

# Taylor – Wharton

Presents

# The LABS Series



# LABS Series Introduction

- Construction
- ICS
- CryoCon Controls
- Transportation
- Maintenance
- Specifications
- Performance
- Turnkey Systems



# LABS Series

- Laboratory Archival Biological Storage (LABS)
- LABS 80K - 80,000 2ml Vials - Nominal
- LABS 40K - 40,000 2ml Vials – Nominal
- LABS 20K – 20,000 2ml Vials – Nominal



# LABS Series Construction - Container

- Stainless Steel Vessel
- Super Insulation
  - ◆ Full Wrap
- Vacuum
- Helium Leak Test



# LABS Series Construction - Castors

- 5 Castors
- 75 mm - Lower Profile
- Locking Castors
- Precision Ball Bearing Castor
- Wheel Material - Advanced Elastomer



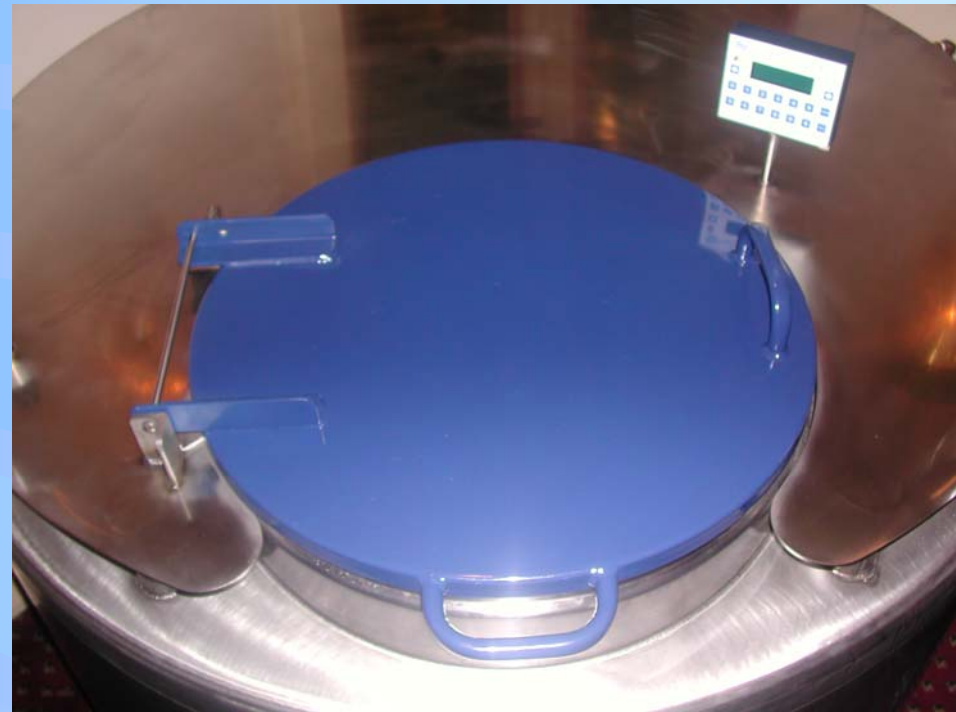
# LABS Series Construction - Lid

- Hinged Lid
- Full Gasket (Secondary Vent Area)
- Two Handles
- Aluminum Lid
- Lockable Lid
- Durable Polyurethane Plug Material - Cryo Compatible



# LABS Series Construction - Table Top

- Stainless Steel
- Convenient Work Surface
- Controls and Solenoid under Table





# LABS Series Construction - Integrated Step

- Foldable Sur-Grip Step - No Shin Guards.
- Low Rise
- Working Height 1080 mm Lower than the 10K!



