



SDR Dry Room



Outstanding performance

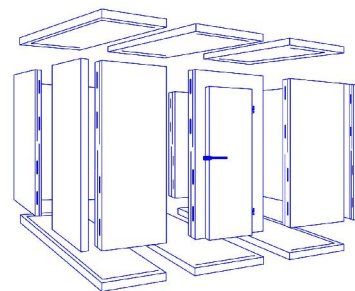
The SDR-51 dry room has an outstanding performance for drying moisture sensitive components, pcb's and other moisture sensitive products.

The dynamic drying unit of the 5000 series reaches very reliable low humidity values of 0,5% RH and automatically regenerates if necessary. The U7200 Dry unit is used when the rooms are being bigger than 5m3 and when bigger doors are being used.

Regeneration times are reduced due to the closed loop control of the dry unit which automatically responds to atmosphere and frequency door openings. (U-5000 series)

The relevant process data is obtained by use of an accurate Rotronic sensor. Data can be taken out from the cabinet through RS232 with optional software.

Dryrooms are being supplied with ramp or without when they are being placed directly onto the ESD flooring, Feedercars or racks can be placed inside.





Features

- **User friendly handling**
- **ESD features**
- **Insulation**
- **Body**
- **Data logging**
- **Online read out**
- **Door & humidity alarm buzzer**
- **Flooring**
- **Lockable doors**
- **U 5000 series drying unit**
- **U7200 Dry Unit**
- **Rotronic sensor**
- **Power supply**
- Display with easy menu structure
- Different materials can be delivered. Static safe 10^{12} Ohm/sq, conductive 10^6 Ohm/sq or even hard grounded
- 80 mm sandwich polyurethane construction
- Painted in steel plated white RAL 9010 or Stainless Steel
- Integrated data logger over Sensor with standard 2000 measuring points (optional software is required)
- RS 232 interface for data (optional software is required)
- Longer dooropenings are detected, high RH levels are detected
- 80 mm flooring, delivered with 1,5 mm stainless steel, anti-slip pressure plate and ramp.
- Every door can be locked separately with a key
- $\leq 0.5\%$ RH, made in Germany
- $\leq 2,0\%$ RH, made in Germany
- Precision sensor, accuracy $\pm 0,8\%$ RH, $\pm 0,3^\circ\text{C}$
- Power cord 5 meter with IEC plug

Benefits

- **Recovery time after door opening**
- **Temperature stability**
- **Temperature setting**
- **Energy saving consumption**
- **Network**
- **IPC**
- **European Quality**
- **Maintenance**
- **Panel construction**
- **Shelves**
- **Trolleys**
- **Flooring**
- Depends on door size, average $<5\%$ RH within 30 min.
- The same temperature level throughout the drying cabinet as a result of the use of a radial fan and an insulated sandwich construction 0,24 Watt/m² K according to DIN 52612 (If heater is installed). Accuracy $\pm 2\%$
- Heating up to 60°C (if heater is installed)
- As a result of a dynamic dry unit, sandwich construction with insulating 80 mm polyurethane
- Optional available
- According to IPC/JEDEC-JSTD 033C and IPC-1601
- Made in Germany
- Easy to service, low maintenance
- Due to the construction of the panel, different sizes available
- Possibility to add shelving
- Different sizes of trolleys available
- Different pressure plates available (heavy duty weight)





Technical Data Cabinet

- | | |
|---------------------------|---|
| • Dimensions: | Due to the construction of the panel, different sizes available |
| • Electric supply: | 230 V AC (120 V AC optional) |
| • Power consumption: | 30 W/h (without heater) |
| • Protection class: | Class 1, hard grounded |
| • Humidity level cabinet: | ≤0,5 % RH can be reached with drying unit U 5002 |
| • Humidity level cabinet: | ≤2,0 % RH can be reached with drying unit U 7200 |
| • Sensor accuracy: | +/- 0,8 % RH, +/- 0,3°C |
| • Temperature accuracy: | 60° C, +/- 2° C |

Technical Data 52 Display

Settings:

