

**Clean room warehousing technology**  
**Megamat supplies state-of-the-art warehousing**  
**system to Rohde & Schwarz**



## Clean room warehousing technology: Megamat supplies state-of-the-art warehousing system to Rohde & Schwarz

Extremely high demands are made when it comes to storing highly sensitive electrical components for printed circuit boards. Only a few specialists can offer storage systems for such applications. One of these specialists is the warehousing system manufacturer Megamat from Neuburg/Kammel, who supplied two innovative Megasys Dry storage systems to Rohde & Schwarz.

Rohde & Schwarz GmbH & Co. KG, an international measuring, information and instrumentation company, uses the Megasys Dry storage systems primarily to keep components and spare parts for automotive printed circuit boards in a dry atmosphere for a period of three to maximum ten years. The latest requirements demand that these hygroscopic parts are stored in dry rooms. Othmar Muhr, head of component production at Rohde & Schwarz: „In the past, we had to store the parts in nitrogen boxes with humidity of 15% and a high nitrogen consumption rate, but now we can keep to a constant humidity of 5%“. The system even undercuts the stipulations for humidity.

### III Central storage in the production environment

On the one hand, this effectively prevents aging of the parts. At the same time, the company has been able to improve its processes: first and foremost, central storage in the production environment offers accelerated access, a key aspect because it is vital to comply with the processing times at the machines. Another requirement to be met with the installation is for exact documentation of part storage to guarantee traceability. This protects Rohde & Schwarz from compensation claims in the case of accidents.



Quiet, clean, efficient: the Megasys lifts are in a central position on the component line.

MEGASYS Dry is one of several dynamic warehousing systems with controlled atmosphere and was developed in cooperation with two specialists. Megamat GmbH is well known for modern warehousing logistics solutions. The clean room technology know how comes from Asys Prozess- und Reinraumtechnik GmbH, Dornstadt. Users can now choose between storage in a dry atmosphere, controlled temperatures, in clean room cells or a combination of these factors.

### III Ventilation and drying systemes with temperature controller



View behind the scene

The Megasys Dry warehousing system was specially adapted to the conditions in the extremely sensitive production facilities at Rohde & Schwarz. The equipment is clean room compatible and produced in an ESD design. The access area was equipped with a particular gateway function with a special seal to minimise any losses of the „expensive“ dry air. The drive rope system prevents oil contamination and facilitates fast, noiseless working which is indispensable in the working environment at Rohde & Schwarz.

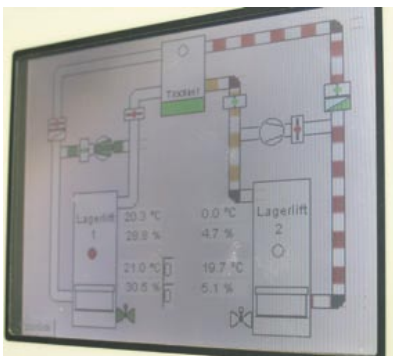
### III Guarantee ideal storage atmosphere for delicate electronic components



Constant availability & safety of sensitive parts

Further advantages are offered by Megamat's MM260 machine control which can be integrated in a warehouse management system. The dynamic warehousing system not only holds humidity on a set level but also has a refrigerator unit to keep the temperature at a constant 22°C. This guarantees the ideal storage atmosphere for the delicate electronic components. And last but not least, the system offers maximum storage capacity while taking up only minimum space. The two new lifts give Rohde & Schwarz 150 m<sup>2</sup> dry storage area on a floor space of just 12.66 m<sup>2</sup>.

The system software has also been extended. Local nitrogen boxes at the equipping lines were retrofitted with humidity measurement and control units by ASYS and linked to the dynamic warehousing system by means of a BUS system. In this way, all dry storage systems used in the factory can be registered, documented and controlled centrally from one PC. This system has proven its worth particularly in terms of process safety and transparency to allow for optimum traceability.



A touchscreen display provides all information

For 70 years, the Rohde & Schwarz Group with its headquarters in Munich has been developing, producing and selling solutions for communication, information and measuring systems focusing primarily on mobile radio system, wireless radio systems, general and HF measuring technology, monitoring and position finding systems, radio communication and systems for communications safety. Rohde & Schwarz is represented in more than 70 countries and generated sales of €941 million in the financial year 2003/2004 on a worldwide scale with approx. 8150 employees.