Refrigerated recirculation baths “Frigiterm-TFT-10” and “Frigiterm-TFT-30”

ADJUSTABLE TEMPERATURE FROM -10 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0.1 °C / -10 °C, ±0.1 °C.
ADJUSTABLE TEMPERATURE FROM -30 °C TO 100 °C. STABILITY: 0 °C TO 100 °C, ±0.1 °C / -30 °C, ±0.2 °C.
SET ERROR : ±1 °C. RESOLUTION: 0.1 °C.

SAFETY:
STANDARD DIN 12876. SAFETY OVER TEMPERATURE THERMOSTAT WITH ADJUSTABLE MANUAL RESET. LOW LIQUID LEVEL SENSOR PROTECTION.



FEATURES

Maximum working volume to maintain maximum temperature: 8 litres.
AISI 304 stainless steel top and lid with an inner tank of AISI 304 stainless steel.
Complete with a pump for internal and external liquid circulation with inlet and outlet connectors. A drain tap is placed at the side of the unit.
A hermetically sealed compressor is mounted on anti-vibration mounts.
A RS-232 interface for connection to a printer or computer.

MODELS

	Part No.	Capacity litres	Control range °C	Height / Width / Depth (usable) cm	Height / Width / Depth (exterior) cm	Pump Pressure / Flowrate H2O	Power W	Compresser power H.P.	Weight Kg
FRIGITERM-10	3000546	8	-10 + 100	12 20 14	36 66 44	150 mbar-12 l/min	1150	1/8	28
FRIGITERM-30	3000547	8	-30 + 100	12 20 14	36 66 44	150 mbar-12 l/min	1460	3/8	30

PRECISE CIRCULATING BATHS
Choice of baths and immersion circulators “Digiterm-S-150” and “Digiterm-TFT-200”

CONTROLLABLE TEMPERATURES FROM AMBIENT +5 °C TO 150 OR 200 °C.
CAPACITY FROM 20 TO 27 LITRES.

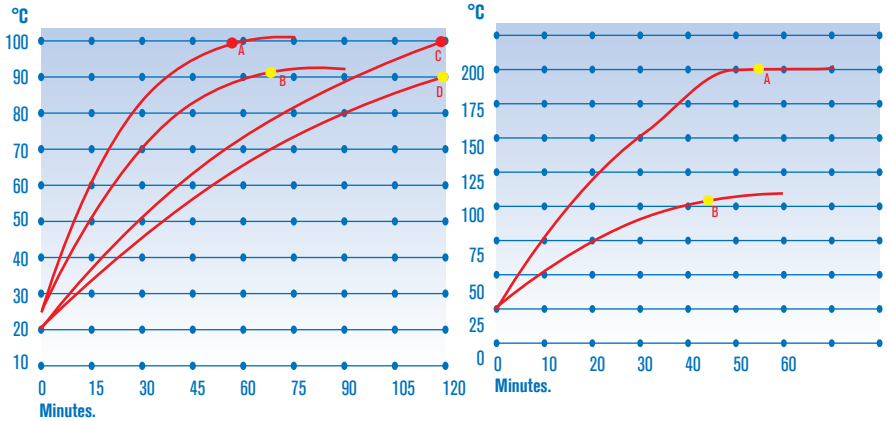
APPLICATIONS

Incubation processes, Enzymatic reactions, Fermentation, laboratory cultures in general.

COMMON FEATURES

Double skinned baths with an AISI 304 stainless steel internal tank with an AISI 304 stainless steel external, for convenience, handles at the side and drain tap are provided as standard. A detachable immersion thermostat for controlling stirring and temperature is fitted. A cooling coil with the use of tap water or cooled re-circulator can be used to maintain ambient temperatures. Internal or external circulation pump (Polarimeters, refractometers and viscometers, etc)





Graph of temperature and time for the Tectron Bio 100 and Digiterm-S-100 and Digiterm-TFT-200, units with capacity of 20 litres.
Tests completed with water up to 100°C:
A. Digiterm-TFT-200 with lid at 100 °C.
B. Digiterm-TFT-200 no lid at 90 °C.
C. Digiterm-S-100 with lid at 100 °C.
D. Digiterm-S-100 with no lid at 90 °C.

Graph of temperature and time for the Digiterm 100 and 200, units with capacity of 20 litres.
Tests completed with Silicon oil up to 200°C:
A. Digiterm-TFT-200 with lid at 200 °C.
B. Digiterm-TFT-200 with lid at 100 °C.
27 litres capacity baths take 20% more time to reach the same temperature.

Temperature control equipment for viscosity measurements for viscometers “ST-2025”

The influence of temperature while measuring viscosity is considerable, lower temperatures increase viscosity. Therefore it is indispensable to control temperature when precise viscosity measurements are required. The control of temperature by using a thermostatically controlled bath is the most efficient, because of the re-circulation of liquid produces a rapid and stable temperature.
We recommend our range of immersion thermostats for this application.

TEMPERATURE CONTROL AND CONFIGURATION FOR VISCOSITY MEASUREMENTS:
FRIGITERM-TFT-10 Part No. 3000546, **FRIGTERM-TFT-30** Part No. 3000547 Suitable for below ambient working environments (see page 106 for specifications).

For temperatures above ambient see the **DIGITERM-S-150** Part No. 3000543, or **DIGITEM-TFT-200** Part No. 3000544 complete with 12 litre tank Part No 6000391, (see pages 107 and 109 for specifications).

