

# Coagulation

Thrombolyzer

*Compact X'*

# Thrombolyzer *Compact X*

## In Detail

**The cuvette:** Plasma and reagent are simultaneously incubated in a single cuvette. This eliminates the need for direct pipetting in the measuring channels. Each cuvette has fine incisions which prevent the fluids from flowing together before measuring. The 4-fold cuvette bar is integrated into a transportation system. Cuvette bars can be reloaded at any time, even during working operations.

**The measuring process:** Cuvette bars are transported from the register to the pipetting station. Upon completion of pipetting, the bar is transported, via sequential timing controls, through 3 incubation positions which simultaneously incubate both sample and reagent to 37° C and subsequently transported into the measuring block. The measuring block tips the cuvette down 90° into a vertical position. The steel ball, plasma and reagent are forced down to the bottom of the cuvette where the ball rotates and homogenises the mixture.

**The measuring system:** A circulating magnet underneath the stationary cuvette causes a steel ball to rotate. This ball optimises the gentle mixing of plasma and reagent resulting in uniform coagulation. The ball binds the developing fibrin threads together assuring reliable signal detection. The coagulation process is additionally monitored by a PC and compared with internal standards. In the case of a deviation, the measurement value is marked with an error flag. An automatic filter changer enables additional measurements such as chromogenic substrates, immunologic tests as well as other tests which are measured with 405 nm and 546 nm at 37 °C.

**The pipetting system:** Plasma and reagent are distributed by a pipetting needle. To avoid carry-over, the needle is rinsed thoroughly from the inside and outside with distilled water as well as a special decontamination solution. A capacitive level sensor controls fluid removal from the collection tubes and reagent bottles.

**The plasma tray:** This plasma tray has 32 positions for collection tubes as well as 4 positions for emergencies. Two of these trays can be alternately processed in Thrombolyzer for continuous operation. Each position is flexibly designed for 10-15 mm tubes. The ThromboScan, in conjunction with contacts in the plasma tray, assures an accurate positional registration on the PC. This positive sample identification with bar code can be attached if required.

**The reagent block:** The cooled reagent tray has positions for 16 large reagent bottles as well as room for 4 control plasmas. Thrombolyzer can, therefore, process up to 10 different test parameters without being refitted. In addition, up to nine blocks with different tests can be freely defined.

**User-friendly software:** All information and commands for routine work are in the main menu. The software has been so clearly developed that it can be mastered within a day. All data are entered entirely by using the keyboard or bar-code scanner. The system is protected from unauthorised access by utilising different passwords.

# Clotting, Chromogenic and Immunology



## Technical description:

Walk-away system  
Throughput: 180 PT's, 150 APTT's  
45 samples á 4 parameters p.h.  
Patient or test oriented procedure  
Automatic pre-dilution  
Automatic test repetition  
Automatic calibration curve production  
4 measuring channels  
Filters for 405 nm and 546 nm  
Cuvette register for 240 tests  
Sample trays for 36 collection tubes  
Cooled reagent tray with 16 positions  
4 positions for quality controls  
Automatic reagent changeover  
Measuring system with process monitoring  
Bi-directional interface  
Interface RS 232  
For continuous operation and emergencies

Open system for almost all reagents  
Emergencies via immediate random access  
Immediate result display  
QC program  
Multitasking with PC  
Main menu for the entire routine  
Positive sample identification (option)  
Takes over working list from host computer  
Uses collection tubes  
Sample and reagent recharging  
Cuvettes: refillable at any time  
Error monitoring during coagulation  
Error criteria printout  
Graphic display of the coagulation process  
Data base for up to 10,000 patients  
Current sample status display  
Automatic test repetition  
Capacitive level detection

### Technical data:

Dimensions:

Length: 60 cm  
Width: 60 cm  
Height: 34 cm

Weight: 50 kg  
Mains voltage: 120/230 V ± 10%  
Frequency range: 50 - 60 Hz  
Power consumption: 400 VA

### The system:

Positive sample identification ThromboScan

Thrombolyzer  
Pentium PC and colour monitor  
System accessories  
Printer  
Bar-code scanner

### Option:

Behnk Elektronik GmbH & Co. KG . Hans-Böckler-Ring 27 . D-22851 Norderstedt . Germany