- Language Menu
- Nominal Value Humidity
- Nominal Value Humidity Alarm
- Delay Humidity Alarm (in combination with heater)
- Nominal Value Temperature (in combination with heater)
- Temperature Alarm (in combination with heater)
- Delay Temperature Alarm
- Doors Alarm
- Interlocking
- Manual Regeneration



Display:

- Supply voltage (supplied by drying unit) 24 VAC/DC
- Input 4 function keys (tactile-touch keys)
- Display 61 x 33 mm, white, controllable backlight, adjustable contrast
- SUB-D plug ("universal" 9-wire standard serial cable)
- Power consumption at 24 VDC, 40 mA





Technical Data Rotronic Sensor HC2-S



Based on the Airchip 3000 Technology use the HygroClip 2 probes can be used for control of temperature and humidity.

The HygroClip 2 probes can be configured with the ROTRONIC HW4 software and share the following features:

- Measurement of relative humidity and temperature.
- Data recording of up to 2000 relative humidity and temperature value pairs.
- Programmable automatic sensor test with fail safe mode and sensor drift compensation.

Technical Data dry-unit U 5000 series

- Dehumidifying performance: 120 g/h max.
- Minimal humidity 0,2% RH
- Dehumidifying Temperature 10 – 60° C
- Electric supply: 230 VAC (120 VAC available)
- Dimensions (L x B x H): 487 x 487 x 150 mm
- Weight: 14 kg



Technical Data dry-unit U 7200



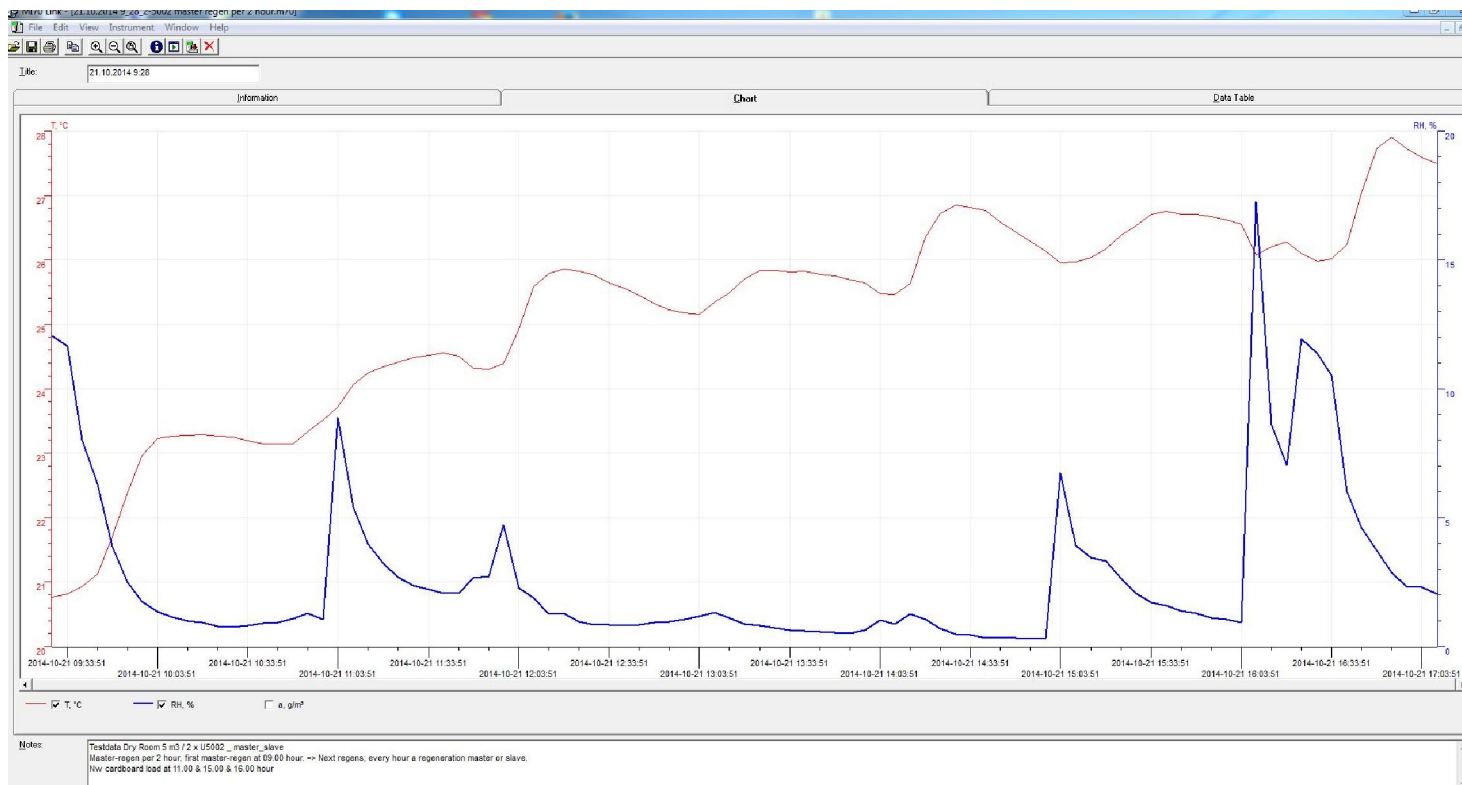
Technical dates apply for a sucking up of air with 20°C and 60% RH