An adapter kit for the thermostat bath is required:
Adapter for thermostat bath comprising of an extension spindle and 4 leg adjusters for the bath. (Kit can be fitted by the user.)
This kit adjusts the bath measuring height to enable samples to be placed inside.

Part No. 1001627. Support for 2 500 ml beakers, to be placed inside the bath **(only for bucket 6000391).**

Part No. 1001628 Support base for the **DIGITERM** immersion thermostats. This accessory is recommended to close the bath and maintain a constant temperature.

CONSTANT TEMPERATURE CONTROL ACCESSORY FOR SMALL SAMPLE VOLUME ADAPTERS. USE WITH THE RE-CIRCULATING JACKET ACCESSORIES. PART NO. 1000996
To work below ambient temperatures, we recommend the use of the **FRIGITERM-TFT-10** Part No. 3000546, or **FRIGTERM-TFT-30** Part No. 3000547 (see page 106 for specifications.)

For temperatures above ambient see the **DIGITERM-S-150** Part No. 3000543, or **DIGITEM-TFT-200** Part No. 3000544 complete with 12 litre tank Part No. 6000391, (see pages 107 and 109 for specifications).

It is necessary to configure the immersion thermostats for “external re-circulation.” The Bath adapter kit is not required.



Frigiterm thermostat bath with adapter kit Part No. 1001625, fitted with a rotary viscometer.



Immersion thermostat Digiterm controlling temperature of viscometer.

Digiterm thermostat bath with support base Part No. 1001628. 12 litre bath Part No. 6000391 and adapter kit Part No. 1001625 or 1001626 To be used with a rotary viscometer and beaker support Part No. 1001627.



Support for 2 beakers 1001627



Reactor for pilot plant "RE-605" and "RE-620"

CAPACITY UP TO 20 LITRES
FOR ATMOSPHERIC PRESSURE OR VACUUM

APPLICATIONS

This equipment is designed for reflux and distillation operations with a stirring element, for all laboratory's pilot plant operations and small productions.

FEATURES

Reactor module built-in, base made of glazed steel in epoxy and tubular structure in stainless steel AISI 304, equipped with an engine group stirring and a reaction jacketed borosilicate glass 3.3 with graduation to temper, for a volume of 4-20 liters in "RE-620" model and 1-5 liters in "RE-605" model.
Stirring anchor blade and elements in contact with the liquid or reaction steam, composed of borosilicate glass and PTFE.
Addition and reflux models.
Optional:
- Configurations for distillation can be supplied.
- Amber glass finish.
- Voltage 110V / 60 Hz.

CONTROL PANEL

Main switch ON / OFF.
Regulator knob for stirring speed from 0 to 500 rpm.
Temperature and RPM digital indicator

MODELS

Part No.	Total dimensions Height / Width / Depth			Reactor capacity	Operating temperature	Power W	Weight Kg
1001710	130	70	35	5	-50 °C to 200 °C	90	10
1001722	140	68	68	10	-50 °C a 200 °C	34	15
1001711	180	62	50	20	-50 °C to 200 °C	250	68



"RE-605" model 5 litres.



"RE-620" model 10 litres.



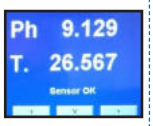
Model "RE-620" 20 litres.

ACCESORIES

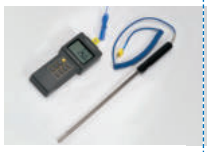
pH analyser temperature from -10°C up to 140°C. 3.5'' color touch screen. 8 digital inputs, 2 configurable analog and 6 relay outputs for signaling and control. Communications: 485 for ARC sensor network. IP-65 box. RS-232 output for connection to a computer. Possibility of performing PID control loops. GSM, RED, TCP / IP modem connections, Probes: O_2, CON, VCD and Redox.



Part number 4120824 (For measurement and reading only).
Part number 4120823 (For measurement, reading and control).
HT glass sensor pH 0-14 + Tª -10 at 100 ºC. Part number 4120801
ARC HT sensor pH 0-14 + Tª -10 at 140 ºC. Part number 4120822
Glass sensor adapter for R-605. Part number 4120802
Glass sensor adapter for R-620. Part number 4120803



Digital thermometer "TC-9226-A"
Temperature range: -200 ºC. to 1370 ºC.
Part No. 5903030
See page. 294



PTFE expansion/contraction **bellows** for coupling between mouth and coolant Part No. 1001984



Stirring rod in the shape of a helix, Ø 9.5 mm in PTFE. and shovel in PTFE (length 65 x width shovel 7 cm). Part No. 1001789



COMMON COMPLEMENTS

Silicone oil 4 liters. Temperature up to 300ºC. Viscosity 50 mm2/s at 25 ºC. Melting point 318 ° C. Part No. 1000027
Peristaltic dosing pump "Peristaltic PR-2004."
For PH stabilisation (acid-base). Also applicable to dosages in process.
Features: See page. 47. Part No. 4129051
Recirculation cryothermostat
For adjustable temperatures from -50 ºC. to 200 ºC.

FOR REACTOR R-605

Recirculation thermostat "Ultraterm-TFT-200".
For adjustable temperatures from ambient +5 ºC. to 200 ºC.
Part No. 3000545 See page. 311.
Recirculation cryothermostat "Frigiterm-TFT-30".
For adjustable temperatures from -30 ºC. to 100 ºC.
Part No. 3000547 See page. 311.

FOR REACTOR R-620

High power recirculation thermostat "Interheater"
For adjustable temperatures from ambient +5 ºC. up to 90 ºC.
Part No. 6001491 / 6001497 See page. 111.
Water refrigerador and recirculator
For temperatures from -20°C to +40 ºC.