Highspeed Closed Tube Sorter

**HCTS2000 MK3**

**Laboratory logistics precisely engineered**

# HCTS2000 MK3

## Efficient laboratory logistics

The HCTS2000 MK3 (Highspeed Closed Tube Sorter) is a machine for sorting loose primary sample tubes and placing them directly into racks. It was specifically designed to improve the work flow in clinical laboratories, particularly in the pre-analytical phase in Hematology and in the entrance area.

The HCTS2000 MK3 can process and sort all types of primary tubes. Any cylindrical tube with a length of 76 – 120 mm and a diameter of 8 – 19 mm, from any of the major tube manufacturers such as GBO, Sarstedt, and BD to name a few, are easily handled by the machine. It doesn't matter if the tubes are for use in Clinical Chemistry, Hematology, or Coagulation, the HCTS2000 MK3 can process them all.

Installing an HCTS2000 MK3 in the laboratory eliminates most of the manual tube handling, thus dramatically improving workflow. Processing up to 800 tubes per hour, the HCTS2000 MK3 is the perfect compliment for the analytical instruments in the lab; reliably supplying them with perfectly filled racks without tying up highly qualified personnel. In addition, the HCTS2000 MK3 is much faster and has fewer errors than sorting by hand. The HCTS2000 MK3 easily overcomes every bottleneck during the peak hours in the pre-analytical phase of Hematology and the assessioning area of the lab.

### Loose, bulk tubes placed directly into racks

With the HCTS2000 MK3, it is possible to sort loose tubes directly into racks. Just place any mix of primary tubes, as long as they are within the allowed dimensions, into the funnel shaped entrance area. The machine then takes over reading the tube barcode, registering the tube (depending on LIS options) and sorting the tube to the proper rack or target bin. At the end of the sorting process, a special gripper places the tubes upright into the waiting racks. The racks can be 1- or 2-dimensional, and the gripper can insert the tubes from the top or push the tubes into place from the side, such as with ABX racks. For up to 650 tubes per hour, the HCTS2000 MK3 positions the tubes so that the barcodes are aligned for easy reading by the automatic analyzers.

- Loose, bulk tubes placed in racks
- Fast processing and sorting
- Adaptable to various types of racks

## Fast processing and sorting

The HCTS2000 MK3 can process up to 800 tubes per hour, easily handling the bottlenecks that occur during the peak hours in the lab. It can read barcodes with up to 30 characters. Using various sorting rules, the tubes are quickly read, identified, and sorted into 1 of 5 sorting bins or 1 of 3 rack channels. Sorting rules can be developed by the user and stored in the HCTS2000 MK3 or queried from the LIS. The HCTS2000 MK3 can store up to 10 different sorting rules so it can quickly and easily be adapted to all the various workloads in the lab.

## Processing with different types of racks

There are 4 basic configurations of the HCTS2000 MK3, each with a different number of channels for input and output racks. Currently, the MK3 can work with Bayer-Advia, Sysmex, StreamLAB, LABcell and ABX racks, although other racks may be put into use as customer requirements develop. A separate input channel is designated for each type of rack. If one type of rack is used, up to 3 target output channels can be sorted to. If two different racks are used, then two target channels are available. Each target channel can hold up to 30 racks, depending on rack type.
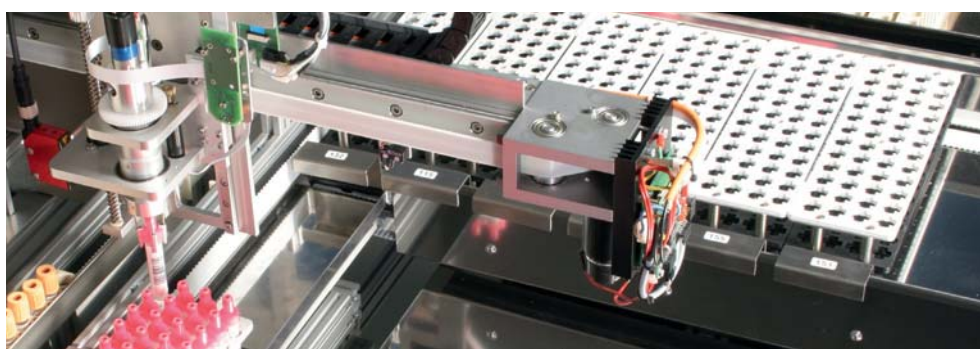


| Part numbers | |
|---|---|
| 30-105623 | HCTS2000 MK3 (ABX) - 1 output rack channel |
| | up to 2 additional output rack channels possible |
| 30-105624 | HCTS2000 MK3 (Bayer-Advia) - 1 output rack channel |
| | up to 2 additional output rack channels possible |
| 30-107196 | HCTS2000 MK3 (StreamLAB) - 1 output rack channel |
| | 1 additional output rack channel possible |
| 30-107197 | HCTS2000 MK3 (Sysmex) - 1 output rack channel |
| | up to 2 additional output rack channels possible |
| 30-105626 | HCTS2000 MK3 (StreamLAB & Sysmex) |
| | 1 output rack channel StreamLAB, 1 output rack channel Sysmex |
| 30-107115 | HCTS2000 MK3 (LABcell) |
| | 1 LABcell rack loader |

More information about further configuration possibilities can be found in the Datasheet
**HCTS2000 Accessories.**

# Technical specifications

HCTS2000 MK3

HCTS2000 MK3 LABCELL

| Sorting | |
|---|---|
| Sorting speed | 650 - 800 tubes per hour |
| Sorting criteria | Linear barcodes with up to 30 characters |
| | UPS/EAN, Code 39, Interleave 2 of 5, Code 128, Codabar, EAN 128, EAN Abendum, Pharma Code, PDF417 |
| | Query to LIS, up to 25 order requests |
| | 2D-Data-Matrix-Code (optional) |
| | Cap color (optional) |
| Sorting rules | 10  Sorting rules, freely editable and saved in memory |

| Tube-handling | |
|---|---|
| Primary tubes | Cylindrical from all manufacturers, 76 – 120 mm in length, 8 – 19 mm diameter |
| Tube entrance area | Funnel shaped container for up to 550 tubes |
| Tube exit area tubes | Up to  30 racks |
| | 5 target bins, each having 200 tube capacity |
| Input and output rack combinations | 1 Channel for empty racks and 1 up to 3 channels for full racks |
| | 2 Channels for empty racks and 2 channels for full racks |
| Racktypes | Racks from Bayer-Advia, ABX, StreamLAB & Sysmex, LABcell |

| General | |
|---|---|
| Operations | Built-in processor with touch screen panel |
| | Sorting rules edited using PC word processor |
| | LIS-connection, ASCII-Protocol |
| Connections | Power:  110 – 230 Vac, 50 – 60 Hz |
| | Standard serial communication; 9600 Baud |
| | d-sub 9 connector, RJ45 (optinal) |
| Dimensions | Approx. 2500 x 1540 x 1350 mm ( 98 x 61 x 53 in) (w x h x d) |
| | depending on rack structure |
| Weight | 250 kg (550 lb) |

MK3-e 2.2