

### Technical data sheet

# Sepiatec SFC System

The Sepiatec SFC instruments SFC-50, SFC-250 and SFC-660 are equipped with an internal fraction collector and are primarily used in chiral applications, allowing for the collection of up to 8 fractions. They can also be used in achiral applications and for the purification of natural compounds when the number of collected fraction do not exceed 8.

## Scope of delivery

All configurations are supplied ready to use.



### NOTE

The scope of delivery depends on the configuration of the purchase order.

Accessories are delivered as per the purchase order, order confirmation, and delivery note.

## Order code



### NOTE

The order code is the configuration of the purchase order.

The configuration of the purchase order cannot be changed after the delivery. Finalize the configuration according to your needs before the order.

**1 1 S F C** [ ] [ ] [ ] **0 0 0** [ ] **0** [ ]

Flow rate (at 40% modifier)

050 50 mL/min

250 250 mL/min

Column selection valve

0 2 columns

1 10 columns

Voltage

0 100 - 120 V

1 220 - 240 V

**1 1 S F C 6 6 0 0 0 0 0** [ ] [ ]

CO2 recycling module

0 Without

1 CO2 recycling module

Voltage

0 100 - 120 V

1 220 - 240 V

## Technical data

### Sepiatec SFC systems

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Dimensions (W × D × H)	560 mm × 600 mm × 880 mm	720 mm × 600 mm × 880 mm	1,500 mm × 680 mm × 1,780 mm
Weight	86 kg	130 kg	320 kg
Connection voltage	Europe: 230 ± 10% VAC	Europe: 230 ± 10% VAC	Europe: 380 - 400 V 3N~
	Asia: 230 ± 10% VAC	Asia: 230 ± 10% VAC	Asia :380 - 400 V 3N~
	USA: 115 ± 10% VAC	USA: 115 ± 10% VAC	USA: 208 V 3~
Power consumption	Europe / Asia: 2,300W	Europe / Asia: 2,300W	Max.7,500 W
	USA: 1,500 W	USA: 1,150 W	
Overvoltage category	II	II	II
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
IP Code	IP 20	IP 20	IP 20
Pollution degree	2	2	2
Minimum clearance on all sides	100 mm	100 mm	100 mm
Electronic connections	3 USB ports, Ethernet, HDMI	3 USB ports, Ethernet, HDMI	3 USB ports, Ethernet, HDMI
Certificate	CE / UKCA	CE / UKCA	CE / UKCA

### System controller

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Controller	15.6" touchscreen, 16:9 format	15.6" touchscreen, 16:9 format	15.6" touchscreen, 16:9 format
System	Integrated Windows 10	Integrated Windows 10	Integrated Windows 10
Control software	Prep SFC software	Prep SFC software	Prep SFC software

## Method and operation

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Operating temperature range	15 – 25 °C	15 – 25 °C	15 – 25 °C
Operating pressure	Max. 400 bar	Max. 400 bar	Max. 400 bar
Backpressure regulator	Electromagnetic control valve, adjustable, up to 300 bar	Electromagnetic control valve, adjustable, up to 300 bar	Electromagnetic control valve, adjustable, up to 300 bar
Method development	Yes, on analytical columns (ID: 4 – 4.6 mm)	No	No
Preparative SFC	Yes	Yes	Yes
Column dimensions	ID: 4 – 16 mm Length: max. 250 mm	ID: 15 – 30 mm Length: max. 250 mm	ID: 30 – 50 mm Length: max. 800 mm
Column oven temperature	Ambient to 70 °C	Ambient to 70 °C	Ambient to 50 °C
Max. column capacity	10 of ID 4 to 16 mm	10 of ID 4 to 16 mm or 6 of ID >16 mm	
Column capacity	2 or 10	2 or 10	1

## Sample injection

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Syringe	1.0 mL Other volumes on request	5.0 mL Other volumes on request	25 mL Other volumes on request
Loop	0.5 mL Other volumes on request	2.5 mL Other volumes on request	10 mL Other volumes on request
Stack injection	Standard	Standard	Standard
Injection mode	Modifier stream	Modifier stream	Modifier stream

## Fraction collection

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Pressure-less collection	Standard	Standard	Standard
Fraction valve	1 – 8 fractions, individual GLS 1 waste	1 – 8 fractions, individual GLS 1 waste	Single mode: 1 – 8 fractions, individual GLS Tandem mode: 1 – 4 fractions, individual GLS 1 waste

