

Day 2: Product Training and Overview

April 24,





With You This Week – The Azenta Team



Robin Vacha SVP, Global Operations



Gil Edwards Sr. Director, Cold Storage



Amy Kuhn Director, Channel Sales



Olga Bukatova Assoc. Director, Business Dev., Cell & Gene Therapy



Erica Waller

Sr. Product Manager, Cryogenic Storage & Automation



Charlie Knowles Sales Applications Engineer







Brian Gleason Channel Manager, Cold Storage



Sean Cantrell Director, Automation Engineering



Brandon Courtois Senior Operations Manager



Caroline Mackinnon Sr. Commercial Marketing Manager



Erik Rapp

Sr. Account Executive, Digital Sample Management Solutions







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Day One Review

April 24, 2024

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STATISTICS.



Wednesday 24 April

**Subject to change

TIME	AGENDA
08:00 - 08:15 AM	Day One Review & Discussion
08:15 – 10:35 AM	 Product Line Training: High-Efficiency Freezers & Product Updates Automated Freezers CryoPod & Filling Station
10:35 – 10:45 AM	Break
10:45 – 11:15 AM	Cryo Software Demonstration
11:15 – 11:45 AM	FreezerPro Integration
11:45 – 12:20 AM	Lunch
12:20 - 12:50 PM	Liquid Nitrogen Supply Systems
12:50 - 01:20 PM	Racking Systems, Bags, Cassettes & Frames
01:20 – 01:30 PM	Refresh





SPEAKER

LOCATION

Brian Gleason

Hotel Vandivort, Cornerstone

Gil Edwards, Brian Gleason, Sean Cantrell Erica Waller, Charlie Knowles

Charlie Knowles

Erik Rapp

-

Gil Edwards, Jeff Kadyk

Zach Carlson, Brooklyn Tool

*Transport is organized to the Springfield Facility at 01:30 PM prompt.

Wednesday 24 April

**Subject to change

TIME	AGENDA
01:30 – 06:00 PM	 Manufacturing Site Facility Tour Hands-On Training & Demonstrations High-Efficiency Freezers Automated Freezers CryoPod & Filling Station Troubleshooting & Repair
GROUP 1	*Start with HE Freezers
GROUP 2	*Start with Automated Freezers
GROUP 3	*Start with CryoPod & Filling Station
GROUP 4	*Start with Troubleshooting & Repair
06:00PM	Mill Tour & Evening Dinner





GROUP LEADERS

LOCATION

- Gil Edwards, Brian Gleason
- Erica Waller, Erik Rapp
- Charlie Knowles
- Brandon Courtois

Azenta Life Sciences

*Transport is organized to the Springfield Facility at 01:30 PM prompt.

Jeff Kadyk, Daniel Morris, James Meggs, Ralph Bell, Brent Kokhede, Robin Vacha

Patrick McCann, Bob Wood, James Martell, Carleton Sherman, Steven Fyfe, Caroline Mackinnon

Larry Morgan, Tony Gandy, Steve Ivie, Alexander Lima, Rebecca Ginther, Juan Bello

George Koutris, Rod Harnden, Kelly Grimmett, Zach Carlson, Amy Kuhn, Olga Bukatova

The Ozark Mill

*Transport is organized to the Ozark Mill, with return to Hotel Vandivort post-dinner.



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Agenda

Product Line Training: HE Product Line Training: Aut **Product Line Training: Cry** Cryo Software Demo FreezerPro Integration LN2 Supply Systems Racking Systems, Bags, C





Freezers	01
tomated Freezers	02
opod & Filling Station	03
	04
	05
	06
Cassettes, & Frames	07

FREEZERS



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PRODUCT LINE TRAINING: HE

Differentiators



Capacity

10-30% More Samples Highest Storage Density Lowest LN2 Usage Per Sample





Connected

Touchscreen with WiFi / LAN Text & Email Alerts | Cloud Backup Redundant Remote Monitoring



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Ergonomics



Cryo LED & Auto Fog Clear Full Sample Visibility Low Liftover Height | Workspace





Differentiators

PERFORMANCE

Temperature, storage density, LN2 usage

REDUNDANCY & SECURITY

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

Ergonomics & 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

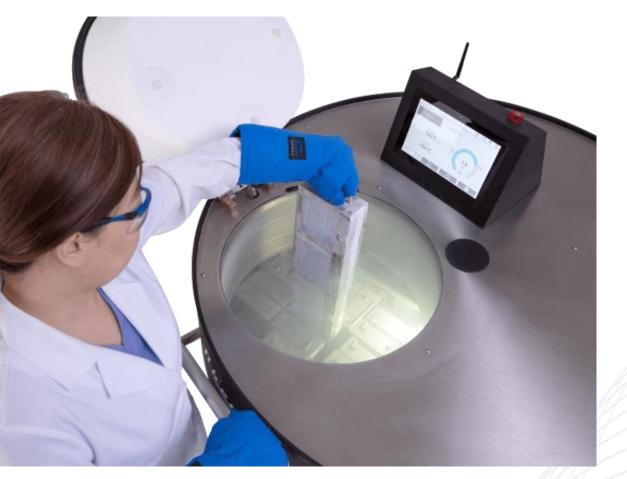
Monitoring & Connectivity

- Simple controller with WiFi/LAN
- Text / Email alerts, Cloud backup, Web App

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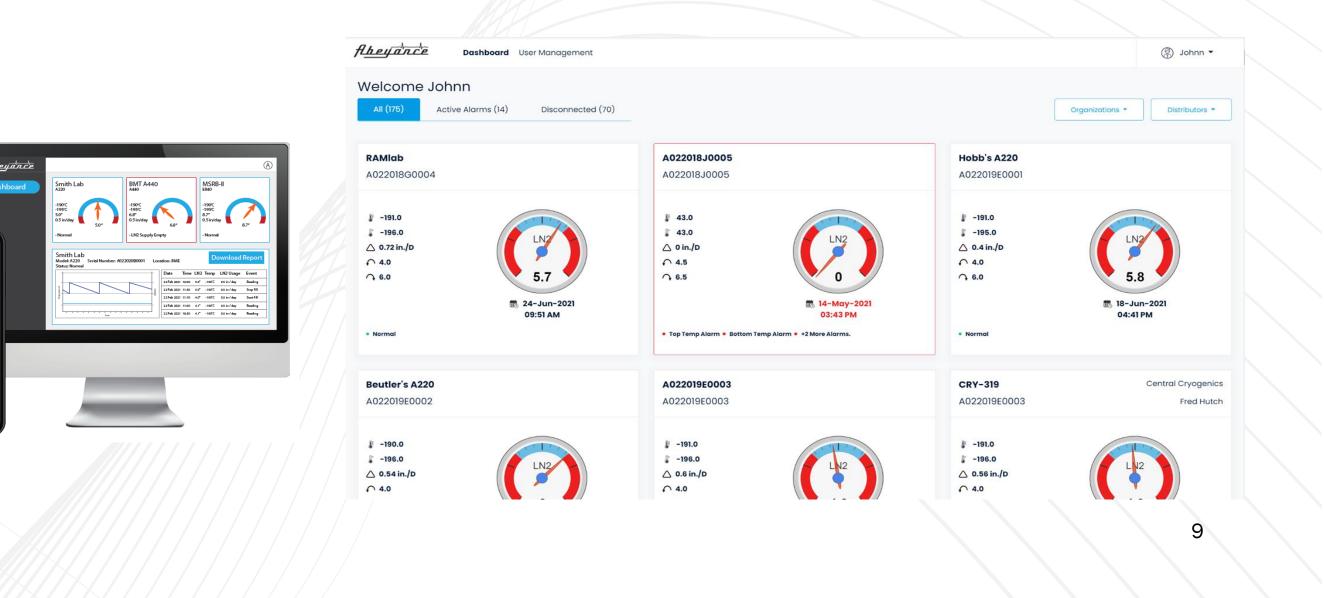






12:00







Cryo Freezers

Cryo Freezers	A220	A440
Outer Diameter - in (mm)	34.0 (864)	45.0 (1143)
Usable Height - in (mm)	30.0 (762)	30.0 (762)
2 ml Vial Box Capacity - 5-2 2 ml Vial Box Capacity - 13-2	220 156	440 416
250 ml Blood Bag Capacity	400	848
Extended Height Freezers	E264	E528
Outer Diameter - in (mm)	34.0 (864)	45.0 (1143)
Usable Height - in (mm)	34.0 (864)	34.0 (864)
2 ml Vial Box Capacity - 6-2 2 ml Vial Box Capacity - 15-2	264 180	528 480
250 ml Blood Bag Capacity	500	1,060
		$\langle \ \rangle$

Dry Vapor Shipper



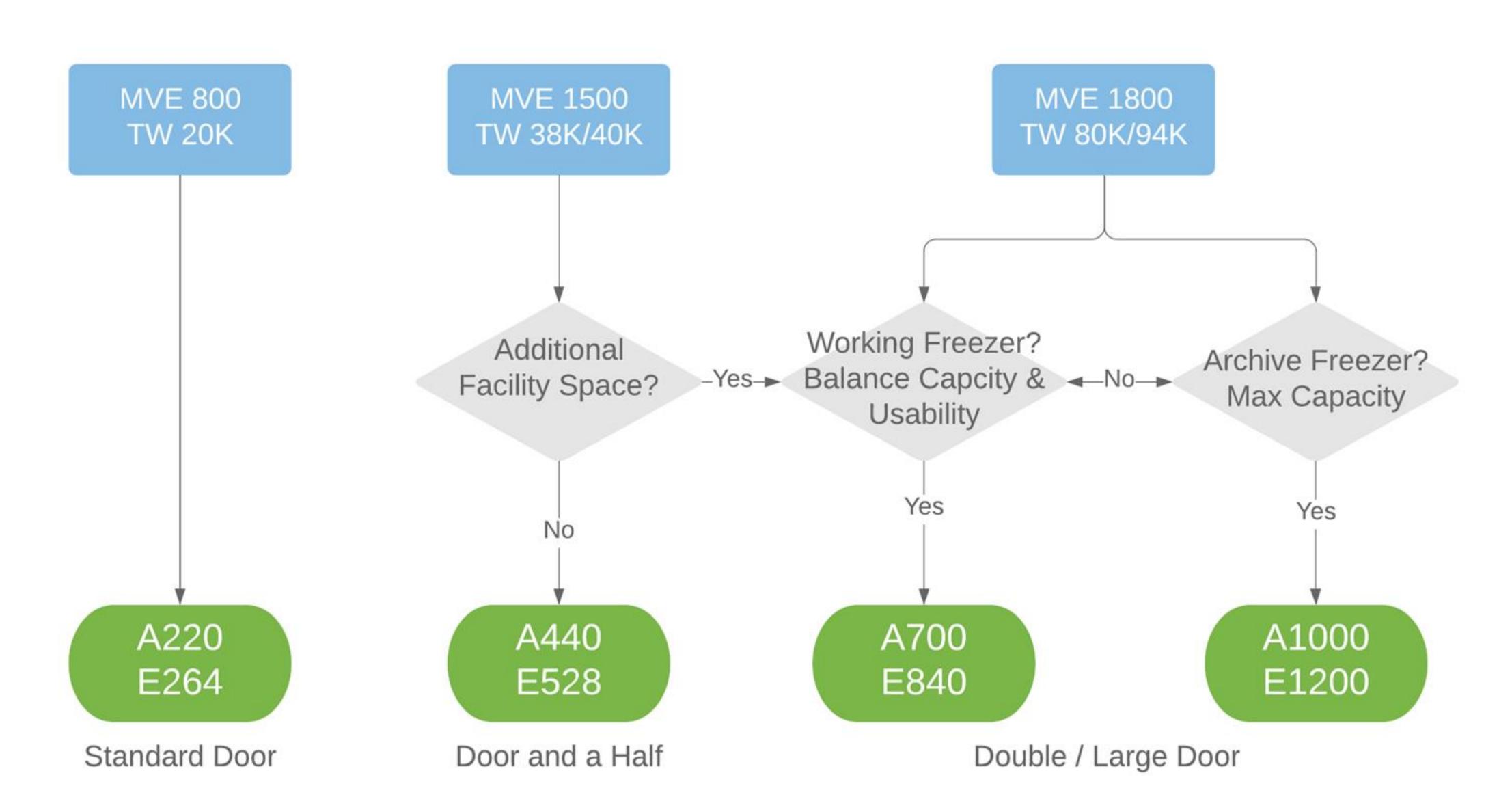




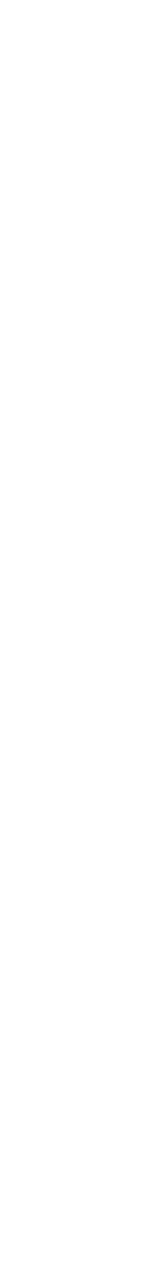








Confidential



Value Proposition

PREMIUM PRODUCT AT A PREMIUM PRICE

- Fully featured standard product
- Best price and usage per sample
- Industry leading warranty
- USER FOCUSED FEATURE / BENEFITS
- LEAD TIME