LABS Series



# LABS Series Construction - Integrated Step

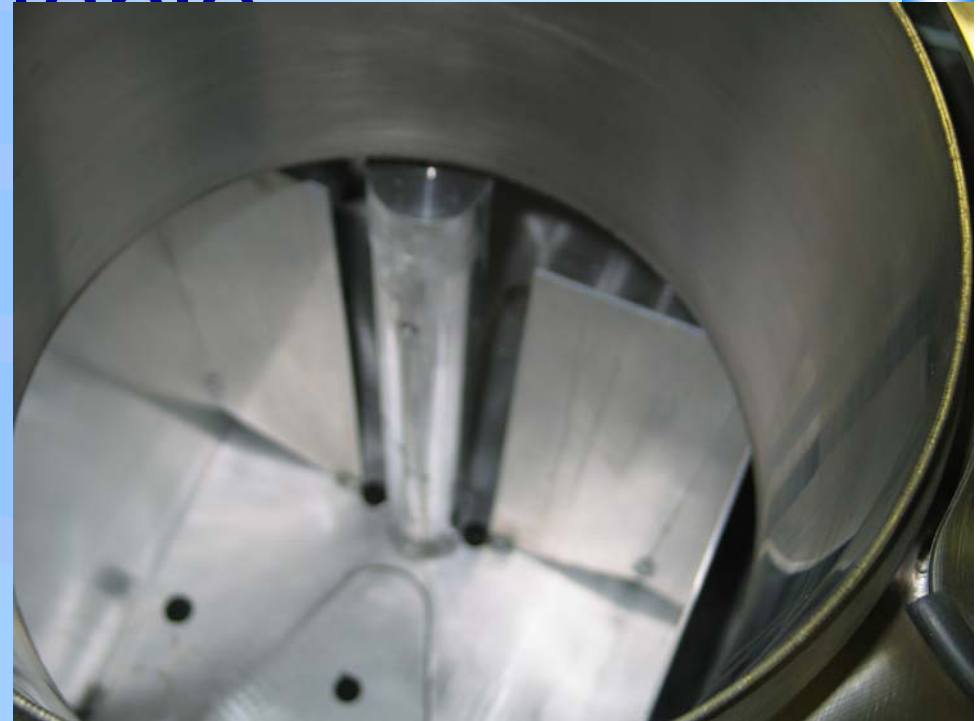
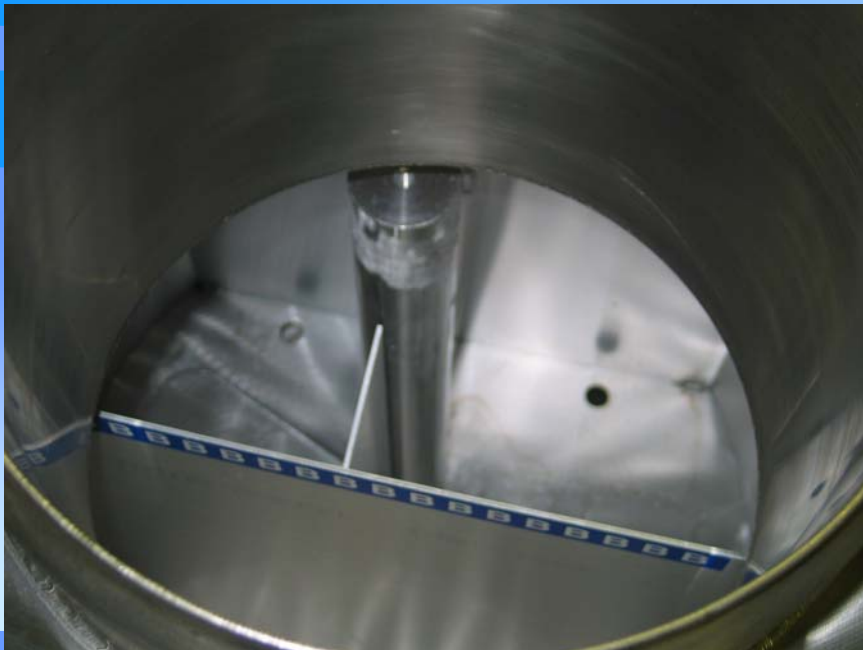
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Proof  
Gas Serv

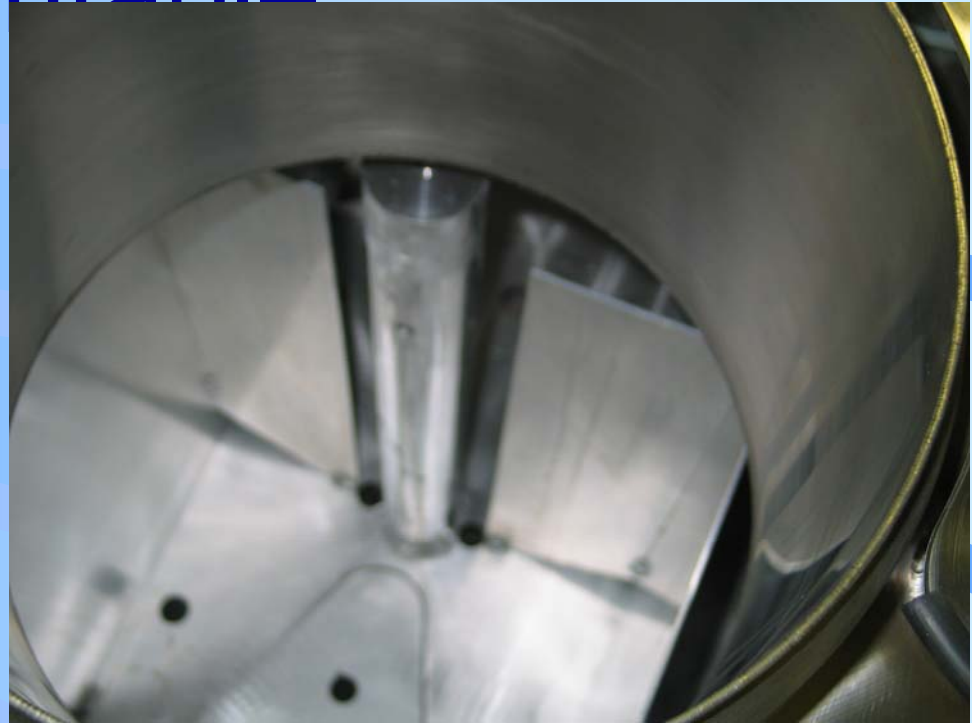
# LABS Series Construction - Internal Turntable

