

# Vertical Thermal Shock CTy new range



## Spirale 3, the climatic reference

climats



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 3 **distinct cabinets** – one hot, one "ambient" and one cold– and with a **mobile basket** that contains your products.

The products undergo ultra-quick temperature variations when the basket goes from one cabinet to another.

The temperature of the "ambient" intermediate cabinet can be regulated from -30°C à +100°C.

In addition to thermal shock tests, the CTy 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    |
| 55 CTy          | 440                     | 410 | 350 | 1548            | 1405 | 2225 |
| 120 CTy         | 600                     | 550 | 400 | 1884            | 1635 | 2400 |

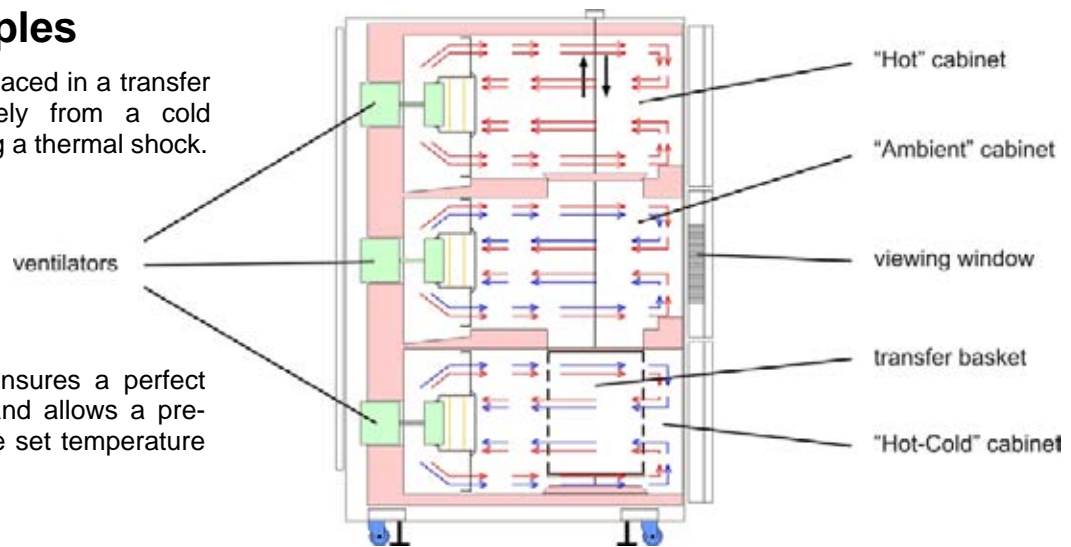


## Functioning principles

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.



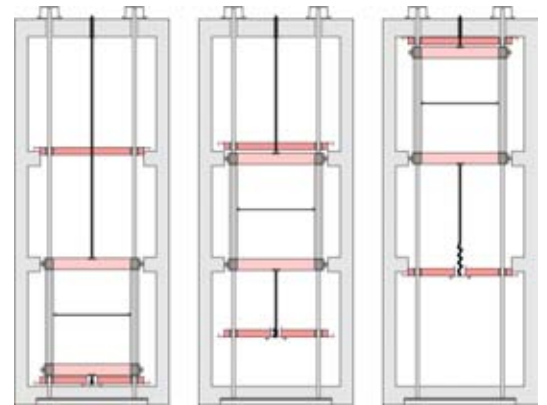
## Construction

The CTy chamber consists of 3 cabinets, each at a different temperature, and of a transfer basket containing the test samples.

The oscillating type transfer basket is actuated by a linear cylinder which is connected to a notched chain and a transfer cable.

The different cabinet tightness is ensured by 2 moving buffers ; the upper one moves by gravity, the lower one is attached under the transfer basket with a cable and a drag spring.

The buffers and the transfer basket are guided thanks to 2 metal bars equipped with heating ropes.



The user safety is optimized with a front emergency stop and 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