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- CUSTOMER SERVICE / TECH SUPPORT
 - Specialized Factory based service person
 - Remote monitoring, troubleshooting

CHANNEL PARTNERS

- 60 professional lab capital equipment reps
- 20+ year relationships
- Open access to customers and facilities



Pharmaceutical & Biotechnology



THE OHIO STATE UNIVERSITY





High-Efficiency Cryo Freezer Updates

2024

April 24, 2024



Outline

Controller SW Updates Cabinetry & Plumbing Improvements Lid Foam Cleanable Covering





01 02 03

CONTROLLER SW UPDATES

Releasing May 2024







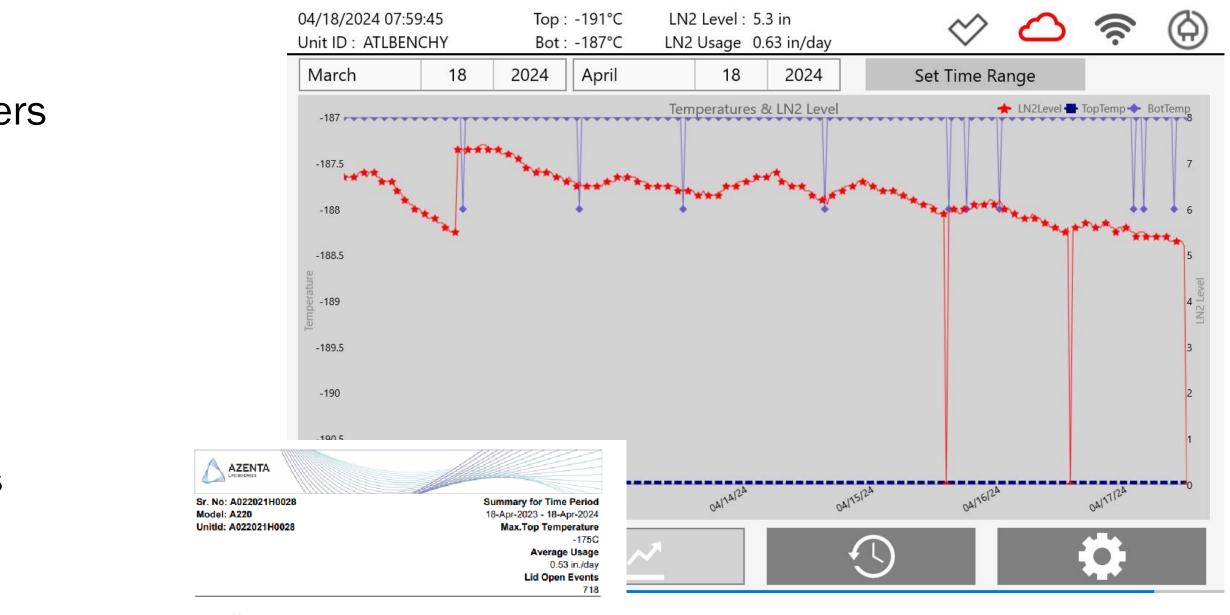


Improved Controller SW is Releasing Shortly

- New HMI & PLC code will support all vintages of freezers -One code to rule them all!
 - -Will require a PLC programming dongle to update
- Stability Improvements & Bug Fixes
 - -No more nightly restarts
 - -Improved responsiveness with start/stop fill button presses
 - -Scheduled fill improvements
 - –Improved logging to help with debugging
- Improved LN2 Supply Check to reduce nuisance alarms







Alarms

Alarm Start	Alarm End	Alarm Name	Max.Top Temperature
05-Apr-2024 16:16	05-Apr-2024 16:46	LN2 Empty Alarm	-190
25-Mar-2024 11:42	25-Mar-2024 16:08	LN2 Empty Alarm	-189
18-Mar-2024 14:01	19-Mar-2024 1:35	LN2 Empty Alarm	-189
06-Mar-2024 10:00	06-Mar-2024 15:02	LN2 Empty Alarm	-189
21-Feb-2024 9:55	21-Feb-2024 16:33	LN2 Empty Alarm	-190
16-Feb-2024 15:26	16-Feb-2024 15:26	LN2 Empty Alarm	-188
16-Feb-2024 8:18	16-Feb-2024 15:26	LN2 Empty Alarm	-188
02-Feb-2024 10:20	02-Feb-2024 16:51	LN2 Empty Alarm	-189
18-Jan-2024 12:14	18-Jan-2024 16:20	LN2 Empty Alarm	-189
08-Jan-2024 10:04	08-Jan-2024 10:17	LN2 Empty Alarm	-184
19-Dec-2023 9:02	19-Dec-2023 14:26	LN2 Empty Alarm	-189
07-Dec-2023 9:10	07-Dec-2023 10:37	LN2 Empty Alarm	-190
27-Nov-2023 16:32	27-Nov-2023 16:54	LN2 Empty Alarm	-188
20-Nov-2023 8:19	20-Nov-2023 9:32	LN2 Empty Alarm	-189
10-Oct-2023 14:38	10-Oct-2023 16:30	LN2 Empty Alarm	-187
02-Oct-2023 10:01	02-Oct-2023 15:18	LN2 Empty Alarm	-188
25-Sep-2023 9:15	25-Sep-2023 10:33	LN2 Empty Alarm	-189
12-Sep-2023 15:16	12-Sep-2023 16:03	LN2 Empty Alarm	-187
05-Sep-2023 21:03	06-Sep-2023 11:32	LN2 Empty Alarm	-188
27-Aug-2023 4:39	28-Aug-2023 9:38	LN2 Empty Alarm	-189
15-Aug-2023 13:38	15-Aug-2023 14:36	LN2 Empty Alarm	-189
15-Aug-2023 13:34	15-Aug-2023 13:37	LN2 Empty Alarm	-189
15-Aug-2023 11:38	15-Aug-2023 11:40	LN2 Empty Alarm	-189
15-Aug-2023 10:09	15-Aug-2023 10:59	LN2 Empty Alarm	-189
08-Aug-2023 13:20	08-Aug-2023 14:01	LN2 Empty Alarm	-188
28-Jul-2023 9:03	28-Jul-2023 10:34	LN2 Empty Alarm	-188
06-Jul-2023 8:43	06-Jul-2023 14:14	LN2 Empty Alarm	-188
26-Jun-2023 9:43	26-Jun-2023 10:50	LN2 Empty Alarm	-188
19-Jun-2023 8:58	19-Jun-2023 9:51	LN2 Empty Alarm	-189
07-Jun-2023 9:20	07-Jun-2023 11:37	LN2 Empty Alarm	=189
03-Jun-2023 7:02	03-Jun-2023 16:38	LN2 Empty Alarm	-187
01-Jun-2023 18:43	02-Jun-2023 6:44	LN2 Empty Alarm	-188
23-May-2023 10:40	23-May-2023 15:34	LN2 Empty Alarm	-188
12-May-2023 13:10	12-May-2023 13:46	LN2 Empty Alarm	-189
03-May-2023 13:57	03-May-2023 14:48	LN2 Empty Alarm	-187
24-Apr-2023 9:31	24-Apr-2023 9:48	LN2 Empty Alarm	-188

