

# VACUUM TRAY DRYER

NINE TEMPERATURE CONTROLLED SHELVES,  
DATA LOGGING/ANALYSIS, TOUCH SCREEN CONTROL



The MTS Vacuum Tray Dryer contains nine product shelves, which can be controlled between ambient and +250°C, with an accuracy of better than  $\pm 0.5^\circ\text{C}$ .

Based around a large drying chamber mounted alongside a refrigerated chamber, the integral heated shelves have a temperature variation of less than  $2^\circ\text{C}$ .

## FEATURES:

- Fully automated, touch screen control
- Nine product shelves with total shelf area of  $1.7 \text{ m}^2$
- Controllable shelf temperatures between ambient and  $+ 250^\circ\text{C}$ .
- High capacity (45kg)
- Data logging /analysis
- Reproducible process profiles
- UK designed, manufactured & supported



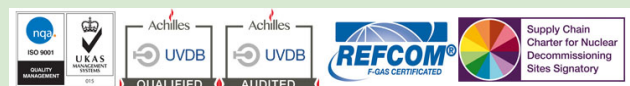
Product heating, drying, end point determination and backfill sequences are all controlled by a central processor unit, allowing complex pressure/temperature profiles to function accurately and reproducibly without operator intervention. In excess of 50 profiles can be stored and retrieved as required.

A full system mimic on the touch screen display provides a user friendly interface giving a clear indication of system status.

Suitable for vial and bulk samples, the dryer is easily adaptable for either laboratory or small-scale production.

MechaTech Systems Ltd, Units 9 & 10 Brunel Way,  
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Registered in England and Wales No. 6469333

[www.mechatechsystems.co.uk](http://www.mechatechsystems.co.uk)



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# VACUUM TRAY DRYER

## SPECIFICATION



|  |   |
|--|---|
| MODEL  | Bespoke - exact configuration to be confirmed |
| No. of shelves (excluding radiant shelf)               | 9   |
| Shelf dimensions (w x d)                               | 375 x 500mm                                   |
| Shelf area (total)                                     | 1.7 m <sup>2</sup>                            |
| Shelf capacity (total)                                 | 45 Kg   |
| Shelf material   | 316L Stainless Steel                          |
| Shelf temperature                                      | Ambient to +250°C                             |
| Working height (max shelf gap)                         | 98mm  |
| Typical shelf heat up times (with no load, from 25°C): |   |
| to +100°C  | 30 minutes                                    |
| to +200°C  | 55 minutes                                    |
| Condenser temperature                                  | -85°C   |
| Condenser capacity                                     | 30 Litres                                     |
| Defrost  | Hot Gas and/or water                          |
| Defrost time (water inlet temp @ 40oC)                 | Approx 10 minutes                             |
| Refrigeration  | Cascade                                       |
| Vacuum pump:   |   |
| 1. Type  | Edwards E2M18                                 |
| 2. Nominal Pumping speed                               | 18 m <sup>3</sup> /hr                         |
| 3. Ultimate vacuum (total pressure)                    | 1.0 x 10 <sup>-3</sup> mbar                   |
| 4. Pump down time (to 0.5 mbar)                        | Approx 15 minutes                             |
| Inter-chamber valve                                    | Electrical QSB                                |
| Electrical supply UK                                   | 415V, 50Hz, 3 ph, 15 KW                       |
| Dimensions (w x h x d)                                 | 1900 x 1940 x 1250 mm                         |
| Gross weight   | 825 Kg  |
| Temperature control                                    | + 0.5°C                                       |
| Data logging   | Yes   |
| End point determination                                | Pressure rise                                 |
| Gas backfill   | Yes / Automatic                               |
| Pressure control                                       | Option  |

MechaTech Systems provide installation, commissioning and end user training. All vacuum dryers are fully assembled and tested prior to shipment. A comprehensive Factory Acceptance Testing programme is submitted to the client for approval. Full design, installation and operational qualification support can be undertaken in the presence of the client.

PLEASE CONTACT US FOR A QUOTATION AND/OR FURTHER INFORMATION:

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