## Solvents

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
CO <sub>2</sub>	Liquid	Liquid	Liquid Gaseous (with CO <sub>2</sub> recycling module)
Required CO <sub>2</sub> purity	Food grade (99.9%)	Food grade (99.9%)	Food grade (99.9%)
Number of organic modifier	4	4	3
CO <sub>2</sub> Recycling module available	No	No	Yes

## Detectors

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
DAD wavelengths range	190 – 720 nm	190 – 720 nm	190 – 720 nm
DAD wavelengths selectable	8	8	8
ELSD (optional)	Yes	Yes	Yes
MS (optional)	Yes	Yes	Yes

## Pumps

Specification	Sepiatec SFC-50	Sepiatec SFC-250	Sepiatec SFC-660
Total flow rate at 40 % modifier	50 mL/min	250 mL/min	660 mL/min
CO <sub>2</sub> pump flow rate	Max. 30 mL/min	Max. 150 mL/min	Max. 400 mL/min
CO <sub>2</sub> pump pressure	400 bar	400 bar	400 bar
Number of modifier pumps	1	1	2 (one as add-on)
Modifier pump flow rate	Max. 30 mL/min	Max. 150 mL/min	Max. 250 mL/min Max. 150 mL/min
Modifier pump pressure	400 bar	400 bar	400 bar
Add-on pump	Optional external	30 mL/min	250 mL/min
Chiller	Optional external (F-305)	Optional external (F-305)	Standard integrated

## Ambient conditions

For indoor use only.

Specification	Value
Max. altitude above sea level	2,000 m
Ambient and storage temperature	15 – 25 °C
Maximum relative humidity	45 – 75%, not condensing

## Spare parts and accessories

Use only genuine BUCHI consumables and spare parts in order to ensure correct, safe and reliable operation of the system.



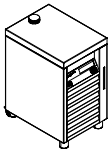
### NOTE

Any modifications of spare parts or assemblies are only allowed with the prior written permission of BUCHI.

## Spare parts


	Order no.	Image
Check valve CO2 pump inlet	11075916	
Check valve CO2 pump outlet	11075917	
Usit-ring G 1/8"	11075918	
Tubing SS, 1/16" OD x 1.0 mm ID, 1 m long	11076182	
Fitting set, 1/16" (10pcs) SS 303	11076183	
Ferrule set, 1/16" (10pcs) SS 316	11076184	
Flow cell for SFC, 3 mm, 1/16"	11076188	

## Accessories



	Order no.	Image
Add-on pump for SFC-50 10 mL pump head, for separations at low modifier volumes	11075602	
MS connection module for all Sepiatec SFC Including make-up pump and splitter	11075598	
Advion expression S compact mass spectrometer for all Sepiatec SFC m/z 1200, APCI ion source	11075599	
Advion expression L compact mass spectrometer for all Sepiatec SFC m/z 2000, APCI ion source	11075600	
ELSD external, for all Sepiatec SFC Low temperature light scattering detector, blue LED 405 nm	11075621	
Recirculating Chiller F-305 550 W at 15°C, Display, 230 V	11F30501	
Recirculating Chiller F-305 550 W at 15°C, Display, 110 V	11F30502	

## Syringes & Loops

### Syringes for SFC-50 / 250 / 660

	Order no.	Image
Syringe, 250 µL	11076546	
Syringe, 500 µL	11076189	
Syringe, 1 mL	11076547	
Syringe, 2.5 mL	11076548	
Syringe, 5 mL	11079916	
Syringe, 10 mL	11076553	
Syringe, 25 mL	11076552	
Syringe, 50 mL	11076554	

### Loops for SFC-50 / 250

	Order no.	Image
Sample loop SST 100 µL	11076587	
Sample loop SST 250 µL	11076191	
Sample loop SST 500 µL	11076190	
Sample loop SST 1 mL	11076586	
Sample loop SST 2 mL	11076588	
Sample loop SST 2.5 mL	11076591	
Sample loop SST 5 mL	11076589	
Sample loop SST 10 mL	11076590	

### Loops for SFC-660

	Order no.	Image
Sample loop 1/8" 5 mL	11076592	
Sample loop 1/8" 10 mL	11076593	
Sample loop 1/8" 20 mL	11076594	
Sample loop 1/8" 30 mL	11076595	

## Maintenance kits

	Order no.	Image
Maintenance kit SFC-50	11075957	
Maintenance kit SFC-250	11075959	
Maintenance kit SFC-660	11075961	







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Quality Systems ISO 9001

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