



Rheology Solutions

Rheology Solutions is the sole Australian distributor of this product range and we welcome the opportunity of discussing your application requirements.

*We hope the information you are seeking is contained within this file.
If you have any questions, or require further information please contact us.
We look forward to being of further service.*

Regards from the Team at Rheology Solutions.

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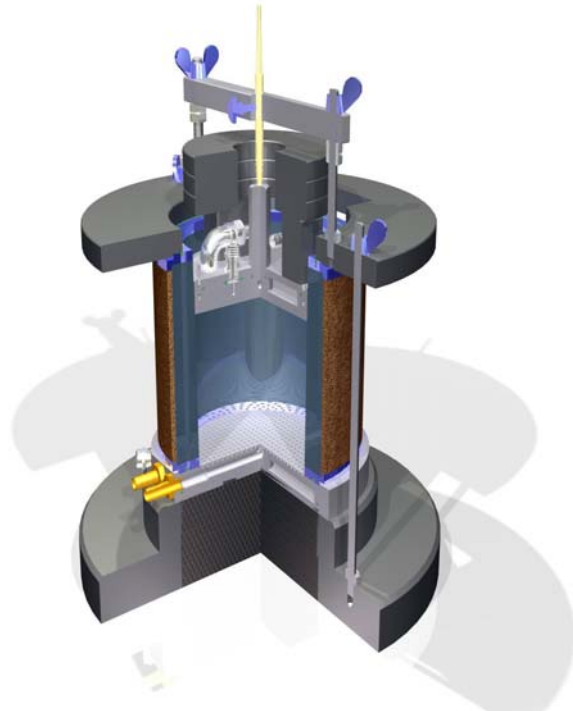
Soil Freeze / Thaw Chamber According To The CBR-F Test Swiss Standard SN 670 321a (2001).

Before the test the optimal water content of the soil specimen is set. The simple 5 days test is based on complete freeze thaw cycle with realistic temperature gradients. The vessel is made of a thermal insulating material. The expansion is measured by a high precision LVDT gauge. Also temperatures on the bottom and on the top of the specimen is recorded.

The specimen fits the test if:

- the maximum of expansion during freezing is below a certain limit.
- the loss of strength after thawing is below a certain limit. The strength is determined by the standard proctor test.

Its recommended to make several tests to determine the influence of the water content in the CBRF value. For example 3 different water contents may be applied.



Test Procedure

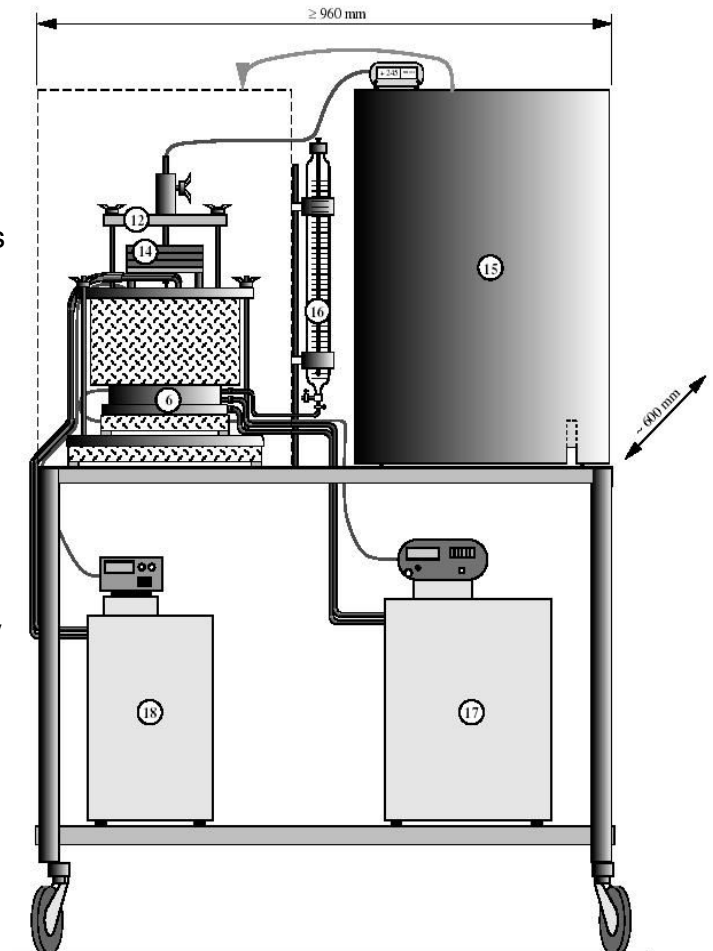
Preparing of the specimen:

The dry mass of the specimen should be about 45 kg. Use fresh material for the compaction curve, the expansion curve and for the CBRF test. The maximum aggregate size is 16mm. Larger aggregates must be removed. Determine the optimal water content in the epoxy vessel supplied with the test apparatus.

Schleibinger is delivering the complete test setup , including:

- CBR freeze / thaw vessel (the outer size is 220mm instead of 210 mm as described in the standard) The inner size is according to the standard. (item. 1..7 of the standard)

- Cover slab (# 9)
- Thermometers for both temperature controlled slabs(for temp. recording)
- Thermometer, integrated in the cooling unit
- Insulation plate (# 11)
- Holder for the LVDT (# 12)
- Compaction weights (# 14)
- Insulating housing (# 15)
- Mariott bottle (# 16)
- 2 liquid coolers with pumps (# 17 and # 18) temperature range -10 ..+100 °C, Temperature deviation less then 0.02 °C, refrigerating power 0.13 kW, heating power 1.8 kW
- LVDT, better 3 mikron
- transport socket
- Data logger: for measuring and recording the the height change for up to 8 LVDTs and 2 temperature sensors All values are stored in a non volatile memory. The data logger may be connected to a standard network and read out by any PC in your network using your Internet Browser software. No special PC required.
- option: table and CBR stamp



Order code: B0100