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Home Screen Changes

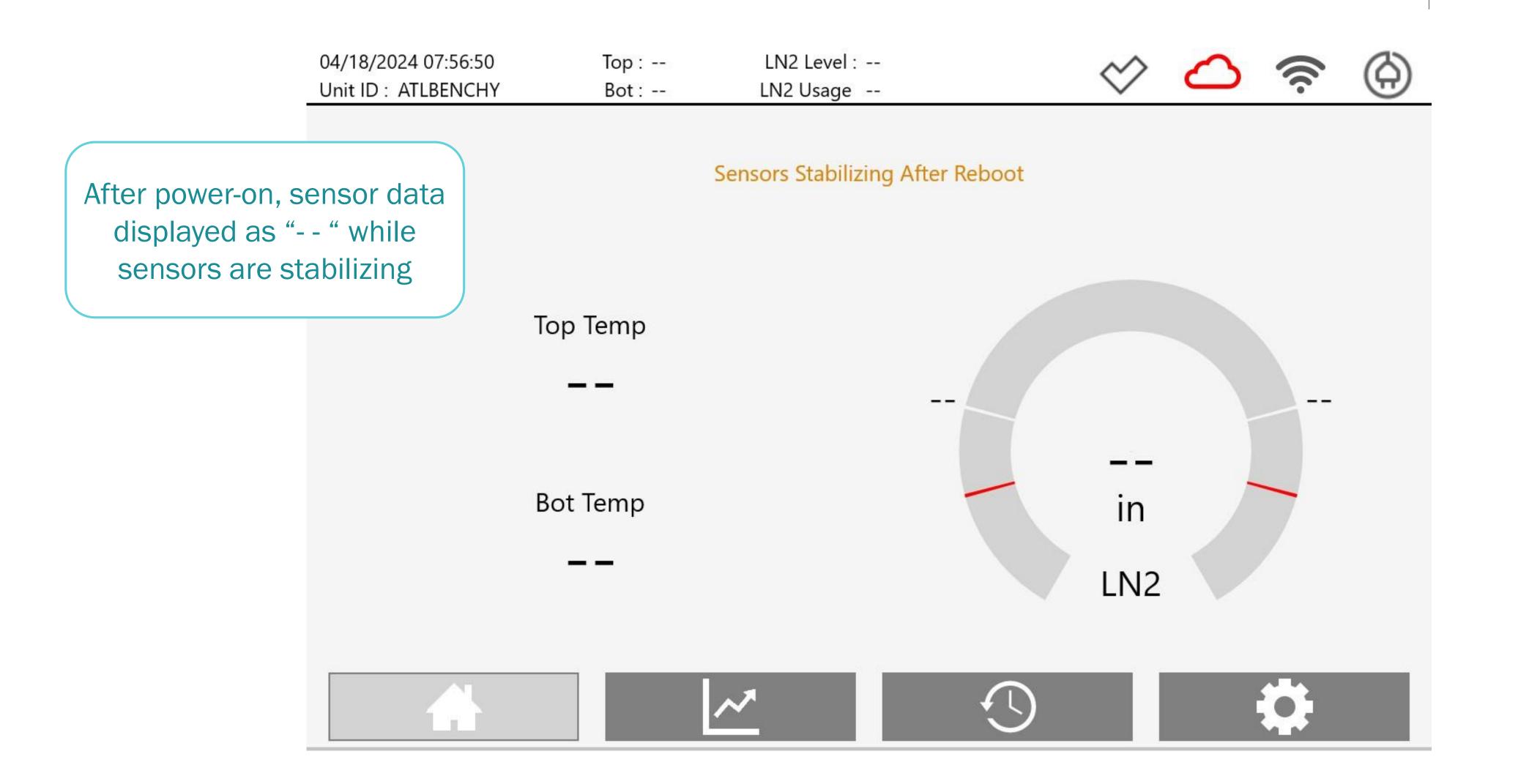




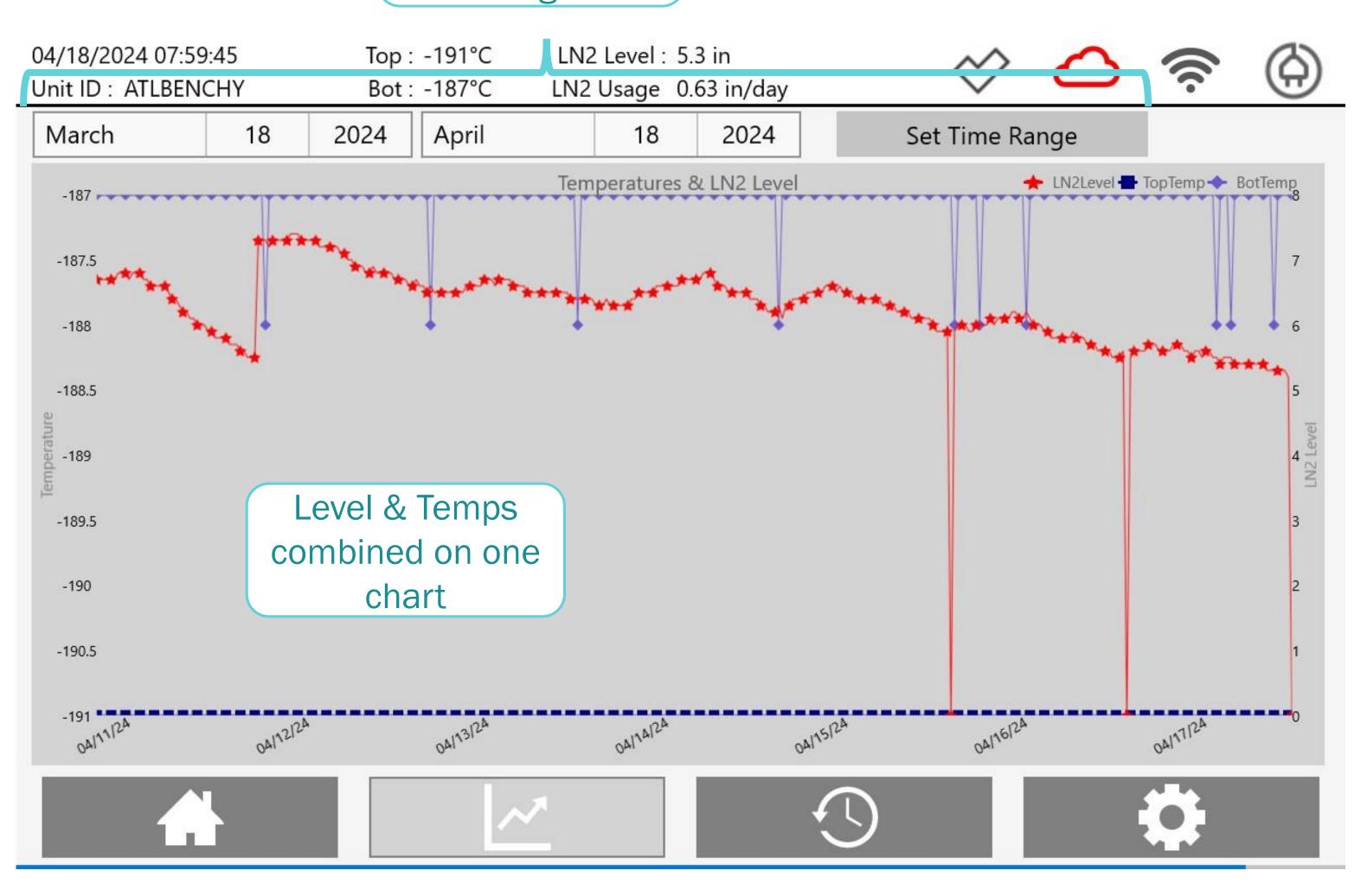






Chart Screen Redesign

Can select displayed date range











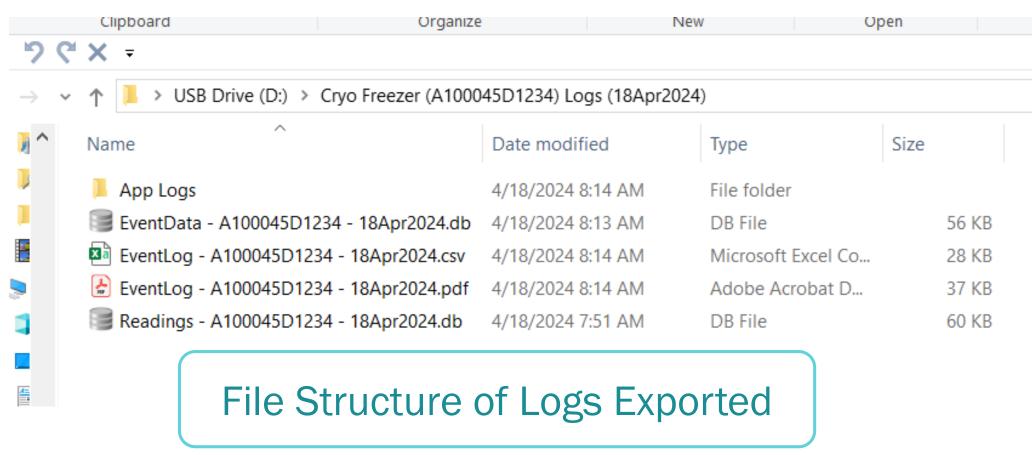




Event Log Improvements

Example of PDF Export

- More robust logging of events
- Exported data structure is more logical
- We now export PDF and CSV log files
- "Email to Tech Support" button now sends to service.products@azenta.com









Sr. No: A022021H0028 Model: A220 UnitId: A022021H0028

Summary for Time Period 18-Apr-2023 - 18-Apr-2024 Max.Top Temperature -175C Average Usage 0.53 in./day Lid Open Events 718

Select

Alarms

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02-Feb-2024 10:20	02-Feb-2024 16:51	LN2 Empty Alarm	-189
18-Jan-2024 12:14	18-Jan-2024 16:20	LN2 Empty Alarm	-189
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15-Aug-2023 11:38	15-Aug-2023 11:40	LN2 Empty Alarm	-189
15-Aug-2023 10:09	15-Aug-2023 10:59	LN2 Empty Alarm	-189
08-Aug-2023 13:20	08-Aug-2023 14:01	LN2 Empty Alarm	-188
28-Jul-2023 9:03	28-Jul-2023 10:34	LN2 Empty Alarm	-188
06-Jul-2023 8:43	06-Jul-2023 14:14	LN2 Empty Alarm	-188
26-Jun-2023 9:43	26-Jun-2023 10:50	LN2 Empty Alarm	-188
19-Jun-2023 8:58	19-Jun-2023 9:51	LN2 Empty Alarm	-189
07-Jun-2023 9:20	07-Jun-2023 11:37	LN2 Empty Alarm	-189
03-Jun-2023 7:02	03-Jun-2023 16:38	LN2 Empty Alarm	-187
01-Jun-2023 18:43	02-Jun-2023 6:44	LN2 Empty Alarm	-188
23-May-2023 10:40	23-May-2023 15:34	LN2 Empty Alarm	-188
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03-May-2023 13:57	03-May-2023 14:48	LN2 Empty Alarm	-187
24-Apr-2023 9:31	24-Apr-2023 9:48	LN2 Empty Alarm	-188

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Improved Setup Screen

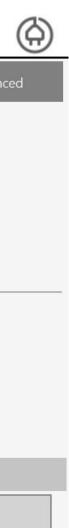
- Added ability to disable LN2 Supply Check ullet
 - Not recommended but it's available
 - LN2 supply check functionality is improved for less nuisance alarms
- Date & Time settings are found here now •

04/18/2024 09:06:12 Unit ID : ATLBENCHY	Top : -312 Bot : -305				\diamond	\bigcirc	<u></u>
Setup	Network	Remote Notifications	Access	Control	Servi	ce	Advanced
Time Zo	one		Date			Time	
Eastern Standard	Гime	~ April	18	2024	7	50	AM
	Date Format	MM/DD/YYYY ~				Confirm Se	ettings
day to trigger a recurrin	ng fill			purge to dete of the LN2 sup			
Every 0 🗸 day	s @ 7	40					
Last	: Ran 4/18/2024 7:4	0:00 AM					
		Date & Ti	me setting	S			
			Password	••••	х	Save	ed! 🜉
		~		\bigcirc			

	PARTNE IN SUCCI				ZENT
04/18/2024 09:04:47 Unit ID : ATLBENCHY	Top : -312°F Bot : -305°F	LN2 Level:5 LN2 Usage 0		\diamond	
Setup	Network Rem	note Notifications	Access Control	Service	Advan
	Level in. ~				
Enable Tenths D	Display				
Setpoints Top Temp A Bot Temp A Purge Temp Set	Alarm -220		High Level Fill Li Low Level Fill Li Max Fill Time(5-2	mit 5.0	
		ļ	Password	X	Saved!
		<u>×</u>	\bigcirc		

Unit ID : ATLBENCHY	Bot : -312°F	LINZ LEVEL: LN2 Usage		⊘ ∠	$\mathbf{S} \otimes \mathbf{\Theta}$
Setup	Network Rem	note Notifications	Access Control	Service	Advanced
Purge Temp Setpoint	-58		Max Fill Time(5-2	40) 240	
Current Purge Temp	52°F		Max Purge Time(5	-60) 5	
Scheduled Fill Select frequency and time of day to trigger a recurring fill Every 0 \checkmark days @ Last Ran	On 7 40 4/18/2024 7:40:00		LN2 Supply Check When enabled, the freezer periodically purge to detern the status of the LN2 suppl	mine	n
		Date & T	ime settings		
			Password	х	Saved!
		~	\bigcirc		•







Improved Remote Notifications (Previously "Alarms" Screen)

- All input slots will accept phone numbers or email addresses
- Text and email alert messages have been rebranded and enriched lacksquare
- Resolved Alarm Notification sent when alarm condition is cleared
- Alert Displayed if there is an issue with sending text or email alert \bullet

Active Alarms - Azenta Cryo Freezer (A100045D1234) - (ATLBENCHY). Active Alarms: LN2 Supply Empty: (4/15/2024 2:07:07 AM); Performance as of (4/15/2024 2:07:07 AM): Top Temp = -191, Bot Temp = -187, LN2 Level = 6.5, LN2 Usage = 0.77



Resolved Alarm - Azenta Cryo Freezer (A100045D1234) - (ATLBENCHY). Resolved Alarms: LN2SupplyEmpty (4/15/2024 9:23:39 AM). Active Alarms; Performance as of (4/15/2024 9:23:39 AM): Top Temp = -191, Bot Temp = -187, LN2 Level = 6.2, LN2 Usage = 0.77



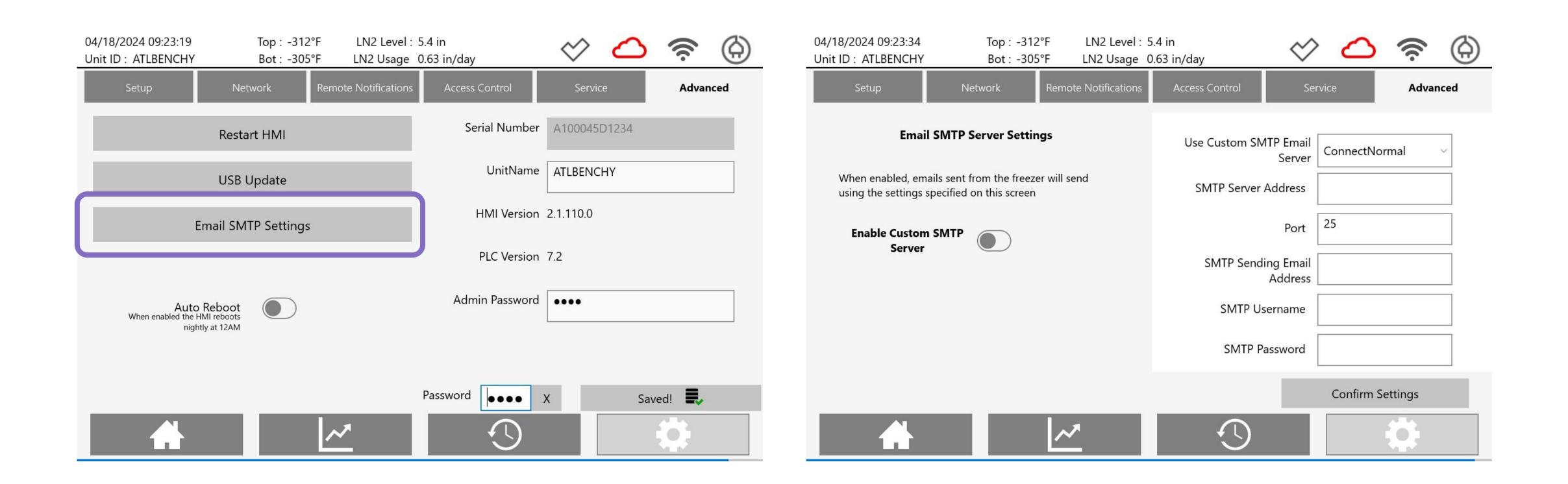




04/18/2024 09:20:45	Top : -312°F		
Unit ID : ATLBENCHY	Bot : -305°F	LN2 Usage 0.63 in/day	
Setup	Network Re	emote Notifications Access Con	itrol Service Advanced
Remote Ala	rm Notifications		Phone # Format: 12223334444
Low Level		Email / Phone	(1)
High Level		Email / Phone	(2)
High Temp Usage	y	Email / Phone	(3) SEANC56@GMAIL.COM
Stuck Valve		Email / Phone	(4)
LN2 Supply Empt	y 💽	Email / Phone	(5) SEAN.CANTRELL@AZENTA.COM
Lid Open Lid Access		Email / Phone	(6) 17702433442
On Battery Powe			Send Test Notifications
		Password	••• X Saved!
		~	

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Email SMTP Server Settings Are Moved to Advanced Tab









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Future SW Development

- Support for temperature calibration to elevation specific LN2 saturation temperature
- Remote Notification Heartbeat \bullet
 - Provides a courtesy message every 3 days to say that the freezer is performing correctly and the connection to the web is still active
- API for customers to be able to integrate building systems with freezer to pull performance data









CABINETRY & PLUMBING IMPROVEMENTS



Shipping on A1000 & E1200 Now 2024 Implementation For Remaining Product Line







Cabinetry Improvements

- Improved safety panel mounting
 - No More Gap fillers
 - Bolts for attachment
 - Similar to A76 (IVF76)





