

# FUSION



MVE innovation presents  
the future of cold storage.



# Introducing the New Chart MVE Fusion™



# New Chart MVE Fusion™

New innovative, energy-efficient, ultra-low temperature

World's first Self-Sustaining Cryo-Storage Freezer (No Continuous Cryogen liquid supply is needed!)

Equipped with Q-Drive Liquefaction Technology

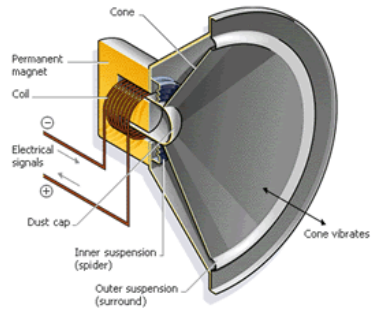
Pressure Vessel



Q-Drive Liquefaction Technology

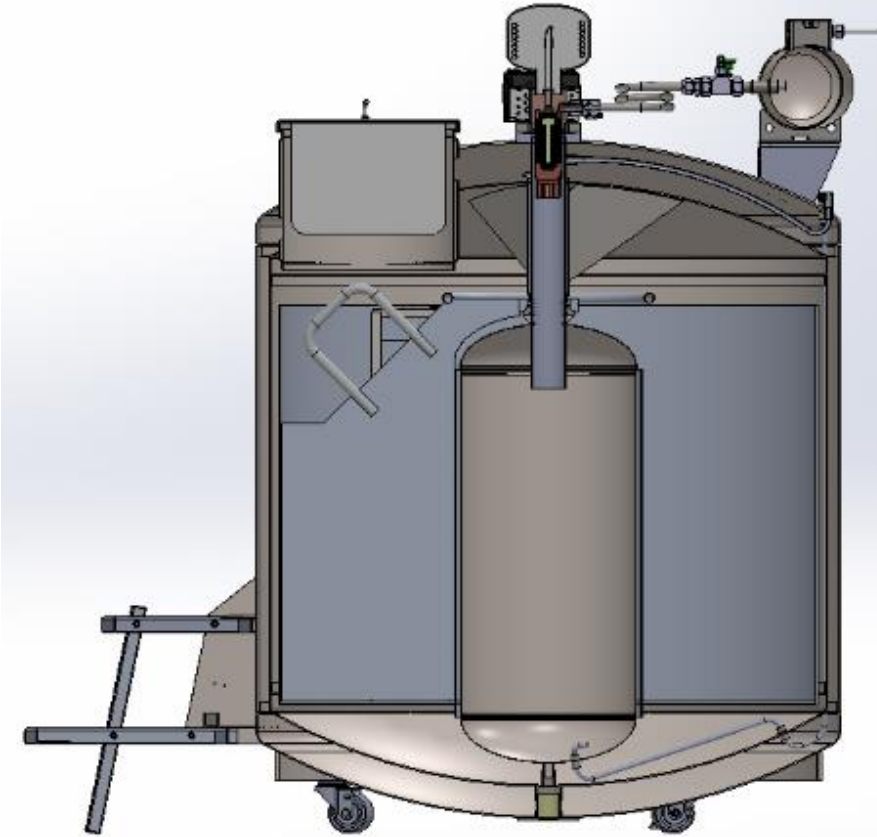
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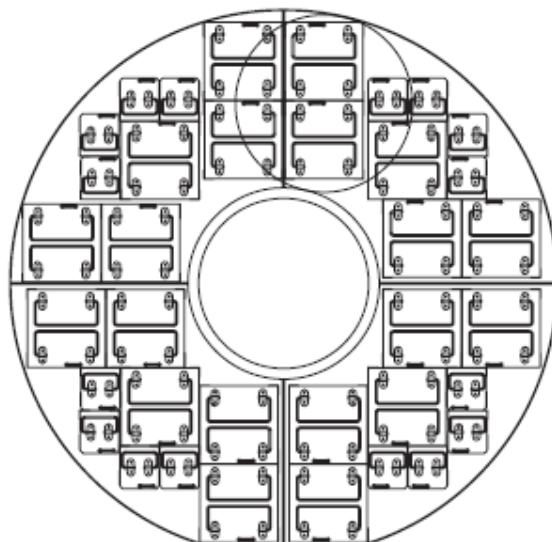