- Aluminum - Fins
- Easy-Grip Turntable
- Internal Pivot - No Bearings
- Drain Holes – Measurement



# LABS Series Construction - Internal Turntable

- Internal ICS Efficient Shape
- Easy Find Dip Stick Holes - Along Section
- Hinged Bottom Door



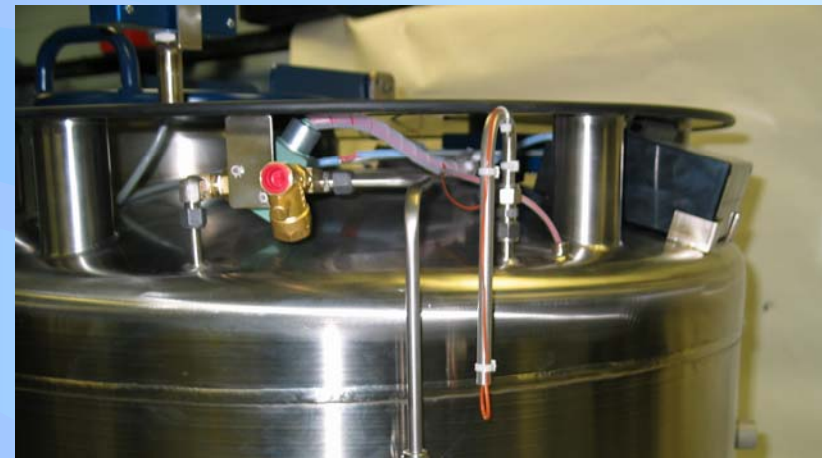
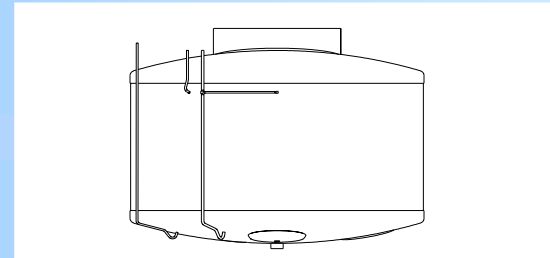
# LABS Series Construction - Thermocouple

- Thermocouple TC -187C
- Location - 90 Degrees Right of Opening
- Level of Top Rack
- Mounted in Stainless Steel Access Tube - Candy Cane Swagelock Fitting
- Second T/C (Option)



# LABS Series Construction - Sensor Assembly

- 4 Sensor Assembly
- Location - 90 Degrees Right of Opening
- Inserted in Stainless Steel Tube
- Internal "Tee" for Pressure Equalization