One-piece gas management channel

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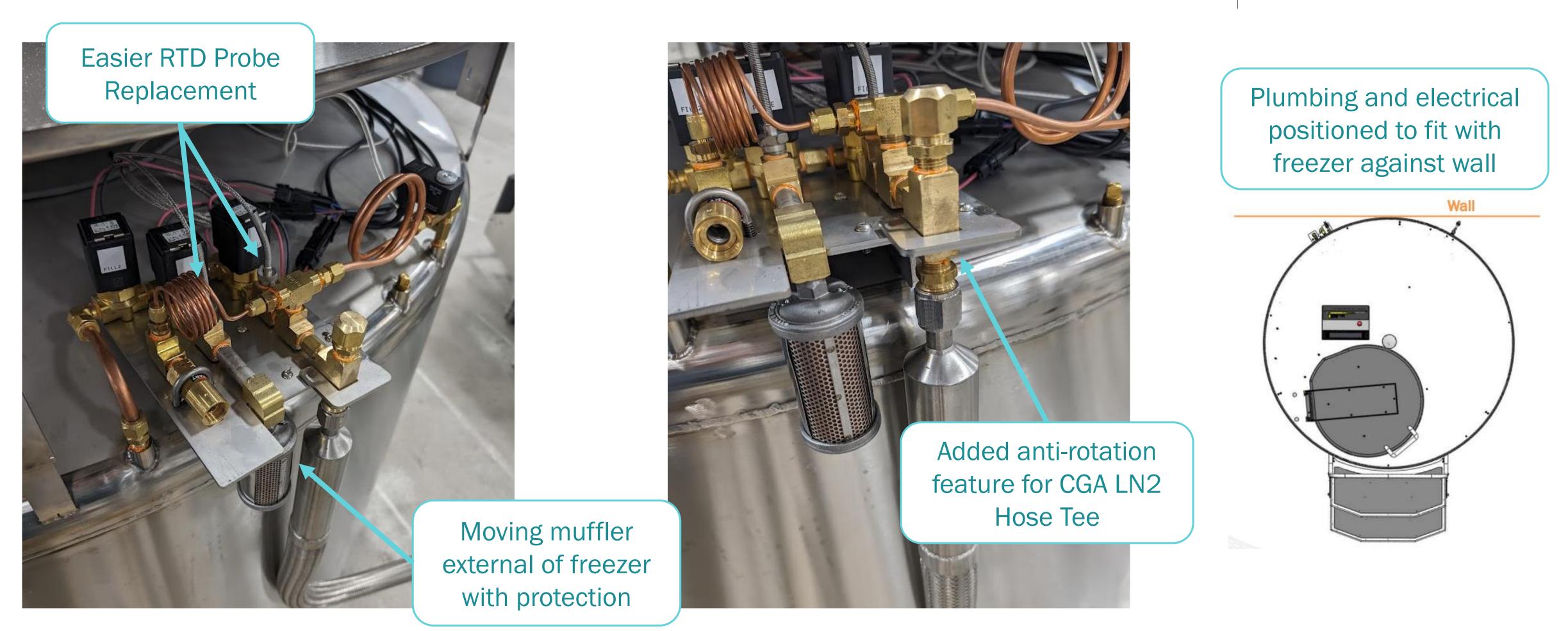
More robust & easier to use power switch







Improved Plumbing Assembly



* Will be standardized across all manual cryo freezers







CLEANABLE COVERING FOR LID FOAM

Estimated Imp

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Estimated Implementation By End of 2024



Durable & Cleanable Lid Foam

- Currently in-testing
- Smooth for easy cleaning
- Resistant to common cleaning products
- Will eliminate foam debris generated during normal usage





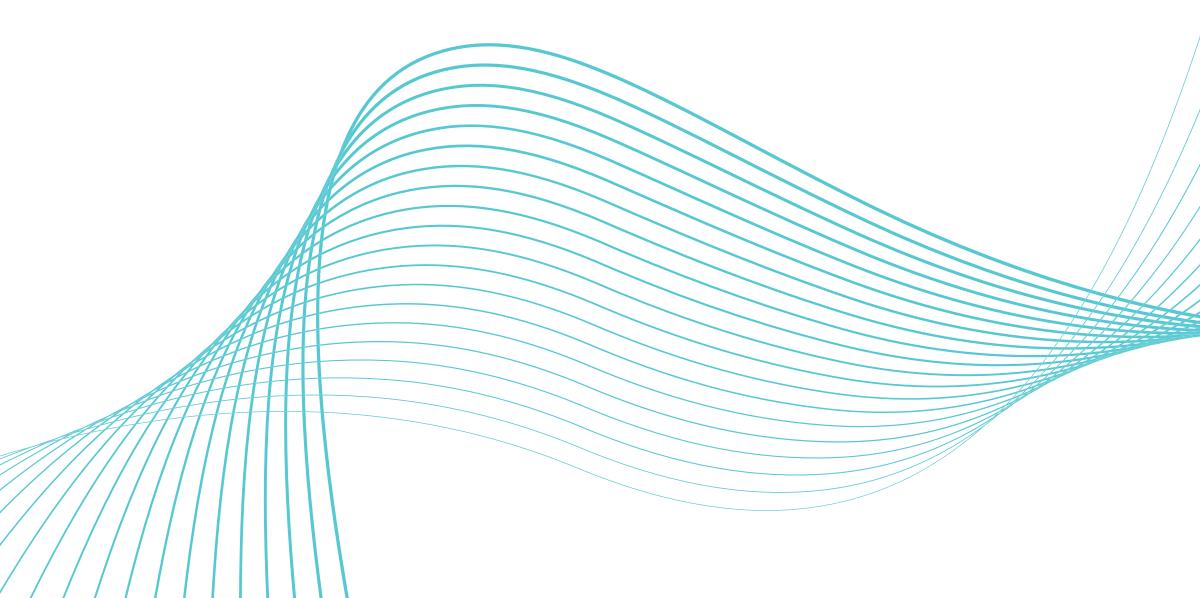






Questions?

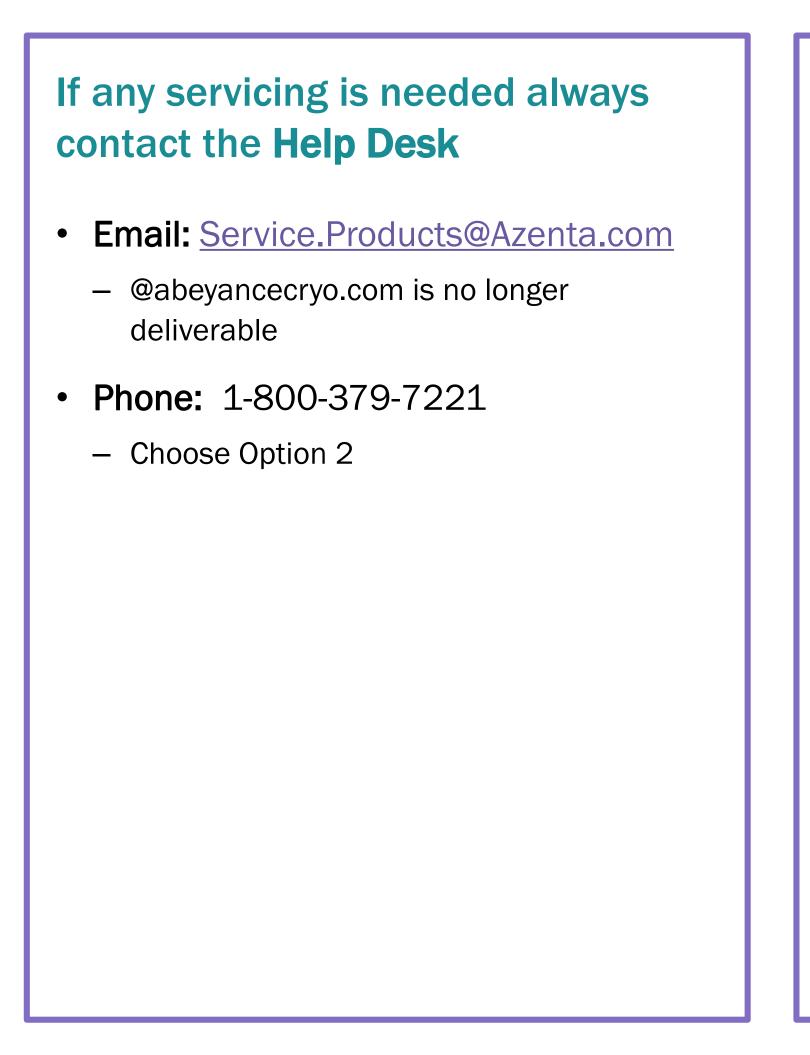








Who to Contact for Servicing Azenta Products



Desk.

- Serial number
- Description of problem \bullet
- Photos if appropriate
- Any steps that have been taken to troubleshoot the issue
- Level of severity / customer impact
 - Low inconvenient but no risk to samples or user safety and/or intermittent issue
 - Medium Interruption of normal operation and low risk to sample or user safety
 - High Immediate risk to sample or user safety or unable to operate equipment





What information should you be prepared to shared with the **Help**

What's in it for our Customers if these steps are followed?

- Warranty benefits are recognized
- Faster response to issues
- Eliminate future quality issues

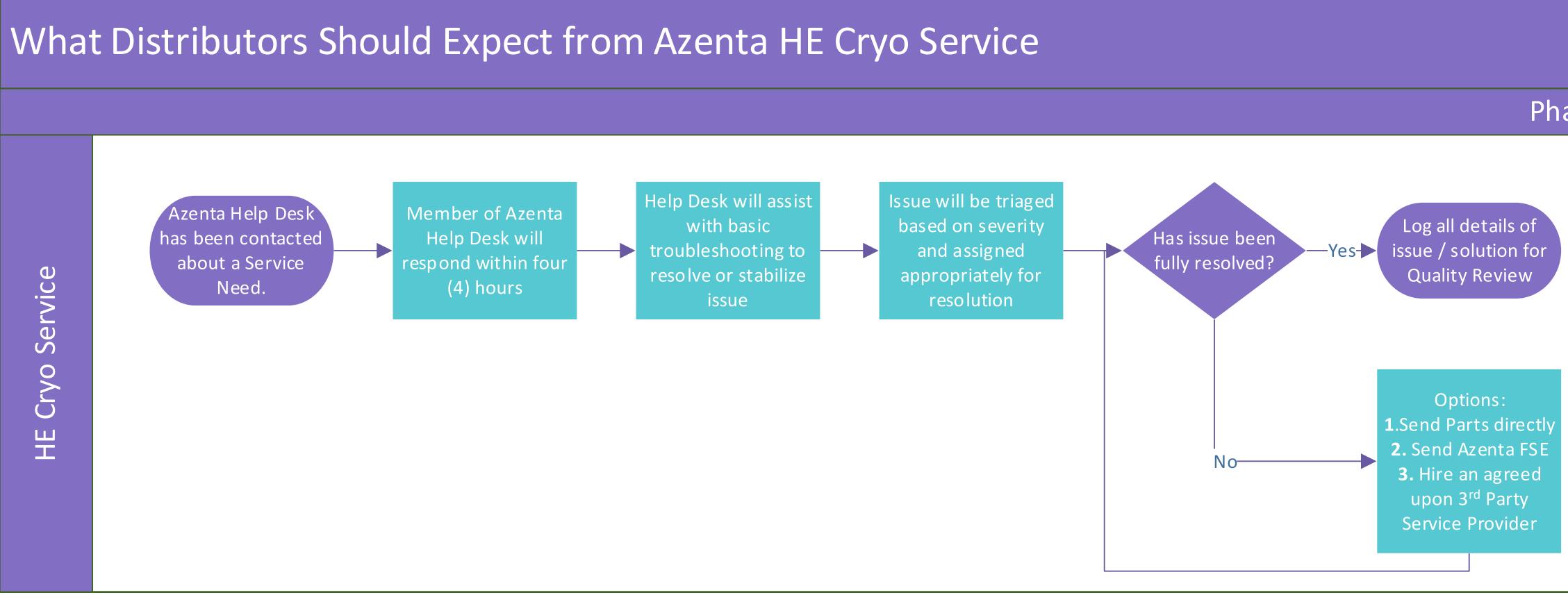








Engaging with the Azenta Service Help Desk















PRODUCT LINE TRAINING: AUTOMATED FREEZERS









Automated Cryogenic Storage Portfolio



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CryoArc Deca

Optimised storage: Cryobox, SBS, up to **50mL cassettes**

Storage temperature: Down to -196°C

Capacity: 26,600 2ml **Cryovials**

Hold time: 15 days



CryoArc Tera

Optimised storage: Cryobox, SBS, up to **250mL Cassettes**

Storage temperature: down to -196°C

Capacity: 63,000 2ml Cryovials

Hold time: 17.5 days







CryoArc Family Configurations

CryoArc System

Standard Door

Tall Door

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Standard Door:

4" tall door, suitable for 2" boxes, most SBS racks, and some small cassettes (25mL). Commonly used in discovery or QC labs where samples are expected to be in smaller vials

Tall Door:

7" tall door, suitable for 4" boxes, tall SBS racks, and cassettes up to 50mL. Commonly used by companies working on cell therapies in discovery all the way through commercialization.

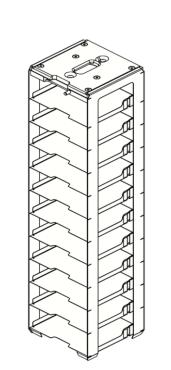
*CryoArc Tera for Cassettes

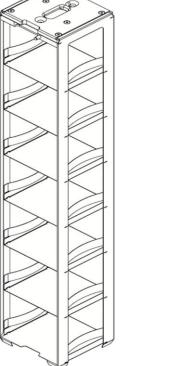
Envelope style door, suitable for single cassette storage and retrieval. Can fit most 250mL cassettes or smaller. Only available in the Tera, and commonly used by large pharma manufacturers of cell therapies.