# • Powered by Opposing Soundwaves

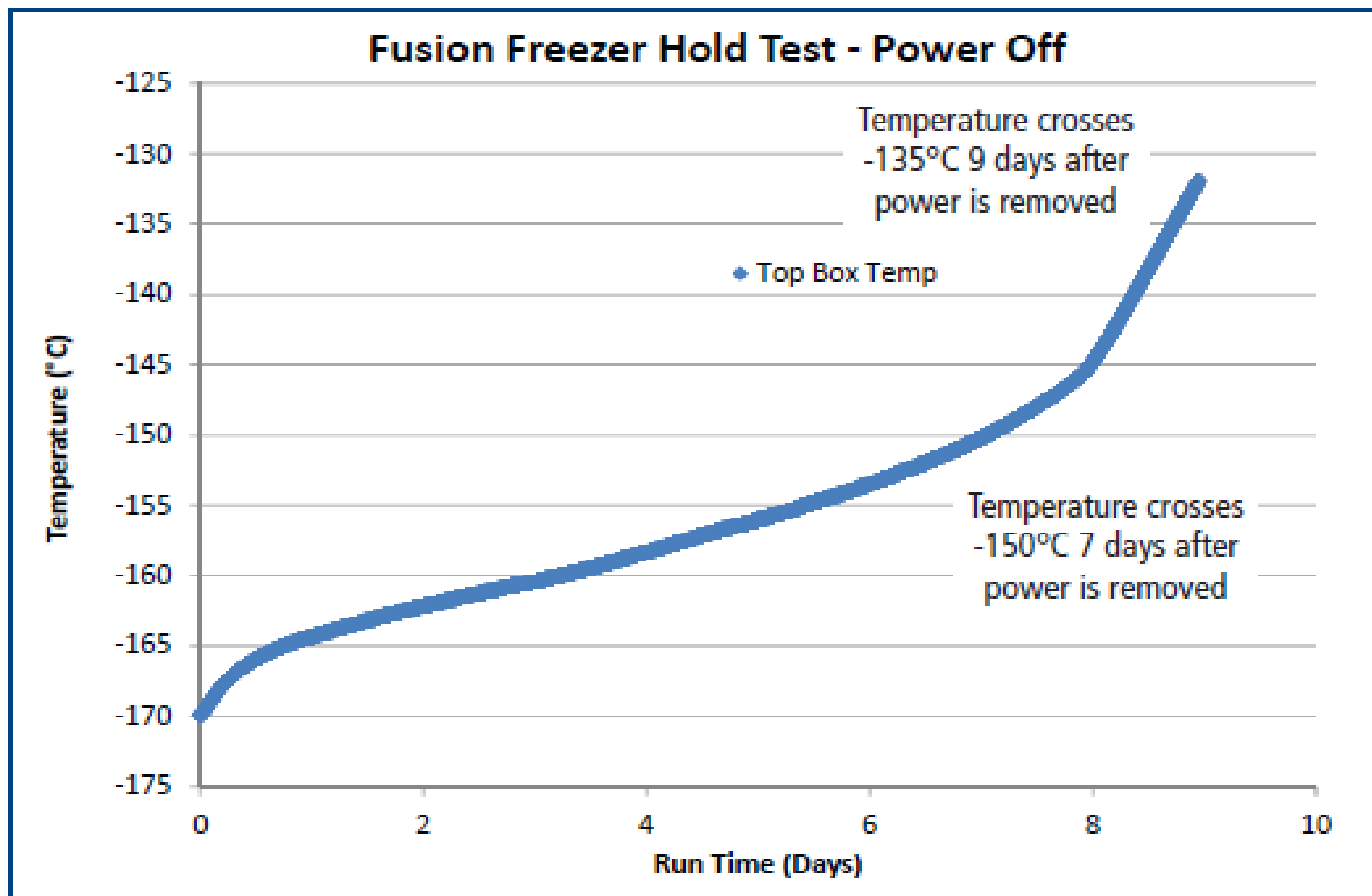
- Oil Free
- Sound waves drive Helium inside the sealed system to compress and expand gas
- Gas expansion creates **COOLING**
- No Moving Parts



