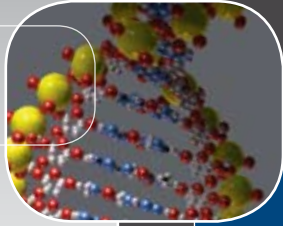


# Swift®



Swift Series Thermal Cyclers, Mini and Maxi

## Mini™ and Maxi™ Thermal Cyclers

### About PCR

Polymerase Chain Reaction (PCR) is an *in vitro* method of nucleic acid synthesis useful in detection and analysis of DNA and RNA in cell and molecular biology investigations. Through PCR, a small, unique segment of DNA can be specifically replicated, exponentially amplified and easily analyzed. Because PCR depends on repeated cycles of heating and cooling within a sample block, rapid temperature ramping, precise temperature control, block uniformity and flexible segment programming are essential performance attributes of a Thermal Cycler.

### Swift Series Thermal Cyclers

Esco Swift thermal cyclers offer a choice of Mini and Maxi models designed to meet critical requirements for PCR processes using a variety of PCR tubes, strips, plates and slides. The Swift thermal cyclers use state of the art Peltier temperature control technology to achieve and maintain precise control and fast ramp rates with minimal over- or under-shoot for process speed and accuracy.

### General Features

- Multifunctional thermal cyclers available in two models.
- Multi-block capability with automatic block recognition software to minimize the need for manual settings.
- Large-screen interface for all functions.
- Easy, logic-based programming menus for temperature setpoints, ramp-up, ramp-down, pause and other functions.
- Ramp rate, temperature and hold time is programmable for each segment.
- Large memory to store up to 99 individual programs.
- Software upgrades via RS232 interface.
- Automatic restart to save setpoints and resume process in the event of power interruption.
- User-friendly ergonomic design, compact footprint to conserve available bench top space.
- Available software updates can be downloaded via Internet.
- Adjustable ramp rates to 4°C/sec.

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Swift Maxi Control Panel



Swift Mini Control Panel

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## Swift Maxi Gradient PCR

The Swift Maxi is capable of performing gradient PCR, used in particular to optimize denaturation and annealing parameters for new primers essential to the process. The Swift Maxi allows programming of a 30°C temperature gradient that can simultaneously analyze up to 12 distinct denaturation, elongation and/or annealing temperatures. In addition, other reaction parameters can be tested row-by-row within the same block on one experimental run.

## Swift Block Performance

Swift Mini and Maxi thermal cycler blocks are based on machined Peltier components with balanced thermal mass matched to a fan system to assure temperature control accuracy and response required for optimal PCR reactions. Critical performance parameters include precise heating and cooling ramp-up and down rates and minimal over- or under-shoot. A heated lid assists in control of block temperature uniformity during all phases of the process to minimize temperature spread and assure the highest uniformity and reproducibility in template amplification.

## Swift Multi Block Selection

Swift sample blocks are available to accommodate the most commonly used tubes and plates. Blocks are easily interchangeable, and, on the Swift Maxi, on-board software automatically recognizes block configurations to eliminate the need for manual setpoints.

Swift Maxi offers the largest selection of interchangeable blocks on the market today!



Swift Maxi Thermal Cycler

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Swift Maxi Thermal Cycler accommodates up to 8 interchangeable blocks.



**SWT-MX-BLC-1**  
0.2ml x 96, Standard



**SWT-MX-BLC-2**  
0.5ml x 60



**SWT-MX-BLC-3**  
0.5ml x 30, Dual Block



**SWT-MX-BLC-4**  
0.2ml x 48, Dual Block



Swift Maxi Blocks (SWT-MX-BLC-X)



**SWT-MX-BLC-5**  
(48 x 0.2ml) + (0.5ml x 30)



**SWT-MX-BLC-6**  
Plate Block, 384 Wells



**SWT-MX-BLC-7**  
0.2ml x 96, Gradient Block



**SWT-MX-BLC-8**  
Slide Block, 4 *in situ* Slides

Swift.