System Capacities and Configurations

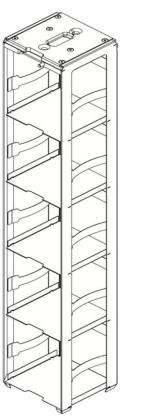
CryoArc System Type	Number of Freezer Racks	Total 2" Boxes	1mL FluidX Tubes (14x14)	2ml FluidX Tubes (10x10)	Typical Use
Pico Standard Door	8	88	17,248	8,800	Discovery Lab, Cell Line Distribution
Deca Standard Door	19	266	52,136	26,600	BioBank, Discovery Lab, C>
Tera Standard Door	42	630	123,480	63,000	Large Pharma, CDMOs, Dist. Hubs
CryoArc System Type	Number of Freezer Racks	Total Adapters	50ml Cassettes	250mL Cassettes	Typical Use
Pico Tall Door	8	24	240	N/A	C>, Last Mile Delivery
Pico Tall Door Deca Tall Door	8 19	24 76	240 760	N/A N/A	C>, Last Mile Delivery C>, CROs, Discovery Lab
				N/A	

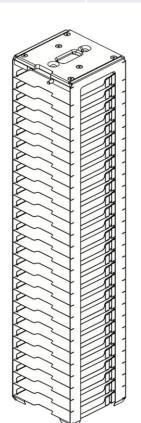


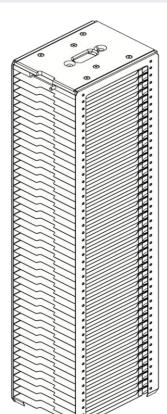


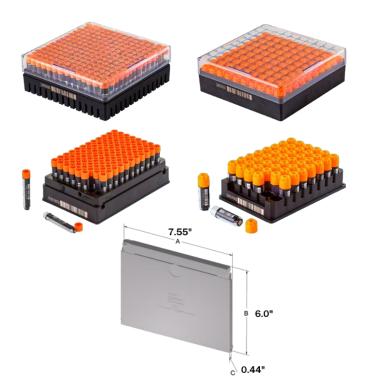


















Labware Flexibility

WE CAN STORE ANYTHING THAT FITS IN A CRYOBOX FOOTPRINT!

Cryo Cassette Adapters

(355939 – HOLDER W/COVER, CRYO CASSETTE, 50ML, 10 POSITION) •

SBS Adapters

• (267076 – ADAPTER BOX, SBS TO CRYOBOX, SHEET METAL)

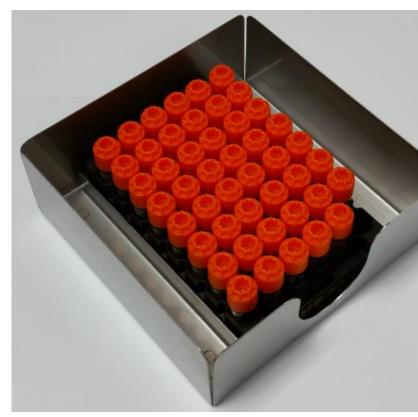
1" Cryobox

• (273917 – CRYOBOX, 12 POSITION, 1 INCH TALL W/ DIVIDER)









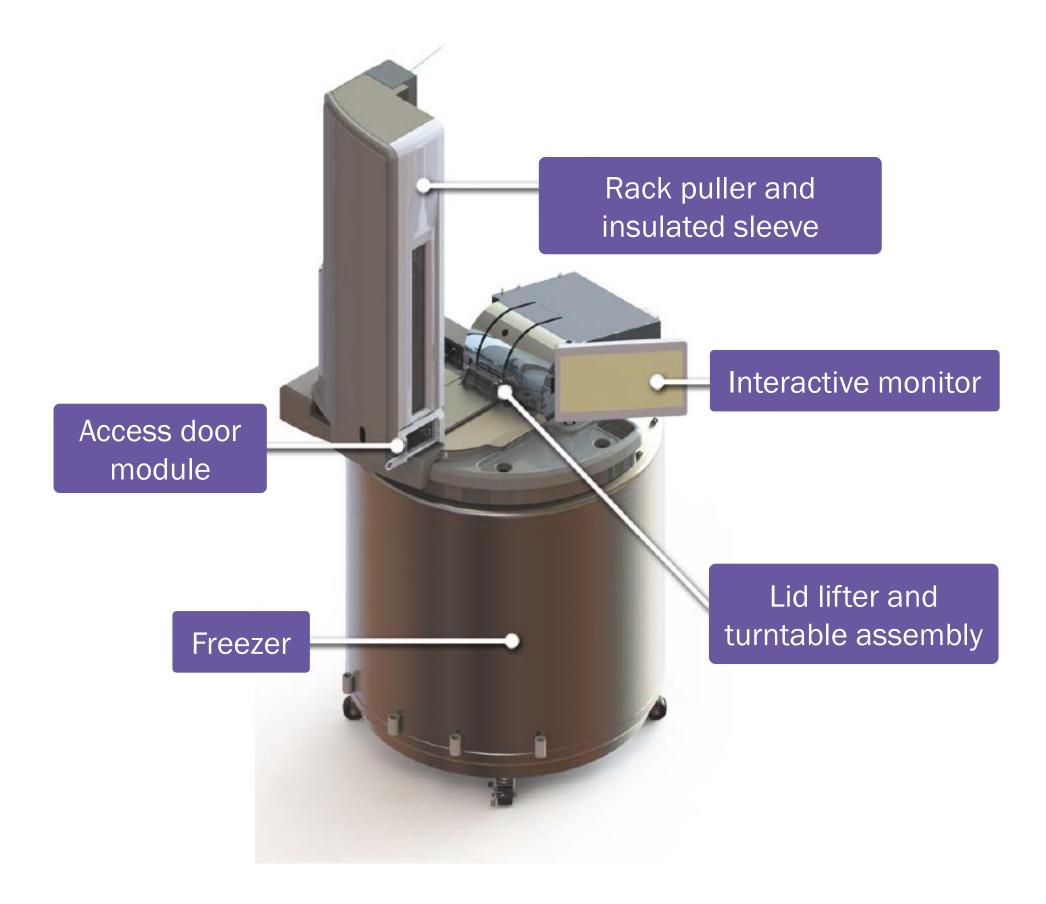






Architecture and Operation

FUNDAMENTAL SYSTEM STRUCTURE











CryoArc Automation in action



Azenta CryoPod Carrier

- LN2 Cooled sample transportation
- **Optimal size portable** • sample transfer
- Live and exportable data

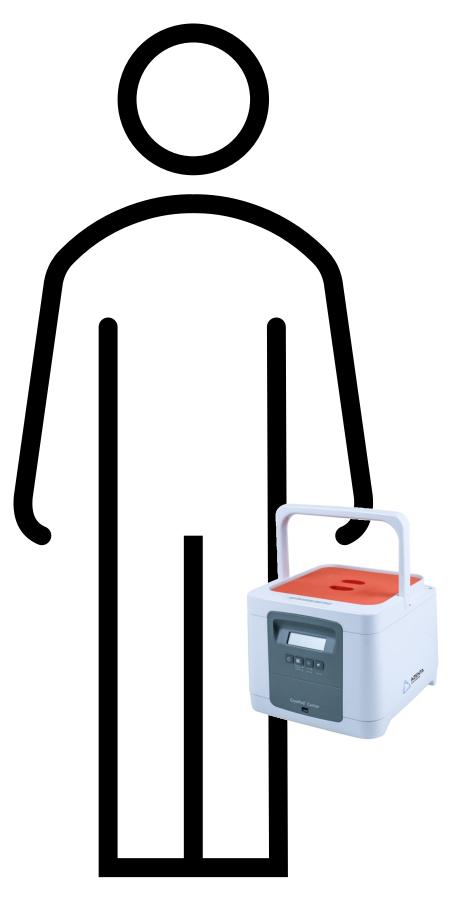
Capacity:

- 1x 2" tall Cryobox
- **2x SBS Microplates** •
- 3-4 Small cassettes





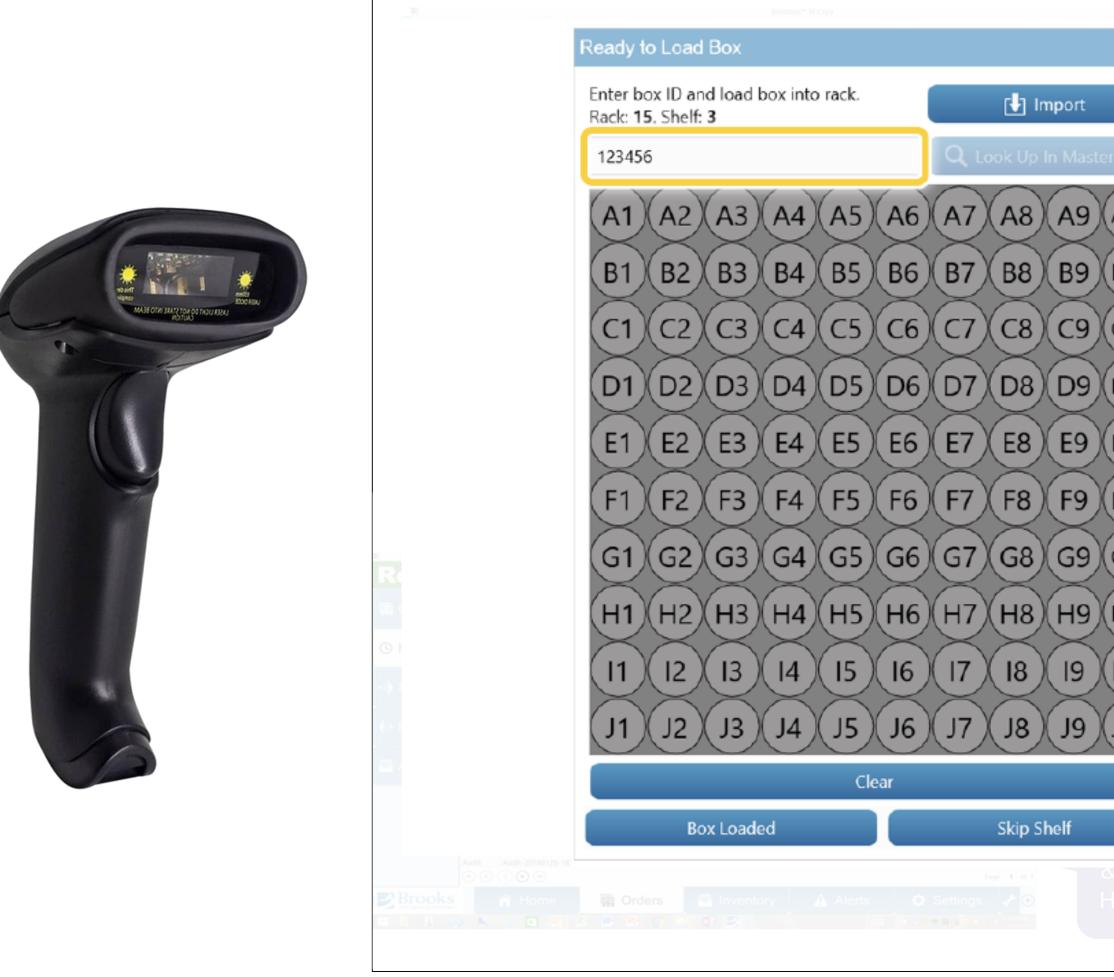








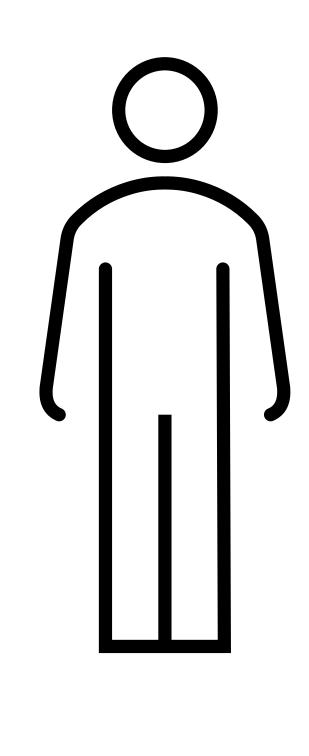
Controller Software UI







		Contents		
Drag a colur	nn header and drop i	t here to group by that co	lumn	
Position ID	(T)	Туре 🕥		
A1		Generic 2 in. Cryo Tube		
A2		Generic 2 in. Cryo Tube		
A3		Generic 2 in. Cryo Tube		
A4		Generic 2 in. Cryo Tube		
A5		Generic 2 in. Cryo Tube		
A6		Generic 2 in. Cryo Tube		
A7		Generic 2 in. Cryo Tube		
A8		Generic 2 in. Cryo Tube		
A9		Generic 2 in. Cryo Tube		
A10		Generic 2 in. Cryo Tube		
B1		Generic 2 in. Cryo Tube		
B2		Generic 2 in. Cryo Tube		
B3		Generic 2 in. Cryo Tube		
B4		Generic 2 in. Cryo Tube		
	2 3 (Page 1 of	8
	Cancel	Ра	use (14)	







SAFER AND MORE SECURE SAMPLE STORAGE

Benefits of high-efficiency LN2 freezer

- Thermal stability
- Hold time length
- Accessibility

Advanced Automation features

- Real-time inventory control
- Cold chain management
- Superior user experience











ULTIMATE SAMPLE PROTECTION WITH INVENTORY CONTROL

Consistent -190°C temperatures from top to bottom using LN2 vapor

Samples protected from excessive warming during retrieval

- Minimized warming of innocent samples
- Insulating tower for temperature stability

10-23 days of emergency hold time, depending on model

Integrated software controls

- Full vial or cassette level inventory tracking
- 29 readily available reports to track temperature data and LN2 levels
- Optional reporting module supports 21 CFR Part 11 compliance











SIMPLIFIED OPERATION WITH FLEXBILITY

Superior User Experience	<15
 Intuitive touchscreen control 	- cons
 Ergonomic design for reduced injury risk 	LN2
 Minimized PPE requirements 	F
	Fast — retrie
Compatible with a range of labware	
Cryoboxes	5000