- Dehumidifying performance: 1,6 kg/h
- Minimal humidity 2% RH
- Process air mixture continuously adjustable to max.: 300 m³/h
- External compression: 150Pa
- Fitting supports for process air 2x 160 mm
- Regeneration air mixture adjustable to max.: 65 m³/h
- External compression: 70 Pa
- Electric supply: 230 V AC, 50/60 Hz, 2,1 KW
- Dimensions (LxBxH): 524x 450x 480 mm
- Fitting supports for regeneration air: 2x 120 mm
- Weight: 38 kg





Performance test



Test conditions



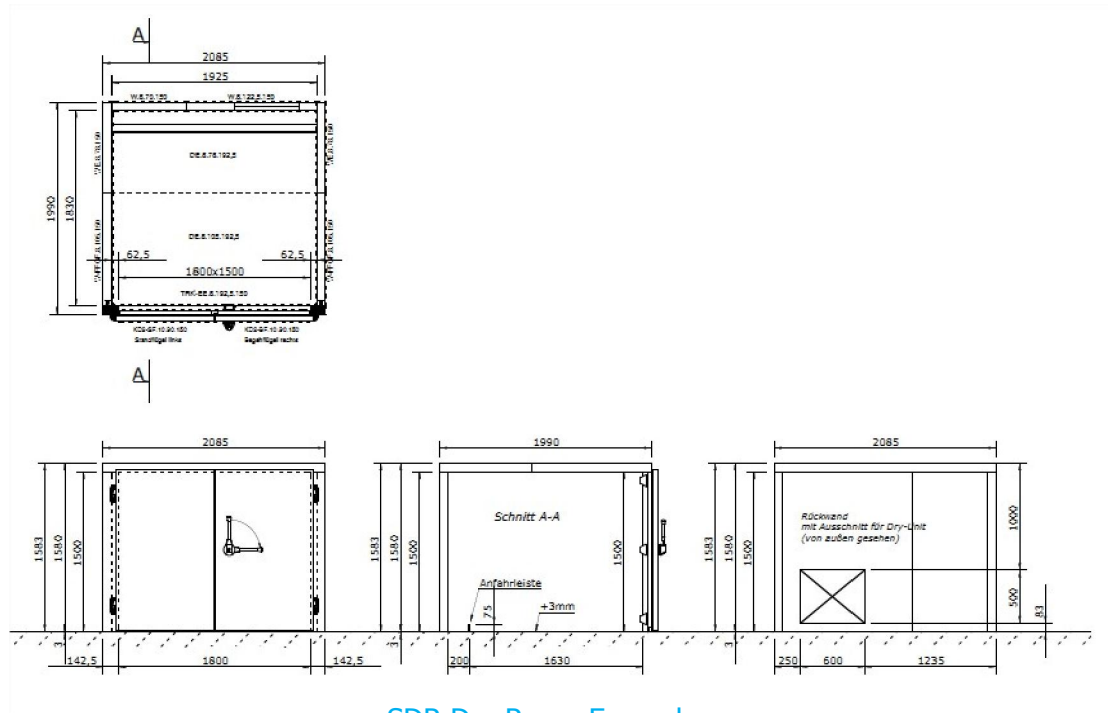
Instrument:
Type of dew point sensor:
Accuracy of dew point sensor:
Location of sensor:
Ambient conditions:
Dooropenings:

