



Modular Construction Systems

Weiss Umwelttechnik GmbH, Germany is one of the most important producers of standard testing chambers and systems for environmental simulation worldwide. The product range comprises temperature and climate testing systems as well as test systems for simulated exposure to weather, temperature shock, corrosion and for long-time testing in various test chamber volumes. Walk-in /drive-in chambers and process-integrated plants for environmental simulation and biology are designed, produced and installed in accordance with customer specifications. Weiss Umwelttechnik is certified according to DIN EN ISO 9001.

Structural Solutions Private Limited is the authorized exclusive Indian representative of "Weiss Umwelttechnik GmbH". Structural Solutions Private Limited is a professional Engineering Company engaged in offering high-end technology-intensive products and systems solutions for the complete range of "Environmental Chambers".



Standardisation of Walk-In Chambers-Principle M.C.S.

Modular Construction System (M.C.S) is the standardization of the well known Walk-in Chambers. In Course of the standardization they have modified the design and assembly of some types, to achieve a considerable reduction of costs.

In standardization, small parts are combined to modules that can be put together like a puzzle. However, Standardization will not only save purchase and assembly costs, but also costs in the design and planning stage, as installation place of each component within the module will always be the same.

Design

The WEISS M.C.S. series is basically designed for standard applications. Options are available upon request.

For calculation of a WEISS standard M.C.S. chamber the customer needs to provide not more than the following information:

- Chamber size (8, 12, 16, 21, or 28 m³)
- Temperature or climate (All WEISS M.C.S. chambers have a temperature range between -40° C to +80° C)
- Requested cooling-down rate (max. 4 K/min, empty)

Modules

The WEISS M.C.S. system is made up of two modules:

1. Cell
2. Machine power unit: The machine power unit is made up of the following assembly:

- Refrigeration system (3 output sizes)
- Air handling system (4 output sizes)
- Standardized switch cabinet



Those components can be combined within the machine power unit according to customer's specification. On the other hand the machine power unit can be combined with different chamber sizes.

Nomenclature : e.g.: WK 12'/40-80 M.C.S. 22

- K climate
- 12' volume of chamber [m³]
- 40-80 temperature range (-40°C to +80°C)
- M.C.S. standard
- 2 size of refrigeration system (1-3, three output sizes)
- 2 size of air handling system (1-4, two sizes with two heating output per each size)

Basic version

- The WEISS M.C.S. system is equipped with the following components:
- Pedestrian door, single-wing, incl. heated inspection window (H600xB450mm)
- Lighting device (IP65)
- 2 pipe ducts in the side walls (50 and 125 mm)
- Stainless steel base, slide inhibiting
- Control and regulation system SIMCON/32*-NET
- Colour-touch-panel
- Specimen protection
- Switch and control cabinet (IP 54)
- Water-cooled refrigeration unit additional to the climate design
- Steam generation system
- Capacitive humidity measurement system
- Condensation protection

Options Available

- Air-cooled condenser
- Software package SIMPATI*
- LAN/Ethernet connection
- Demineralisation unit
- Additional pipe duct
- Emergency equipment
- Dew point extension
- Additional inspection window
- Expanded pedestrian door (double-wing)
- Operating hour counter
- Frequency converter
- Additional temperature sensor
- Data logger

