**0.8ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped, 10 racks per case,** HighBase rack, empty rack part number: 66-51021
68-0801-11	**0.8ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51021
68-0802-00	**0.8ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped, bulk,** 960 tubes per case
68-0802-10	**0.8ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped, bulk,** 960 tubes per case
68-0802-01	**0.8ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped, 10 racks per case,** HighBase rack, empty rack part number: 66-51021
68-0802-11	**0.8ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped, 10 racks per case,** HighBase rack, empty rack part number: 66-51021

1.0ml Tri-coded Tube, 96-format, External Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed using screw caps or TPE septum caps

	1.0ml screw cap	1.0ml TPE septum cap
		
	1.0ml Tri-coded Tube, 96-format, External Thread with screw cap	**1.0ml Tri-coded Tube, 96-format, External Thread with TPE septum cap**
Max Working Volume (ml)	1.0	0.9
Tube Height (mm)	46.2	46.2
Tube Height with Cap (mm)	49.6	47.4
Inner Diameter (mm)	6.5	6.5
Outer Diameter with Cap (mm)	8.7	8.7
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	50.5	47.1
Overall Rack Height including lid (mm)	53.2	53.2

Ordering Information

68-1003-00	**1.0ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
68-1003-10	**1.0ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
68-1003-01	**1.0ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51020
68-1003-11	**1.0ml Tri-coded Tube, 96-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51020
68-1004-00	**1.0ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **bulk**, 960 tubes per case
68-1004-10	**1.0ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped**, **bulk**, 960 tubes per case
68-1004-01	**1.0ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51020
68-1004-11	**1.0ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped, 10 racks per case,** HighBase rack, empty rack part number: 66-51020

1.5ml Tri-coded Tube, 48-format, External Thread

- Supplied in 48-well format SBS racks or bulk, empty 9x9 cryo rack also available (see page 13)
- Securely sealed using screw caps

1.5ml screw cap	
	
	1.5ml Tri-coded Tube, 48-format, External Thread with screw cap
Max Working Volume (ml)	1.5
Tube Height (mm)	30.6
Tube Height with Cap (mm)	36.3
Inner Diameter (mm)	9.6
Outer Diameter with Cap (mm)	12.8
Center to Center	13.5
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	45.4
Overall Rack Height including lid (mm)	49.4

Ordering Information

65-7660	**1.5ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 480 tubes per case
65-7661	**1.5ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 480 tubes per case
65-7662	**1.5ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D linear barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7663	**1.5ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7664	**1.5ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **uncapped**, **bulk**, 480 tubes per case
65-7665	**1.5ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **capped**, **bulk**, 480 tubes per case
65-7666	**1.5ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **uncapped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7667	**1.5ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **capped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
66-1801	**Cryo Rack 9x9, black, polycarbonate,** 10 racks per case, suitable for 1.5ml and 1.9ml External Thread Tubes

1.6ml Tri-coded Tube, Maximum Recovery

- Supplied in 48-well format SBS racks or bulk, empty 9x9 cryo rack also available (see page 13)
- Securely sealed using screw caps

	1.6ml screw cap
	
	1.6ml Tri-coded Tube, 48-format, External Thread with screw cap
Approx. Working Volume (ml)	1.6
Tube Height (mm)	38.2
Tube Height with Cap (mm)	43.9
Inner Diameter (mm)	9.6
Outer Diameter with Cap (mm)	12.8
Center to Center	13.5
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	45.0
Overall Rack Height including lid (mm)	49.4

Ordering Information

65-7650	**1.6ml Tri-coded Tube, 48-format, External Thread, Maximum Recovery,** 48-format, external thread, 2D code on base, 1D linear barcode and human readable code on side, uncapped, bulk; 480 tubes
65-7651	**1.6ml Tri-coded Tube, 48-format, External Thread, Maximum Recovery,** 48-format, external thread, 2D code on base, 1D linear barcode and human readable code on side, capped, bulk, 480 tubes per case
65-7652	**1.6ml Tri-coded Tube, 48-format, External Thread, Maximum Recovery,** 48-format, external thread, 2D code on base, 1D linear barcode and human readable code on side, uncapped, racked (65-9451); 10 racks/480 tubes
65-7653	**1.6ml Tri-coded Tube, 48-format, External Thread, Maximum Recovery,** 48-format, external thread, 2D code on base, 1D linear barcode and human readable code on side, capped, racked (65-9451); 10 racks/480 tubes

1.9ml Tri-coded Tube, 48-format, External Thread

- Supplied in 48-well format SBS racks or bulk, empty 9x9 cryo rack also available (see page 13)
- Securely sealed using screw caps

1.9ml screw cap	
	
	1.9ml Tri-coded Tube, 48-format, External Thread with screw cap
Max Working Volume (ml)	1.9
Tube Height (mm)	38.2
Tube Height with Cap (mm)	43.9
Inner Diameter (mm)	9.6
Outer Diameter with Cap (mm)	12.8
Center to Center	13.5
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	45
Overall Rack Height including lid (mm)	49.4

Ordering Information

65-7640	**1.9ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped, bulk,** 480 tubes per case
65-7641	**1.9ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped, bulk,** 480 tubes per case
65-7642	**1.9ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7643	**1.9ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7644	**1.9ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **uncapped**, **bulk**, 480 tubes per case
65-7645	**1.9ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **capped**, **bulk**, 480 tubes per case
65-7646	**1.9ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **uncapped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
65-7647	**1.9ml 2D-coded Tube, 48-format, External Thread,** 2D Code on base, **capped**, **10 racks per case**, 48-format rack (1 piece rack base), empty rack part number: 65-9451
66-1800	**Cryo Rack 10x10, black, polycarbonate,** 10 racks per case, suitable for 1.9ml External Thread Tubes

3.8ml Tri-coded Tube, 48-format, External Thread

- Supplied in 48-well format SBS racks or bulk
- Securely sealed with screw caps

	3.8ml screw cap
	
	3.8ml Tri-coded Tube, 48-format, External Thread with screw cap
Max Working Volume (ml)	3.8
Tube Height (mm)	75.0
Tube Height with Cap (mm)	80.7
Inner Diameter (mm)	9.6
Outer Diameter with Cap (mm)	12.8
Center to Center	13.5
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	81.7
Overall Rack Height including lid (mm)	86.2

Ordering Information

65-7516	**3.8ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 480 tubes per case
65-7517	**3.8ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 480 tubes per case
65-7514	**3.8ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, 48-format rack (2 piece rack base), empty rack part number: 65-9460
65-7515	**3.8ml Tri-coded Tube, 48-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, 48-format rack (2 piece rack base),empty rack part number: 65-9460

7.6ml Tri-coded Tube, 24-format, External Thread

- Supplied bulk, empty 24-format SBS racks available separately
- Securely sealed with screw caps

	7.6ml screw cap
	
	7.6ml Tri-coded Tube, 24-format, External Thread with screw cap
Max Working Volume (ml)	7.6
Tube Height (mm)	77.4
Tube Height with Cap (mm)	83.6
Inner Diameter (mm)	13.0
Outer Diameter with Cap (mm)	17.0
Center to Center	18.0
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	84.7
Overall Rack Height including lid (mm)	88.5

Ordering Information

65-9303	**7.6ml Tri-coded Tube, 24-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 240 tubes per case
66-9302	**7.6ml Tri-coded Tube, 24-format, External Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped with Automation Friendly Screw Cap**, **bulk**, 240 tubes per case

Large format Caps

66-9401	**Screw Cap, 24-format, External Thread,** orange, automation friendly, **bulk**, 240 caps per case, suitable for 7.6ml Tubes

Large format Racks

66-9455	**Rack, 24-format, 1 piece rack base,** with open bottom for reading on rack readers, 10 racks per case, suitable for 7.6ml External Thread, Tri-coded Tubes (part number 66-9302)

0.48ml Tri-coded Tube, 96-format, Internal Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.48ml screw cap	0.48ml TPE septum cap
		
	0.48ml Tri-coded Tube, 96-format Internal Thread with screw cap	**0.48ml Tri-coded Tube, 96-format Internal Thread with TPE septum cap**
Max Working Volume (ml)	0.48	0.57
Tube Height (mm)	26.4	26.4
Tube Height with Cap (mm)	34.7	27.6
Inner Diameter (mm)	6.8	6.8
Outer Diameter with Cap (mm)	8.6	8.6
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	36.2	35.2
Overall Rack Height including lid (mm)	44.9	43.9

Ordering Information

67-0753-00	**0.48ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
67-0753-10	**0.48ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
67-0753-02	**0.48ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51025
67-0753-12	**0.48ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51025

0.65ml Tri-coded Tube, 96-format, Internal Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.65ml screw cap	0.65ml TPE septum cap
		
	0.65ml Tri-coded Tube, 96-format, Internal Thread with screw cap	**0.65ml Tri-coded Tube, 96-format, Internal Thread with TPE septum cap**
Max Working Volume (ml)	0.65	0.75
Tube Height (mm)	36.8	36.8
Tube Height with Cap (mm)	45.1	38.0
Inner Diameter (mm)	6.8	6.8
Outer Diameter with Cap (mm)	8.4	8.4
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	46	38.9
Overall Rack Height including lid (mm)	50.8	43.9

Ordering Information

67-0755-00	**0.65ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
67-0755-01	**0.65ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51022
67-0755-10	**0.65ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
67-0755-11	**0.65ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51022

0.9ml Tri-coded Tube, 96-format, Internal Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps

	0.9ml screw cap	0.9ml TPE septum cap
		
	0.9ml Tri-coded Tube, 96-format Internal Thread with screw cap	**0.9ml Tri-coded Tube, 96-format, Internal Thread with TPE septum cap**
Max Working Volume (ml)	0.9	0.99
Tube Height (mm)	44.2	44.2
Tube Height with Cap (mm)	52.5	45.4
Inner Diameter (mm)	6.8	6.8
Outer Diameter with Cap (mm)	8.4	8.6
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	53.4	46.3
Overall Rack Height including lid (mm)	61.8	50.8

Ordering Information

67-0757-00	**0.9ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
67-0757-10	**0.9ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
67-0757-01	**0.9ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51023
67-0757-11	**0.9ml Tri-coded Tube, 96-format, Internal Thread,** 2D Code on base, 1D Linear Barcode and Human Readable Number on side, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51023

Introduction to 96-Format Dual-Coded Tubes

Overview

The Dual-Coded Tube features a 2D-code and Human Readable Number (HRN) on the tube base, allowing compatibility with low throughput manual workflows, semi-automated workflows or fully automated workflows on integrated platforms.

The tubes provide a lifelong and secure chain of custody for samples in biobanks, compound libraries and a broad range of biological and chemical stores, including cryogenic storage.

Designed and developed with broad compatibility in mind, the tubes perform without compromise in conjunction with automated barcode reading, capping and sample management systems from Azenta and all other industry-recognized manufacturers.

Dual-Coded tube internal thread

Key Features

- Permanently laser etched, 2D-code and a Human Readable Number (HRN) on the tube base
- Developed to exceed the demands of sample security, management and tracking in modern high-density storage
- 100% Quality Control, each tube is tested to ensure both readability and uniqueness
- Manufactured using an advanced process which results in a one-piece tube from high-quality virgin polypropylene
- 2D-code and HRN ensure a permanent link between sample and data
- High-contrast 2D-codes are more reliably readable in frost or condensation conditions
- 2D-codes can be scanned and decoded without removing tubes from storage racks, enabling data to be associated with individual tubes
- Equally suitable for sealing with either screw caps or TPE septum caps
- Azenta tubes have been leak tested to ensure sample security
- Suitable for cryogenic storage
- Manufactured from high-quality virgin polypropylene

Screw Caps

- Automation friendly co-molded screw caps for internal thread tubes eliminate the possibility of over tightening
- Co-molded caps eliminate the failures in caps using a silicone O-ring
- A double-start thread engages in a maximum rotation of 180°, thereby facilitating automation

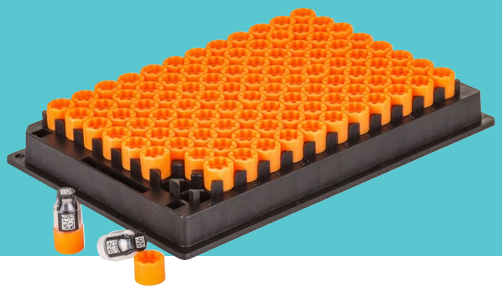
96-Well Format SBS Racks

- **TwistLock:** prevents tubes rotating within the rack to enable automated capping and de-capping of screw caps, provided as standard
- **LidLock:** racks fitted with a LidLock latch are designed to withstand a 1m drop test for added sample security
- **TubeLock:** tubes can be locked in position in a rack, even without a lid, preventing them from falling out even if the rack is inverted. Lock or unlock simply by pushing the tube downwards or upwards
- **Automatic Rack Orientation:** racks are supplied with a unique 2D code identifier which can be read at the same time as the tube 2D code, to provide automatic rack orientation and more secure sample tracking
- **Direct Laser Etching:** linear barcodes are permanently etched directly onto the rack

14 x 14 Cryo Storage Boxes

- 136.2mm x 136.2mm polycarbonate cryobox option available for cryogenic sample storage
- Holds 196 tubes in 14 x 14 array
- Open bottom for 2D code decoding on Azenta Camera-Based Reader for SBS Racks and Cryo Boxes
- Cryo boxes can be supplied with a unique 2D code identifier which can be read at the same time as the tube 2D barcode, to provide more secure sample tracking

0.26ml Dual-coded Tube, 96-format, External Thread



- Supplied in 96-well format SBS racks or bulk
- Securely sealed using screw caps or TPE septum caps

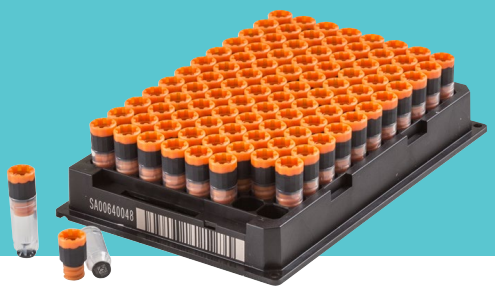
	0.26ml screw cap	0.26ml septum cap
		
	0.26ml Dual-coded Tube, 96-format, External Thread with screw cap	**0.26ml Dual-coded Tube, 96-format, External Thread with septum cap**
Max Working Volume (ml)	0.26	0.23
Tube Height (mm)	15.2	15.2
Tube Height with Cap (mm)	18.6	16.4
Inner Diameter (mm)	6.5	6.5
Outer Diameter with Cap (mm)	8.7	8.7
Center to Center	9.0	9.0
Minimum Temperature (°C)	-196	-80
Tube Height in Rack (mm)	19.13	15.73
Overall Rack Height including lid (mm)	22	22

Ordering Information

68-0303-00	**0.26ml Dual-coded Tube, 96-format, External Thread,** 2D Code on base, 2D and Human Readable Number on side, **uncapped**, **bulk**, 960 tubes per case
68-0303-10	**0.26ml Dual-coded Tube, 96-format, External Thread,** 2D Code on base, 2D and Human Readable Number on side, **capped**, **bulk**, 960 tubes per case
68-0303-01	**0.26ml Dual-coded Tube, 96-format, External Thread,** 2D Code on base, 2D and Human Readable Number on side, **uncapped**, **10 racks per case**, LowBase rack, 2D rack ID position H12, empty rack part number: 68-0300-20
68-0303-11	**0.26ml Dual-coded Tube, 96-format, External Thread,** 2D Code on base, 2D and Human Readable Number on side, **capped**, **10 racks per case**, LowBase rack, 2D rack ID position H12, empty rack part number: 68-0300-20

Note: available with 2D-code only on request.