## Rack Layout



|  | MVE Fusion |
|--|------------|
| <b>Maximum Storage Capacity</b>        |            |
| 1.2 & 2 ml Vials (Internally Threaded) | 31,200     |
| Number of Racks 100 cell boxes         | 20         |
| Number of Racks 25 cell boxes          | 16         |
| Number of Stages per Rack              | 13         |



## How it works:

Heat entering the storage space evaporates a small amount of the liquid without temperature rise. That vapor is continually re-condensed in the sealed vessel by the Qdrive Cryo-Cooler. This maintains constant near LN2 temperature within the storage chamber.



# Chart MVE Fusion™



## NITROGEN REQUIREMENTS:

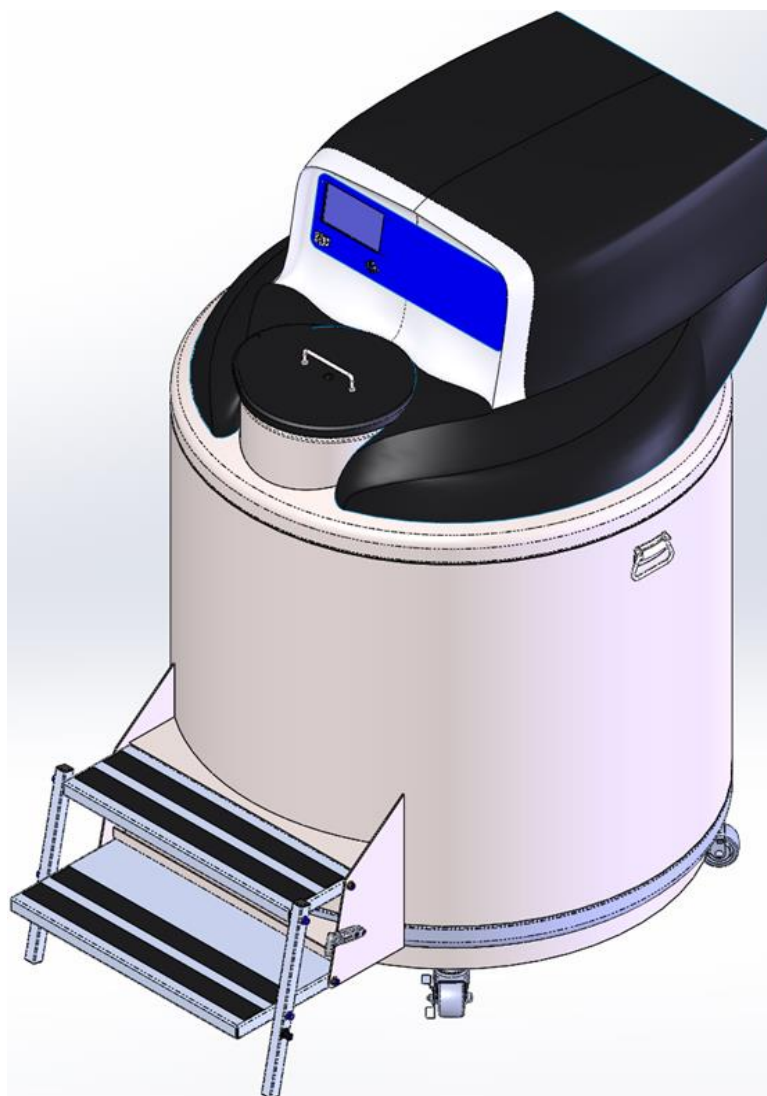
- (2) Liquid Cylinder fills

## ELECTRICITY REQUIREMENTS:

- Minimal



# Chart MVE Fusion™



## NITROGEN REQUIREMENTS:

- First Installation Only