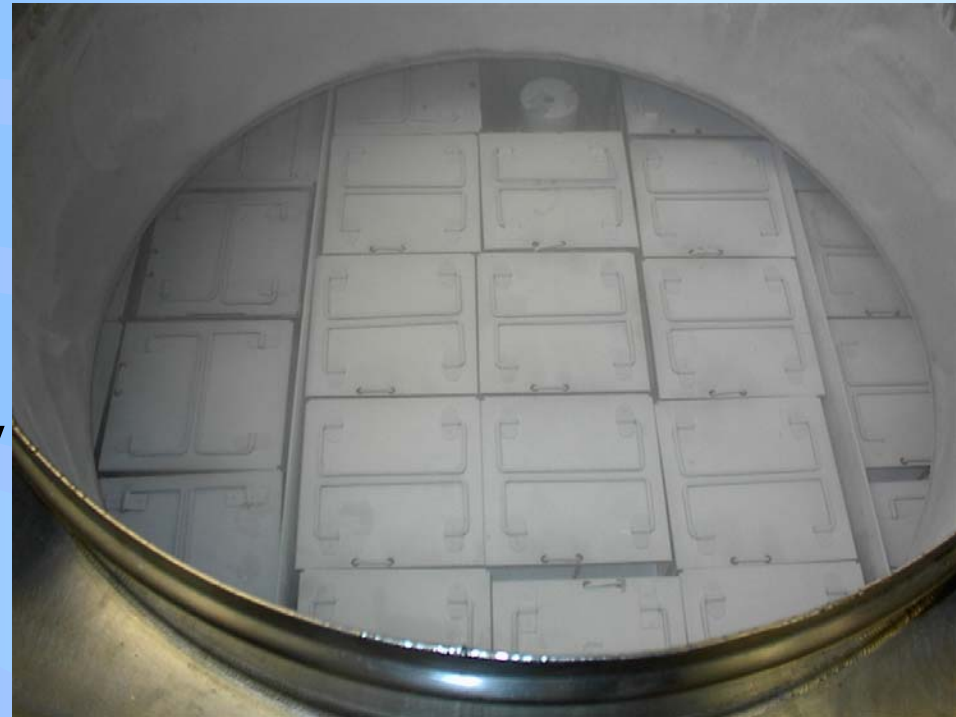




# LABS Series

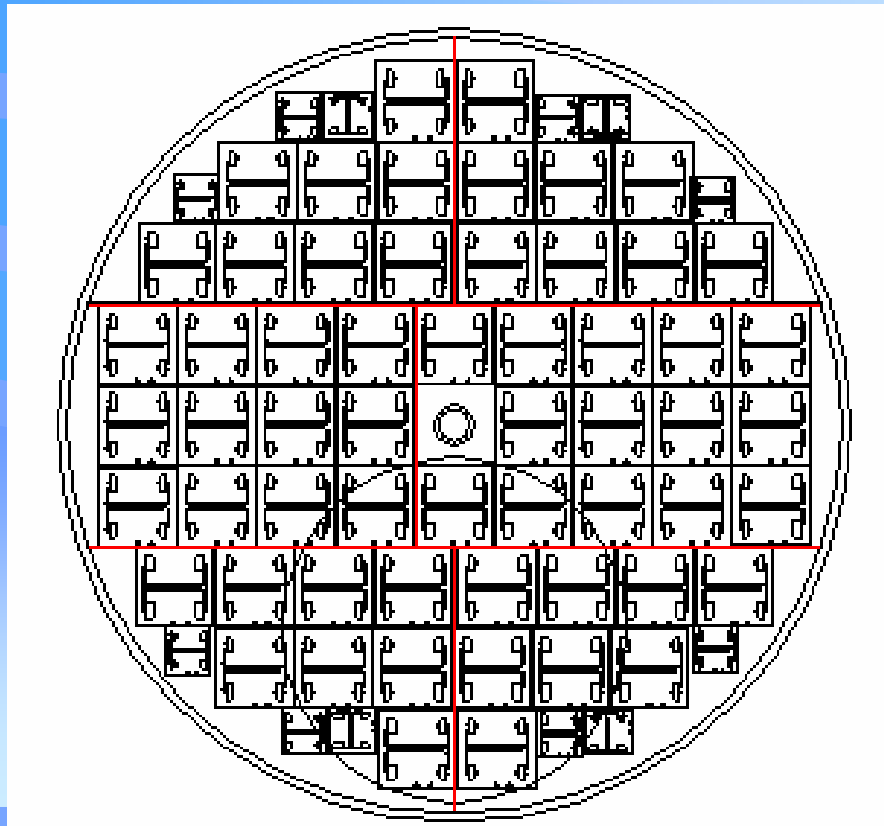
## LABS 80K Inventory Control System (ICS)

- 58 RACKS 13/2 - 100/81 Cell Boxes
- 12 RACKS 13/2 - 25 Cell Boxes
- 79,300 Vial Capacity
- 3,2 mm (Nominal) Between Racks