0.3ml Dual-coded Tube, 96-format, Internal Thread



- Supplied in 96-well format SBS racks, or bulk compatible with 14x14 cryo storage racks
- Securely sealed with screw caps or TPE septum caps

	0.3ml screw cap
	
	0.3ml Dual-coded Tube, 96-format, Internal Thread with screw cap
Max Working Volume (ml)	0.33
Tube Height (mm)	21
Tube Height with Cap (mm)	29.3
Inner Diameter (mm)	6.8
Outer Diameter with Cap (mm)	8.7
Center to Center	9
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	29.5
Overall Rack Height including lid (mm)	33.1

Ordering Information

66-62326	**0.3ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped**, **bulk**, 960 tubes per case
66-62326-Y6	**0.3ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped**, **bulk**, 960 tubes per case
66-62325	**0.3ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped**, **10 racks per case**, LowBase rack, empty rack part number: 66-51004
66-62325-Y6	**0.3ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped**, **10 racks per case**, LowBase rack, empty rack part number: 66-51004

0.7ml Dual-coded Tube, 96-format, Internal Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.7ml screw cap
	
	0.7ml Dual-coded Tube, 96-format, Internal Thread with screw cap
Max Working Volume (ml)	0.73
Tube Height (mm)	36.2
Tube Height with Cap (mm)	44.5
Inner Diameter (mm)	6.8
Outer Diameter with Cap (mm)	8.6
Center to Center	9
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	46.4
Overall Rack Height including lid (mm)	50.8

Ordering Information

66-62318	**0.7ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped, bulk**, 960 tubes per case
66-62318-Y6	**0.7ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped, bulk**, 960 tubes per case
66-62319	**0.7ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped, 10 racks per case**, HighBase rack, empty rack part number: 66-61002
66-62319-Y6	**0.7ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped, 10 racks per case**, HighBase rack, empty rack part number: 66-61002

0.9ml Dual-coded Tube, 96-format, Internal Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.9ml screw cap
	
	0.9ml Dual-coded Tube, 96-format, Internal Thread with screw cap
Max Working Volume (ml)	0.92
Tube Height (mm)	43.5
Tube Height with Cap (mm)	51.8
Inner Diameter (mm)	6.8
Outer Diameter with Cap (mm)	8.6
Center to Center	9
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	53.8
Overall Rack Height including lid (mm)	61.8

Ordering Information

66-62345	**0.9ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped**, **bulk**, 960 tubes per case
66-62345-Y6	**0.9ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped**, **bulk**, 960 tubes per case
66-62330	**0.9ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **uncapped**, **10 racks per case**, HighBase rack, lid suitable for Screw Caps and TPE Caps, empty rack part number: 66-61003
66-62330-Y6	**0.9ml Dual-coded Tube, 96-format, Internal Thread,** 2D Code and Human Readable Number on base, **capped**, **10 racks per case**, HighBase rack, lid suitable for Screw Caps and TPE Caps, empty rack part number: 66-61003

0.5ml Dual-coded Tube, 96-format, External Thread

- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.5ml screw cap
	
	0.5ml Dual-coded Tube, 96-format, External Thread with screw cap
Max Working Volume (ml)	0.55
Tube Height (mm)	26.4
Tube Height with Cap (mm)	29.8
Inner Diameter (mm)	6.5
Outer Diameter with Cap (mm)	8.5
Center to Center	9
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	30.0
Overall Rack Height including lid (mm)	33.1

Ordering Information

68-0701-00	**0.5ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **uncapped**, **bulk**, 960 tubes per case
68-0701-10	**0.5ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **capped**, **bulk**, 960 tubes per case
68-0701-02	**0.5ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026
68-0701-12	**0.5ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **capped**, **10 racks per case**, HighBase rack, empty rack part number: 66-51026
68-0701-11	**0.5ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **capped, 10 racks per case,** LowBase rack, empty rack part number: 66-51004

0.9ml Dual-coded Tube, 96-format, External Thread

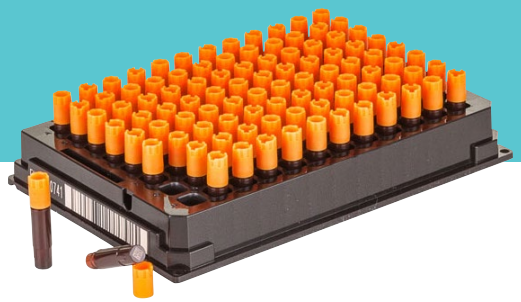
- Supplied in 96-well format SBS racks or bulk
- Securely sealed with screw caps or TPE septum caps

	0.9ml screw cap
	
	0.9ml Dual-coded Tube, 96-format, External Thread with screw cap
Max Working Volume (ml)	0.9
Tube Height (mm)	42.3
Tube Height with Cap (mm)	45.7
Inner Diameter (mm)	6.5
Outer Diameter with Cap (mm)	8.7
Center to Center	9
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	47.8
Overall Rack Height including lid (mm)	50.8

Ordering Information

68-1001-00	**0.9ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **uncapped**, **bulk**, 960 tubes per case
68-1001-10	**0.9ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **capped**, **bulk**, 960 tubes per case
68-1001-01	**0.9ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **uncapped**, **10 racks per case**, HighBase rack, empty rack part number: 66-61002
68-1001-11	**0.9ml Dual-coded Tube, 96-format, External Thread,** 2D Code and Human Readable Number on base, **capped, 10 racks per case,** HighBase rack, empty rack part number: 66-61002
66-61002	**Rack, 96-format, HighBase,** 10 racks per case, suitable for 0.7ml Internal Thread Tubes with Screw Caps, 0.9ml Internal Thread, Dual-Coded Tubes with Septum TPE Caps or Individual Thermal Seals and 0.9ml External Thread Tubes with Screw Caps
66-51016	**Rack, 96-format, HighBase, with TubeLock,** 10 racks per case, suitable for 0.9ml External Thread Tubes with Screw Caps or Septum TPE Caps, 0.7ml Internal Thread Tubes with Screw Caps or Septum TPE Caps and 0.9ml Internal Thread Tubes with Septum TPE Caps
66-0196-01	**Cryo Rack 14x14, black, polycarbonate,** 10 racks per case, suitable for 0.3ml and 0.48ml Internal Thread Tubes and 0.5ml External Thread Tubes

External Thread 2D-Coded Tubes



External Thread 2D-coded tubes carry a unique and permanent high-contrast 2D-code tube identifier on the base of the tube readable in frost or condensation conditions, or when damaged. The tubes provide a lifelong and secure chain of custody for samples in biobanks, compound libraries and a broad range of biological and chemical stores, including cryogenic storage.

Key Features

- Permanently laser etched, 2D-code on base
- 100% Quality Control, each tube is tested to ensure both readability and uniqueness
- Manufactured from high-quality virgin polypropylene
- External thread tubes provide greater working volume than internal thread tubes
- Suitable for cryogenic storage as low as -196°C
- Secure Sample Storage and Tracking
- Available bulk uncapped or capped
- Available pre-racked and capped in 96, 48 and 24 well format SBS racks
- 2D-codes readable without removing tubes from racks

Screw Caps

- A deforming compression seal is more effective than a silicone alternative
- Non-silicone seal means the cap can never be over-tightened
- Caps and tubes are manufactured from the same material, preventing differential expansion during freeze-thaw cycles
- A double-start thread engages in a maximum rotation of 180° thereby facilitating automation

Internal Thread 2D-Coded Tubes

2D-coded internal thread tubes carry a unique and permanent high-contrast 2D-code tube identifier on the base of the tube providing a lifelong and secure chain of custody for samples in biobanks, compound libraries and a broad range of biological and chemical stores, including cryogenic storage.

Key Features

- Permanently laser etched, 2D-code on base
- 100% Quality Control, each tube is tested to ensure both readability and uniqueness
- Manufactured from high-quality virgin polypropylene
- Suitable for cryogenic storage as low as -196°C
- Secure sample storage and tracking
- Available bulk uncapped or capped
- Available pre-racked and capped in 96, 48 and 24 well format SBS racks
- 2D-codes readable without removing tubes from racks

Screw Caps

- Co-molded screw caps for internal thread tubes eliminate the possibility of over-tightening
- Co-molded caps eliminate the failures common in caps using silicon O-rings
- Improved internal thread provides a more secure seal when using screw caps

TPE Septum Caps

- Cost-effective sealing option for samples that are only accessed occasionally
- Septum caps are supplied in 96-format back mats to facilitate automation

Acoustic Sample Tube – Echo® Qualified Consumable

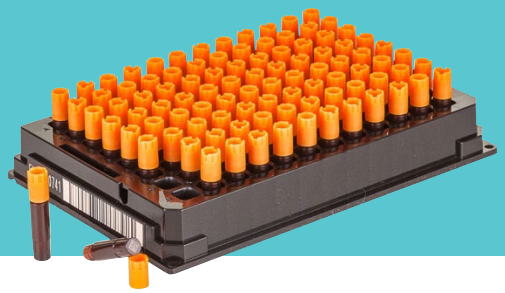
- Acoustic dispense direct from the tube
- Assay robustness based on a higher sample integrity
- Compound saving vs. Conventional storage methods
- Faster turnaround time from request for compound to compound ready for assay
- Established benefits of 2D-coded Tubes vs. Plates which have to be fully thawed and unsealed to access one sample
- Combined technologies of 2D-coded Tubes and Acoustic Transfer
- Unique and permanent 2D4 Quad Code laser-etched on tube base
- Secure Sample Storage and Tracking - barcode ensures a permanent link between sample and data
- Scan and decode without removing tubes from storage racks, enables data to be associated with individual tubes
- Leak tested to ensure sample security
- Screw Caps - non-silicone seal means the cap can never be overtightened
- Double-start thread engages in a maximum rotation of 180°, facilitating automation

	Acoustic Sample Tube – Echo® Qualified Consumable
	
	Acoustic Sample Tube – Echo® Qualified Consumable
Max Working Volume	70 µL @5mm
Dead Volume	Approx. 15µL (with DMSO)
Total Volume	85µL
Rack Option	SBS format 96-way rack
Tube Height (mm)	13.4
Tube Height with Cap (mm)	14.7
Outer Diameter with Cap (mm)	7.9
Rack Height with lid (mm)	22.1
Coding	2D4 Quad Code on base
Capping Option	Internal Thread

Ordering Information

Please contact your local Azenta Life Sciences representative.

0.2ml 2D-coded Tube, 96-format, External Thread



- Supplied in 96-well format SBS racks
- Securely sealed using screw caps
- Available in 240-well format on request

	0.2ml screw cap
	
	0.2ml 2D-coded Tube, 96-format, External Thread with screw cap
Max Working Volume (ml)	0.2
Tube Height (mm)	24.1
Tube Height with Cap (mm)	27.5
Inner Diameter (mm)	3.9
Outer Diameter with Cap (mm)	5.8
Center to Center	9.0
Minimum Temperature (°C)	-196
Tube Height in Rack (mm)	28
Overall Rack Height including lid (mm)	31

Ordering Information

67-0203-01	**0.2ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **bulk**, 960 tubes per case
67-0203-10	**0.2ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped**, **bulk**, 960 tubes per case
67-0203-02	**0.2ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **uncapped**, **10 racks per case**, empty rack part number: 67-0203-00
67-0203-11	**0.2ml 2D-coded Tube, 96-format, External Thread,** 2D Code on base, **capped**, **10 racks per case**, empty rack part number: 67-0203-00
67-0203-51	**Screw Cap, 96-format, External Thread, bulk,** 960 caps per case, suitable for 0.2ml 2D-coded Tube, 96-format, External Thread
67-0203-00	**Rack, 96-format,** 10 racks per case, suitable for 0.2ml Tubes
67-0200-00	**Rack, 240-format,** 10 racks per case, suitable for 0.2ml Tubes

Non-Coded Tubes

In addition to our fully traceable coded tubes offering sample security, management and tracking in modern high-density storage applications, Azenta tubes are also available non-coded or with alpha numeric coding.

Ordering Information

0.5ml Non-Coded External Thread Screw Cap Tubes

66-0700-01	**0.5ml Non-coded Tube, 96-format, External Thread, uncapped, 10 racks per case, LowBase rack,** empty rack part number: 66-51004
66-0700-11	**0.5ml Non-coded Tube, 96-format, External Thread, capped, 10 racks per case, LowBase rack,** empty rack part number: 66-51004
66-0700-02	**0.5ml Non-coded Tube, 96-format, External Thread, uncapped, 10 racks per case, HighBase rack,** empty rack part number: 66-51026
66-0700-12	**0.5ml Non-coded Tube, 96-format, External Thread, capped, 10 racks per case, HighBase rack,** empty rack part number: 66-51026
66-0700-00	**0.5ml Non-coded Tube, 96-format, External Thread, uncapped, bulk,** 960 tubes per case
66-0700-10	**0.5ml Non-coded Tube, 96-format, External Thread, capped, bulk,** 960 tubes per case

0.9ml Non-Coded External Thread Screw Cap Tubes

66-1000-01	**0.9ml Non-coded Tube, 96-format, External Thread, uncapped, 10 racks per case,** HighBase rack, empty rack part number: 66-61002
66-1000-11	**0.9ml Non-coded Tube, 96-format, External Thread, capped, 10 racks per case,** HighBase rack, empty rack part number: 66-61002
66-1000-02	0.**9ml Non-coded Tube, 96-format, External Thread, uncapped, 10 racks per case,** HighBase rack, **with TubeLock,** empty rack part number: 66-51016
66-1000-12	**0.9ml Non-coded Tube, 96-format, External Thread, capped, 10 racks per case,** HighBase rack, **with TubeLock,** empty rack part number: 66-51016
66-1000-00	**0.9ml Non-coded Tube, 96-format, External Thread, uncapped, bulk,** 960 tubes per case
66-1000-10	**0.9ml Non-coded Tube, 96-format, External Thread, capped, bulk,** 960 tubes per case

0.3ml Non-Coded Internal Thread Tubes

66-32041	**0.3ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, 10 racks per case,** LowBase rack, suitable for use with Screw Cap Tubes, empty rack part number: 66-51004
66-32041-Y6	**0.3ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, 10 racks per case,** LowBase rack, empty rack part number: 66-51004
66-32041-Y6-L	**0.3ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, 10 racks per case,** LowBase rack, **with TubeLock**, includes standard profile non-locking lid, empty rack part number: 66-51014
66-32141	**0.3ml Non-coded Tube, 96-format, Internal Thread, uncapped, 10 racks per case,** LowBase rack, lid suitable for use with TPE Caps/Thermal Individual Tube Seal only, empty rack part number: 66-51003
66-32040	**0.3ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, bulk,** 960 tubes per case
66-32040-Y6	**0.3ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, bulk,** 960 tubes per case

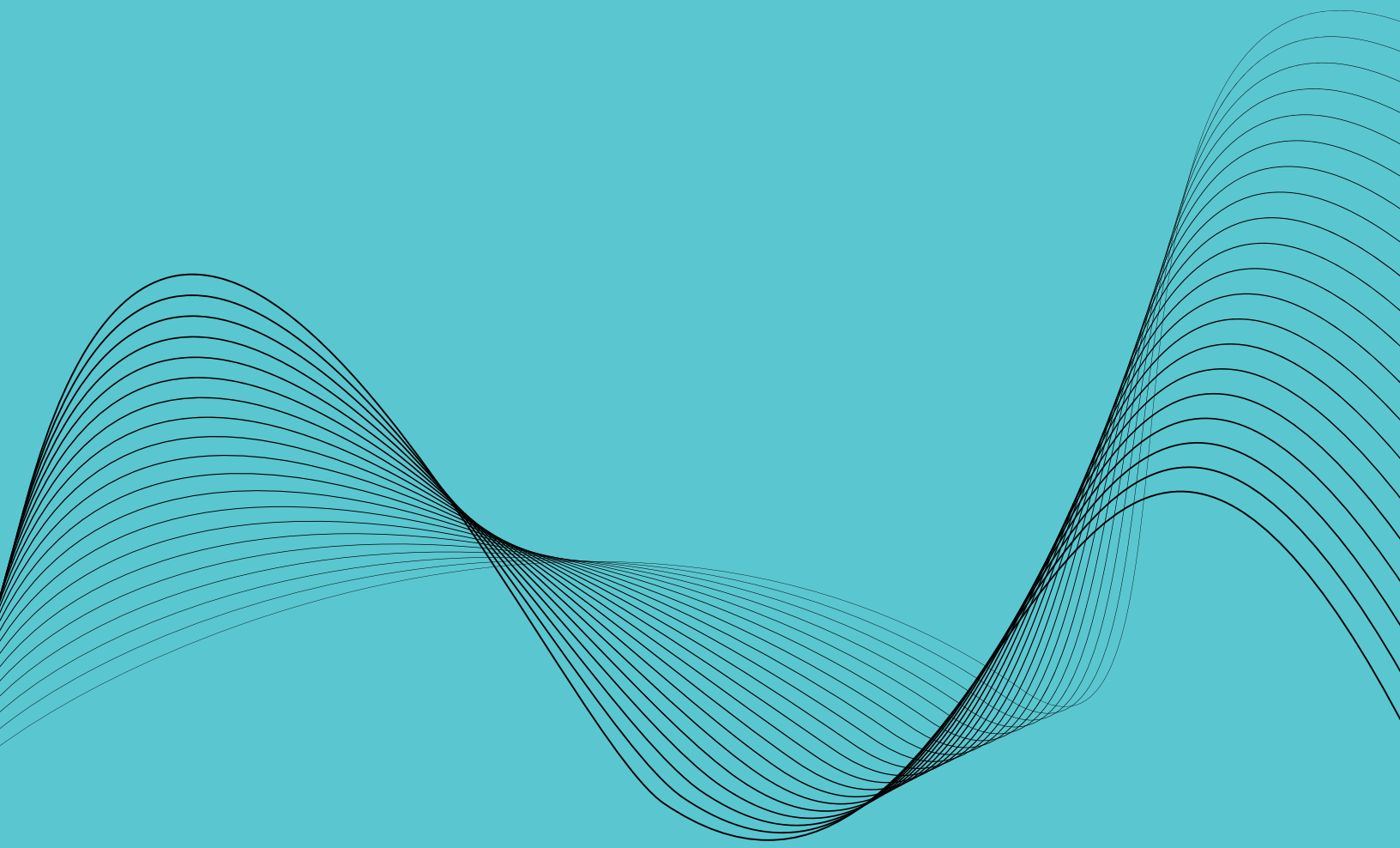
0.7ml Non-Coded Internal Thread Tubes

66-32033	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, bulk,** 960 tubes per case
66-32033-Y6	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, bulk,** 960 tubes per case
66-32034	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, 10 racks per case,** HighBase rack, empty rack part number: 66-61002
66-32034-Y6	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, 10 racks per case,** HighBase rack, empty rack part number: 66-61002
66-32034-L	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, 10 racks per case,** HighBase rack, **with TubeLock**, empty rack part number: 66-51016
66-32034-Y6-L	**0.7ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, 10 racks per case,** HighBase rack, **with TubeLock**, empty rack part number: 66-51016

0.9ml Non-Coded Internal Thread Screw Cap Tubes

66-32062	**0.9ml Non-coded Tube, 96-format, Internal Thread, V-bottom, uncapped, bulk,** 960 tubes per case
66-32062-Y6	**0.9ml Non-coded Tube, 96-format, Internal Thread, V-bottom, capped, bulk,** 960 tubes per case
66-32042	**0.9ml Non-coded Tube, 96-format, Internal Thread, uncapped, 10 racks per case,** HighBase rack, lid suitable for TPE caps only, empty rack part number: 66-61002
66-32043	**0.9ml Non-coded Tube, 96-format, Internal Thread, uncapped, 10 racks per case,** HighBase rack, lid suitable for Screw Caps and TPE Caps, empty rack part number: 66-61003
66-32043-Y6	**0.9ml Non-coded Tube, 96-format, Internal Thread, capped, 10 racks per case,** HighBase rack, lid suitable for Screw Caps and TPE Caps, empty rack part number: 66-61003
66-32042-L	**0.9ml Non-coded Tube, 96-format, Internal Thread, uncapped, 10 racks per case,** HighBase rack, **with TubeLock**, lid suitable for TPE caps only, empty rack part number: 66-51016
66-32043-L	**0.9ml Non-coded Tube, 96-format, Internal Thread, uncapped, 10 racks per case,** HighBase rack, **with TubeLock**, lid suitable for Screw Caps and TPE Caps, empty rack part number: 66-51017
66-32043-Y6-L	**0.9ml Non-coded Tube, 96-format, Internal Thread, capped, 10 racks per case,** HighBase rack with TubeLock, empty rack part number: 66-51017

Capping and Sealing Options



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Tube Screw Caps

Developed to exceed the demands of sample security, management and tracking in modern high-density storage applications, screw caps are manufactured from high-quality virgin polypropylene and are designed for optimal seal quality and sample security.