Thermal Cyclers • Mini and Maxi Thermal Cyclers

Swift Cyclers Blocks	
Part Number	Description
Swift Mini Blocks	
SWT-MI-BLC-1	0.2ml x 25
SWT-MI-BLC-2	0.5ml x 16
SWT-MI-BLC-3	0.2ml x 24 Strips and Plates
Swift Maxi Blocks	
SWT-MX-BLC-1	0.2ml x 96, Standard
SWT-MX-BLC-2	0.5ml x 60
SWT-MX-BLC-3	0.5ml x 30, Dual Block
SWT-MX-BLC-4	0.2ml x 48, Dual Block
SWT-MX-BLC-5	(0.2ml x 48) + (0.5ml x 30)
SWT-MX-BLC-6	Plate Block, 384 Wells
SWT-MX-BLC-7	Gradient Block, 0.2ml x 96
SWT-MX-BLC-8	Slide Block, 4 <i>in situ</i> slides

## Esco PCR Products

The Esco PCR product line includes Swift Spectrum real time thermal cycler, the ProvoCell shaking/temperature controlled micro-incubator. For further information on these and other Esco laboratory products visit [www.esco-global.com](http://www.esco-global.com) or contact your local Esco Sales Representative.



## General Specifications and Swift Mini/Maxi Product Differentiation

Model	Swift Mini	Swift Maxi
Interchangeable Blocks	Up to 3	Up to 8
Sample Capacity	See Block Chart	See Block Chart
Temperature Control Mode	Block, Tube	Block, Tube
Temperature Range	4°C to 99°C	4°C to 99°C
Block Temperature Accuracy	±0.4°C	±0.2°C (55°C)
Block Temperature Uniformity	±0.4°C	±0.4°C (55°C)
Heating Rate, Maximum	3.0°C/ sec	4.0°C/ sec
Cooling Rate, Maximum	2.0°C/ sec	3.0°C/ sec
Hot Lid Temperature	105°C	Adjustable, 30°C ~ 110°C
Program Storage	99	99
Maximum Cycles	99	99
Maximum Segments/ Cycle	5	5
Maximum Steps	16	16
Gradient	N/A	30°C maximum, 1°C minimum
Digital Display	LCD	LCD
Electrical	220V ± 22V 110V ± 22V 50Hz/ 60Hz	220V ± 22V 110V ± 22V 50Hz/ 60Hz
Dimensions, L x W x H	285 x 218 x 178 mm 11.2" x 8.6" x 7"	470 x 340 x 260 mm 18.5" x 13.4" x 10.2"
Net Weight	3.2 kg/ 7 lbs	10 kg/ 22 lbs
Printer Interface	RS232	RS232



### Esco Containment, Clean Air and Laboratory Equipment Products

- Biological Safety Cabinets, Class II, III
- Fume Hoods, Conventional, High Performance, Ductless Carbon Filtered
- Laminar Flow Cabinets, Horizontal, Vertical, PCR
- Animal Containment Workstations
- Hospital Pharmacy Isolators, Cytotoxic Safety Cabinets
- Specialty Workstations: *In-Vitro* Fertilization, Powder Weighing
- PCR Thermal Cyclers, Conventional, Real-Time
- Cleanroom Fan Filter Units, Modular Rooms, Air Showers, Pass Thrus

*Since 1978, Esco has emerged as a leader in the development of controlled environment, laboratory and cleanroom equipment solutions. Products sold in more than 100 countries include biological safety cabinets, fume hoods, ductless fume hoods, laminar flow clean benches, animal containment workstations, cytotoxic cabinets, hospital pharmacy isolators, and PCR cabinets and instrumentation. With the most extensive product line in the industry, Esco has passed more tests, in more languages, for more certifications, throughout more countries than any biosafety cabinet manufacturer in the world. Esco remains dedicated to delivering innovative solutions for the clinical, life science, research and industrial laboratory community. [www.escoglobal.com](http://www.escoglobal.com).*

NSF / ANSI 49 Biological Safety Cabinets • Animal Containment Workstations • Fume Hoods • Clean Benches

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