# LABS Series

LABS 80K Inventory Control System (ICS)  
Square Racks

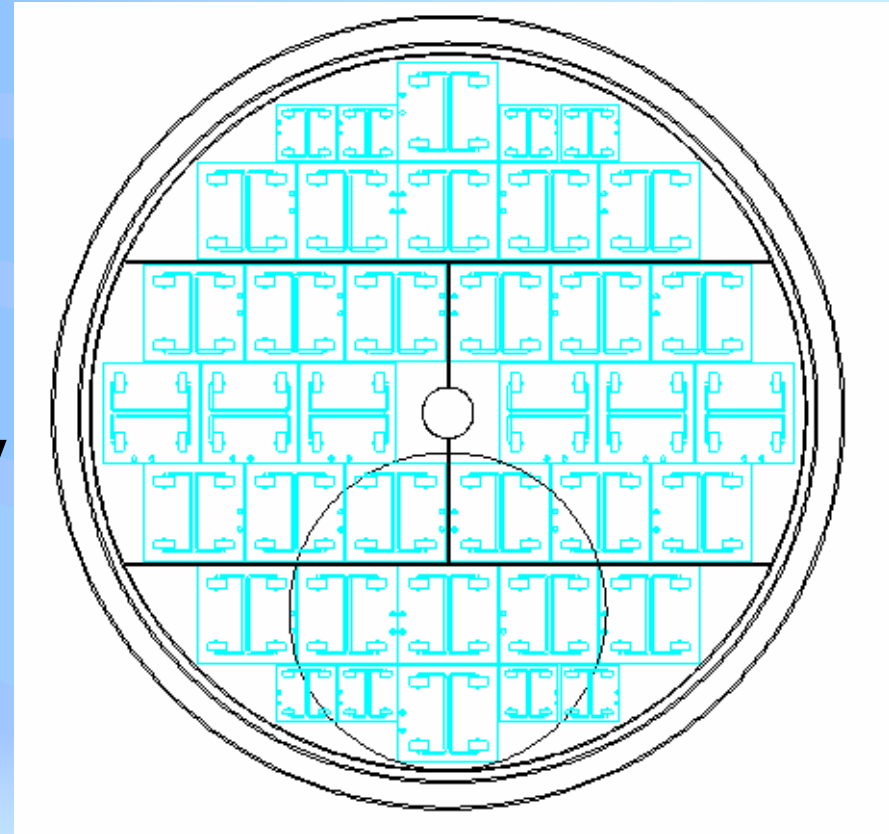




# LABS Series

## LABS 40K Inventory Control System (ICS)

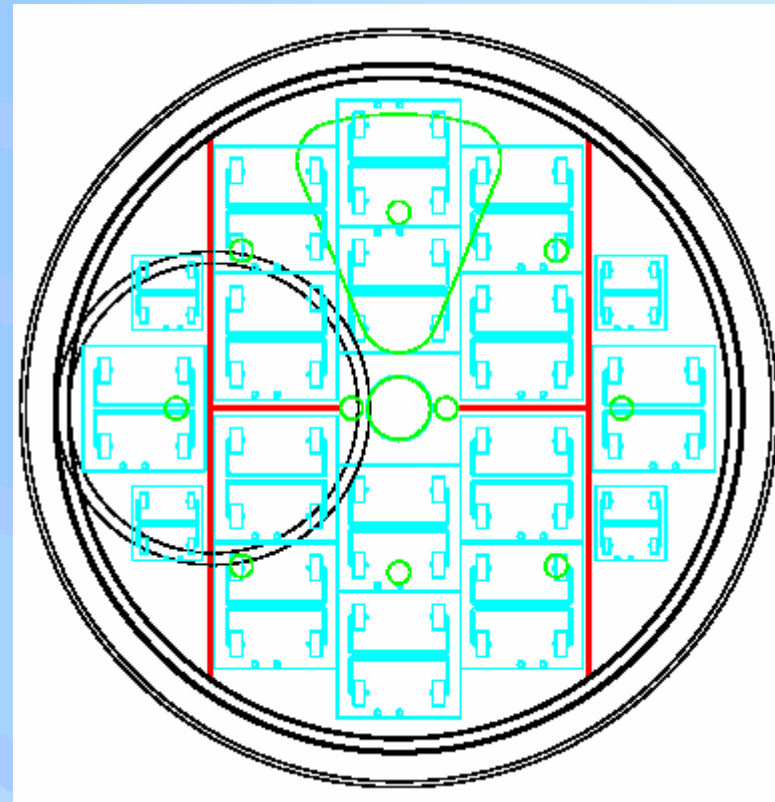
- 30 RACKS 13/2 - 100/81 Cell Boxes
- 8 RACKS 13/2 - 25 Cell Boxes
- 41,600 Vial Capacity
- 3,2 mm (Nominal) Between Racks



# LABS Series

## LABS 20K Inventory Control System (ICS)

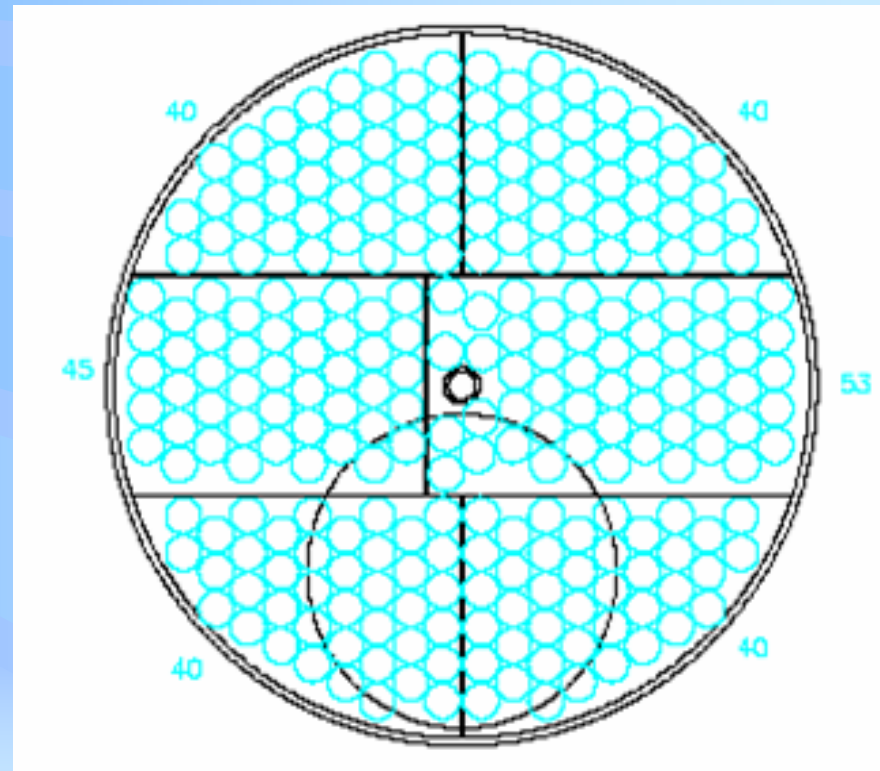
- **14 RACKS** 13/2 -  
100/81 Cell Boxes
- **4 RACKS** 13/2 - 25  
Cell Boxes
- 19,500 Vial Capacity
- 3,2 mm (Nominal)  
Between Racks