Compatible with all Azenta 96-format sample storage tubes with a screw top, caps are available for use with either external or internal thread Azenta screw top tubes and are supplied in bags of 960 caps.

Practical Design Based on Experience of Applications

- High chemical resistance
- Broad operating temperature range -196°C to +121°C, do not use in liquid phase nitrogen
- Automation friendly, available in Azenta Cap Carrier for use with automated capping and de-capping systems
- Autoclavable
- Available in up to 10 different colors to aid sample identification
- Manufactured from high-quality virgin polypropylene

Screw Caps for External Thread Tubes

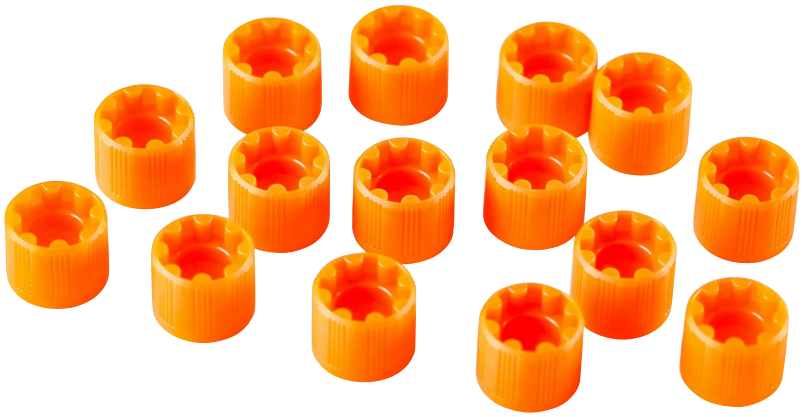
- Deforming compression seal is more effective than a silicone alternative
- Non-silicone seal means the cap can never be over-tightened
- Cap and tube manufactured from the same material, preventing differential expansion during freeze-thaw cycles
- Double-start thread engages in a maximum rotation of 180°, facilitating automation

Screw Caps for Internal Thread Tubes

- Co-molded screw caps for internal thread tubes eliminate the possibility of over-tightening
- Co-molded caps eliminate the failures common in caps using silicon O-rings
- Improved internal thread provides a more secure seal when using screw caps

Designed for Reduced Sample Loss

- Significant amounts of liquid can become trapped within a standard design screw cap, resulting in potential loss of valuable sample
- This hollow area on the cap can catch sample, and surface tension then makes cap removal difficult
- Studies demonstrate that Azenta cap design, with a reduced hollow, reduces this effect by lowering liquid retention whilst maintaining seal quality



Ordering Information

96 Format External Thread Screw Caps

68-53111-10N	**Cap Carrier (External Thread),** with orange caps, 96-format, SBS stackable, re-usable, 10 carriers/960 caps per case, suitable for all 96-format External Thread Screw Cap Tubes
68-53111-50N	**Cap Carrier (External Thread),** with orange caps, 96-format, SBS stackable, re-usable, 50 carriers/4,800 caps per case, suitable for all 96-format External Thread Screw Cap Tubes
68-53100-Z1N	**Screw Cap, 96-format, External Thread,** white, bulk, 960 caps per case
68-53100-Z2N	**Screw Cap, 96-format, External Thread,** red, bulk, 960 caps per case
68-53100-Z3N	**Screw Cap, 96-format, External Thread,** yellow, bulk, 960 caps per case
68-53100-Z4N	**Screw Cap, 96-format, External Thread,** blue, bulk, 960 caps per case
68-53100-Z5N	**Screw Cap, 96-format, External Thread,** transparent blue, bulk, 960 caps per case
68-53100-Z6N	**Screw Cap, 96-format, External Thread,** orange, bulk, 960 caps per case
68-53100-Z8N	**Screw Cap, 96-format, External Thread,** green, bulk, 960 caps per case
68-53100-Z10N	**Screw Cap, 96-format, External Thread,** amber, bulk, 960 caps per cas
68-53100-Z11N	**Screw Cap, 96-format, External Thread,** purple, bulk, 960 caps per case
68-53100-Z12N	**Screw Cap, 96-format, External Thread,** natural, bulk, 960 caps per case
68-53100-Z13N	**Screw Cap, 96-format, External Thread,** black, bulk, 960 caps per case

48 Format External Thread Screw Caps

65-7572	**Screw Cap, 48-format, External Thread,** orange, bulk, 480 caps per case, suitable for 48-format Cryo Tubes
65-7573	**Screw Cap, 48-format, External Thread,** red, bulk, 480 caps per case, suitable for 48-format Cryo Tubes
65-7574	**Screw Cap, 48-format, External Thread,** blue, bulk, 480 caps per case, suitable for 48-format Cryo Tube
65-7575	**Screw Cap, 48-format, External Thread,** green, bulk, 480 caps per case, suitable for 48-format Cryo Tubes
65-7576	**Screw Cap, 48-format, External Thread,** yellow, bulk, 480 caps per case, suitable for 48-format Cryo Tubes
65-7577	**Screw Cap, 48-format, External Thread,** purple, bulk, 480 caps per case, suitable for 48-format Cryo Tubes

96 Format Internal Thread Screw Caps

66-63100-Y1	**Screw Cap, 96-format, Internal Thread,** white, bulk, 960 caps per case
66-63100-Y2	**Screw Cap, 96-format, Internal Thread,** red, bulk, 960 caps per case
66-63100-Y3	**Screw Cap, 96-format, Internal Thread,** yellow, bulk, 960 caps per case
66-63100-Y4	**Screw Cap, 96-format, Internal Thread,** blue, bulk, 960 caps per case
66-63100-Y5	**Screw Cap, 96-format, Internal Thread,** transparent blue, bulk, 960 caps per case
66-63100-Y6	**Screw Cap, 96-format, Internal Thread,** orange, bulk, 960 caps per case
66-63100-Y8	**Screw Cap, 96-format, Internal Thread,** green, bulk, 960 caps per case
66-63100-Y10	**Screw Cap, 96-format, Internal Thread,** amber, bulk, 960 caps per case
66-63100-Y11	**Screw Cap, 96-format, Internal Thread,** purple, bulk, 960 caps per case
66-63100-Y12	**Screw Cap, 96-format, Internal Thread,** natural, bulk, 960 caps per case
66-63100-Y13	**Screw Cap, 96-format, Internal Thread,** black, bulk, 960 caps per case

24 Format External Thread Screw Caps

66-9401	**Screw Cap, 24-format, External Thread,** orange, automation friendly, bulk, 240 caps per case, suitable for 7.6ml PP Tubes
66-9402	**Screw Cap, 24-format, External Thread,** clear, automation friendly, bulk, 240 caps per case, suitable for 7.6ml PP Tubes

TPE Septum Caps

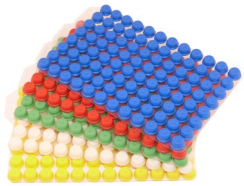
Developed to meet the needs of sample security, management and tracking in modern high-density storage applications, TPE septum caps are a disposable, thermo plastic elastomer (TPE) cap designed for optimal seal quality. Compatible with 96-format tubes, TPE caps are available for use with internal thread tubes and are manufactured from high-quality TPE, supplied as 96-cap mats or in bulk.

Practical Design Based on Experience of Applications

- Piercable cap, for use with any 96-format internal thread tube
- Broad operating temperature range, suitable for use -80°C to +110°C
- Ideal solution for -20°C storage with occasional access
- Available in a choice of five colors to aid sample identification
- Suitable for Automatic and Semi-Automatic Cappers and De-cappers
- Natural color only recommended for automatic systems
- Supplied in 96-format back mats to facilitate automation

Septum Cap Compatibilty

- Suitable for 96-format Tri-coded Sample Storage Tubes, internal thread 0.65ml, 0.9ml
- Suitable for 96-format Dual-coded Tubes internal thread 0.3ml, 0.7ml, 0.9ml

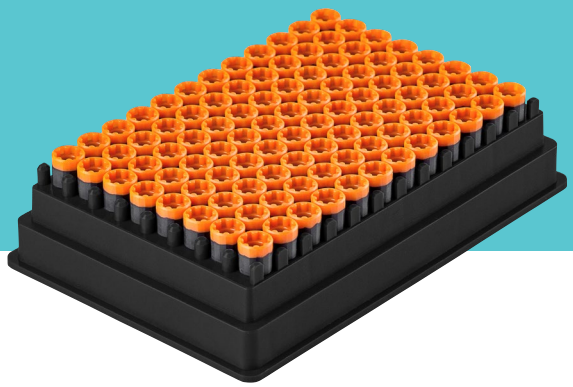


Ordering Information

Internal Thread TPE Septum Seals

65-73000	**TPE Septum Cap,** natural, 96-format, on backing mat, 50 mats/4,800 caps per case, suitable for all Internal Thread Tubes
65-73001	**TPE Septum Cap,** blue, 96-format, on backing mat, 50 mats/4,800 caps per case, suitable for all Internal Thread Tubes
65-73002	**TPE Septum Cap,** green, 96-format, on backing mat, 50 mats/4,800 caps per case, suitable for all Internal Thread Tubes
65-73003	**TPE Septum Cap,** red, 96-format, on backing mat, 50 mats/4,800 caps per case, suitable for all Internal Thread Tubes
65-73004	**TPE Septum Cap,** yellow, 96-format, on backing mat, 50 mats/4,800 caps per case, suitable for all Internal Thread Tubes
65-74000	**TPE Septum Cap,** natural, 96-format, bulk, 960 caps per case, suitable for all Internal Thread Tubes

SBS Cap Carriers



SBS-format screw cap carriers enable automated capping of 96-format sample storage tubes. Cap carriers are suitable for manual use or for use with Semi-Automated Screw Cap Decapper/Recapper, Single Channel systems and Automated Single Column Screw Cap Capper/Decapper systems.

Cap carriers are supplied in cases of 10 or 50, pre-filled with low-retention screw caps that can reduce sample loss (960 caps per case for 10 cap carriers, 4800 caps per case for 50 cap carriers).

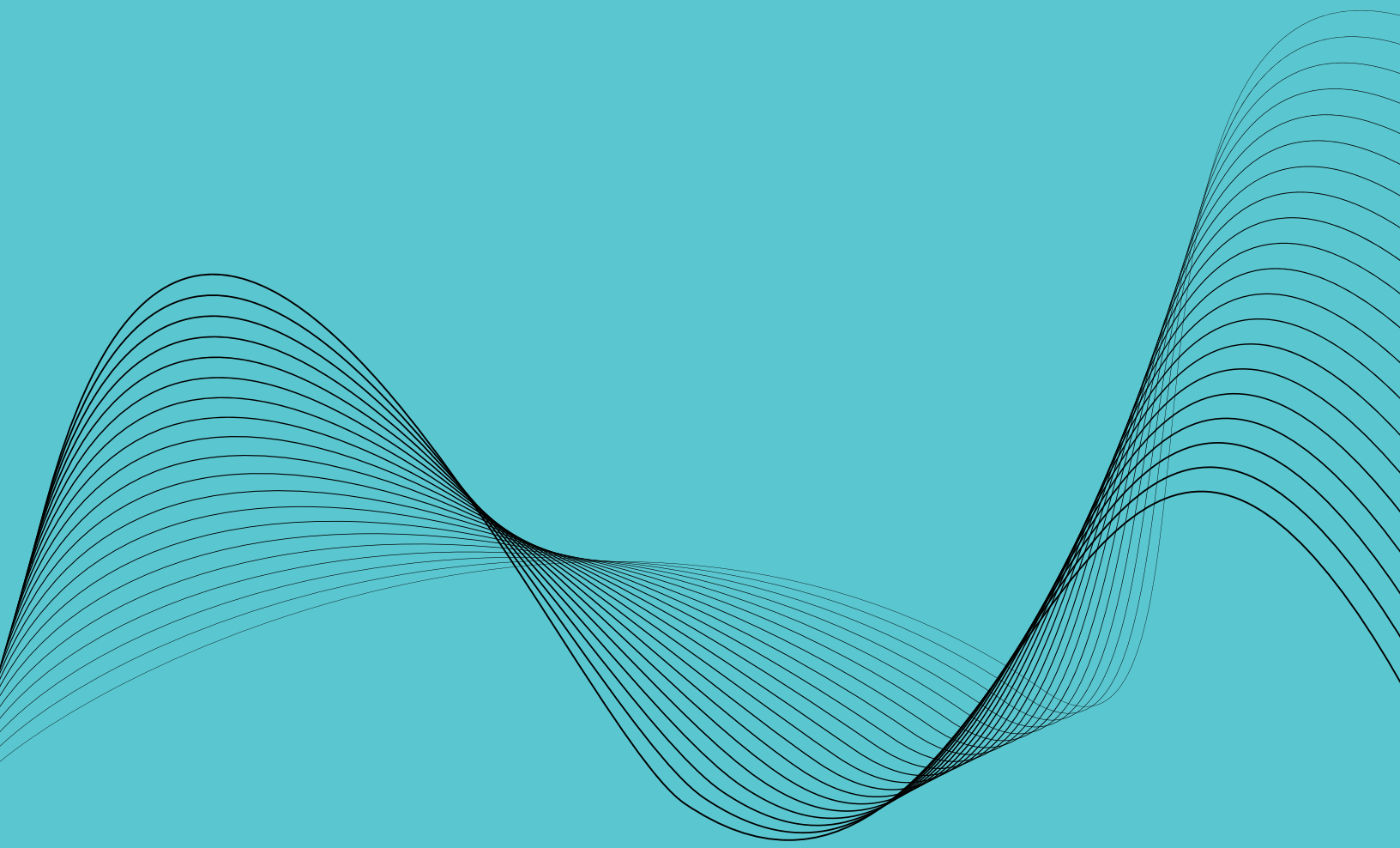
Improved Process Efficiency

- Cap Carriers enable uncapped tubes to be used immediately and then capped using an automated capping and de-capping system
- Leads to improved process efficiency and allows batch filling of tubes prior to capping
- When used manually, by transferring caps from the carrier to the tube using a single tube transfer device, the operation becomes faster and the risk of contamination is reduced as cap handling is eliminated
- In alignment with our ESG commitments, we now manufacture Cap Carriers using at least 50% recycled polypropylene, reducing waste and reliance on virgin materials. While maintaining the same high-quality standards, this sustainable improvement is reflected in a color change from blue to black.

Ordering Information

68-53111-50X	**Cap Carrier (External and Internal Thread),** empty, 96-format, SBS stackable, re-usable, 50 carriers per case, suitable for all 96-format External and Internal Thread Screw Cap Tubes
67-63111-10	**Cap Carrier (Internal Thread),** with orange caps, 96-format, SBS stackable, re-usable, 10 carriers/960 caps per case, suitable for all Internal Thread Screw Cap Tubes
67-63111-50	**Cap Carrier (Internal Thread),** with orange caps, 96-format, SBS stackable, re-usable, 50 carriers/4,800 caps per case, suitable for all Internal Thread Screw Cap Tubes
68-53111-10N	**Cap Carrier (External Thread),** with orange caps, 96-format, SBS stackable, re-usable, 10 carriers/960 caps per case, suitable for all 96-format External Thread Screw Cap Tubes
68-53111-50N	**Cap Carrier (External Thread),** with orange caps, 96-format, SBS stackable, re-usable, 50 carriers/4,800 caps per case, suitable for all 96-format External Thread Screw Cap Tubes
68-53111-10X	**Cap Carrier (External and Internal Thread),** empty, 96-format, SBS stackable, re-usable, 10 carriers per case, suitable for all 96-format External and Internal Thread Screw Cap Tubes
66-9951	**Cap Carrier, 48-format,** empty, SBS, for use with Semi-Automated and Automated Screw Cap Decapper series, 10 carriers per case
65-9801	**Cap Carrier, 24-format,** empty, SBS stackable, 10 carriers per case, suitable for 24-format Automation Friendly External Thread Screw Caps (part number 66-9401)

Treatment Services



Treatment Services

We understand how important it is to provide labware in a contamination-free condition and ideally suited for your research. This is why we provide alternative methods for treatment of products.

Standard Product

Prevention is better than a cure, so we manufacture all sample storage consumables in an ISO class 8 clean-room environment. To gain access to this area, everyone must wear a gown, gloves, face mask, hair net and overshoes. In addition, they must pass through a double door with an "air-shower" designed to remove any particles. No material that could cause contamination is allowed in the clean-room.

The products are treated at the point of molding, which takes place at temperatures that melt the resin – typically between 140°C to 150°C for copolymer and 165°C to 175°C for homopolymer.

From the injection molding machine, our consumables are processed and bagged in the clean-room. Only once they have left the clean-room are they are placed in the transport box for shipment.

