

LSG40 LYODRY GRANDE CHAMBER FREEZE DRYER

FULLY AUTOMATED, CONTROLLABLE SHELF TEMPERATURES
-40°C to +60°C, DATA LOGGING/ANALYSIS, STOPPERING



LyoDry Freeze Dryers provide an extended choice of process and control options for reliable, reproducible freeze drying of a wide range of sample types.

LSG40 [LyoDry Grande Freeze Dryer](#) is ideally suited to laboratory and pharmaceutical applications. It uses the latest technology in vacuum, refrigeration and control, providing unrivalled product protection and operator interfacing. A full system mimic on the touch screen display provides a user friendly interface, giving a clear indication of system status.

UK designed, manufactured and maintained. Quality assured.

Large shelf area 1.69m ² , 9 shelves, temperature controlled -40°C to +60°C	30Kg ice condenser capacity, -55°C condenser temperature
Fully automated, touch screen control	Data logging, real time and historical analysis, remote view (option)
Up to 200 reproducible process profiles (recipes)	Password protected user accounts
Stoppering (option)	Automatic end point determination
Hot gas defrost	CFC refrigeration
12 month warranty, extended warranties available (option)	Installation, commissioning, operator training
UK designed, manufactured and maintained	Quality assured



LSG40 LyoDry Grande has nine temperature controlled shelves, between -40°C and +60°C with an accuracy of better than ± 0.5°C.

Based around a large drying chamber mounted alongside a refrigerated chamber, the integral refrigerated shelves can be moved up and down via a hydraulically operated ram for stoppering.

Freezing, primary and secondary drying, end point determination, backfill and stoppering sequences are all controlled by a central processor unit, allowing complex pressure/temperature profiles to be controlled accurately and reproducibly without operator intervention. In excess of 200 profiles can be stored and retrieved as required.

An additional product safety feature automatically diverts the condenser refrigeration power to 'crash' cool the product if the shelf cooling system fails. This facility averts significant potential losses by providing protection for the product.

MechaTech Systems Ltd, Unit 9 Brunel Way,
Thornbury Industrial Estate, Thornbury, Bristol, UK. BS35 3UR.
Registered in England and Wales No. 6469333

www.mechatechsystems.co.uk



© MechaTech Systems 2021 - All rights reserved

LSG 40 LYODRY GRANDE CHAMBER FREEZE DRYER



TECHNICAL SPECIFICATION

Condenser temperature	-55°C	
Shelf temperature	-40°C to +60°C	
Condenser capacity	30 litres	
Condenser rate	1 litre/hour	
Defrost	Hot water / hot gas	
Defrost time (water inlet temperature @ 40°C)	~ 20 minutes	
Refrigeration	CFC Free - Single - water cooled	
Number of shelves (excluding radiant shelf)	9	
Shelf area (per shelf)	0.187m ²	
Shelf dimensions (W x D)	375 x 500 mm	
Total shelf area	1.69m ²	
Shelf/chamber material	316L stainless steel	
Shelf heat transfer	Silicon fluid	
Working height (max shelf gap)	98mm	
Shelf cool down times (fluid temperature measurement, with no product, from 4°C with both refrigeration units):		
	to -35°C	50 minutes
	to -40°C	60 minutes
Temperature control	< ± 0.5°C	
Shelf temperature uniformity	± 1°C	
Stoppering	Hydraulic / automatic	
Vacuum pump:		
	Model	Edwards E2M28
	Nominal pumping speed	28 m ³ /hr
	Pump down time (to 0.5 mbar)	~ 10 minutes
Inter-chamber valve	Electrical QSB	
Electrical, UK supply	415V, 50Hz, 3ph, 15kW	
Dimensions, not including oil reservoir (w x h x d)	1505 x 1940 x 1000mm	
Gross weight	1400 Kg	
Data logging	Yes	
End point determination	Pressure rise	
Gas backfill	Yes / automatic	
Pressure control	Optional	
Product probes	9	
Output noise	<75 dB at 1m	



User friendly interface with 200 retrievable process profiles



9 x 316L SS product shelves with optional stoppering

CONTACT US FOR A QUOTATION AND/OR FURTHER INFORMATION:
enquiries@mechatechsystems.co.uk | +44 (0) 1454 414723

MechaTech Systems Ltd, Unit 9 Brunel Way,
 Thornbury Industrial Estate, Thornbury, Bristol, UK. BS35 3UR.
 Registered in England and Wales No. 6469333

www.mechatechsystems.co.uk



© MechaTech Systems 2021 - All rights reserved