# LABS Series

## LABS 80K Inventory Control System (ICS)- Straws

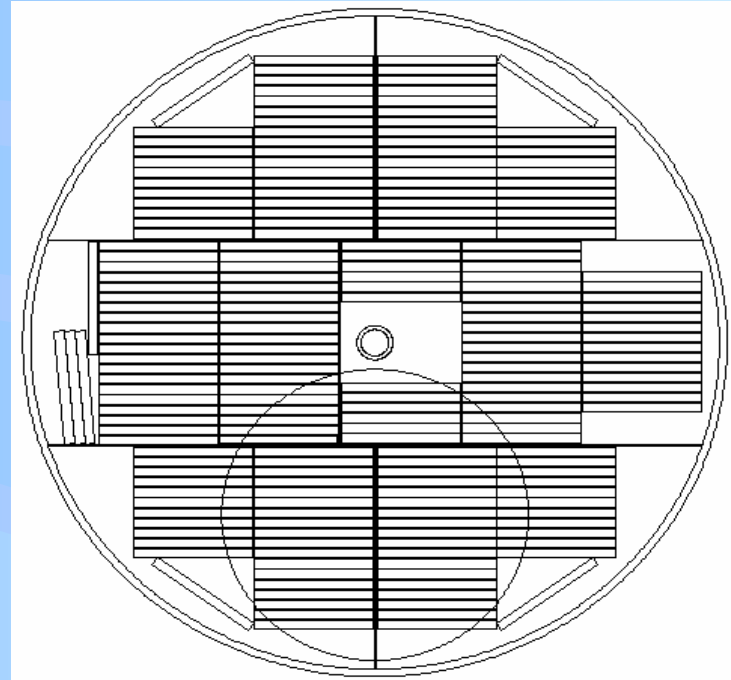
- 258 x 5 levels x 350  
= 451.500 1/2cc  
straws
- 258 x 5 levels x 525  
= 677.250 1/4cc  
straws



# LABS Series

## LABS 80K Inventory Control System (ICS)

- Blood RACKS
- Bag Capacity
- (Nominal) 3,2 mm  
Between Racks



# LABS Series CryoCon Controls

- Lid Switch
- 24 Month Warranty
- Lid Open Alarm
- Auto Defog
- Quick Chill
- CryoData - Compatible
- Simultaneous / sequential fill / Gas by pass