The efficacy of this process is tested periodically, which allows us to have a high degree of confidence that our products meet the standards outlined in the table below.

Contaminant	Testing Standard
Endotoxin (Pyrogen)	Product(s) are tested on a periodic basis and found to be below the acceptance level ≤0.05 EU/ml
DNA/RNA DNase/RNase	Product(s) are free of contaminations based on 3rd party electrophoresis evaluation of degradation
Heavy Metals	No heavy metal is contained in any of our product(s) that meet CONEG requirements of 100 ppm/weight
Animal (TSE/BSE)	No product(s) are manufactured from or come into contact with, animal materials
PCR Inhibitors	Product(s) are PCR-inhibitor free

Gamma Irradiation

Gamma irradiation is not guaranteed to destroy DNA contamination to the point where it doesn't amplify or interfere with subsequent analysis. Ensuring that no amplifiable DNA is present relies on (i) the manufacturing process and testing described above and (ii) fulfilling requirements for sensitive applications such as using Ethylene Oxide (EtO).

Gamma irradiation can negatively affect polypropylene, making it more brittle over time and increasing the binding characteristics of the plastic. For this reason, Azenta Life Sciences recommends that wherever possible, the standard product is relied on to deliver the contamination-free product required for research and long-term storage.

Ethylene Oxide (EtO)

EtO is just as effective as gamma irradiation and in addition, it ensures there is no DNA that can be amplified to a level where there is risk of subsequent interference. Therefore, EtO is the treatment method of choice in critical areas such as forensics.

Dual Ethylene Oxide (EtO2)

The newly published ISO 18385:2016 standard centers on minimizing the risk of human DNA contamination in consumable products used in collection, storage, or analysis of biological material for forensic DNA purposes. Dual EtO treatment is being recommended to further minimize the presence of PCR-amplifiable DNA

Ordering Information

Contaminant	Standard Product	Gamma Irradiation	Ethylene Oxide	Dual Ethylene Oxide
General Description	Product is made in an ISO 8 (class 100K) clean room. Product is endotoxin (pyrogen), DNAase/RNAase, heavy metals & animal-free.	Ensures no viable micro-organisms but cannot guarantee destroyed DNA contamination. Affects PP, making it more brittle over time & increasing binding of plastic.	Effective at ensuring no DNA can be amplified to a level where there is any risk of interference.	Recommended for consumables used in the collection, storage, or analysis of biological material for forensic DNA.
Recommended for standard use	Yes	No	No	No
Recommended for critical forensic applications (DNA amplification)	No	No	Yes	Yes
Modifies Polypropylene	NO	Yes	No	No
Product types	All	Capped or uncapped tubes	Uncapped tubes only, bulk caps, cap carriers	Uncapped tubes only, bulk caps, cap carriers
Packaging	Bulk, case of 10 racks	Sleeve of five racks as standard – individually wrapped as option	Individually wrapped	Individually wrapped
Min Quantity	None	10 cases	25 cases	25 cases
Part number	N/A	-GS	-S	-DS
Example part number	68-0703-02	68-0703-02-GS	68-0703-02-S	68-0703-02-DS

Recommended Temperature Range for Sample Storage Tubes

Cryogenic storage at very cold temperatures is designed to provide an indefinite, if not nearly infinite, longevity to biological materials.

By reducing sample temperatures to below the glass transition phase of water, all metabolic activity comes to a halt. Storage below this temperature therefore offers the most secure form of long term cryopreservation.

Storage in gas phase liquid nitrogen provides a convenient way of storing samples at temperatures below this transition temperature.

Screw cap storage tubes are designed for long term sample storage at cryogenic temperatures, including storage in the gas phase of liquid nitrogen.

Gas phase liquid nitrogen temperatures have been typically quoted as between -150°C and -178°C, depending on the location and the distance away from the liquid nitrogen reservoir surface. However, the latest generation of cryogenic storage systems are powered by liquid nitrogen in such a way to ensure a consistent temperature within the storage chamber, and can be as low as -195°C.

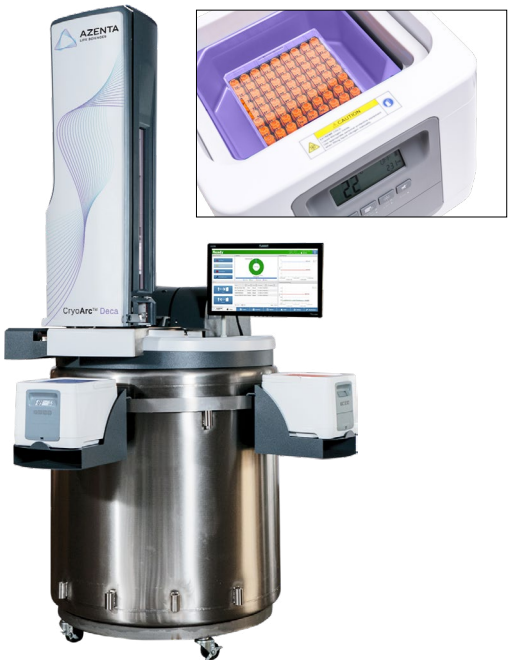
All screw cap storage tubes are fully compatible with this storage temperature and can be safely used for long term storage in this environment. However, immersion in liquid nitrogen is not recommended for two reasons:

1. Liquid nitrogen is extremely pervasive.

   If a tube cap is not completely and correctly tightened nitrogen may seep inside the tube. When the tube is then removed from storage this liquid nitrogen will instantly boil, expanding to over 700 times its liquid volume. This creates a significant risk of explosion and/or biohazard risk from aerosols.

2. Many researchers have noted that immersion in liquid nitrogen carries with it a significant risk of cross contamination from bacteria, viruses and DNA that can be present within the liquid nitrogen.

   Therefore, if required, snap-freezing is best achieved by immersing the tube in liquid nitrogen to a depth that avoids the nitrogen coming into direct contact with the tube cap.



CryoArc™ Deca with CryoPod® Carrier

CryoArc™ Pico Automated Sample Storage System

How Safe Are Your Samples? - Leachables and Extractables, Working Volume and Pressure Testing

Part I: Evaluation of External Thread Tubes for Potential Leachable Compounds

Most plastics are supplied pyrogen- and DNAse/RNAse-free, it is generally accepted that this guarantees product integrity. Few researchers ever consider that despite these apparent guarantees, plastic ware can still provide a potential source of error. Evidence shows that bioactive compounds can diffuse into solutions that come into contact with the surface of the plastic. These compounds, typically referred to as “leachables” or “extractables”, are used during the manufacturing process to improve product stability and durability.

The aim of this evaluation was to determine if “extractables” could be detected in solvent solutions stored in Azenta external thread tubes and to compare the performance against competitor tubes.

Part II: Working Volume

Knowledge of the working volume is a key criterion to consider when selecting the most appropriate tube and, is dependent on a range of factors including: Fill volume of the tube; Accuracy of the volume dispensed; Freezing conditions; Thawing conditions; Cap selected; Burst pressure of the cap.

Manufacturers of sample storage tubes specify the size of tubes in a variety of ways, but rarely state the sample type or storage conditions required to achieve the volumes stated. This can lead to catastrophic results if the working volume of the tube is exceeded.

Part III: Sample Integrity Through Secure Capping

When using sample tubes, secure capping is paramount to protect sample integrity during the storage and handling process for a range of applications. These applications could include; Biobanking, Compound Management, Cell Therapy, Benchtop Research or applied industry. Two major hazards that can be mitigated through safe and secure sample tube capping are Evaporation and Cross contamination.

White Papers Available

Ziath 2D-Coded Tube Reading and Handling Systems for Effective Sample Management

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Uno and Duo
Single Tube Readers

1D and 2D-code reader for individual tubes

Key Features

- Easy set-up, straight out of the box
- Reads 2D datamatrix coded tubes, including Azenta Acoustic tubes (with Acoustic add-on)
- Uno features higher resolution camera that can often decode older, poorly printed codes
- Duo combines the datamatrix reader with a linear barcode reader for rack codes or 1D linear codes along the edge of some tubes
- Super-fast electronics capable of reading 2D coded tubes in multiple formats including 384-well tubes
- Large imaging windows make it easy to present the tubes

Uno and Duo single tube readers

Single tube readers offer easy set-up, straight out of the box, with only a few minutes needed to install the application software. The instruments are provided already calibrated, able to read 2D datamatrix coded tubes, including Azenta Acoustic tubes. The new Uno single tube reader features a higher resolution camera than the previous model that can often decode older, poorly printed codes easier.

The Duo reader combines the datamatrix reader with a linear code reader to decode rack or 1D-codes.

Specifications

- Dimensions (LxWxH) 66 mm x 53.5 mm x 51.5 mm
- Single USB connection is all that is required for power and data communication

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Easy to set up and easy to use

With the Uno measuring just 66 mm x 53.5 mm x 51.5 mm (LxWxH), these rugged new tube readers feature a high resolution camera with super-fast electronics capable of reading 2D-coded tubes in multiple formats including 384-well tubes.

Simply hold your tube to the imaging window and the code is instantly displayed. The readers can be supplied with or without optional cryoprotection to enable trouble-free reading of tubes taken straight from cold storage. These USB 3 devices act as a Microsoft® Keyboard Wedge and insert the code into any open programme on the desktop. The enhanced drivers allow the Uno or Duo to be ready to read immediately with no lag time and even allow adjustment of the camera for changes in contrast between different manufacturers' tubes. The software for Uno and Duo offers a keyboard wedge mode which allows you to enter the decoded data directly into your application. The large imaging windows make it easy to present the tubes, even when wearing cryoprotective or anti-contamination clothing. A single USB connection is all that these single tube readers need for power and data communication.

The Cryoprotection™ option reduces condensation caused by cold racks. It uses no heat or fans and will not damage sensitive cold samples being read. The formation of condensation on the instrument window whilst reading tubes straight from cryogenic storage is a well-known problem.

Cryoprotection is a special coating that eliminates the condensation and ensures uninterrupted reading. This method for eliminating condensation uses no extra electrical components or heating, resulting in no risk of accidentally thawing your samples, increased reliability and ensuring that the cost of this option is at acceptable levels.

Ordering Information

ZTS-UNO-80	**Uno 2D** Single tube reader with Cryoprotection
ZTS-DUO-80	**Duo 2D** Single tube reader with 1D linear code reader with Cryoprotection

Mirage Rack Reader

Setting new standards for 2D-code SBS rack readers

Key Features

- The most compact camera-based 2D rack reader available
- Low profile allows use on robotic liquid handling systems
- Innovative and unique patented reading technology
- Reads commonly used SBS format racks
- Economically priced

Included with the Mirage

- Mirage instrument
- Power adaptor and country relevant power cable
- DP5 software (download link supplied)
- USB lead to connect instrument to host computer
- User guide (download link supplied)

Easy to set-up and easy to use

The Mirage 2D reader offers easy, out-of-the-box set up and is delivered pre-calibrated and ready to read.

This instrument can read commonly used racks in the SBS format, and its low profile means that it can be easily added into liquid handling platforms and other automation systems.

The low profile and economic price makes the Mirage the perfect replacement for a traditional flat bed scanner.

Options

Cryoprotection

Prevents the window from misting up when a cold rack is read. Our passive technology does not use heat or blown air.

Cyclops 1D Linear Reader

Decodes the 1D-code on the side/edge of your racks.

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Mirage Rack Reader

Technical Specification

Dimensions (D x W x H)	208 x 135 x 80 mm
Weight	1.35 kg
Power adapter	Input 100-240VAC; output 5Vdc 4A
Power consumption	≤10 watts
Labware compatibility	24, 48, 96, 240 position racks
Imaging technology	CMOS camera
Read time	Approx. 2 seconds
Code compatibility	Datamatrix 2D codes
Working temperature	5 to 35 °C
Data export	Export data as .csv, .text, Excel®, .XML, .JSON, Python, .DB, .PNG or email
Operating system on host PC	Windows® 10, 11
Warranty	2 years
Software	Includes remote control capability for integration applications

Ordering Information

DP5-M-STD	**Mirage Standalone and DP5 Standard**; includes Mirage instrument, power adaptor and country relevant power cable, DP5 software (download link supplied), USB lead to connect instrument to host computer, and user guide (download link supplied); 1 reader
DP5-M-STD-80	**Mirage Standalone and DP5 Standard**; includes Mirage instrument, power adaptor and country relevant power cable, DP5 software (download link supplied), Cryoprotection, USB lead to connect instrument to host computer, and user guide (download link supplied); 1 reader
DP5-M-NET	**Mirage LAN and DP5 Network**; includes Mirage LAN instrument, power adaptor and country relevant power cable, DP5 Network software (download link supplied), USB lead to connect instrument to host computer, and user guide (download link supplied); 1 reader
DP5-M-NET-80	**Mirage LAN with Cryoprotection and DP5 Network**; includes Mirage LAN instrument, power adaptor and country relevant power cable, DP5 Network software (download link supplied), Cryoprotection, USB lead to connect instrument to host computer, and user guide (download link supplied); 1 reader
DP5-CYS-M	**Cyclops 1D linear reader** for Mirage

Express Rack Reader

Small, automation-friendly tube and rack code reader

Key Features

- Smallest footprint 2D-code rack reader
- Fast camera-based reader
- Ideal for integration into large automated systems
- Available with either USB or RJ45 connector
- Capable of reading SBS Rack formats
- Patented technology allows imaging under difficult lighting conditions
- Cryoprotection™ and 1D rack code reading options

Included with the Express

- Express instrument
- Power adaptor, power cable
- DP5 software (download link supplied)
- USB3 or RJ45 lead
- User guide (download link supplied)

Easy to set-up and easy to use

The Express 2D reader offers easy, out-of-the-box set up and is delivered pre-calibrated and ready to read. This instrument can read racks in the SBS format, regardless of the configuration or number of tubes, and is supplied with all the features needed for robotic integration.

Our new automatic rack type detection feature means that you no longer have to configure the Express for all rack types. Simply place your rack on the imaging window and the software will work out what type of rack it is and read it - easy!

Options

Cryoprotection

Prevents the window from misting up when a cold rack is read. Our passive technology does not use heat or blown air.

Cyclops 1D Linear Reader

Decodes the 1D-code on the side/edge of your racks.

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Express Rack Reader

Technical Specification

Dimensions (D x W x H)	Imager: 85 x 185 x 95 mm Controller: 95 x 195 x 55 mm
Weight	1.4 kg
Power adapter	Input = 110-220V +/- 10V AC; output = 5V DC, 4A
Labware compatibility	24, 48, 96, 240, 384 position SBS racks
Code compatibility	Datamatrix 2D-coded tubes
Data export	Export data as .csv, .text, Excel®, .XML, .JSON, Python, .DB, .PNG or email
Operating system on host PC	Windows® 10, 11
Warranty	2 years
Software	Includes remote control capability for integration applications

Ordering Information

DP5-E-STD	**Express Standalone and DP5 Standard;** includes Express instrument, power adaptor, power cable, DP5 software (download link supplied), USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-E-STD-80	**Express Standalone with Cryoprotection and DP5 Standard;** includes Express instrument, power adaptor, power cable, DP5 software (download link supplied), Cryoprotection, USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-E-NET	**Express LAN and DP5 Network;** includes Express LAN instrument, power adaptor, power cable, DP5 Network software (download link supplied), USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-E-NET-80	**Express LAN with Cryoprotection and DP5 Express;** includes Express LAN instrument, power adaptor, power cable, DP5 Network software (download link supplied), Cryoprotection, USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-CYS-E	**Cyclops 1D linear code reader for Express;** 1 side reader

Cube
Rack Reader

2D tube and rack readers for cryoboxes and SBS racks

Key Features

- Fast camera-based 2D reader
- Capable of reading SBS racks and cryobox formats
- Patented technology allows imaging under difficult lighting conditions
- Cryoprotection and 1D rack/box decoding option

Included with the Cube

- Cube instrument complete with masks for racks and boxes
- Power adaptor, power cable
- DP5 software (download link supplied)
- USB lead to connect instrument to host computer
- User guide (download link supplied)

Easy to set-up and easy to use

The Cube offers fast identification of racked, coded sample storage tubes, without the need to remove tubes from racks. With easy, out-of-the-box set up, the Cube is delivered pre-calibrated and ready to read. Able to read both cryoboxes and SBS format racks (using a simple adapter, included as standard), regardless of the configuration or number of tubes, the new automatic rack type detection feature means that you no longer have to configure the Cube for all rack types. Simply place your rack on the reading window and the software will work out what type of rack it is and read it - easy!

Options

Cryoprotection

Prevents the window from misting up when a cold rack is read. Our passive technology does not use heat or blown air.

Cyclops 1D Linear Reader

Decodes the 1D-code on the side/edge of your racks.

Cube Rack Reader

Technical Specification

Dimensions (D x W x H)	152 x 174 x 146 mm
Weight	1.2 kg
Power adapter	Input = 110-220V +/- 10V AC; output = 5V DC, 4A
Labware compatibility	24, 48, 96, 240, 384 position SBS racks 81, 100, 196 position cryoboxes
Code compatibility	Datamatrix 2D-coded tubes
Data export	Export data as .csv, .text, Excel®, .XML, .JSON, Python, .DB, .PNG or email
Operating system on host PC	Windows® 10, 11
Warranty	2 years
Software	Includes remote control capability for integration applications

Ordering Information

DP5-C-STD	**Cube Standalone and DP5 Standard**; includes Cube instrument complete with masks for racks and boxes, power adaptor, power cable, DP5 software (download link supplied), USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-C-STD-80	**Cube Standalone with Cryoprotection and DP5 Standard**; includes Cube instrument complete with masks for racks and boxes, power adaptor, power cable, DP5 software (download link supplied), Cryoprotection, USB lead to connect instrument to host computer, user guide (download link supplied); 1 reader
DP5-CYS-C	**Cyclops 1D linear code scanner** for Cube; 1 side reader

Mirage RITrack RFID Reader

A revolution in cryogenic sample management – locate tubes with RFID even if the rack is covered in ice

Azenta Life Sciences is proud to present an era-defining change in the way that frozen samples stored in 2D-coded tubes can be managed. Overcoming the problems of ice on the base of tubes and racks using novel RITrack radio-frequency tagging eliminates the frustration of racks and tubes that cannot be read due to excessive frosting.

