

Horizontal Thermal Shock CTh new range



Spirale 3, the climatic reference



Temperature :
from -90°C to +180°C
(+200°C as an option)

The conception of **Climats thermal shock** chambers is unique on the market.

Shock chambers are equipped with **2 distinct cabinets** – one hot and one cold – and with **a mobile basket** that contains your products.

The products undergo ultra-quick temperature variations when the basket goes from the hot cabinet to the cold cabinet, and the other way round.

CTh models are specially designed for heavy loads (100 kg maxi) or cumbersome samples.

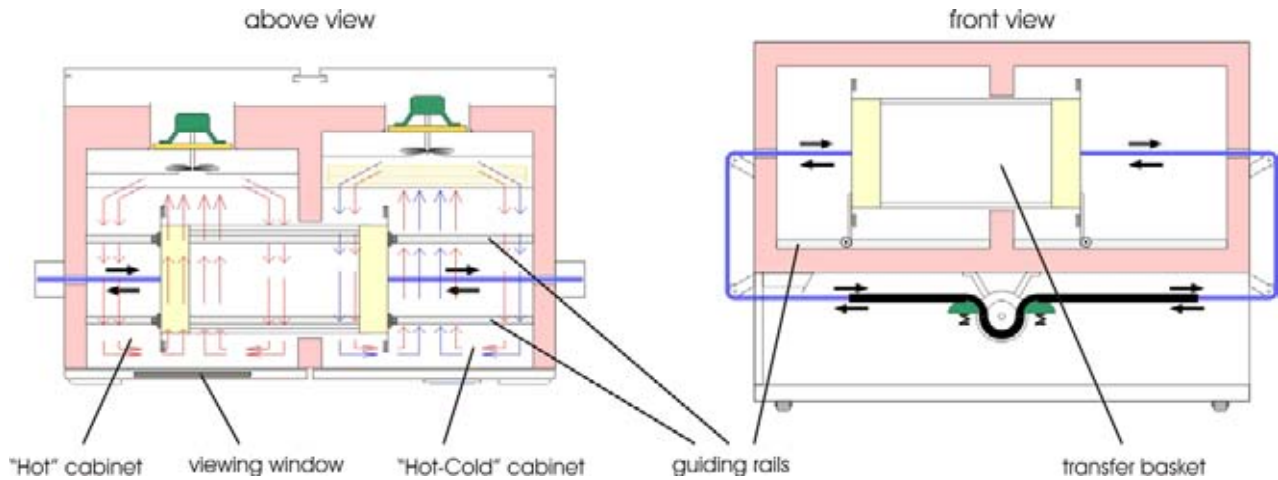
In addition to thermal shock tests, the CTh range enables to **use independently the cold cabinet in Fast Change Rate mode and the hot cabinet for stabilized tests.**

Dimensions (mm)	Transfert basket useful			Chamber overall		
	W	D	H	W	D	H
315 CTh	750	600	650	2662	1875	1870
512 CTh	800	800	800	2724	1975	2035



Functioning principles

The samples to be tested are placed in a transfer basket that moves alternatively from a cold cabinet to a hot cabinet, creating a thermal shock. Several regulation devices are offered : either on the "air" probe, either on the basket probe or either –as an option- on a probe directly set on the product. A double air flow ventilation ensures a perfect homogeneity in each cabinet and allows a pre-heating / pre-cooling so that the set temperature is reached faster.



Construction



The **CTh** chamber consists of 2 cabinets, each at different temperature, and of a transfer basket containing the test samples.

The transfer basket, on casters, is pulled along guiding rails by a linear cylinder which is connected to a notched chain and a transfer cable. The cylinder is actuated by a brake engine that allows an exact positioning of the transfer basket.

The user safety is optimized with a front emergency stop and a mode (Fast Change Rate/Shock) selection switch with key. Doors are also locked during test, on temperature threshold.

The "Cold" cabinet can be **automatically defrosted** while running a cycle, which is particularly useful during long cooling cycles.



Piloting




Our piloting software **Spirale 3** enables you to control all your equipments.

You have at your disposal :

- an EXTRA WIDE tactile screen,
- 3 levels of use : the "Production" model, easy to use, obvious and functional
the "Standard" model, a multipurpose level
the "Laboratory" model, towards advanced tests,
- a tracking alarm when in Shock or Fast Change Rate mode, ensuring your tests reproducibility.

The specific development of **Spirale 3** for thermal shocks is revolutionary because of its 3 programming modes, equipped with 3 assistants :

- 1/ the "**Standard**" mode with a very simple creation
- 2/ the "**Optimized Time**" or "**Guaranteed plateaux duration**" that enables, whatever the on-board load, to keep the programmed plateaux duration (**WAIT-FOR**)
- 3/ the "**Energy Saving**"  mode during which only the cabinet containing the product is functioning, which enables to **reduce energy consumptions about 40 to 70%**.

Climats