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.

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*<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 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

**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)
- 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.

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

**Extended fluidics option**
BD FACSFlow™ 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 FACSFlow™ sheath fluid, 20-L (Cat. No. 342003)
- BD FACSTM 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

‡Minimum configuration listed. Workstation may include upgraded specifications.
BD High Throughput Sampler (HTS) Option for the BD FACSCalibur Flow Cytometer

Technical Specifications

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.
Mac is a registered trademark of Apple Computer, Inc.
Intel is a registered trademark and Core is a trademark of Intel Corporation.
Windows is a registered trademark of Microsoft Corporation.
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