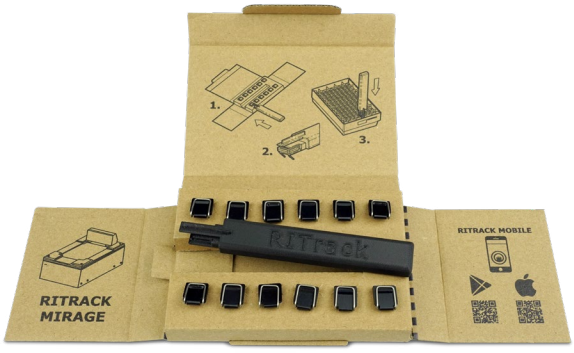
Key Features

- Stores individual tube identities, up to 12 characters, for up to 96 tubes in a rack
- Works with racks covered in ice and with racks stored in vapor-phase LN2 – no warming or thawing necessary – protects thermally sensitive samples
- No need to buy special racks; Tags fit most commercially available SBS racks – lowers your cost of operation
- Tags last and function for the whole life of your racks – increase your ROI and lower your cost of ownership
- Quick and easy read out with any smartphone through a simple App – improves productivity in the lab
- Write and re-write unlimited times to the same tag with a RITrack Mirage – quick and convenient whilst keeping costs under control
- Unique RFID technology exclusive to Azenta Life Sciences readers – take advantage of the smarter solution to cryogenic sample management

Extensive testing has demonstrated that RITrack RFID technology can endure over 10,000 cycles of immersion in vapor-phase liquid nitrogen without data loss or degradation. This makes RITrack ideal for all forms of long-term cryogenic storage.

The RITrack system is compatible with standard SBS format laboratory consumables, eliminating the need for costly dedicated racks. Simply insert a RITrack tag into your existing racks using our convenient tag insertion tool. The tags fit securely within the internal space of most SBS tube racks and are firmly held in place, ensuring they remain secure, and providing added peace of mind.

Standard laboratory consumables – in the form of SBS format tube racks – can be used with the RITrack system. There is usually no need to buy expensive dedicated racks – just insert a RITrack tag into your existing racks using our handy tag insertion tool. RITrack tags will fit securely into the internal space of most SBS tube racks. Once fitted, they are securely held in place and almost impossible to remove giving added peace of mind that the tag will stay in position for the whole lifetime of the rack.



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Mirage RITrack RFID Reader

Revolutionizing the handling of frozen samples stored in 2D-coded tubes, RITrack utilizes innovative radiofrequency tagging to eliminate the challenges posed when no line of sight is clear for 2D coded tubes, such as ice formation on tube and rack bases. As RITrack tags use standard RFID technology, they can also be read by any smartphone device with Near Field Communication (NFC). An easy-to-use app can be downloaded free from the App Store or Google Play to any compatible smartphone. The app allows the tag information to be read and the data displayed in either graphical or tabular format. This makes it easy to identify any individual tube in the frozen rack together with its location. Simply open the freezer, withdraw a rack and offer it up to the phone to see all the available tubes in that rack, eliminating the inefficiency of taking one or more cold racks back to the lab.

Using the Pick List function of the app, tubes from several different racks can be checked-off right in front of the freezer. Simply open the freezer, withdraw a rack and offer it up to the phone to see all the available tubes in that rack - again saving valuable technician time. With RITrack, data for every individual tube as well as the rack barcode can be read or stored to the tag in a matter of seconds. This makes it very quick and easy to manage frozen samples without thawing or removing ice, thus saving valuable time and protecting delicate thermally sensitive materials in the stored tubes.

Ordering Information

DP5-M-RIT-80	**Mirage RITrack reader with special RFID sensor,** DP5 Software, Cryoprotection
DP5-NET2	**Upgrade DP5 Standard to a full DP5 Network license,** for Mirage RITrack
DP5-RIT-TAG	**RITrack RFID Rack Tags, with magnetic RAM for unlimited re-writes,** includes 1 tag applicator and 12 tags per case
DP5-RIT-APL	**RITrack tag applicator**

For full details of DP5 software and Mirage code readers, please see page 74.

Handheld 2 Tube Reader

The Ziath Handheld 2 reader is a truly portable reader which can be held and operated in one hand; leaving the other free for tube handling.

Key Features

- Compatible with 2D-coded tubes
- Portable, independent, and compact
- No external computer or tablet needed

Easy to Set-Up and Easy to Use

The Handheld 2 Tube Reader requires no external computer and is easily operated with one hand; leaving your other free for precise tube handling. The software is pre-loaded and boots up immediately with a battery life of up to a week with casual use. This device allows you to read tubes standing in the basement at the freezer or liquid nitrogen tank. Even out in the field acquiring samples.

Operation Modes

The reader has four operation modes:

- **Code reading** – Read a tube code to view it on the screen
- **Pick list** – Enter a pick list using the associated Client and read the tubes with the handheld device to ensure you have the correct tubes while at the freezer
- **Data View** – Read a code to see the details of the sample in the tube
- **Data Entry** – Read a code and enter the information on the same to store

Client App

To assist with the transfer of data on and off the handheld so that it can be used in environments with no computer network available, the handheld comes with an associated client application to help define the data to store and load/unload it onto the handheld. This allows you to go into the deepest darkest corners of your sample storage and still be able to access your data!

Technical Specification

Dimensions (D x W x H)	155 x 65 x 38 mm
Weight	150 g
Battery charger input	100-240VAC 60/50Hz, 260mA
Battery charger output	5VDC, 2.4A
Battery life	Typically 8 hours between charges
Data storage on instrument	Typically up to 60,000 sample

Ordering Information

ZTS-HND2	**Handheld 2 Single Tube 2D Barcode Reader**; 1 reader

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Cyclops 1D Linear Code Reader

Key Features

- Use with Ziath 2D-code rack readers – Mirage, Express, and Cube
- Reads in milliseconds
- Wide range of placement options on each instrument
- Quick & easy installation, USB connection to operating laptop or PC
- Attaches to the rack reader using dedicated robust bracket
- Compatible with Windows® 10 & 11

Essential Tool for Sample Tracking

The Cyclops reader is designed to illuminate and read linear 1D-codes printed on the end of an SBS rack of 2D-coded tubes. Once the rack is read, the Cyclops reports the rack identity alongside the individual tube identities when the full rack is read in conjunction with a Ziath Tube and Rack Reading Instrument. For use in conjunction with Ziath Tube and Rack Readers - Mirage, Express, or Cube - each instrument has a dedicated, easy-to-install bracket that attaches securely to the compatible reader using the instrument's feet, while the Cyclops device slides into position and is held firmly in place by a thumb-wheel.

Easy to set-up and easy to use

The Cyclops Linear Rack Barcode Scanner is very simple to attach to existing 2D readers, and our software makes it simple to export the linear (rack) barcode data and the tube data to Excel®, text, csv, XML, JSON or Python. The linear rack code takes less than one second to read/decode, and the Cyclops is powered and controlled by USB cable, so needs no additional power cables.

Technical Specification

Dimensions (W x D x H)	30 x 25 x 80 mm
Weight	100 g (without bracket)
Bracket	Requires an extra 8 cm ahead of each instrument
Micro-USB to USB cable	included
Warranty	2 years

Ordering Information

DP5-CYS-M	**Cyclops Advanced Rack Code 1D Scanner for Mirage)**; 1 side reader
DP5-CYS-E	**Cyclops Advanced Rack Code 1D Scanner for Express**; 1 side reader
DP5-CYS-C	**Cyclops Advanced Rack Code 1D Scanner for Cube**; 1 side reader

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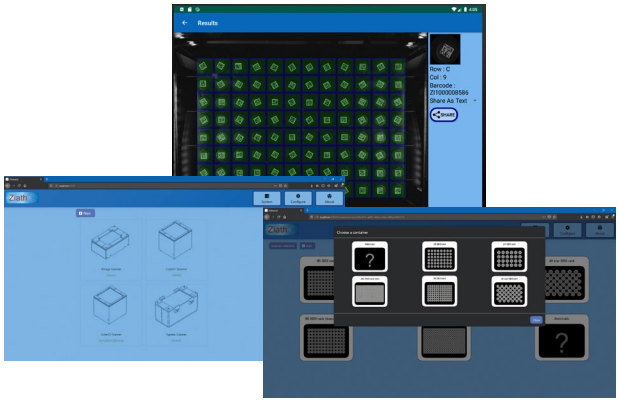
DP5 Decoding Software

DP5 represents the very latest high-speed communications and data processing technology applied to laboratory sample tracking and identification in an easy to use and scalable format that can adjust to the needs of your individual laboratory. Combined with the unrivalled accuracy and speed of Ziath camera-based readers, tube identification and sample tracking has never been easier or more convenient.

- Runs from a laptop, desktop, phone, tablet
- Offers data encryption and multi-level user authority management



Key Features

The Very Latest Code Reading Technology

- DP5 is the latest version of Ziath's market leading 2D rack decoding software
- Using the latest technologies DP5 can be run from a laptop, desktop, phone, tablet or any other network connected device
- The same robustness, reliability and speed are there but now you can work unchained from your lab bench
- Using high-speed, web-based, communications protocols allows DP5 to run just one scanner in your lab, or multiple scanners connected over a local area network
- In the advanced DP5 Network application, scanners can be controlled directly from Wi-Fi connected smart phones, tablets or laptops
- Ziath's DP5 Secure application offers data encryption and multi-level user authority management as part of the package
- Also included along with a full audit trail is the revolutionary ScanStore feature in which every scan is stored with both image and tabular data for later review or audit

Versions

DP5 Standard

DP5 Standard simplifies day-to-day code reading operation through an intuitive and uncluttered user interface that is ready to go in just minutes, straight out of the box.

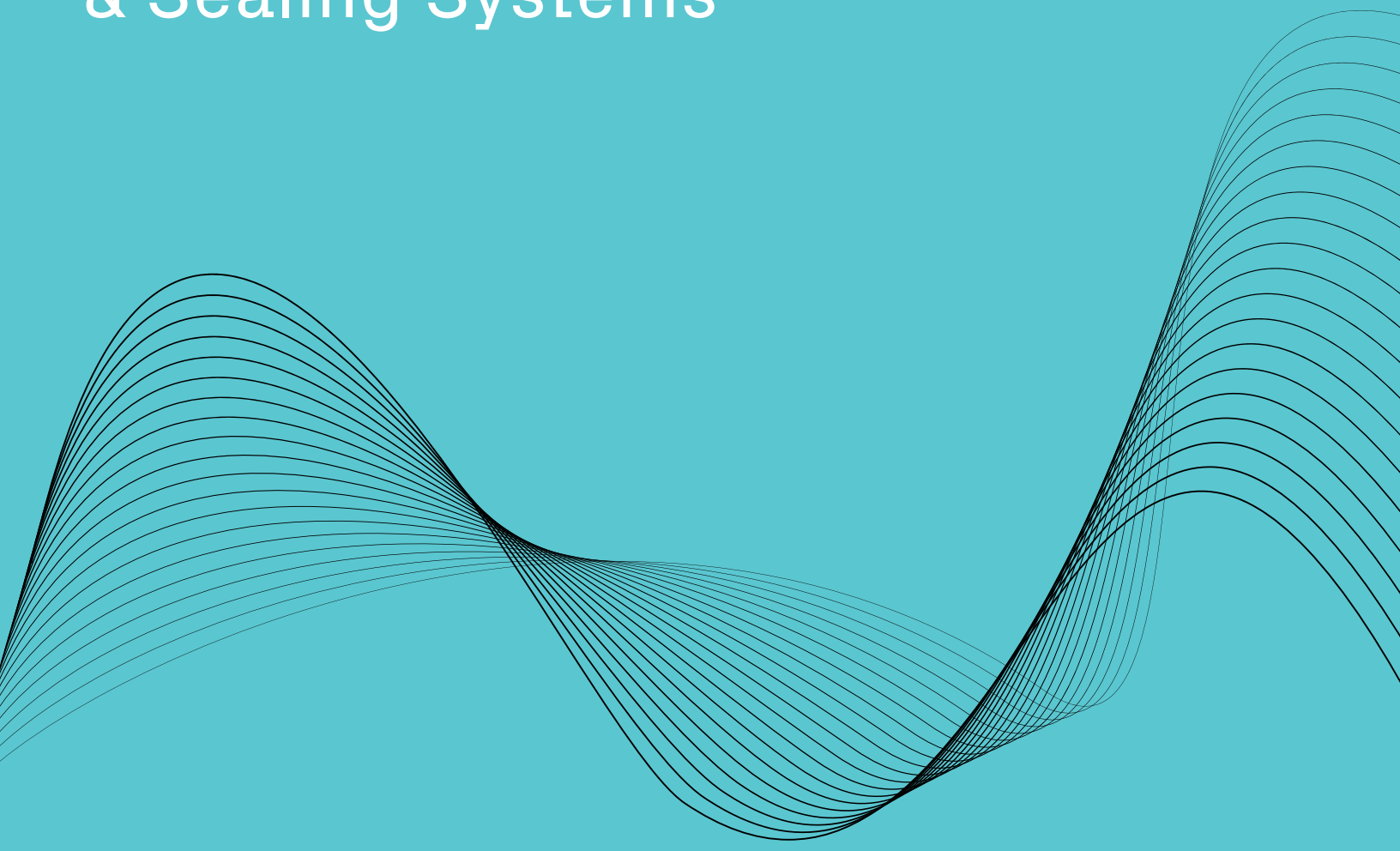
- Runs like any other desktop application from a connected PC or laptop
- Autoscaling allows DP5 Standard to work with the latest 4K displays
- Runs all Ziath camera based readers: Mirage, Cube & Express
- Export data directly to a database, text, PDF, XML, JSON or Excel
- Remote control function allows direct integration with popular liquid handling robots, compound stores and other external compatible devices
- Reader and export settings can be assigned individually for each type of rack in use
- Automatic rack type detection and rack template creation as standard

DP5 Network

DP5 Network unchains you from the bench, allowing a scanner to operate anywhere on your LAN from your own tablet or phone, even right alongside your freezers.

- Advanced operation via a LAN allows scanners to be controlled directly from a Wi-Fi connected phone, tablet, desktop PC or laptop
- Control multiple scanners on one server from one hand-held device, laptop, tablet or desktop computer
- Scripting feature allows high level of post-run data processing automation – send files to LIMS, e-mail, Excel or any other compatible program
- Take a reader anywhere on site, run a scan on a hand-held device and send that file back to any computer in a variety of formats

Sample Tube Capping & Sealing Systems



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Tube Capping and Decapping Systems

Azenta provides dependable manual, semi- and fully automated capping and de-capping solutions. The range incorporates products from single-tube manual de-cappers, through column cappers / de-cappers to fully automated and whole-rack solutions. All products are the result of over 15 years of continuous development and innovation, bringing the best solutions, with the most useful features, to the sample storage market.

Semi-Automated Screw Cap Single Tube Decapper/Recapper

The Semi-Automated Screw Cap Single Tube Decapper/Recapper is the first-of-its-kind, single tube capper/de-capper in the industry. It provides a low-cost, reliable solution for managing the automated capping and de-capping of single and larger sized master sample tubes such as: centrifuge, cell culture and even glass tubes. Unlike many products on the market, where an engineering change of the gripper is required in order to tighten different tube types, the Semi-Automated Screw Cap Single Tube Decapper/Recapper allows you to manage a variety of tube types with a simple, interchangeable cap-driver system which can be changed in 5 seconds.

A flexible, faster and lower cost option for managing the capping/de-capping of larger sample tubes in the laboratory, this Semi-Automated Screw Cap Single Tube Decapper/Recapper is compatible with Azenta sample storage tubes, as well as a wide variety of tubes, with internal and external threads, from almost all major manufacturers.

Our Semi-Automated Screw Cap Single Tube Decapper/Recapper is designed to improve productivity while reducing the risk of repetitive strain injury.