- **SBS** Racks \bullet
- Cryo Cassettes \bullet







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FEATURES TO INCREASE SAMPLE INTEGRITY & RESCUE

- UPS with software detection (and cleanup) \bullet
- Absolute encoders on axes \bullet
 - Fast and automated recovery from user accidentally bumping the tower, software crash or power outage
- Tower-side door for quick access to the rack and samples \bullet
- User-assisted lowering and raising of freezer rack in the tower automatically after electrical or software issues
- Enhanced tools to assist with sample rescue •













CryoArc Software – Licensed Features

LIBRARY MANAGEMENT

- Capability to define logical libraries within the system
- Access rights to specific racks, boxes or cassettes
 - Limited user visibility
 - Samples Security

WEB API MODULE

- Third party LIMS and application integration with **RESTful WEB Service API**
- AZENTA FreezerPro LIMS

Includes

- Run time license for single-instance use
- CryoArc Web service API reference guide
- SOAP UI Function testing interface to assist with API testing

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REPORTS

- Efficient, documented, 21-CFR-Part 11 Compliant
- List of report categories and types
 - Alarms, Inventory, Monitoring, Orders, Security, System

Inventory Details							
ID:	TEST01			Location:	Nest 1		
Shelf:	1			Labware Type:	Вох		
Location Status:	Stored			Status:	ок		
Enabled:	Yes			Reserved:	No		
Last Stored By:	Admin			Last Stored:	6/8/2022 10:40:5	7 AM	
Library:							
			Co	ntents			
Position		7	0 ID			are Type	
A1 A5					6mi Asep 6mi Asep		
AZ					6mi Asep		
A3					6ml Asep		
A4					6ml Asep	tic Vial	
			Locati	on History			
Date Moved		New Locati			🖲 Own	er	
6/8/2022 10:40:57 AN	λ	Stored in Nest	1 Shelf 1		Admin		
			Prope	rty Audits			
@ Property @	Action	Old Value	\varTheta New Va	lue 🛛 😁 M	Modified By	C Modified	
bA GI	lded		TEST01	Adm	in	6/8/2022 10:40	0:57 AM
			Tempera	iture History			
-100 T		T	I				
-120 -							
-140 -							
9 160 - 160							Temperature A
S -160 -							Temperature B
-180 -							remperatore a
					_		
-200 -							-
-200 6/8/2022 1040 AM	6/8/202	22 10.51 AM	6/8/2022 11:02 AM	6/5/2022 11:13 AM	6/8/2022 11:24	AM	-
	6/8/202	10:51 AM	342 604 0.00 43		6/8/2022 11:24	AM	-
6/8/2022 1040 AM	6/8/202	22 10.51 AM	342 604 0.00 43	6/5/2022 11:13 AM ure History Table Temperature	6,6,/2022 11:24		- orded At
6/6/2022 1040 AM			Temperat	ure History Table	6/8/2022 11:24		-
6/6/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	ure History Table Temperature	6,6/2022 11:24		-
6/6/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	ure History Table ⊜ Temperature N/A		@ Reco	- wided At
6/6/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	ure History Table	o A)	€ Reco 6/8/202	orded At 12 10:44:45 AM
6/8/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	ure History Table ⊜ Temperature N/A	o A} ∈ B)	● Recc 6/8/203 6/8/203	- wided At
6/8/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	ure History Table	o A} = B] ∈ A}	● Recc 6/8/200 6/8/200 0/8/200	orded At 12 10:44:45 AM 12 10:44:45 AM
6/8/2022 1040 AM	2022 10:40:57	AM - 6/8/2022 10:4	Temperat	vre History Table	o A) E B) E A) E B)	Reco 6/8/202 6/8/202 0/8/202 6/8/202 6/8/202	2 10:44:45 AM 12 10:44:45 AM 12 10:44:45 AM

ALERT MANAGEMENT

- Onboard monitoring with configurable SMS/email notifications and alerts
- Database backup •
- Inventory Empty Capacity Low •
- Monitoring Item LN2 level •
- Monitoring Item LN2 Usage ●
- Monitoring Item Temperature
- Order Execution •
- Preference Settings Modified •
- System State
- User Security
- Alarms All, active, history
- Inventory Lifetime, Statistics, Libraries, Partitions
- Monitoring Items, Temperatures, LN2 Usage, LN2 levels, Manual LN2
- Orders All, queued, history
- Security Users, User sessions, User roles
- System Settings, Errors, Traces, Activities



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Service Products and Support

IOPQ Validation Service

Installation Qualification **Operational Qualification Performance Qualification**

RTD Calibration Service

Resistance temperature detector recalibration service

Service Packages

Technical Supp Max Response Max Time for O No. of Preventa **On-Site Repair** Repair - Travel Replacement Pa Software Maint Discounted Lab

Discounted Upg

Notes:

Any column with a tick or W means that the feature is included in the contract cover 1. 2.

In Warranty Blue contracts, items marked with 'W' are covered by Azenta Standard Warranty



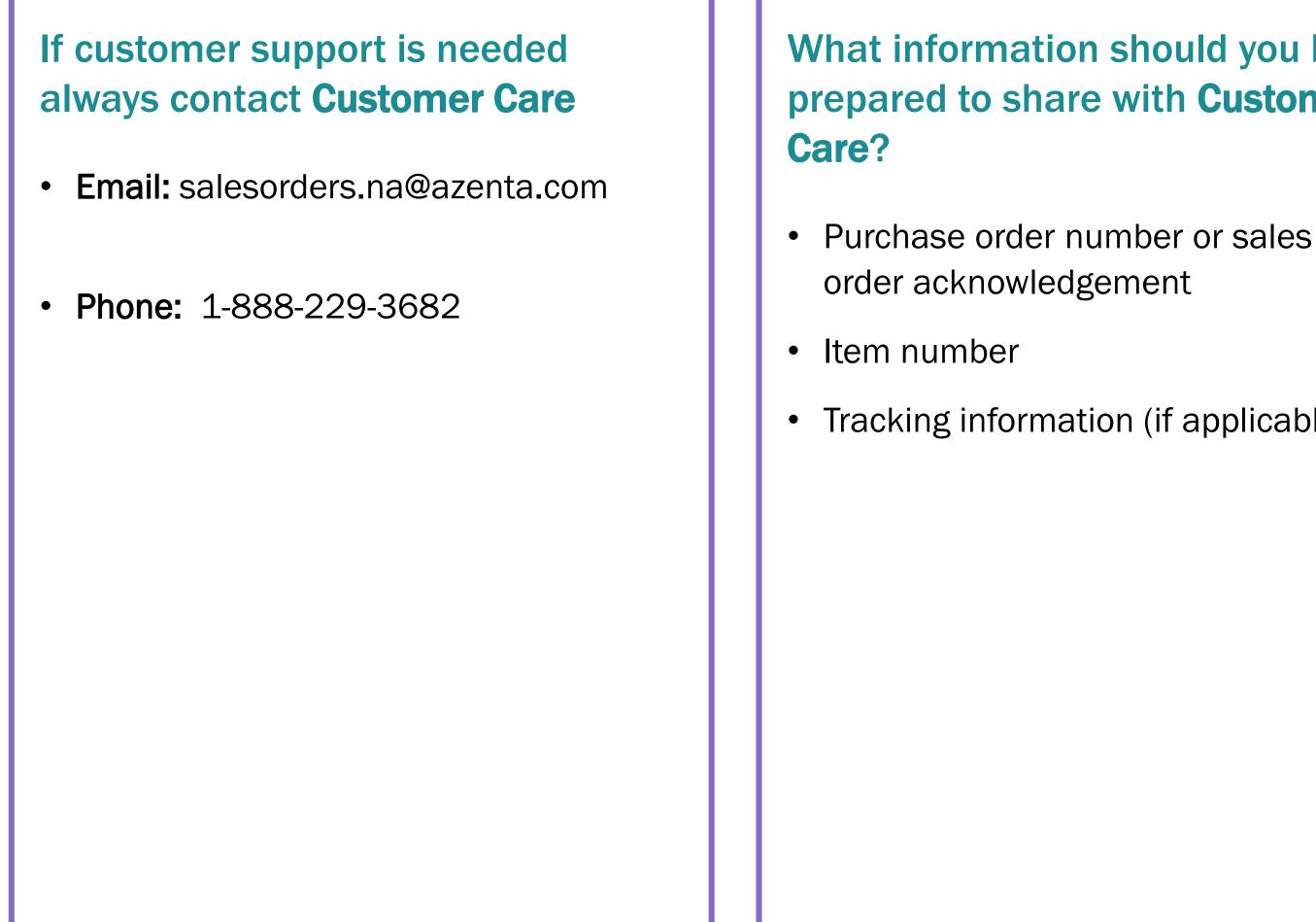


	Standard Warranty Year 1	Warranty Blue Year 1	Performance Blue Year 2
port Office Hours	W	W	\checkmark
Time in Hours		4	4
On-Site in Hours		72	72
ative Maintenance		1	1
r Labour	W	W	\checkmark
Time and Expenses	W	W	\checkmark
Parts	W	W	\checkmark
tenance Cat 'A'	W	W	√
bour Rates			\checkmark
ogrades			√





Who to Contact for Order Information







What information should you be prepared to share with **Customer**

• Tracking information (if applicable)

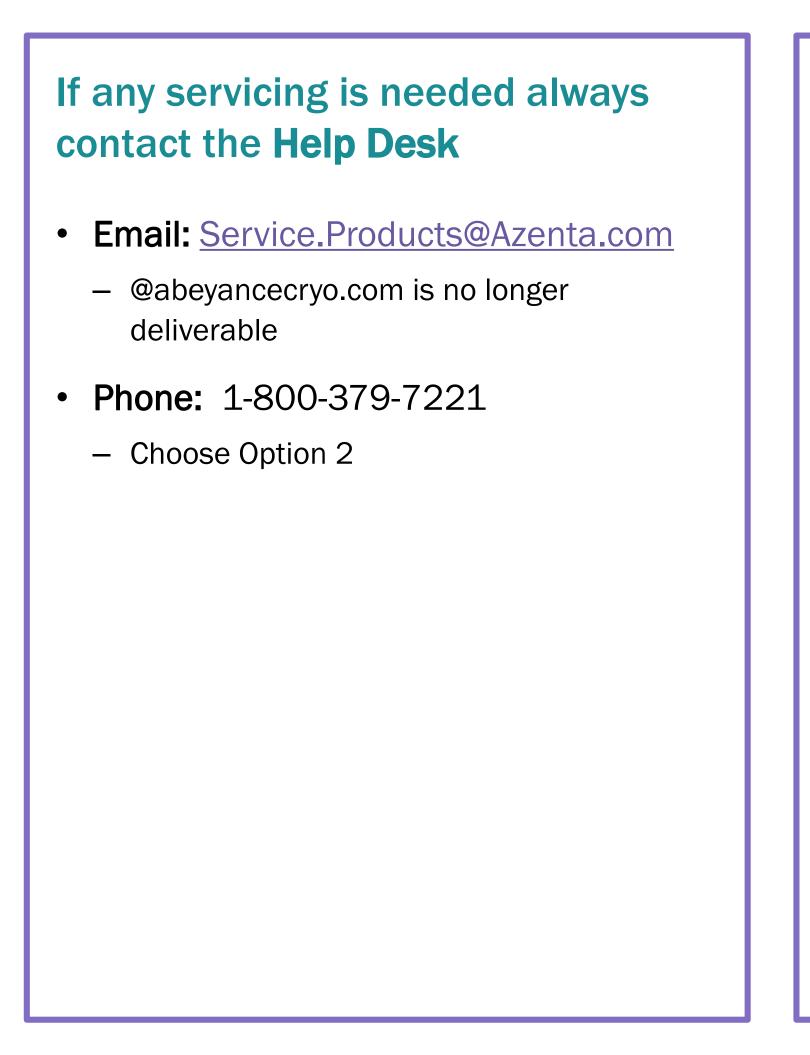
What information can **Customer Care** provide for you?

- Order status
- Expected shipping date
- Delivery information
- Tracking information
- Available inventory
- Lead time
- Invoices





Who to Contact for Servicing Azenta Products



What information should you be prepared to shared with the **Help Desk**.

- Serial number
- Description of problem
- Photos if appropriate
- Any steps that have been taken to troubleshoot the issue
- Level of severity / customer impact
 - Low inconvenient but no risk to samples or user safety and/or intermittent issue
 - Medium Interruption of normal operation and low risk to sample or user safety
 - High Immediate risk to sample or user safety or unable to operate equipment





What's in it for our Customers if these steps are followed?.

