

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

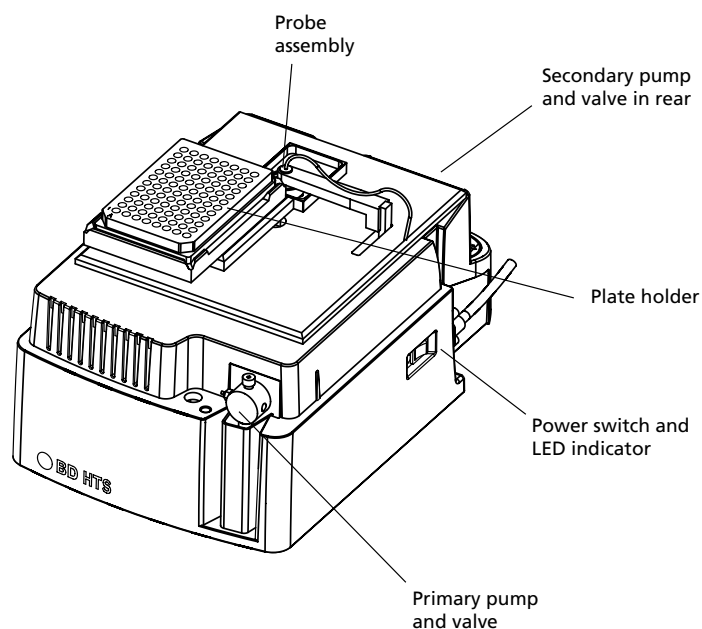
Technical Specifications

To improve experimental workflow, the BD™ High Throughput Sampler (HTS) option for the BD LSRFortessa™ cell analyzer 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 FACSDiva™ 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 LSRFortessa 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 µL/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[‡]

Data management software

BD FACSDiva v6.2 or later

Operating system

Windows® XP Professional SP3

Processor

Intel® Core™ 2 Duo processor, 3.0 GHz

RAM

HP 2 GB (2 x 1 GB) DDR2-800 ECC

Hard drives

HP 80 GB SATA/3 Gb/s 7200 RPM HD
(1st slot)

HP 250 GB SATA/3 Gb/s NCQ
7200 RPM HD (2nd slot)

DVD drive

HP 16x DVD+/-RW, SuperMulti SATA

Networking

Integrated Broadcom Gigabit
10/100/1000 ethernet

Broadcom 5751 NetXtreme® Gigabit
PCIe NIC Ethernet

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 LSRFortessa sheath and waste tanks.

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

[‡]Minimum configuration listed. Workstation may include upgraded specifications.

Options

Extended fluidics option

BD FACSThrow™ supply system for BD LSRFortessa and BD™ LSR II

Automated fluidics system includes rolling cart and two 20-L Cubitainer® packages (Cat. No. 649908)

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 LSRFortessa, BD LSR II, and BD FACSThrow (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)

Optional mounting on front or side

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

[§]We recommend using sheath solution with surfactant for most applications on the HTS.

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.

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