Key Features

- Fast and consistent single tube capping/decapping
- Perfect for automating the handling of larger sized master sample tubes such as: centrifuge, cell culture or even glass tubes
- Interchangeable cap driver kit for any tube format (9mm-40mm)
- Change the cap driver in 5 seconds
- Easy, single button, multi-torque control
- Suitable for use inside a laminar flow cabinet
- Low cost, automated solution
- Please contact us to discuss your specific tube requirements

Automation for Fast and Consistent Capping Performance

- The same torque is applied to each cap, according to tube manufacturer specification, in order to ensure a consistent seal quality
- Automation reduces sample handling time, increasing sample throughput and workflow
- Screw caps can be held within the Semi-Automated Screw Cap Single Tube Decapper/Recapper unit whilst the user fills, or accesses, the sample tube
- Caps can subsequently be re-applied to the same tubes, eliminating the risk of cross-contamination

Broad Compatibility for Every Laboratory

- The Semi-Automated Screw Cap Single Tube Decapper/Recapper is compatible with sample storage tubes from almost every manufacturer, as long as the screw cap can be gripped with cap drivers and the cap has a diameter from 9mm up to 40mm
- By adjusting the tube pitch required for each tube manufacturer, the Semi-Automated Screw Cap Single Tube Decapper/Recapper ensures that caps are not cross threaded during the capping cycle

Multiple Torque Control and Interchangeable Cap Driver

- Quick, user-friendly, interchangeable cap driver
- Cap driver can be changed in less than 5 seconds
- Torque is adjusted to fit the majority of tubes, allowing users to determine the optimal setting for their tubes
- 3 different torque settings: Low, Medium and High
- Easy to Use

Technical Specification

Dimensions	333(L) x 110(W) x 300(H) mm
Weight	6.0 kg
Power Requirements	AC 100 -240V, 50/60 Hz, 26W
Cycle Time De-cap	< 3 sec per tube
Cycle Time Cap	< 3 sec per tube
Compatibility	Standard sized tubes with screw cap (verify gripper list)

Ordering Information

46-6001	**Semi-Automated Screw Cap Decapper,** 1-channel, with interchangeable cap drivers and multiple torque settings

Ordering Information - Grippers

46-6002-1	**Gripper kit,** TRP tube 50ml Cap (Fujifilm)
46-6002-2	**Gripper kit,** BD Falcon tube 50ml Cap
46-6002-3	**Gripper kit,** BD Greiner tube Cap
46-6002-4	**Gripper kit,** Sarstedt 0.5 & 1.5 & 2.0ml Cap
46-6002-5	**Gripper kit,** Azenta 6 & 10ml Automation-Friendly Cap
46-6002-6	**Gripper kit,** Corning 21mm Cap
46-6002-7	**Gripper kit,** Azenta 6.0 & 10ml External Cap
46-6002-8	**Gripper kit,** Azenta 4.0ml Glass Jacket Tube Cap
46-6002-9	**Gripper kit,** Ø 50mm Cap for glass container
46-6002-10	**Gripper kit,** Azenta / Greiner Ext & Sarstedt Internal Cap
46-6002-11	**Gripper kit,** Greiner/Corning 1.2ml – 5.0ml Cap
46-6002-12	**Gripper kit,** Fisher Custom Tube Cap dia. 16mm
46-6002-13	**Gripper kit,** Falcon 15mm dia. centrifuge tube
46-6002-14	**Gripper kit,** Azenta 96-format External & Internal Co-Molded Caps
46-6002-15	**Gripper kit,** Sarstedt 12ml screwcap tube (60.9922.937); dia. 16mm
46-6002-16	**Gripper kit,** 3.5ml 14mm dia. False Bottom MarketLab Tube (Inpeco tube, EXT)
46-6002-17	**Gripper kit,** Glass Vials, 4ml (dia. 15mm,length 48mm, GNF)
46-6002-18	**Gripper kit,** 50ml, green cap, dia. 35.8mm, customized tube for optimum processing

Semi-Automated Handheld Screw Cap Decapper, 8-channel

The Semi-Automated Handheld Screw Cap Decapper, 8-channel provides users with a flexible solution for capping and de-capping 96 format screw caps for low-to-mid throughput environments, with easily interchangeable cartridges to switch between tube types. The 8-channel hand-held capper and de-capper offers consistent sealing at an affordable price.

Key Features

Designed with the User in Mind

- Lightweight, hand-held, semi-automatic single column-based capper and de-capper
- Compatible with 96-SBS rack format screw capped tubes
- Caps a single column in under 4 seconds; caps/de-caps a complete rack of 96 tubes in less than 90 seconds
- All caps are tightened to the same torque to create a secure seal
- Battery operation allows capping/de-capping for more than 40 complete racks
- Docking station for instrument placement/storage and charging also provides contamination-free handling of caps
- Single 'action' button operation to de-cap, re-cap and eject caps
- Option to eject caps onto cap carrier using second 'eject' button

Flexibility for Ease of Use

- Designed to be used by both left and right-handed users
- Unit can be operated by battery charge or powered through AC plug in
- Easily transportable
- Interchangeable cartridges, easy to switch between cap types

Get in touch with your local representative to discuss your labware requirements with us.

Ordering Information

46-9012	**Semi-Automated Handheld Screw Cap Decapper, 8-channel,** Includes decapper (46-9008), docking station (46-9001), set of power cables, operation manual, cartridges for Azenta Internal Thread (48-9013-01) and External Thread (48-9013-02) for 96-SBS format racks
Accessories	
46-9001	**Docking Station with set of power cables**
Compatible cartridges	
48-9013-01	**Cartridge for use with Azenta internal thread,** screw capped tubes
48-9013-02	**Cartridge for use with Azenta external thread,** screw capped tubes
48-9013-03	**Cartridge for use with Azenta Acoustic tubes**
48-9013-04	**Cartridge for use with Micronic external thread,** screw capped tubes
48-9013-05	**Cartridge for use with Matrix internal thread,** screw capped tubes
48-9013-06	**Cartridge for use with Rhinostics Swabs Internal thread**
48-9013-07	**Cartridge for use with MIcronic external thread IG, screw capped tubes**

Semi-Automated Screw Cap Decapper/Recapper

The Semi-Automated Screw Cap Decapper/Recapper 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, the Semi-Automated Screw Cap Decapper/Recapper 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.

Key Features

Flexible Product Options to Suit a Range of Tube Types

Semi-Automated Screw Cap Decapper, 4-channel

Semi-Automated Screw Cap Decapper, 6-channel

Semi-Automated Screw Cap Decapper, 8-channel

- **4-channel capping and de-capping system** compatible with screw-capped tubes in 24-format SBS racks
- **6-channel capping and de-capping system** compatible with screw-capped tubes in 48-format SBS racks
- **8-channel capping and de-capping system** compatible with screw-capped tubes in 96-format SBS racks

Your choice of model can be configured for use with one of the following tube types:

- Azenta internal and external thread screw-capped tubes
- Thermo-Matrix internal thread screw-capped tubes
- Micronic internal and external thread screw-capped tubes
- Thermo-Nunc Bank-IT tubes
- LVL external thread screw capped tubes

Please contact your local representative for the latest list of supported tubes

Fast and Consistent Sealing Performance

- Has a set-down position that allows the simple insertion of screw caps using an Azenta Cap Carrier
- Caps a single tube in under 10 seconds
- Caps or de-caps a complete rack of 96 tubes in less than 2 minutes
- Individually spring-loaded cap drivers mean easy and consistent capping
- All caps tightened to the same torque, delivering a secure seal and peace of mind
- Designed for ease of use by both left and right handed people

Space Saving Design

With a small footprint, the semi-automated screw capper decapper/recapper fits easily onto the bench top and is easy to install in a laminar flow cabinet.

Weight: 6 kg, Dimensions: 310mm (w) x 345mm (l) x 345mm (h)

Ordering Information

Semi-Automated Screw Cap Decapper, 8-channel for use with 96-format racked tubes	
46-6501	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with Azenta Life Sciences internal thread tubes, in 96-SBS format rack
46-6502	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with Azenta Life Sciences external thread tubes, in 96-SBS format rack
46-6601	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with Matrix and Thermo internal thread tubes, in 96-SBS format rack
46-6602	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with Micronic internal thread tubes, in 96-SBS format rack
46-6604	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with LVL external thread tubes, in 96-SBS format rack
46-6606	**Semi-Automated Screw Cap Decapper, 8-channel,** compatible with Micronic external thread tubes, in 96-SBS format rack
Semi-Automated Screw Cap Decapper, 6-channel for use with 48-format racked tube	
46-6511	**Semi-Automated Screw Cap Decapper, 6-channel,** compatible with Azenta Life Sciences external thread tubes, in 48-SBS format rack
46-6512	**Semi-Automated Screw Cap Decapper, 6-channel,** compatible with Azenta Life Sciences internal thread tubes, in 48-SBS format rack
46-6513	**Semi-Automated Screw Cap Decapper, 6-channel,** compatible with Nunc external thread tubes in Greiner racks, in 48-SBS format rack
46-6605	**Semi-Automated Screw Cap Decapper, 6-channel,** compatible with LVL external thread tubes, in 48-SBS format rack
Semi-Automated Screw Cap Decapper, 4-channel for use with 24-format racked tube	
46-6521	**Semi-Automated Screw Cap Decapper, 4-channel,** compatible with Azenta Life Sciences external thread tubes, in 24-SBS format rack

IntelliXcap™

IntelliXcap™ is the 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.

Key Features

Advanced Automation Means Increased Throughput

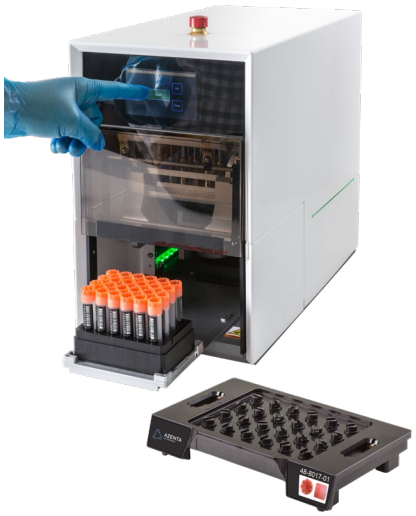
- IntelliXcap is extremely fast and works with multiple sample storage tube types from a range of tube manufacturers in 24, 48 and 96 format including taller 96 format tubes
- Capable of de-capping a complete rack of 96 tubes in as little as 20 seconds
- Automation and high speed reduces sample handling time, increasing sample throughput workflow
- Ideal for medium to high-throughput laboratories managing compound libraries, biobanks or other biological samples
- Specific model available with verification camera, designed for use with Azenta Life Sciences Acoustic Sample Tube – Echo Qualified Consumable

Compact, Modular Design Means Ultimate Flexibility

- IntelliXcap features the unique, fully automated, interchangeable cartridge cap driver system
- Cartridges allow change between different pre-configured tube types in less than 2 minutes
- Simply by fitting the relevant cartridge, IntelliXcap is compatible with all Azenta sample storage tubes, as well as sample storage tubes from Thermo Matrix, Thermo Nunc, LVL and Micronic
- Cartridges are available for both internal and external thread screw-cap tubes
- Control is via a quick installation, easy-to-use touch panel
- Light Curtain System detects the height of tube rack on the stage reducing the risk of damage to tubes, samples or the instrument itself that could be caused by failed de-capping / capping or the use of incorrect consumables

Integration Friendly

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



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Easy to Use, Easy to Integrate

- Quick installation, easy-to-use touch panels bring instant control
- Wide operating temperature range of 5°C to 40°C
- Electric torque control means less persistent wear on cap drivers
- Easily integrated, sample rack stage extension facilitates fully automated workflow integration

Driver and Cap Compatibility

- We provide a wide range of custom made and off the shelf driver cartridges to accommodate your specific labware needs
- The modular design of IntelliXcap™ allows you to quickly and easily change the cap driver cartridge and seamlessly swap between tube types, making the instrument the ideal capper/de-capper for your automated high throughput workflows
- Due to its flexible cartridge design, with one IntelliXcap instrument you can cap, de-cap and re-cap both internal and external thread tubes
- Please contact us to discuss your specific tube requirements

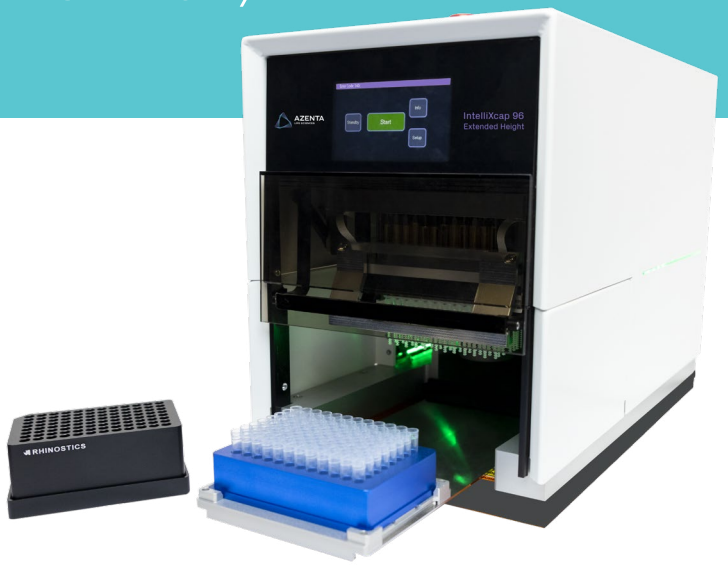
Weights and Dimensions

	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)
IntelliXcap 96	26.80	320	256	468
IntelliXcap 48	28.74	386.2	256	464.4
IntelliXcap 24	27.96	386.2	256	464.4
IntellliXcap 96 Acoustic	27	316	256	634
IntellliXcap Extended Height	24	370	256	464

Ordering Information

46-8012	**IntelliXcap Automated Screw Cap Decapper, 96-format,** compatible with validated sample storage tubes and cartridges
46-8011	**IntelliXcap Automated Screw Cap Decapper, 48-format,** compatible with validated sample storage tubes and cartridges
46-8010	**IntelliXcap Automated Screw Cap Decapper, 24-format,** compatible with validated sample storage tubes and cartridges
46-8014	**IntelliXcap Automated Screw Cap Decapper, Acoustic 96-format,** compatible with validated sample storage tubes and cartridges including Echo Qualified Acoustic Tube
46-8112	**IntelliXcap Extended Stage Kit**

IntelliXcap Automated Screw Cap Decapper/Recapper 96-format, Extended Height



The IntelliXcap™ Automated Screw Cap Decapper/Recapper, Extended Height is specifically designed to work with taller 96-format tubes, including nasal swabs with integral caps. The IntelliXcap range is engineered for increased throughput, ease of use, and high system reliability — making it ideal for any laboratory managing a large number of samples.

The system is extremely fast and works with multiple 96-format sample storage tube types from a range of tube manufacturers. The modular design makes changing cap driver cartridges to accommodate various tube types quick and easy.

Key Features

Advanced Automation for Increased Throughput

- Extremely fast, works with multiple sample storage tube types from a range of tube manufacturers
- Suitable for use with taller 96-format tubes including those with swab caps
- Capable of decapping a complete rack of 96 tubes in as little as 20 seconds
- Ideal for medium-to-high throughput laboratories managing compound libraries, biobanks, or other biological samples

Compact, Modular Design for Ultimate Flexibility

- Features a unique, fully automated, interchangeable cartridge cap driver system
- Cartridges allow format change between different tube types in less than 2 minutes
- Simply by fitting the relevant cartridge, IntelliXcap Extended Height 96-format is compatible with all Azenta Life Sciences sample storage tubes, and supports other sample tube ranges available in the market
- Cartridges are available for both internal and external thread screw cap tubes
- No need for specialist intervention to change cartridge drivers
- Control is via a quick installation, easy-to-use touch panel

Easy to Use, Easy to Integrate

- Quick installation, easy-to-use touch panels bring instant control
- Wide operating temperature range of 5°C to 40°C
- Electric torque control means less persistent wear on cap drivers
- Sample rack stage extension facilitates fully automated workflow integration

Driver and Cap Compatibility: We provide a wide range of custom and off-the-shelf driver cartridges to accommodate your specific labware needs. The system's modular design allows you to quickly and easily change the cap driver cartridge and seamlessly swap between tube types — making it ideal for automated high throughput workflows. It can cap, decap, and recap both internal and external thread tubes.

Technical Specification

Dimensions	370(D) x 256(W) x 464(H) mm
Weight	24 kg
Ambient operating temperature	5°C to 40°C
Capping/decapping speed	20–40 seconds to decap or to recap a rack of tubes

Ordering Information

IntelliXcap Automated Screw Cap Decapper/Recapper 96-format, Extended Height	
46-8018	Suitable for all Azenta Life Sciences tubes and almost all other brands with relevant cartridges; 1 decapper/capper
IntelliXcap Accessories	
46-8112	**IntelliXcap Extended Stage for Automation,** suitable for IntelliXcap 24, IntelliXcap 48 and IntelliXcap 96
Compatible cartridges	
48-8013-18	**IntelliXcap Automated Screw Cap Decapper Cartridge,** 96-format, for Rhinostic Swab internal thread

Compatible with all other IntelliXcap Automated Screw Cap Decapper/Recapper 96-format (46-8012) cartridges.

Please specify when ordering.

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IntelliXcap Automated Septum Cap Decapper/Recapper 96-format

The IntelliXcap™ Automated Septum Cap Decapper/Recapper is ideal for use in high-throughput workflows that require capping and decapping of septum capped tubes. The instrument provides secure sealing – eliminating the need for manual intervention, while preserving vital sample integrity.

This high-speed whole rack tube decapper and capper automatically removes, recaps, or disposes of septum caps from a full 96-format SBS rack of sample storage tubes as well as allowing for the capping of Azenta tubes from a cap mat. The system is ideal for use within high-throughput environments such as in biobanking, compound libraries, and other storage applications.

Compatible with multiple sample storage tube types from a range of tube manufacturers, the system provides flexibility in either fully automated robotic systems or as a standalone unit

Key Features

Advanced Automation for Increased Throughput

- Suitable for use with 96-format tubes from Azenta as well as those from other manufacturers
- Automation and speed reduces sample handling time, increasing sample throughput workflow
- Ideal for medium to high-throughput laboratories managing compound libraries, biobanks, or other biological samples

Compact, Modular Design for Ultimate Flexibility

- No requirement for compressed air for flexible use within the lab
- Capping module available for Azenta labware, enabling capping of tubes from cap mat
- Single column harpoon decapping and recapping available as add-on

Easy to Use, Easy to Integrate

- Quick installation and easy-to-use touch panels bring instant control
- Wide operating temperature range of 15°C to 35°C
- Control is via a quick installation, easy-to-use touch panel

Technical Specification

Dimensions	770(D) x 255(W) x 330(H) mm
Weight	18.5 kg
Weight (with Capping Module)	20.5 kg
Ambient operating temperature	15°C to 35°C
Power Supply Voltage	100-240 ±10% Vac

Ordering Information

IntelliXcap Automated Septum Cap Decapper/Recapper 96-format	
46-5030	Suitable for validated 96-format septum capped tubes, please specify tube type when ordering; 1 decapper/capper
IntelliXcap Accessories	
46-5061	**Single Column Harpoon,** 1 column, compatible with Azenta consumables and other manufacturerd labware
46-5051	**Adaptor Kit for Thermo Matrix tubes,** compatible with 1.4 ml Matrix 2D Tubes (3791), Matrix 2D Tubes caps (4465); 1 kit

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Semi-Automated Septum Cap Capper

Semi-Automated Septum Cap Capper for TPE septum cap sealing of sample tubes in 96-well SBS format.