# LABS Series Transportation

- Crated
- Fork Lifiable



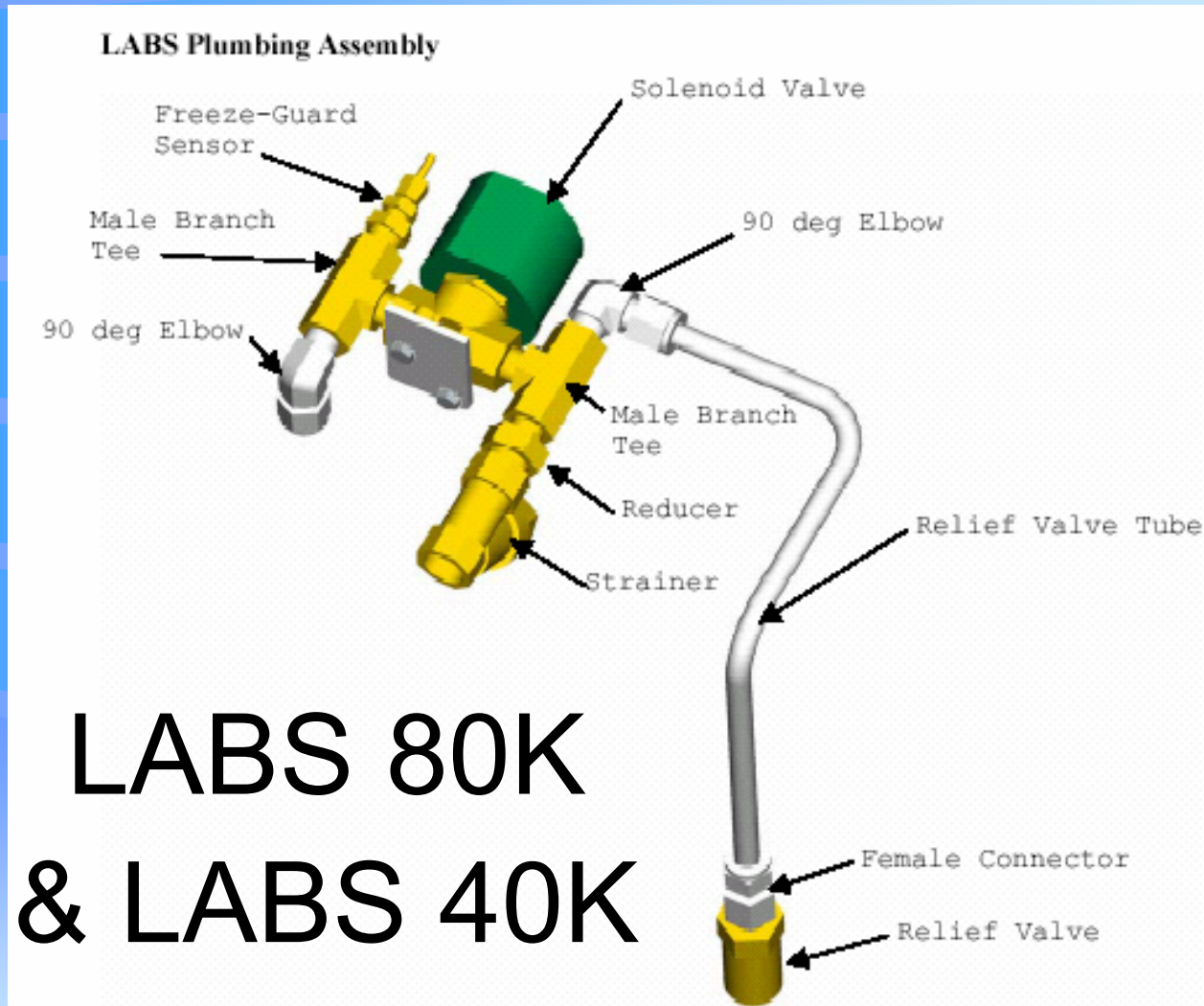
# LABS Series Maintenance

- Easy Access
- Components Located at the Front
- Sensor Assembly & Thermocouple - Convenient Access





# LABS Plumbing Assembly



# LABS Series

## LABS 80K Container Specs

- Weight Empty – 703 kg
- LN2 Capacity - Below Turntable - 150 liters
- Factory Set Thermistors
  - ◆ Start Fill - Thermistor 2
  - ◆ Stop Fill - Thermistor 3 (Bottom of Turntable)
  - ◆ Fill Distance – 4,5 cm



# LABS Series

## LABS 80K Container Specs

- External Operating Height – **1080 mm**
- Overall Diameter - 1511mm
- Useable Internal Height – 762 mm
- Usable Internal Diameter – 1397 mm
- Neck Diameter - 622 mm



# LABS Series

## LABS 40K Container Specs

- Weight Empty – 417 kg
- LN2 Capacity - Below Turntable - 76 liters
- Factory Set Thermistors
  - ◆ Start Fill - Thermistor 2
  - ◆ Stop Fill - Thermistor 3 (Bottom of Turntable)
  - ◆ Fill Distance – 4,5 cm



# LABS Series

## Labs 40K Container Specs

- External Operating Height – 1080 mm
- Overall Diameter - 1143 mm
- Useable Internal Height - 762 mm
- Usable Internal Diameter – 1029 mm
- Neck Diameter - 457 mm



# LABS Series

## LABS 20K Container Specs

- Weight Empty – 295 kg
- LN2 Capacity - Below Turntable - 46 liters
- Factory Set Thermistors
  - ◆ Start Fill - Thermistor 2
  - ◆ Stop Fill - Thermistor 3 (Bottom of Turntable)
  - ◆ Fill Distance – 4,5 cm





# LABS Series

## Labs 20K Container Specs

- External Operating Height – 1080 mm
- Overall Diameter – 864 mm
- Useable Internal Height – 762 mm
- Usable Internal Diameter – 750 mm
- Neck Diameter – 330 mm