Vaisala.
Vaisala drycap 180M
 $\pm 0,2^{\circ} \text{C}$ at $+ 20^{\circ} \text{C}$ ($+ 68^{\circ} \text{F}$)
In the direct surrounding of cabinet sensor
Humidity $50 \pm 5\% \text{ rH}$, $25^{\circ} \pm 2^{\circ} \text{C}$, Pressure $994 \pm 20 \text{ hPa}$.
2 dooropenings, 15 sec. (average RH 0,70%)

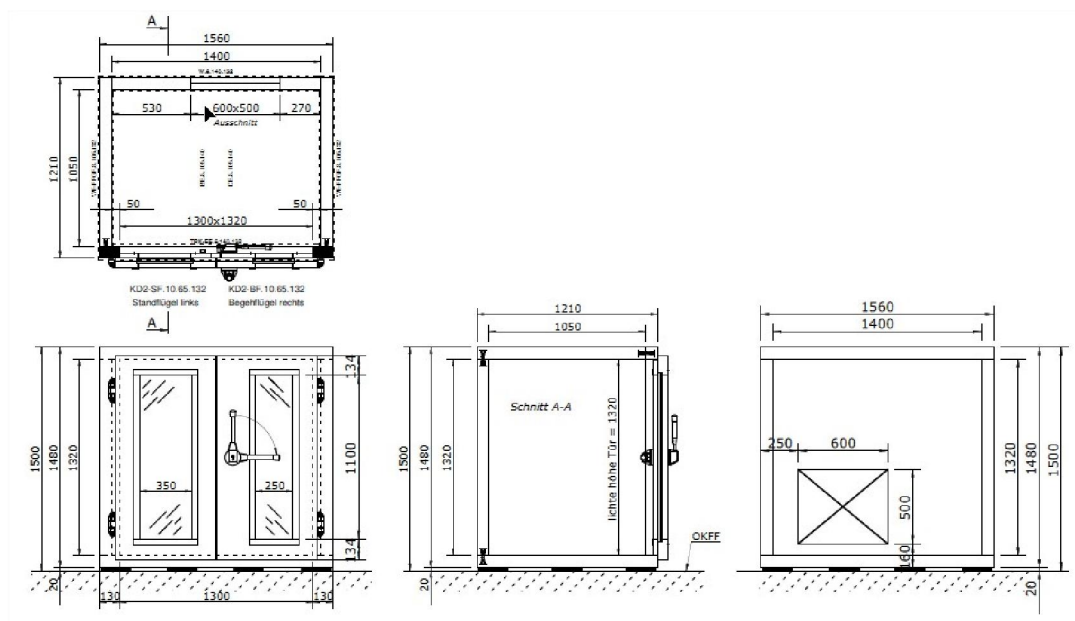




Technical Drawings examples Totech DryRooms