Offering secure storage tube sealing, this Semi-Automated Septum Cap Capper helps preserve sample integrity and audit trails in biobanks, compound libraries and other high-throughput storage applications.

Semi-Automated Septum Cap Capper

Key Features

Flexible Sealing Performance, Broad Compatibility

- Semi-Automated Septum Cap Capper suitable for use with all 96-format Azenta sample storage tubes with TPE Septum Caps, as well as Micronic tubes with TPE Capmats, Matrix Technologies tubes with Sepraseals and Abgene Sealing Mats
- Depth of capping action is adjustable with the use of spacer plates, which ensures effective and efficient capping of all tube types
- Semi-Automated Septum Cap Cappers can be used to seal either full, or partially-full, racks

Fast and Easy to Use

- Cycle time for capping is 20-30 seconds, depending on tube type and on the spacer plate used
- Simply place a rack in the Semi-Automated Septum Cap Capper drawer, with a TPE septum cap mat fitted loosely on top and, if needed, a spacer plate (adapter). Push the drawer shut, and the capping action will start automatically. Once all caps have been inserted, the drawer will open automatically and the sealed rack of tubes can be removed

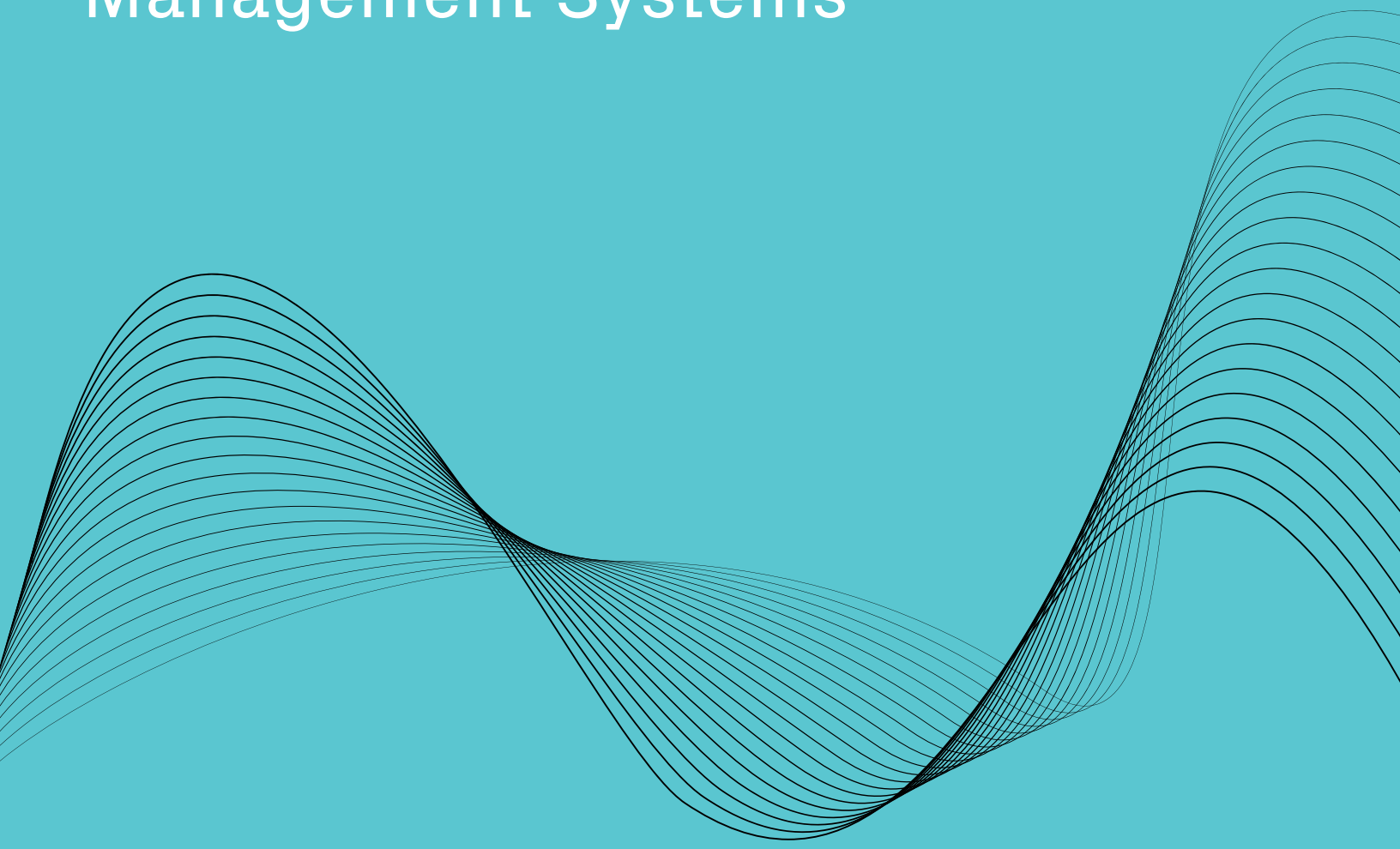
Additional TubeLock Functionality

- Using the Semi-Automated Septum Cap Capper in conjunction with Azenta racks featuring TubeLock enables automatic locking and unlocking of tubes within the rack
- Azenta racks with TubeLock are dual position, allowing tubes to be locked in place for added sample security during handling
- Individual sample tubes can be pushed downwards to lock and pulled upwards to unlock in the rack
- For a faster approach, the Semi-Automated Septum Cap Capper, with an adapter set, can be used to lock, or unlock, all tubes in a 96-format rack simultaneously

Ordering Information

System	
46-2004-115V	**Semi-Automated Septum Cap Capper,** 115V
46-2004-230V	**Semi-Automated Septum Cap Capper,** 230V
Adapters	
42-1003	**Adapter for Azenta tube rack [A]** C:2mm H:4mm - Included
6.09.661	**Adapter for Azenta tube rack [B]** C:1.6mm H:14mm - Included
42-1001	**Adapter for Azenta tube rack [C]** C:2mm H:21mm - Included
6.09.663	**Adapter for Azenta tube rack [D]** C:0.4mm H:30mm - Optional
6.09.664	**Adapter for Azenta tube rack [E]** C:0.4mm H:37mm - Optional

Sample Tube Management Systems



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Manual Tube Pickers and Manual Decappers

A manual device, with one-handed operation, the Manual Single Tube Picker incorporates an eject button enabling tube pick and place operations whilst avoiding contact between the hand and tube.

The Manual Single Tube Picker minimizes the risk of heat transfer to a frozen sample, as well as minimizing the risk of possible cross contamination.

Simple to use, even when wearing laboratory or cryogenic-handling gloves, the tube picker is available in either 96-rack or 48-rack format.

Key Features

- Single-handed operation, soft grip handle
- Easy to use whilst wearing gloves
- All components that potentially come into contact with samples are made from temperature-resistant and chemically-resistant plastics
- Tubes can be selected from any position in the rack
- Removes the need for manual contact with tubes reducing the risk of heat transfer to frozen samples and cross contamination
- Ideal for use with Azenta sample storage tubes and compatible with sample storage tubes from most other manufacturers

Specifications

Manual Single Tube Picker, 96-format	length 150mm	diameter 17mm	weight 20g
Manual Single Tube Picker, 48-format	length 165mm	diameter 17mm	weight 23g

Manual Decappers: The ideal range of accessories for the manual removal of TPE caps and Screw caps.

Our TPE septum cap options comprise: A 1-way decapper for the individual removal of TPE caps and an 8-way decapper for the simultaneous removal of 8 TPE caps. For screw caps, we offer our Azenta screw cap Capper/Decapper, designed specifically for external thread tubes.

Ordering Information

10-5010	**Manual Single Tube Picker, 96-format,** 1 picker per case Suitable for Azenta and most other manufacturers 96-format tubes
10-5020	**Manual Single Tube Picker, 48-format,** 1 picker per case Suitable for Azenta and most other manufacturers 48-format Cryo Tubes
65-54000	**Manual Decapper-1,** for removal of 1 TPE cap at a time, 1 decapper per case
65-54001	**Manual Decapper-8,** for removal of 8 TPE caps at a time, 1 decapper per case
65-54004	**Manual Screw Cap Capper/Decapper,** 1 capper/decapper per case. Suitable for Azenta 96-format External Thread tubes

Mohawk Semi-Automated Tube Picker

Key Features

- Fast and reliable tube picking
- Pick from 48 or 96 SBS racks
- Works with frozen and thawed tubes
- Create picklists in Excel®, csv, text, xml or jdon
- 1D scanner for rack barcode included as standard

The Mohawk Semi-Automatic Tube Selector enables you to pick individual or groups of tubes directly from 48- or 96-well racks with ease. Trying to extract a single tube from a rack can be difficult and doing so manually can lead to positional errors. By using software to control 96 individual solenoids, the Mohawk can lift one, two or up to sixteen individual tubes at a time, making it easy to remove them from the rack and place in a subsidiary rack or other tube device.

The pins to be selected can be set in a 'pick list' which can be generated manually from the on-screen graphical representation of the Mohawk deck or from an Excel spreadsheet. The Excel file can also be created manually or imported from the FreezerPro® inventory management system or from your LIMS or another sample tracking programme that can export Excel format files. The picklist can even include tubes that are contained in multiple racks. The integrated 1D barcode reader identifies individual racks and the system software then uses this ID to look up the pre-defined picklist. This reduces the risks of the wrong tubes being selected during picking.

The Mohawk works out of the box and needs no set up or calibration. In Automatic mode, The Mohawk allows for operation with minimal interaction of the control PC, while in Worklist mode, a file that describes the tubes that are to be selected is used to control the pins. It can be in Excel, csv, text, xml or json format. The Mohawk works with both frozen and thawed tubes. It can work in combination with a Ziath Mirage, Express or Cube reader to automatically create pick lists and then verify the contents of the subsidiary (or Daughter) racks and reupload their new positions to FreezerPro® or to your LIMS via an Excel file.

Mohawk Semi-Automated Tube Picker

Technical Specification

Dimensions (W x D x H)	300 x 250 x 180 mm
Total weight	5.7 kg
Power adapter input	110-220V AC +/- 10V
Power adapter ouput	12V DC, 5A
Labware compatibility	48 position SBS racks
Picklist import	Excel, text, csv, json and xml
Operating system on host PC	Windows® 10, 11
Compatiblity	48 and 96 position SBS racks

Included with the Cube

- Mohawk tube picker instrument
- Power adaptor, power cable
- Mohawk software and license
- 1D rack code scanner and bracket
- User guide

Ordering Information

ZTS-MHK-48	**Mohawk Tube Picker 48 position**; includes Mohawk tube picker instrument, power adaptor, power cable, Mohawk software and license, 1D rack code scanner and bracket, user guide; 1 picker
ZTS-MHK-96	**Mohawk Tube Picker 96 position**; includes Mohawk tube picker instrument, power adaptor, power cable, Mohawk software and license, 1D rack code scanner and bracket, user guide; 1 picker
ZTS-MHK-LOW	**Low Profile Tube Rack Adapter for Mohawk (if using tubes 0.5 ml or less)**; 1 adapter

Direct Tube Marker

Tube labels or stickers are no longer required for sample identification - Direct Tube Marker is designed to print text, 1D linear barcodes, 2D data matrix codes and / or graphics directly onto most polypropylene sample storage and general-purpose laboratory tubes. Using Thermal Pixel Printing technology, Direct Tube Marker 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. Direct Tube Markers permanent printing is resistant to 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.

The Direct Tube Marker delivery package contains tube adapters with hole diameters 8.5mm, 11.5mm and 12.7mm. These are compatible with most commonly-used tubes. Other adapters are available to order separately, please specify at time of ordering.

Key Features

- Direct Tube Marker prints directly on the surface of plastic laboratory and sample storage tubes in seconds
- Most 0.5ml to 50ml tubes with a smooth surface can be printed
- Adjustable tube support platform allows printing on tubes without a lip or collar
- Tube profiles created in the Direct Tube Marker software can be saved for future reference and sample tracking
- Adjustable sled pivot point improves overall print quality for larger tubes and labels
- Wide range of adapters available for differing diameter tubes

Flexible Label Printing to Suit Your Needs

- Tubes can be marked with any orientation
- Direct Tube Marker can print text, 1D linear barcodes, 2D datamatrix codes and graphic files (monochrome .bmp, .gif, .tiff) such as logos
- Several lines of text can be printed, such as: sample name, your name, date, time etc.
- All TrueType fonts available on the connected PC can be printed
- Font size and type will determine the maximum available printable content

High-Quality and Durable Printing

- Thermal Pixel Printing technology produces clearer and more durable marking than marker pens
- Metallic blue, black and white ink ribbons are available for a range of colored tubes and colored contents
- Printing straight onto the tube surface is much easier than marking by hand or adhesive label
- Quick and easy to change ink ribbon
- Marking resistant to 70% ethanol, 70% isopropanol, >98% methanol, DMSO, pure haematoxylin, liquid nitrogen & mechanical abrasion*
- Printing is temperature resistant from -196°C (liquid nitrogen) to 100°C
- 300m ink ribbon will mark up to 100,000 tubes**
- Enables full integration within robotic automation systems
- Easy integration with SiLA compliant devices using SiLA driver
- Instrument reliability

ribbon chemical resistance dependent on ribbon type
***dependent on size of label print*

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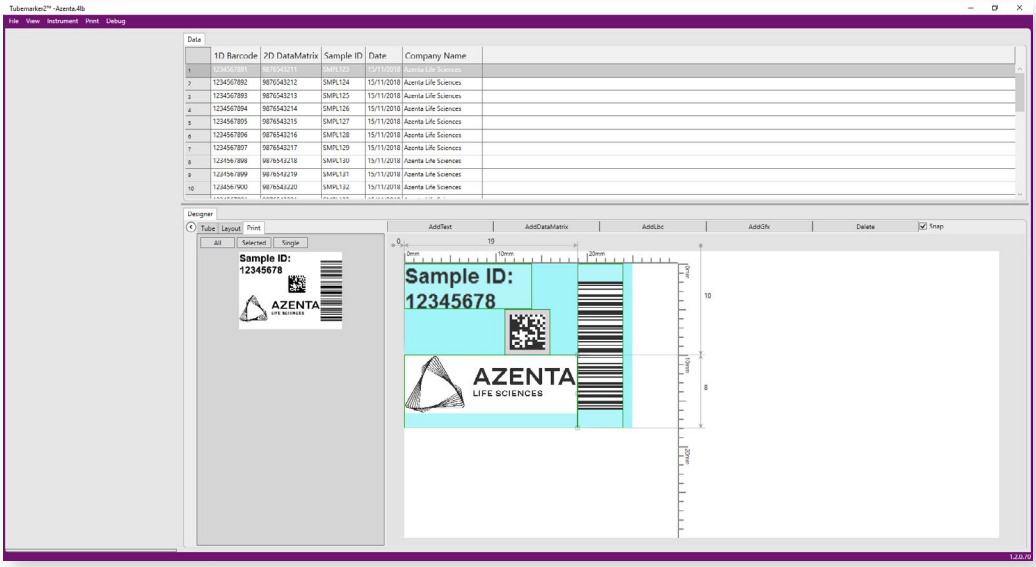


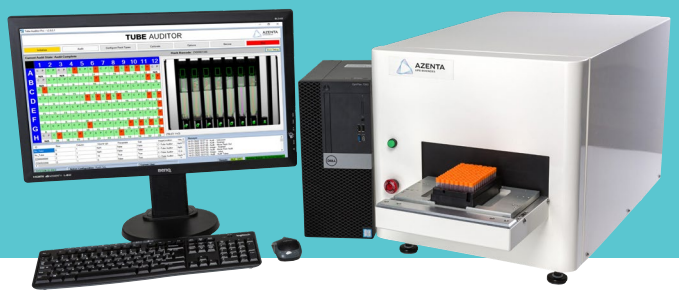
Specifications

Parameter	Value
Communication	USB port
Print Method	Thermal Pixel Printing
Label Detail	Print height: 6mm, Print width: 40mm, Any print orientation
Tube Compatibility	Most plastic laboratory tubes 0.5 to 50ml
Dimensions L x W x H	280mm x 270mm x122mm
Electrical	V in: AC 100-240V V out: DC 18V
Weight	4.8kg
Throughput	Up to 200 Plate Seal Removals per Hour

