

## Ultra Deep Freezers: Ultra Deep Chest Freezers:

Thalheimer ultra-deep chest freezers MTKT excel by outstanding reliability, efficiency and safety. The ultra-deep chest freezers were designed to meet the needs of industrial and research laboratories and keep a constant interior temperature of  $-85^{\circ}\text{C}$  even at ambient temperature of  $+32^{\circ}\text{C}$ . The ultra-deep chest freezers are perfectly suited for long-time storage of chemicals and samples. The freezers can be manufactured in different sizes according to our standards or customer's needs.

### Technical Specification:

<b>Preservation temperature:</b>	Adjustable from $-50^{\circ}\text{C}$ to $-86^{\circ}\text{C}$
<b>Ambient temperature:</b>	$+10^{\circ}\text{C}$ up to $+30^{\circ}\text{C}$
<b>Exterior material:</b>	Powder-coated sheet steel white
<b>Interior material:</b>	Stainless steel 1.4301 (AISI 304)
<b>Insulation:</b>	150 mm polyurethane CFC-free, heat transfer coefficient $0,13\text{ W/m}^2\text{ K}$
<b>Lid:</b>	Hermetically silicon-sealed, with lid frame heating to prevent water condensing, locked with a key,
<b>Cooling machine:</b>	Hermetically sealed, air-cooled, vibration-free, with 2 stages cascade switching mechanism, refrigerating agent CFC-free at 1st stage R507, at 2nd stage R23
<b>Temperature control:</b>	Digital micro-processor based temperature control
<b>Alarm:</b>	Optical and acoustic, additional terminal allows connecting to a remote control alarm system, with battery or direct power supply
<b>Voltage:</b>	230V 50Hz 1ph. Other voltage on request
<b>Accessories:</b>	2,5 m long connecting cable and safety plug
<b>Optional:</b>	Temperature recorder

Ultra-deep chest freezers keep adjustable temperature from -50° C to -86° C at ambient temperature from + 10° C up to + 30° C.

Exterior material is sheet steel coated with white color, while interior material is stainless steel, but it is possible to use stainless steel as an exterior material.

Polyurethane foam with very low heat transfer coefficient 0,130 W/m<sup>2</sup> K is used as insulation.

Our ultra-deep chest freezers are equipped with

-lid frame heating,

-2 stages cascade switching mechanism for cooling machine,

-microprocessor temperature controller,

-alarm system which can be connected to remote alarm control system and

-other features

that make the use of the ultra-deep chest freezer convenient and efficient.

Our ultra-deep chest freezers have low noise level, are easy to clean and better meet hygienic requirements.

The ultra-deep chest freezers can be manufactured in any size – from 50 l up to 700 l interior volume.

Our ability to satisfy any wish of our customers regarding colors, size, surface materials and way of serving the equipment indicates our strength in particular.

We do not produce mass-products – we find answers.