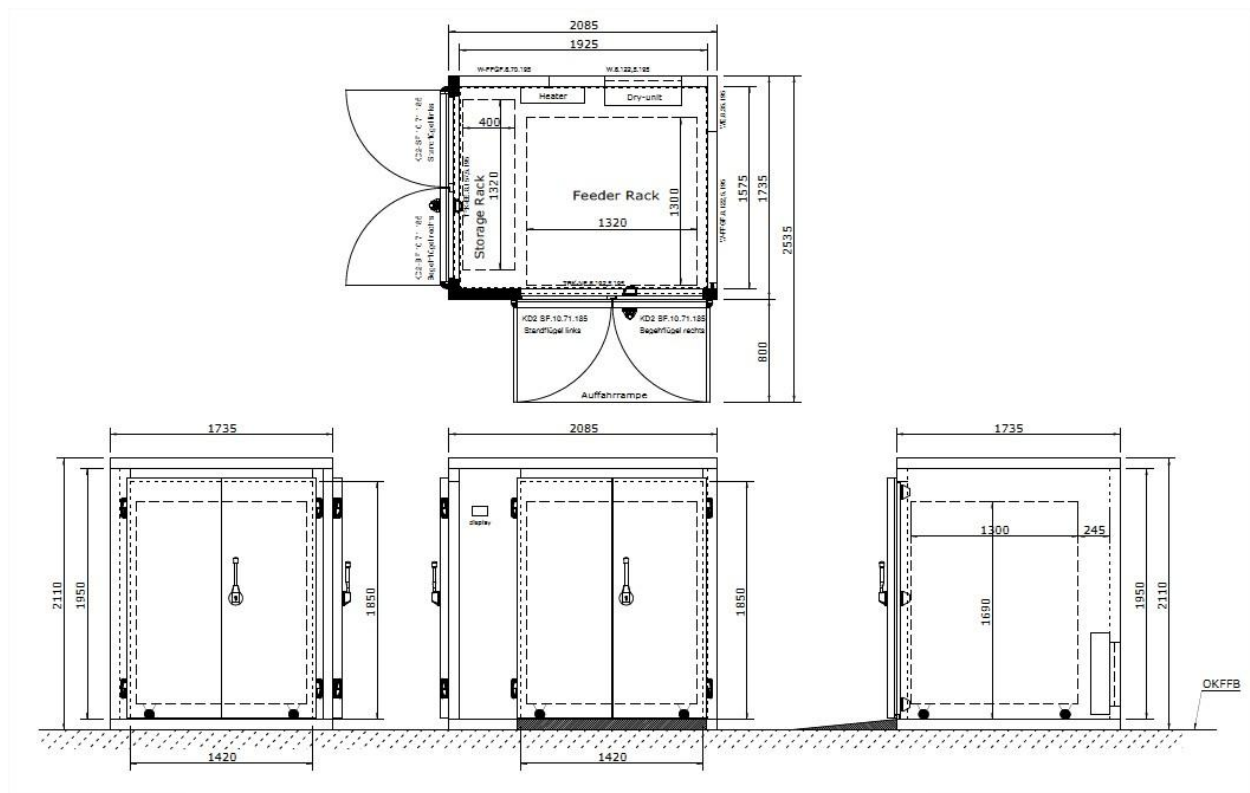


SDR Dry Room Example

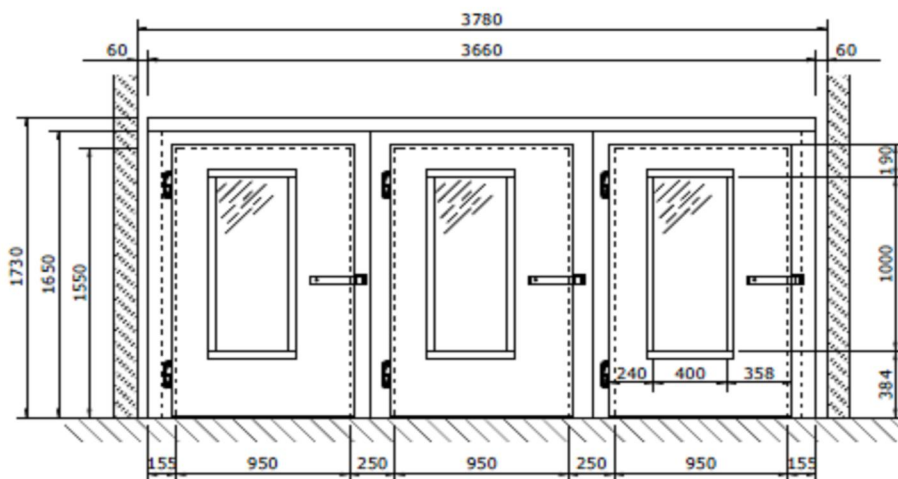


SDR Dry Room Example





SDR Dry Room Example





Options



Humidity alarm signal Lamp,

two-color, (orange/green or red/green), magnetically fixed, providing optical signals on operational states and exceeded limit values. Operates on 24 V.