- Warranty benefits are recognized
- Faster response to issues
- Eliminate future quality issues





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PRODUCT LINE TRAINING: CRYOPOD & FILLING STATION



CryoPod and Filling Station



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Azenta CryoPod Filling Station







Filling Station Overview

5-10 minutes to fill

Safe – No user contact with LN2 or cold surfaces

Consistent – Exact fill every time

On demand – Recharge anytime, even with samples in basket

Integrate – Connects to portable or house LN2 supply

Dimensions (W x D x H) – 17" x 23" x 29"

Performance is highly dependent on LN2 supply provided. Ensure consistent pressure at the point of the Filling Station is being supplied (i.e. not pressure at the bulk tank)





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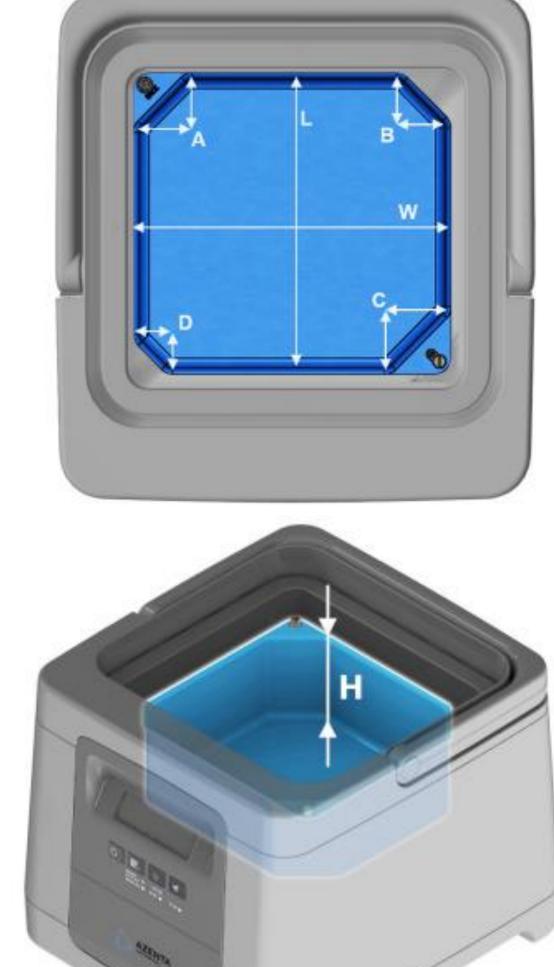


CryoPod Configurations

CryoPod for Cryoboxes: 243354-001

Designed around the cryobox and SBS footprint. Can hold 1 cryobox or 2 SBS racks, only small cassettes can fit in the basket.

Basket Dimensions	Metric (mm)	Imperial (in)
L	186	7.3
W	200	7.8
Н	78	3.1
А	35@45°	1.38@45°
В	32@45°	1.26@45°
С	40@45°	1.57 @ 45°
D	22@45°	0.87 @ 45°





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CryoPod for Cassettes: 284574

Designed to support most 250mL cassettes. Can hold 1 cryobox, 2 SBS racks, or 3-4 250mL cassettes.

Basket Dimensions	Metric (mm)	Imperial (in
L	190.5	7.5
W	20	8.1
Н	78	3.07
А	40@45°	1.57 @ 45°
В	29@45°	1.14 @ 45 9
С	20@45°	0.79@45°
D	40@45°	1.57 @ 45°





CRYO SOFTWARE DEMO









FREEZERPRO INTEGRATION











Introduction FreezerPro Overview Competitive Info Appendix





01 02 03 04



INTRODUCTION



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The Team

Karmen Michael, Account Manager, **FreezerPro**

Karmen.Michael@azenta.com

FreezerPro Support - freezerprosupport@azenta.com Hours – 9am-5pm Eastern Time

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Erik Rapp, Sr. Account Manager -**FreezerPro**

Erik.rapp@azenta.com 508-259-4711



FREEZERPRO OVERVIEW









What is FreezerPro – Quick and Easy to Implement

FreezerPro is a scalable web-based sample inventory management system, providing access to sample information from anywhere in the world

- User friendly and deployed within hours •
- Off the shelf solution lacksquare
- Highly configurable for life science customer inventories of all shapes and sizes











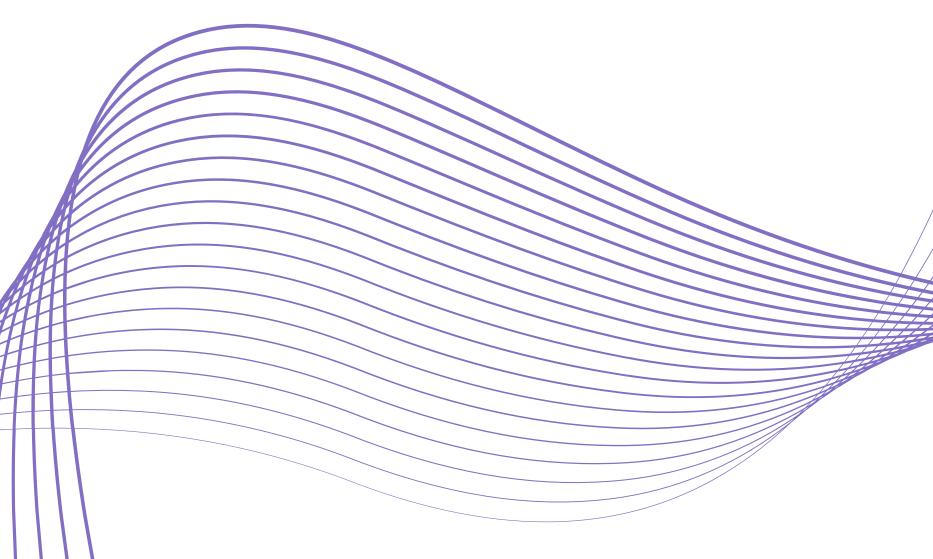
FreezerPro – Top 3 Value Adds

- Flexibility customers can make it their own, configuring to their current workflows and lab/sample setups, can easily scale within and across multiple teams and locations for a federated view of samples across the organization with limits on who can access
- Intergate-able easily fit FreezerPro into the current Sample Management ecosystem of Freezers, Scanners, and other LIMS/ELN Software
- 3. Sustainability Enables users to know exactly what types of samples and criteria they are looking for in the exact locations, to be able to walk up to a freezer and open/close the door quickly, saving on energy and resource consumption













FreezerPro

- Track all sample movement and sample information
- Create virtual storage locations, customize to emulate the configuration of physical freezers down to box and vial level
- Quick and easy setup with intuitive user interface
- Dedicated menu for reports, providing tracking of all activities and a comprehensive audit trail
- Sample type customization with functionality to store specific metadata
- Easy search feature based on sample data by word or keyword
- Access Restrictions to limit who can access certain samples/parts of the database
- Integrate with other solutions ex. ELN, LIMS/LIS, home grown and other data capturing platforms via RestAPI
- Web-based solution providing access to sample information from anywhere in the world

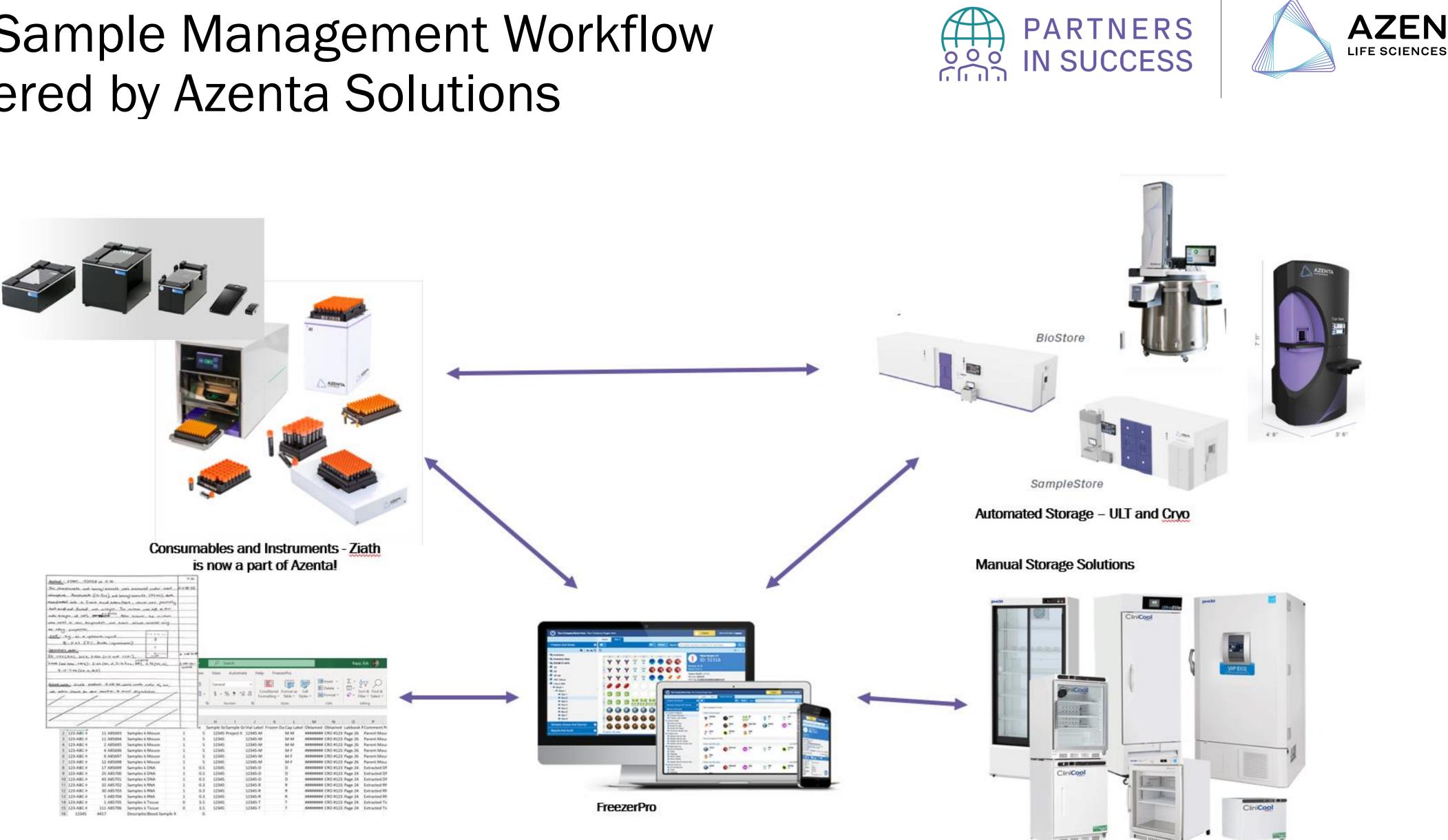




FreezerPro® is a scalable, fast, reliable and secure Laboratory Information Management Software solution which enables users to know precisely where a laboratory sample is located even before opening the freezer door.



Full Sample Management Workflow Powered by Azenta Solutions







FreezerPro Enterprise Editions

Key Features

- Sample Management across storage units
- Alerts on low inventory, freeze thaw counts
- Barcoding manual and pre barcoded tubes
- Bulk upload sample information in spreadsheets
- Search and report on any combination of sample data





Additional Value Adds

- Expanded Storage setup (Buildings/Rooms/Groups)
- Connect with Azenta Automated Storage units and connect with other software being used (ex. Electronic Lab Notebook, Lab Info System)
- Set restrictions on what data is visible to team members
- Share Pick Lists and Report templates across teams



FreezerPro List Price – Enterprise Edition

Cloud Hosted –

Subscription

Enterprise Edition

- \$3,555 per Concurrent License per Year \bullet
- Support and Upgrades included
- Training \$2,500 onetime fee, 2 Sessions admin and end-user

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On Premise/Local –

One-time fees, annual maintenance subscription **Enterprise Edition**

- \$18,692 Software fee
- \$5,515 per Concurrent License
- Automated Storage integration modules Onetime fee of \$27,040 for Cryo, \$70,642 for Stores
 - Annual Maintenance starting in Year 2 is 20% of lacksquaretotal software purchases
 - Training \$2,500 onetime fee, 2 Sessions admin \bullet and end user

Note – The number of Concurrent Licenses is the number of users that can be logged in at the same time



Quick Impact – Short Sales Cycle that adds up!

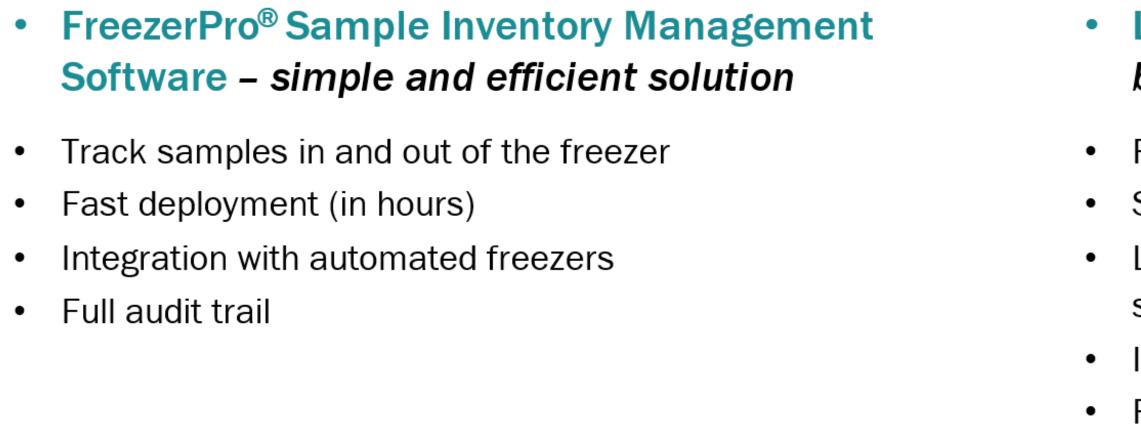
- High Conversion rate
 - ~65% Intro call to Demo (by FreezerPro Sales)
 - ~65% Demo to Conversion of Customer
- Sales Cycle Time 30-60 Days
 - Note some cases can be longer with larger opportunities (6-12 months)
 - Average Contract Value \$7,000







Sample management and biobanking informatics solutions AZENTA OFFERS TWO CLOUD-BASED SOLUTIONS TO FIT YOUR SAMPLE DATA MANAGEMENT NEEDS





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Limfinity[®] Biobanking LIMS – Comprehensive enterprise biobanking/sample management solution