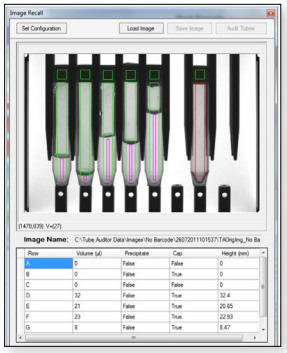
Ordering Information

4ti-0680-1	**Direct Tube Marker,** includes: 3 x tube adapters (4ti-0681, 4ti-0683 and 4ti-0684)
4ti-0681	**Direct Tube Marker Adapter,** tube adapter for **1.5 ml/2 ml tubes**
4ti-0683	**Direct Tube Marker Adapter,** tube adapter for **2D cluster tubes**
4ti-0684	**Direct Tube Marker Adapter,** tube adapter for **cryo tubes**
4ti-0685-1	**Direct Tube Marker Adapter,** tube adapter for **2 ml screw cap tubes** (10 mm diameter)
4ti-0685-2	**Direct Tube Marker Adapter,** tube adapter for **15 ml tubes**
4ti-0685-3	**Direct Tube Marker Adapter,** tube adapter for **50 ml tubes**
4ti-0685-4	**Direct Tube Marker Adapter,** tube adapter for **Matrix tubes**
4ti-0685-5	**Direct Tube Marker Adapter,** tube adapter for **0.2 ml tubes**
4ti-0686	**Direct Tube Marker Ribbon,** metallic blue
4ti-0688	**Direct Tube Marker Ribbon,** white
4ti-0689	**Direct Tube Marker Ribbon,** black
4ti-0689-1	**Direct Tube Marker Ribbon,** black, universal

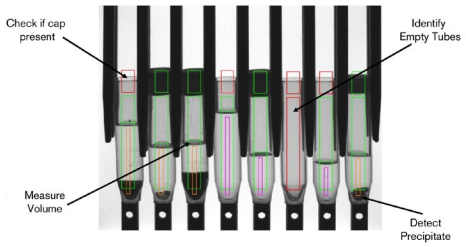
Tube Auditor™



Tube Auditor™ is a fast, accurate and non-invasive device used to measure sample volume in microtubes. The instrument performs quick and easy Goods-In and Goods-Out QA checks to help ensure that your suppliers are providing what you ordered and that your customers are receiving what you promised. Tube Auditor gives confidence in sample quality (at both collection and output) and helps to reduce downstream costs and waste, which can arise from empty wells and precipitated samples



- High-speed measurement - accurate to better than +/- 10µl - minimizes downstream costs from the processing of empty plate wells
- Compatible with 96-SBS or 48-SBS format racks
- Precipitate detection - increases confidence in the concentration of delivered output samples
- Cap detection - helps avoid damage to liquid handling tips caused by failed de-cap operations
- No need to de-cap tubes - eliminates possibility of cross contamination
- Manual or remote operation - if integrated into an automated system, an OPC license is required to enable remote control
- Image storage and recall - allows audit trail and provides ability to re-assess or re-analyze the image
- Tube Auditor uses high-speed vision technology to measure sample volume and detect precipitate



Specifications

Parameter	Tube Auditor
Volume measurement	√
Cap detection	√
Manual and remote operation	√
User interface software	√
Image capture and recall	Available with "Pro" version enabled only
Precipitate detection	Available with "Pro" version enabled only
Dimensions (L x W x H)	872 x 433 x 433mm (34.33 x 17.05 x 17.05in)
Weight	35kg (77lbs)
Electrical	110-240 VAC 50/60Hz
PC	Microsoft Windows 10
Output data format	CSV or XML(user configurable)

Ordering Information

System	
96-0001	**Tube Auditor, 96-format,** for high-speed non-contact volume measurement
96-0002	**Tube Auditor, 96-format,** for high-speed non-contact volume measurement, with 2D tube reader
96-0003	**Tube Auditor, 96-format,** for high-speed non-contact volume measurement, with opc license
96-0004	**Tube Auditor, 96-format,** for high-speed non-contact volume measurement, with 2D tube reader and opc license
Tube Auditor compatible with 48-SBS racks	
98-0001	**Tube Auditor, 48-format,** for high-speed non-contact volume measurement
98-0002	**Tube Auditor, 48-format,** for high-speed non-contact volume measurement, with 2D tube reader
98-0003	**Tube Auditor, 48-format,** for high-speed non-contact volume measurement, with opc license
98-0004	**Tube Auditor, 48-format,** for high-speed non-contact volume measurement, with 2D tube reader and opc license
Software License for Pro version	
97-0001	**Tube Auditor Precipitate Detection Software,** used to activate the Precipitate Detection feature of Tube Auditor, provides a facility to save and recall audited tube images, suitable for Tube Auditor 48-format (part number 98-0001-98-0004) and Tube Auditor 96-format (part number 96-0001-96-0004), compatible with all existing Tube Auditor configurations

Integration Friendly

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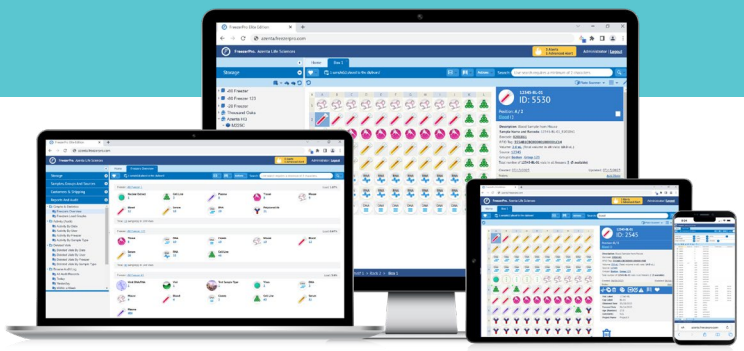
FreezerPro® Sample Management System



The FreezerPro system is a scalable web-based sample inventory management system ideal for users managing hundreds of collections in all types of organizations ranging from lower throughput labs to central biorepositories with millions of records; delivers secure management of samples and sample information.

- Complete sample management
- Track samples in and out of freezers
- Reporting and data export/import (multiple formats)
- Live and smart search
- Full audit trails

Integration Friendly

Using cross-region servers and industry-defining storage technologies, the system is designed to keep samples in the right conditions and make retrieving them for study easier. We manage security through sample data encryption, both during sample transit and while they are at rest. FreezerPro is designed and developed as a web-based sample management system that provides access to sample information from anywhere in the world.

- **No IT Requirements Whatsoever -** By not requiring installation, individual labs within larger organizations gain more autonomy. Start-ups and other small labs can completely avoid all IT staffing and investment
- **Regulatory Liability Protection -** Remove nearly all liability concerns related to data security. Using FreezePro Cloud negates expensive information security upgrades for individual labs
- **Lower Capital Expenditure -** With FreezerPro Cloud, the total cost of deployment is significantly lower, compared to other sample management software options. FreezerPro is a class-leading frozen sample management solution that is indispensable to any modern scientific or pharmaceutical laboratory
- **Deployed in Hours, Not Weeks -** FreezerPro systems automate more daily sample management operations than expensive software solutions
- **Makes Daily Lab Operations Easier -** FreezerPro Cloud records information for sample check in and out, aliquotting and inheritance, plus storage location data with only a few clicks or a drag of the mouse
- **Enhances Accuracy and Availability of Lab Information -** Advanced data mining, automatic data validity checks, hundreds of alert settings and embedded integration with Microsoft Excel are just a few of the tools users and admins have to ensure that data is input properly and is immediately accessible for analysis and reporting.

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Automated Sample Storage Solutions

In addition to our extensive range of consumables and instruments, Azenta Life Sciences is also the global leader in automated sample storage systems.

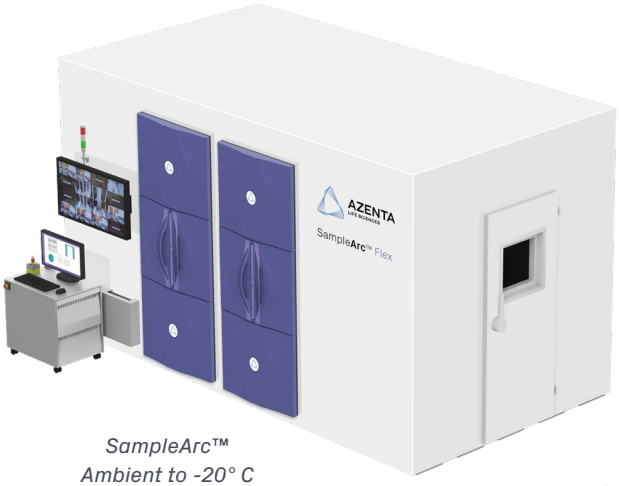
Our deep application experience and proven, highly reliable technology protects sample integrity and improves sample visibility to ensure the continuity of your sample management. From compound management and high-throughput screening, to biobank sample management, to storage of cellular products at cryogenic temperatures; Azenta provides flexible, modular solutions that offer the security and reliability to optimize our customers workflow. As the preferred storage partner to the world's top biotechnology companies, Azenta reduces risk and delivers industry-leading uptime that maximizes the return of your sample management investment.

Flexible automated storage technology that fits your applications allowing you to focus on delivering your research goals.

Transforming workflows and productivity to improve research timelines, our stores accommodate collections from fewer than 7,000 to up to 100 million samples, and are adaptable to meet future needs.

- **SampleArc™ Space Efficient –** Ambient to -20°C
- **BioArc™ Space Efficient –** -80°C
- **SampleArc™ –** Ambient to -20°C
- **BioArc™ –** -80°C
- **CryoArc™ Pico –** -190°C

**Temperature variation is +/- 6°C due to thermocouple variation and thermal loading*



SampleArc™
Ambient to -20° C

BioArc™ Deca
Automated Cryogenic
Storage Solutions -190° C

CryoArc™ Pico -190°C
LN2-Based Automated
Storage System

BioArc™
-80° C

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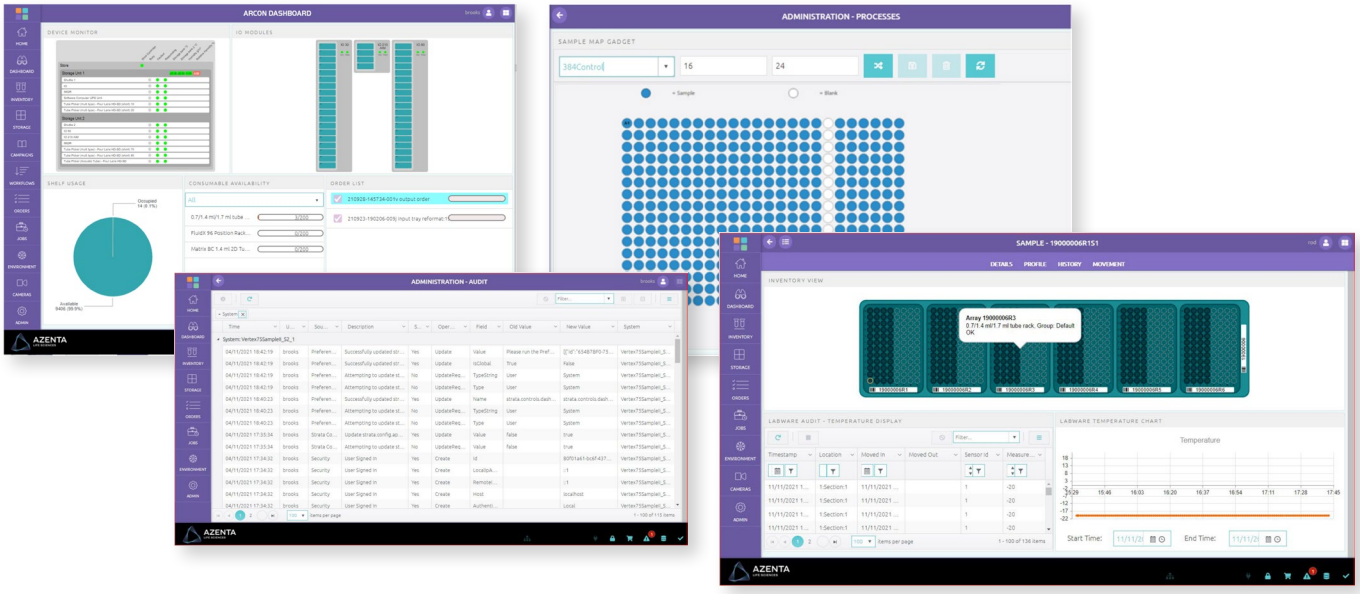
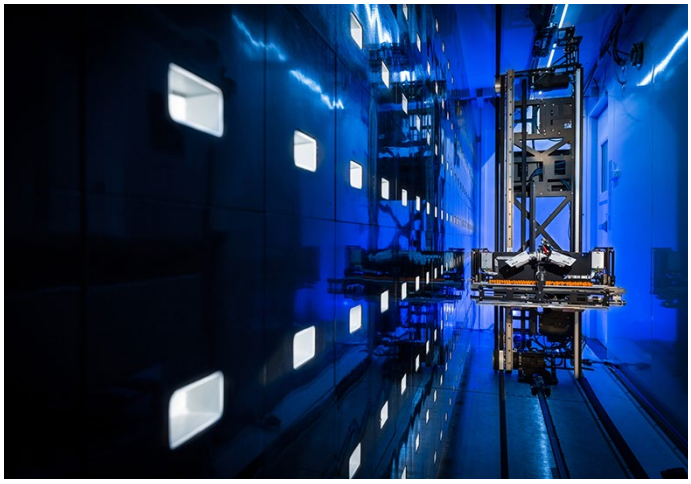
ARCON Control Software

ARCON™ control software (previously known as Strata) enables precise sample inventory management within the Azenta automated storage systems. Strata's intuitive, information rich interface makes automated storage flexible, easy and convenient.

- No special engineering expertise is required
- Efficiently processes and securely protects samples
- Sample data is accessible from any location using a laptop, tablet, or other web enabled devices
- Simplified integration with corporate IT and LIMS networks
- Intelligent diagnostics and error recovery ensure reliable performance





High Efficiency Cryogenic Freezers

Simple, Secure -190°C LN2 Vapor Storage

Azenta Life Sciences' range of high efficiency freezers is designed to offer innovative cryogenic solutions for life science research and therapy. Successful use of samples in the lab or clinic is the ultimate goal and cryopreservation is a critical link. Decades of experience across the cold chain, vertical integration and a commitment to quality make our unique freezers possible.

Increase capacity, improve ergonomics and stay connected with simple, secure cryo storage designed for samples by users. Azenta is committed to preserving your sample potential!

Azenta A220 and Extended Height E264 Cryo Freezers

Azenta A440 and Extended Height E528 Cryo Freezers

Azenta A700 and Extended Height E840 Cryo Freezers

Azenta A1000 and Extended Height E1200 Cryo Freezers

Key Features

Performance

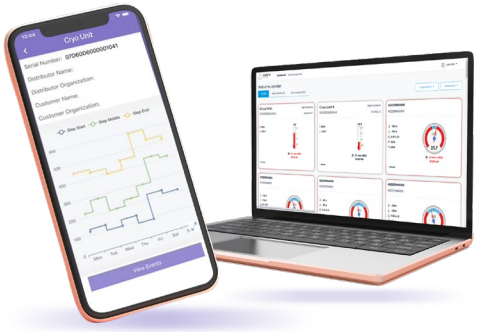
- Temperature, storage density, LN2 usage

Redundancy and security

- Redundant valves and sensors
- Secondary temperature & LN2 level monitoring
- Lifecycle testing

Ergonomics and ease of use

- Better sample access with reduced reach and lift
- Full sample visibility with cryo LED and fog clear
- Workspace to maintain cold chain



Remote monitoring and connectivity

- Simple controller with WiFi/LAN
- 24/7 real-time monitoring – monitor all freezers from one interface
- Text/Email alerts, Cloud backup, Web App
- View key parameter charts and detailed equipment temperature history
- Download reports for custom date ranges

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CryoPod® Carrier

Portable Liquid Nitrogen (LN2)-Based Cryogenic Transport.

CryoPod® Carrier provides a safe, reliable and portable < -150°C cryogenic environment for the handling and transport of biological specimens for over 3 hours. The instrument displays and logs temperature, date and time, and features audible and visual alarms, and integrates into an optional automated filling station for hands-free replenishing of the LN2 charge in less than 15 minutes.

Ensures operator safety

- Allows safe and quick transportation of cryogenic samples
- Hands-free auto-fill option

Maintains sample cold chain integrity

- Temperature display with audible and visual alarms
- Temperature logging and retrieval

Delivers reliable performance

- Over 3 hours <-150°C
- No direct sample contact with LN2

Portable

- Compact footprint; only ~9 lbs
- Built-in handle and bottom finger grips

Specifications

Hold Time	Over 3 hours < -150°C with lid closed
Capacity	One 2" cryobox, 2 SBS plates or some cassette sizes
Charge	Requires < 3L liquid nitrogen (LN2)
Alarm	Two settings with audible and visual signals
Lid	Magnetized foam lid for safer transport and insulation
Power	3 AA alkaline batteries (included)
Temperature Audit Trail	Downloadable temperature log data via USB port and CryoPod Data Log Software
Weight	4.1 kg (9 lbs) without LN2 5.9 kg (13 lbs) fully charged with 3L LN2 - no samples
External dimensions (L x W x H)	34.0 x 32.0 x 26.0 cm (13.4 x 12.6 x 10.2 in)
Cryogenic chamber basket dims (L x W x H)	17.4 x 18.8 x 7.8 cm (6.9 x 7.4 x 3.1 in

Ordering Information

CryoPod® Carrier	
243354-001	**Suitable for cryoboxes,** includes orange lid and manual fill kit; 1 carrier
284574	**Suitable for cassettes,** includes purple lid and manual fill kit; 1 carrier
Lids & Accessories	
252888-001	**Orange;** 1 lid
252888-002	**Green;** 1 lid
252888-003	**Grey;** 1 lid
252888-004	**Pink;** 1 lid
252888-005	**Purple;** 1 lid
252885	**CryoPod Carrier for Cryoboxes manual fill kit (compatible with 243354-001);** 1 kit
321706	**CryoPod Carrier for Cassettes manual fill kit (compatible with 284574);** 1 kit
252886	**CryoPod® LN2 Absorbent Pads,** 4pc, 2/pk

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