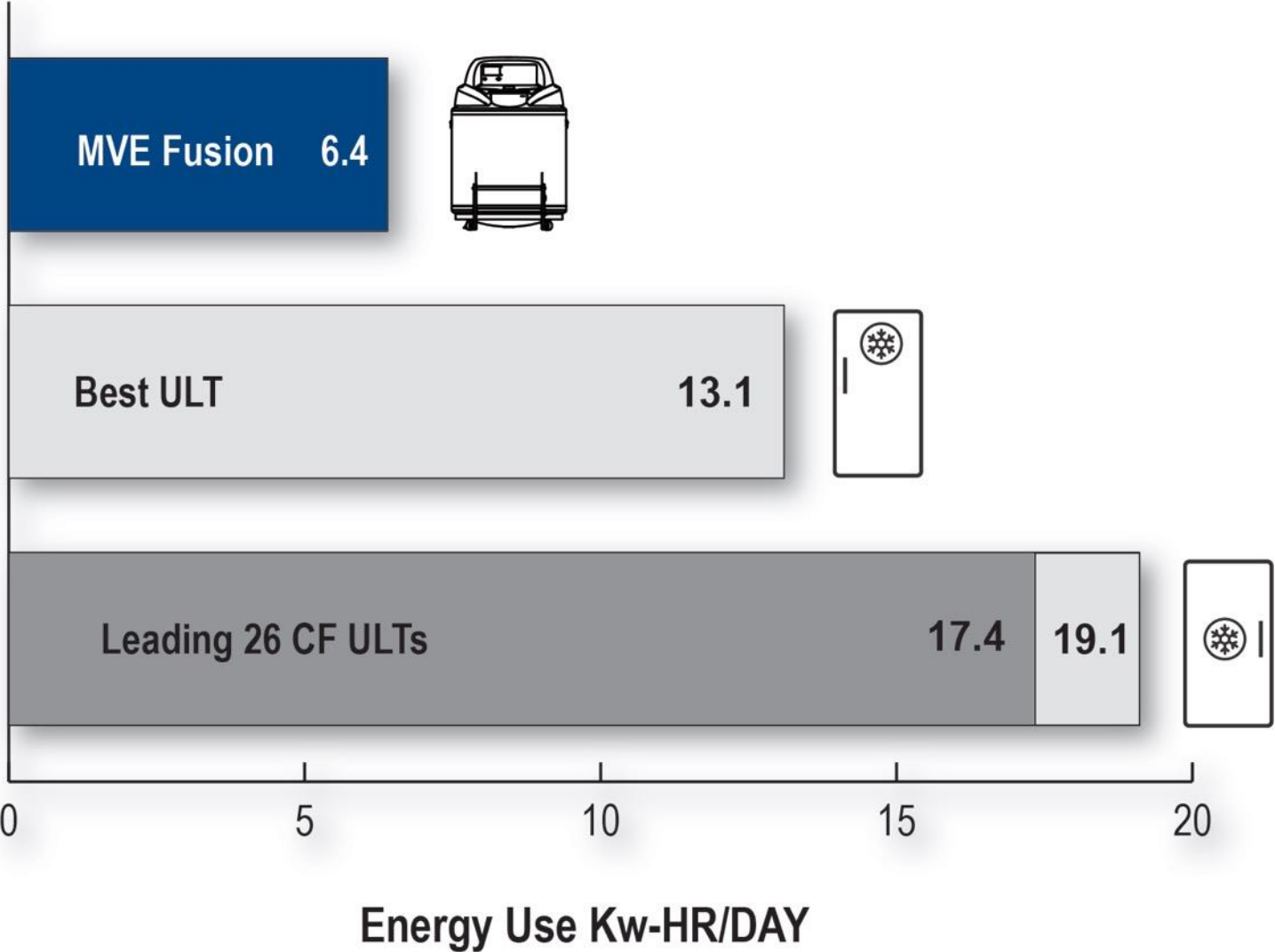
## ELECTRICITY REQUIREMENTS

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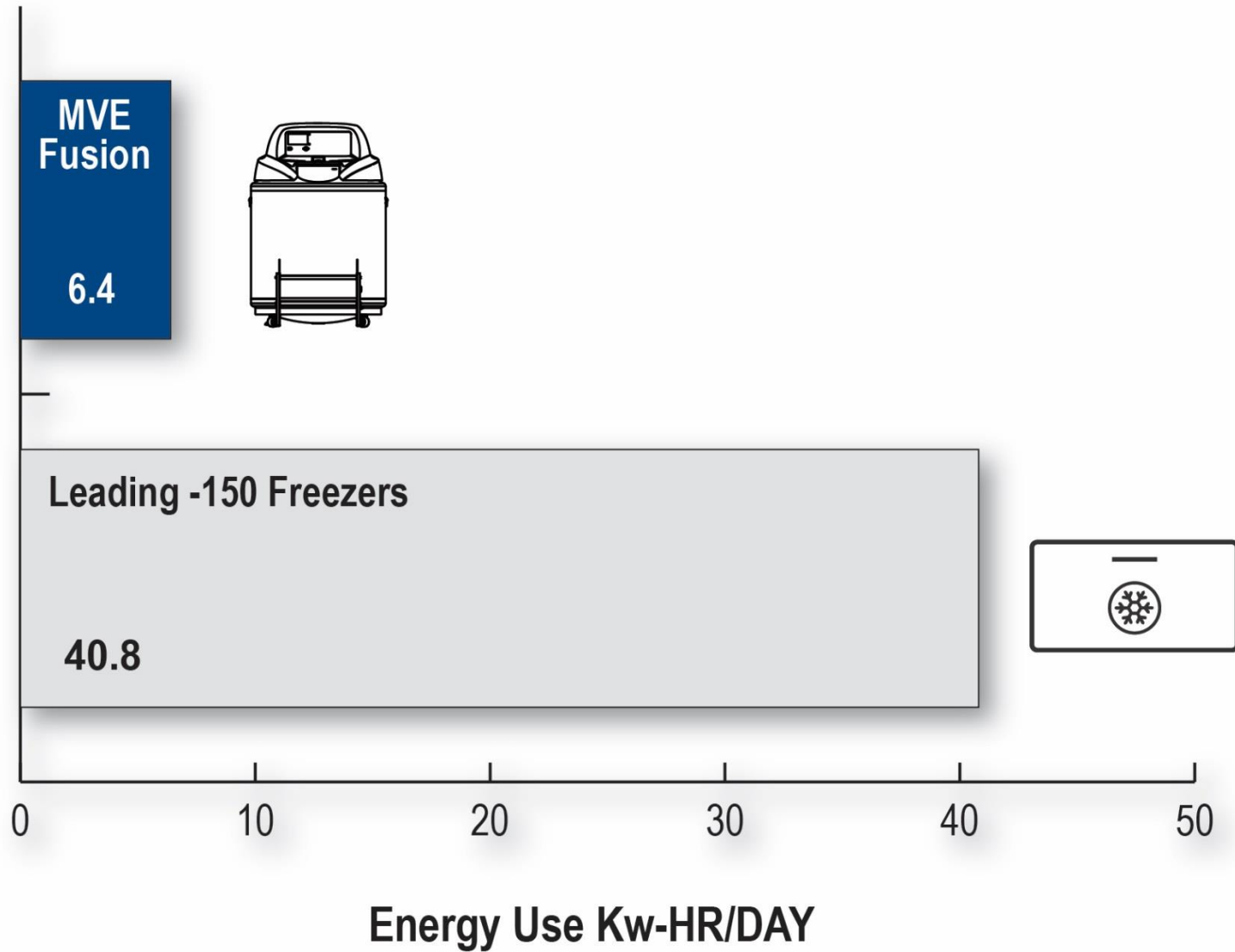
# Energy Comparison

(Fusion vs. Typical -80 Freezer)



# Energy Comparison

(Fusion vs. Typical -150 Freezer)





*Innovation. Experience. Performance.*®

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