

BD™ High Throughput Sampler (HTS) Option for the BD FACSCalibur™ Flow Cytometer

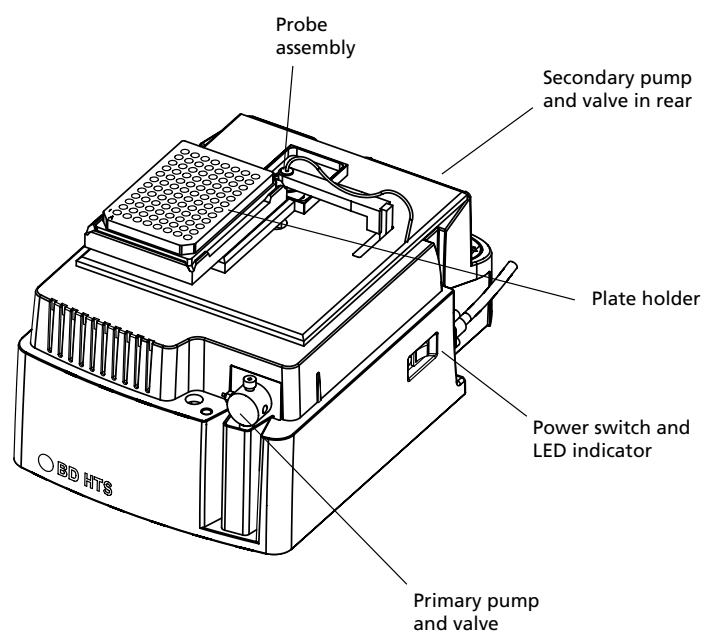
Technical Specifications

To improve experimental workflow, the BD™ High Throughput Sampler (HTS) option for the BD FACSCalibur™ flow cytometer provides rapid, fully automated sample acquisition from microtiter plates. In high-throughput mode, the HTS can process a 96-well plate in fewer than 15 minutes. Standard throughput mode can be selected for acquisition of larger sample volumes.

Fast acquisition speed is achieved by synchronizing two high-precision pumps for sample mixing, sample injection, and probe washing. Even with the high acquisition speed, carryover tolerances from one well to the next are less than 0.5%.* Low carryover is essential in research applications to ensure sample purity and data integrity.

The HTS option supports a wide range of research applications and is compatible with 96-well U, V, and flat-bottom plates as well as 384-well microtiter plates. BD™ PlateManager software allows you to create customized delivery protocols to be used multiple times with user-defined mixing, wash, and analysis parameters.

For more information about the HTS option or other quality products from BD Biosciences, please contact your local sales representative or visit bdbiosciences.com.



*<0.5% carryover on BD FACSCalibur is based on testing with 96-well plates in high-throughput mode.

Performance

Acquisition time (96-well plate)

<15 minutes in HT mode
(2-second acquisition)

<44 minutes in STD mode
(10-second acquisition)

Carryover[†]

<0.5% in HT mode

<0.75% in STD mode

Adjustable settings

Sample mixing

- Sample of each well is mixed prior to acquisition
- Mixing volume: 5–100 μL
- Mixing speed: 25–250 $\mu\text{L/s}$
- Number of mixes: 0–5

Probe wash volume: 200–800 μL

Sample volume: 2–10 μL (HT mode)
2–100 μL (STD mode)

Workstation

Compatible software

Mac® OS 10.5

BD CellQuest™ Pro software v6.0 or later

Compatible computers

BD FACStation™ MacPro computer or a 2.8 GHz Quad-core Intel® Xeon processor, 2 GB memory and 320 GB storage

Hard disk space

Requires a USB port on the BD FACStation workstation or hub for HTS hardware/BD FACStation communication

Data management

Integrated with BD CellQuest Pro software

Statistical display in BD PlateManager software

Fluidics

Plate/tube compatibility

The HTS option allows quick conversion between tubes and plates

384-well plates (flat bottom)

96-well plates (U, V, and flat bottom)

Sampling modes

High throughput (HT)

Standard (STD)

Sampling volume (range)

2–10 μL in HT mode

2–200 μL in STD mode

Total aspirated volume

22 μL (HT mode)

Excess aspiration volume

20 μL (STD mode)

Cleaning cycles

Automated daily and monthly cleaning protocols

Sheath and waste reservoirs

The HTS uses the existing BD FACSCalibur sheath and waste tanks.

[†]Carryover specified with beads and peripheral blood mononuclear cells. Other cell types may vary.

Options

Extended fluidics option

BD FACSThrow™ supply system for
BD FACSCalibur

Automated fluidics system includes
rolling cart and two 20-L Cubitainer®
packages (Cat. No. 349227)

Consumables

Compatible BD Falcon™ microtiter plates

96-well U bottom (Cat. No. 353910)

96-well V bottom (Cat. No. 353263)

96-well flat bottom (Cat. No. 353915)

384-well flat bottom (Cat. No. 353233)

Sheath fluid

BD FACSThrow™ sheath fluid, 20-L
(Cat. No. 342003)

BD FACSThrow™ sheath solution with
surfactant, 20-L (Cat. No. 336524)†

HTS customer care kit

Compatible with BD™ LSR II,
BD LSRFortessa™, and BD FACSCalibur
(Cat. No. 644788)

Installation Requirements

Size (W x D x H)

9.5 x 17.5 x 8 in.

(24.1 x 44.5 x 20.3 cm)

Requires 12 inches (30.5 cm) of table
space in front of the instrument

Weight

23 lb (10.4 kg)

Noise level

Idle mode <60 dBA

Run mode <75 dBA

Operating range (environmental conditions)

18–30°C (64.4–86°F)

15–70% relative humidity

Power

100–240 VAC

Regulatory Certifications

UL, CE, CSA

Training

Interactive online tutorial

Web address: bdbiosciences.com/training

Service Support

Depot repair service (where available)

Class 1 Laser Product.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

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