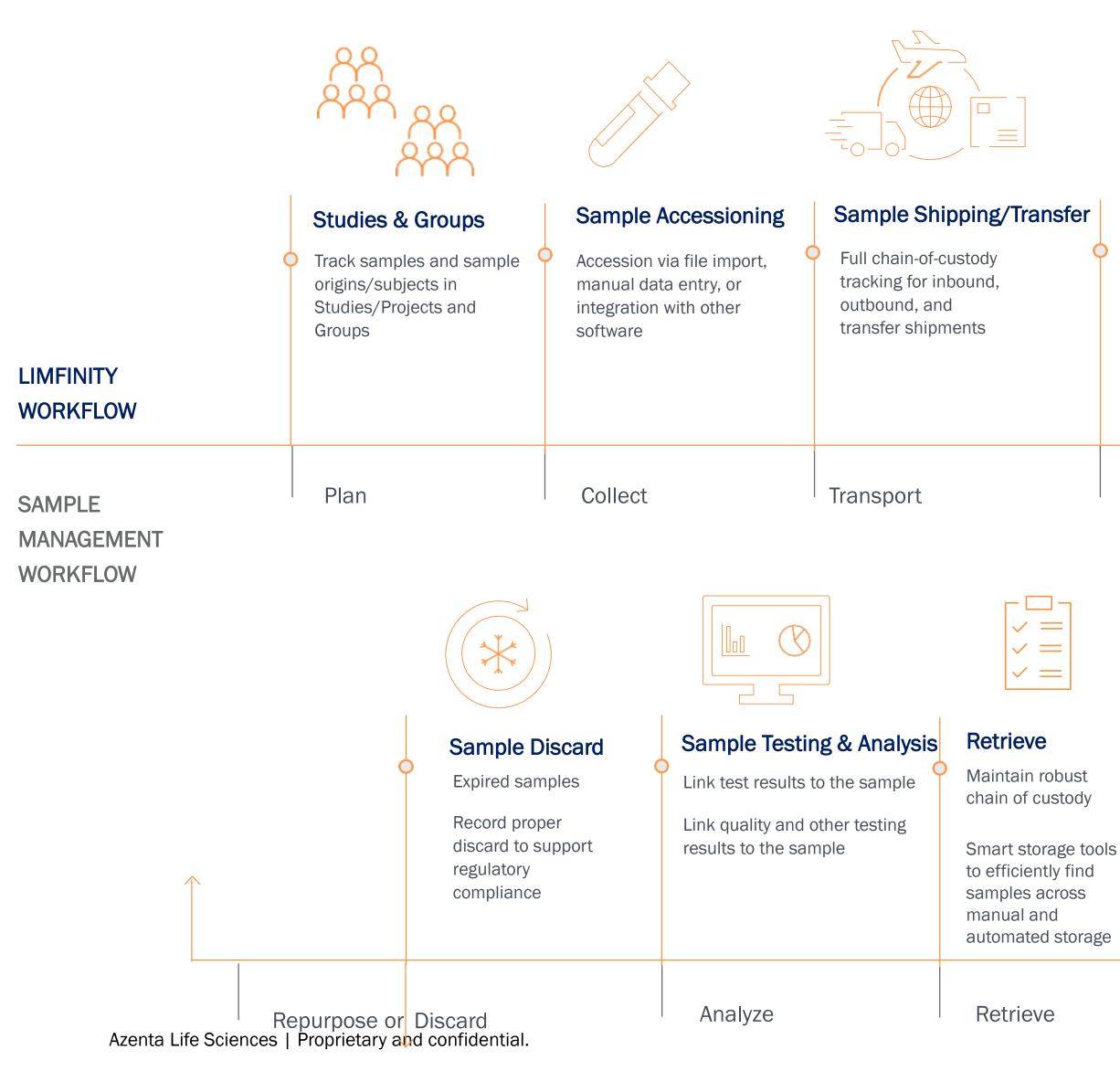
- Freezer management, sample workflows, consent tracking and diagnostic workflows Scalable, flexible, workflow-based sample management solution
- Links clinical, consent, test results, and other data to maximize the value of every sample
- Integration with instruments, automated freezers, LIMS, ELN, etc. Full audit trail







Limfinity[®] Biobanking LIMS **Standard Configuration**







\square

Sample Processing Sample Storage Aliquoting, pooling, derivatives, Track to the exact and optional custom laboratory position in a box workflows Supports manual Parent/child relationship maintained and automated freezers Freeze/thaw count tracking Capacity tracking Label printing Process Protect



Sample Request Track and fulfill

Requests for samples Cross-reference Informed Consent and other data to

ensure fit-forpurpose

Maximize sample ROI



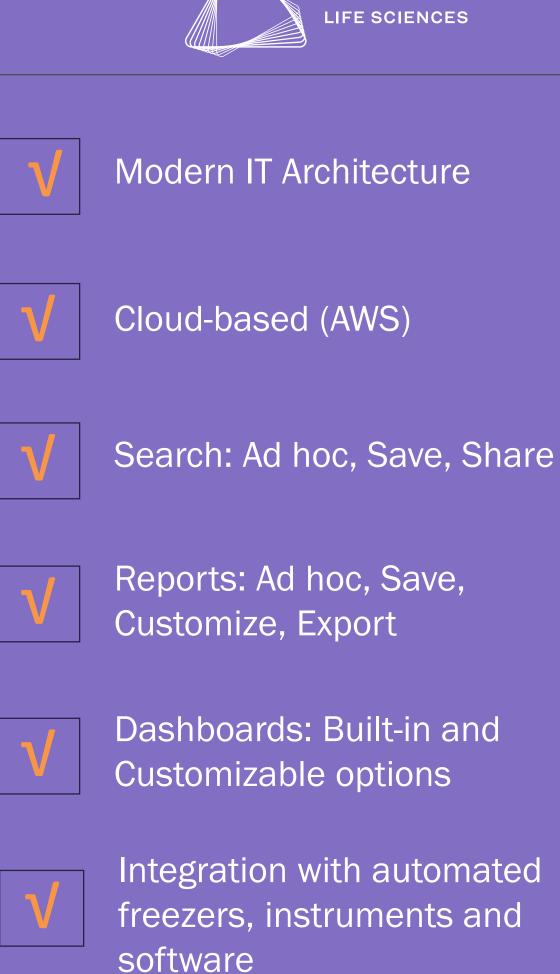
Informed Consent

Link Informed Consent data directly to samples to help ensure proper use

Manual, import, and integration options

Consent

 \bigcirc





Compliant with HIPPA, GMP, GLP, and GDPR; CAP and **ISBER Best Practices for** Biobanking





FREEZERPRO DEMO







COMPETITIVE INFO

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Feedback from Prospective Customers – Harder to use, Higher cost, Reliance on Vendor

FreezerWorks

- Typically 10-20X cost of FreezerPro
- Not User Friendly
- Rely on Vendor to make configuration or form changes, some not allowed Benchling*
 - Inventory Management not 21 CFR 11 Compliant
 - Higher cost than FreezerPro
 - *Note FreezerPro can integrate with their ELN

Quartzy

- Lack of visual interface \bullet
- No storage tree hierarchy ullet
- Better for supplies \bullet











FreezerPro Competitive Evaluation (FY22)

Company	Market Position	Competitive Positioning
Freezer PRO	1?	 LIMS submarket – freezer inventory Sales win 50-70% of demos Tend to lose customers not to this categ Leads are by SEO + word of mouth – nor Strengths: Ease of use, flexibility, humar Weakness: Mobile/Touch Support
Freezerworks	<1	 Compete with: FreezerWorks Summit an One-time market leader Have picked up a number of former Free No cloud option Weakness: Older windows client/server
■ItemTracker [∞]	<1	 UK-based competition Simplified, modern-looking UI Weakness: No HIPAA support
Service LabVantage*	~	 Compete with: Express level Not often mentioned by customers want
titian	~	 Compete with: Titian Freezer Manageme Not often mentioned by customers want
QUARTZY	~	 Lab inventory management, free tier for Underneath: A purchasing platform with







gory, but to more fully featured LIMS ot possible to estimate market size by sales win/loss an-friendly box icon view

and below

eezerWorks customers

r UI → FreezerWorks 2021 includes updated WebUI, BoxView similar to FreezerPro

nting an FP demo

nent nting an FP demo

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Key Takeaways

Quick and Short Sales Minimal IT Manage Ma





- Quick and Easy to implement, Low cost
- Short Sales Cycle, see quick impact/results
- Minimal IT involvement
- Manage Manual and Automated Storage





Thank you!

PARTNERS IN SUCCESS

RACKING SYSTEMS, BAGS, CASSETTES, & FRAMES









LN2 SUPPLY SYSTEMS

*No slides, delivered as part of hands-on training











Thank you!

PARTNERS IN SUCCESS

APPENDIX









FREEZERPRO CUSTOMER TYPES LEAD QUALIFICATION









- User friendly / Intuitive, quick implementation no wait time to get started. ullet
- Ease of Data Accessibility and Sharing ullet

Value of FreezerPro

- lacksquareopening the Freezer
- preventing lost samples
- Time savings on locating samples advanced searching and reporting





• Full audit trail, GLP, CFR 11, easy to configure to FDA standards, HIPAA Compliance, HTA (UK based regulation)

Protect Sample integrity - location centric environment helps users find what they're looking for quickly without

Cost effective, limited resources needed to manage, Opportunity to save tens of thousands of dollars in



Who do we sell to?

FreezerPro can fit the needs of any customer tracking samples. From small academia and startups to large pharma.

- Small Customers (Less than 3 Licenses) Academia, Startups, Small Research Labs Mid Size Customers (3 – 10 Licenses) – Therapeutics, Mid-Pharma, -ologics/omics Enterprise and Large Customers (10+ Licenses) – Large Pharma, Biotech, Government, Clinical
- ${\color{black}\bullet}$ lacksquare

Customer Personas

- Lab Manager, Lab Supervisor \bullet
- **Operations Manager, Director of Lab Operations** \bullet
- Research Associate, Research Scientist \bullet
- Supervisor/Director, Clinical Studies \bullet
- Associate Professor, Research







Characteristics of Customer Types

- Labs looking for automation ullet
- Location centric issues having to hold open their storage unit to look for samples/inventory ullet
- Multi-site awareness of inventory located in one centralized place = e.g. multi sites at Abbvie utilizing one lacksquareenvironment to locate samples although sites are located in various geographic locations – utilize user groups to limit access
- Easy implementation users who need something right away that is ready out of the box for them to configure ullet
- Intuitive lab members ease of use, smaller labs that need something intuitive to start working out of right ulletaway







Customer Pain Points

- Resource Constraints IT, Admins, Budget,
- Lack of Sample Ownership manual and excel processes not kept up to date, unorganized, lack of physical inventory, turnover can cause decreased data accessibility, data not integrated across in house systems
- Security and access concerns for the environment and across groups who may not be sharing samples
- Lengthy process to locate samples, sample integrity at risk, lack of reporting structures on current inventory, need for unique identifiers
- User adoption to change while increasing automation in workflows to save time and money







How do we qualify leads?

Question

What system are they currently using?

Do they any trouble with tracking their inventory?

Who decision maker? (larger customers etc.) Who mig feel left out if not attending the session?

What is your timeline?

Would a Trial be helpful to gain buy in from your team? Has a budget been established?





	Common Replies/Buzzwords
	Paper, Excel, Home grown, LIMS
	Yes, human error keeping things up to date
ght	Small Customers – Lab Manager or PI Mid Size and Large Customers – Lab Manager/Director, IT Teams
?	Yes, we have a 14-day Trial
	Typically, no, in evaluation phase getting prices





Common Queries/Objections

Question

How many samples can FreezerPro store?

What is the licensing model?

Is it compatible with Excel?

Does it work with SSO?

How is data backed up?

Where are the servers of the backup? @DN same

How is data stored – on premise overview vs cloud

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Common Replies

Up to 1 Million on the database, can exceed with an external Database (Oracle recommended)

Concurrent Licensing

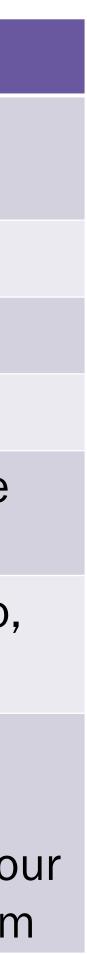
Yes, Import/Export with Excel

Yes

Nightly at 1am, saves the previous 5 days, can change cadence with Support Help

Data Centers exist in New York, San Francisco, Toronto, Frankfurt, Amsterdam, Singapore, London

On Premise – Virtual Machine player on an internal server at customer location, managed by local IT Cloud – Virtual Machine Player on a Data Center with our Hosting Provider, managed by FreezerPro Support Team



Common Queries/Objections

Question

Cost of system?-

Does FreezerPro have integration capabilities to other systems?

Barcode and Labeling Compatability?

Do we offer Training?

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Common Replies

- Low cost of deployment both time wise and budget. Cloud Hosted is a Subscription, On Premise is a Onetime purchase with optional Support Subscription
- API available to our customers for their resources to work out integrations, we provide an API Guide
 - Customers can utilize current barcoding system, print bar codes directly from FP, utilize bar code scanners and rack scanners from multiple manufacturers – FluidX is most optimized
 - We can provide a complimentary demo to Customers, if Training is desired, we can charge a fee and present all aspects of FreezerPro. More of a show and tell than hands on.