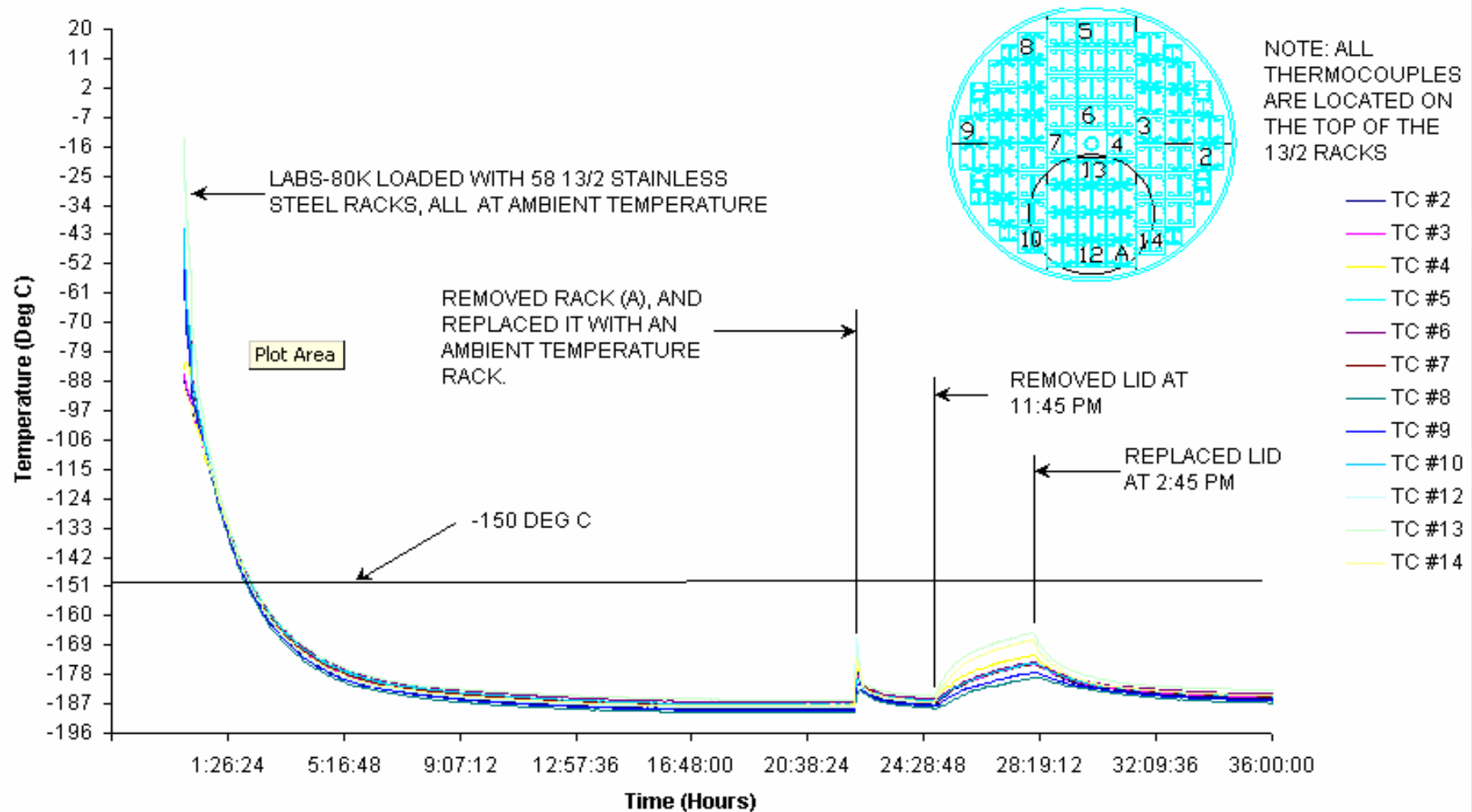
# LABS Series Performance

- LABS 80K - NER 8/15  
Liters/Day
- LABS 40K - NER 4,5/9
- LABS 20K - NER 4/8
- Parameters
  - ◆ Liquid to Bottom of Turntable
  - ◆ 48 hour cool down
  - ◆ 24 hour period
  - ◆ No ICS



# LABS 80K

LABS-80K Temperature Profile With LN2 Level At Bottom Tray  
(Refrigerator Precooled For 48 Hours)



# LABS Series Performance

- LN2 usage/Fill Time Examples
- LABS 40 K, 6' (1,5m) Hose XL240
  - ◆ change out every 9/10 days, 10/15 min fill
- 4 \* LABS80K, 2 \* LABS40K, Manifold 2 \*XL240 on each side
  - ◆ change out 2 cylinders every 4/5 days, Non VJ line, seq. Fill, 2,5 bar
- 8 \* LABS80K unit on VJ line (liquid full)
  - ◆ 25-35 min to fill a unit



# LABS Series Warranty

- Vacuum - 5 Years
- Controller - 2 Years



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