Item number orange/green 20016030 .



N2 auto flow system,

The Auto-Flow-System is developed to use in combination with a Totech drying cabinet. The device is used for the quick removal of moisture in the cabinet after the doors has been opened. The drying process is realized by using nitrogen (N²), which is add automatically after the doors have been closed. (by means of adjustable timer function).

Item number 22613000.



N2 flow system,

The Flow-System is developed to use in combination with a Totech drying cabinet. The apparatus is used for adding nitrogen (N²).

Item number 20010020



HygroClip 2,

Probe with maximum accuracy for all climate measurements

Item number 470000027

Exchange calibrated sensor:

Item number 47000040



Humidity calibrator Hygropalm 22,

precision measuring device for calibrating sensors

Set including hygroclip sensor, extension cable and transportcase (KIT):

Item number 20001019

Hygropalm and hygroclip only:

Item number 20001016





Options



Rotronic datalogger set,

Including Software HW4-E-V3 and Cable AC3006

Item number 47000580



MSL Basic software,

Software solution for the monitoring of moisture sensitive components and their MSL States during storage and processing in the production. With the software the exact drying state individually for each component is monitored and displayed. Here, a complete history for each component is traceable up to the full processing. The evaluation of the drying conditions is based on the requirements of the IPC / JEDEC J-STD-033B1 directive.

Item number 200174500



MSL advanced software,

Upgrade to monitor moisture sensitive components and your MSL were to an another storage facility (dry cabinet) with the standard-MSL-software.

Item number 200174502



HW4-E software,

Standard edition for use with 1 cabinet . Rotronic HW4 is a process oriented, validated software for use with the Rotronic line of digital humidity-temperature instruments.

Item number 47000034



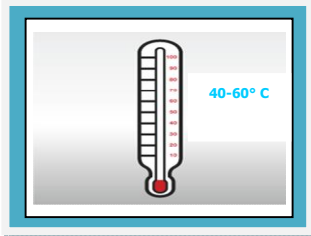
HW4-P software, Professional Edition for use with several cabinets. Rotronic HW4 is a process oriented, validated software for use with the Rotronic line of digital humidity-temperature instruments.

Item number 47000031





Options



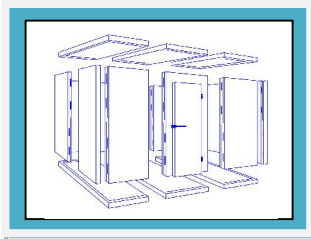
Heater 40-60° C,

In combination with U-7200 Dry unit
heater 40-60° C for SDR



U-7200 dry unit,

Item number 30021503

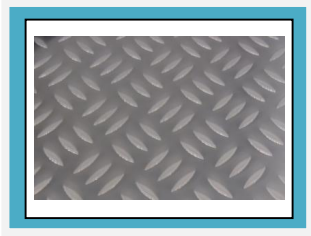


Panel construction,

The panels can be supplied in different materials. Standard in RAL white 9002

Options are:

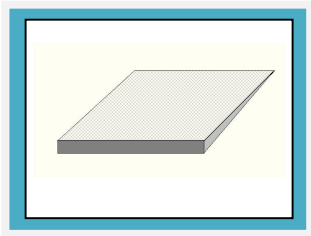
- Both sides same RAL color
- Both sides stainless steel
- Inside stainless steel, outside RAL color or the opposite
- ESD grounding according IEC-61340-5-1



Flooring,

Standard 80 mm flooring, delivered with 1,5 mm stainless steel, anti-slip pressure plate

Different pressure plates available (heavy duty weight)



Ramp,

Different sizes of ramps possible, to make entry in the dry room

Material: anti-slip, stainless steel material

version 08-06



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