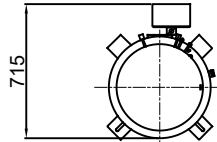
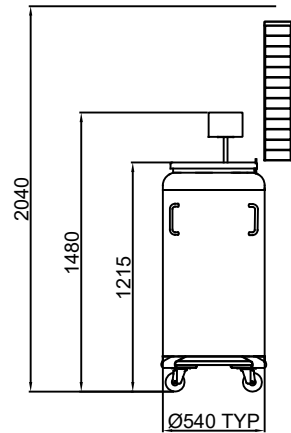


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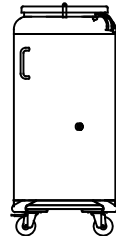
PLAN VIEW



STANDARD ICS CONFIGURATION  
"PIE" OR "WEDGE" SHAPED TOWERS  
OR  
4 OF 10X10 TOWERS  
CONTACT QUANTUM CRYOGENICS FOR  
INFORMATION ON ALTERNATIVE ICS



FRONT VIEW  
SHOWING LID CLOSED



SIDE VIEW  
(DOES NOT SHOW CONTROL BOX)

1. QUOTED LN2 CAPACITY REFERS TO FULL VOLUME OF LN2 SPACE. TO MAINTAIN TEMPERATURE STABILITY RECOMMEND UNIT IS REFILLED BEFORE REACHING EMPTY
2. NER IS QUOTED UNDER IDEAL CONDITIONS. IN PRACTICE NER MAY BE MUCH HIGHER DEPENDING ON USE
3. IDEAL CONDITIONS  
15-25°C  
<60% RH  
MAXIMUM SAMPLE LOAD.
4. QUOTED HOLD TIME IS BASED ON QUOTED NER AND LN2 CAPACITY. REDUCED LN2 CAPACITY AND HIGHER THAN QUOTED NER WILL RESULT IN REDUCED HOLD TIME.
5. MONITOR / RECORD NORMAL USAGE TO ESTABLISH REFILL VOLUME, WORKING NER AND WORKING HOLD TIME.
6. FOR DETAILS OF ALTERNATIVE ICS PLEASE CONTACT QUANTUM CRYOGENICS.
7. TWIN FAIL CLOSED SOLENOIDS
8. ENSURE FILTER IS USED TO PROTECT SOLENOID VALVES
9. WHEN CONNECTED TO A PIPED SUPPLY ENSURE SUPPLY PRESSURE IS REGULATED TO -2 BAR (30 PSI)
10. GAS VENT / PRE-COOL / HOT GAS BYPASS SYSTEM MAY BE REQUIRED. CONTACT QUANTUM CRYOGENICS FOR MORE INFORMATION
11. STANDARD SUPPLY HOSE DN12 STAINLESS STEEL 1.5M LONG 1/2"BSPT MALE TO 15MM BALLNOSE 69GHD BOTH ENDS. NITRILE RUBBER FOAM INSULATION WITH PVC WRAP. ALTERNATIVE LENGTH / CONNECTIONS AVAILABLE UPON REQUEST
12. FOR DETAILS OF DATA LOGGING / REMOTE MONITORING / CONTROL OPTIONS PLEASE CONTACT QUANTUM CRYOGENICS
13. ENSURE APPROPRIATE VENTILATION AND OXYGEN DEPLETION MONITORING ARE IN PLACE
14. FULL WEIGHT BASED ON VESSEL, CONTROL SYSTEM, LN2, ICS AND SAMPLES. FULL WEIGHT MAY VARY DEPENDING ON FINAL SYSTEM CONFIGURATION

TECHNICAL SPECIFICATIONS		TECHNICAL SPECIFICATIONS	
7644	2ML VIAL CAPACITY (PIE RACKS)	Ø540 MM	EXTERNAL WIDTH
13	DRAWS PER TOWER	715 MM	EXTERNAL DEPTH
6	NUMBER OF PIE TOWERS	N/A (LIFT OFF LID)	*EXTERNAL DEPTH WITH LID OPEN
98	2 ML VIALS PER DRAW	1215 MM	EXTERNAL HEIGHT
24V DC 1 AMP	POWER	1480 MM	*EXTERNAL HEIGHT INC CONTROLLER
<3 DAYS	BATTERY BACK UP CAPACITY	N/A (LIFT OFF LID)	*EXTERNAL HEIGHT WITH LID OPEN
3/8" BSP 24V DC	SOLENOID VALVE 1	2040 MM	MIN RQD CEILING HEIGHT (TO CLEAR TOWER)
3/8" BSP 24V DC	SOLENOID VALVE 2	Ø415 MM	USABLE INTERNAL DIAMETER
3/8" BSP BALL VALVE	MANUAL FILL BYPASS	765 MM	USABLE INTERNAL HEIGHT
DISCRETE SENSORS	LEVEL PROBE	94 KG	WEIGHT (EMPTY)
PT1000	TEMPERATURE SENSOR	159 KG	WEIGHT (FULL)

30 LITRES	LN2 CAPACITY
3 LITRES / DAY	NER (IDEAL CONDITIONS)
10 DAYS	MAX HOLD TIME
1/2" BSPT	LN2 INLET CONNECTION ON VESSEL
1.5±0.5 BAR (22±7 PSI)	LN2 SUPPLY PRESSURE
4.5 BAR / 66 PSI	PRESSURE RELIEF VALVE SETTING
5200	2ML VIAL CAPACITY (SQ RACKS)
13	ROWS PER TOWER
4	NUMBER OF 10X10 TOWERS
0	NUMBER OF 5X5 TOWERS

04	09.05.19	PM	XXX
03	26.02.14	PM	XXX
02	25.02.14	PM	XXX
01	04.10.12	PM	XXX
REV	DATE	DRAWN	CHECKED



**QUANTUM**  
CRYOGENICS

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SCALE  
1:40 @ A4

FINISH  
CLEAN

TOLERANCE  
±1.0

DIMS  
MM

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**POLARIS 8 VESSEL  
SPECIFICATION**

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