

# Vertical Thermal Shock CTk 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.

CTk models are mainly designed for heavy loads or cumbersome samples and, thanks to their low use of ground space, they are particularly advisable in production lines.

In addition to thermal shock tests, the CTK 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 without cylinder |      |      |
|-----------------|-------------------------|-----|-----|----------------------------------|------|------|
|                 | W                       | D   | H   | W                                | D    | H    |
| 230 CTK         | 730                     | 485 | 670 | 1444                             | 2998 | 2052 |
| 300 CTK         | 750                     | 600 | 670 | 1444                             | 3298 | 2150 |
| 324 CTK (≤10cv) | 900                     | 600 | 670 | 1564                             | 3298 | 2150 |
| 324 CTK (≥15cv) | 900                     | 600 | 670 | 1564                             | 3494 | 2150 |
| 490 CTK         | 1220                    | 600 | 670 | 1870                             | 3407 | 2150 |
| 500 CTK         | 800                     | 800 | 800 | 1454                             | 3494 | 2410 |
| 504 CTK         | 1400                    | 600 | 600 | 2050                             | 3407 | 2010 |

height with cylinder : H + 1150

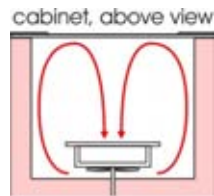


## Functioning principles

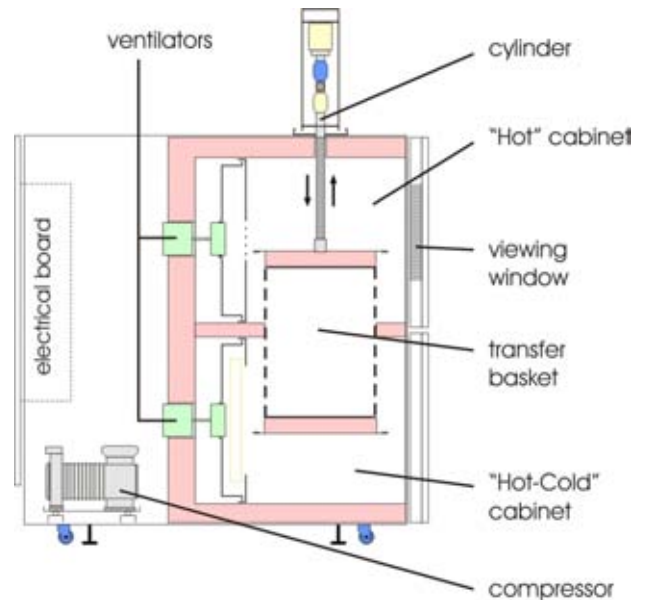
The samples to be tested are placed in a transfer basket that moves alternatively from a cold cabinet to a hot cabinet, creating a thermal shock.

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.



The air is drawn to the battery center and forced back on the sides.



## Construction



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

The oscillating type transfer basket is guided by an electromechanical cylinder which 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 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