

**Micro Pumps**  
**uf-20000 Series**

uf-20000 series is the linear-cam and dual plunger type pump with the AC servo motor to be used for column packing and high pressure preparative works.

For column packing, the constant pressure flow mode is generally used. When the pump starts to work, it runs at a constant flow rate. When the pressure reaches its maximum setting, the maximum pressure is maintained by reducing the flow rate. After the column packing is finished, the flow rate increases to the set point so that the washing liquid flows at a constant flow rate.

**Specifications :**

Model	uf-20100SSW	uf-20100SSWP	uf-20200SZW	uf-20500SAW
General Application	Column packing, High pressure preparative works			
Feed Method	Linear-cam, dual plunger			
Mode	Constant flow rate and constant pressure flow			
Flow rate (mL/min)	0.1 – 99.9 (0.1/step)		0.2 – 199.8 (0.2/step)	
Accuracy	+/- 3% (1 mL/min - )		+/- 3% (2 mL/min - )	
Reproducibility	1% max. (1 mL/min - )		1% max. (2 mL/min - )	
Plunger Dia. x Stroke	7 x 10	7 x 8	9.525 x 10	14 x 10
Volume/Stroke (μL)	385	308	712	1539
Max. Output Pressure (MPa)	0.5 – 35.0 (0.5/step)	0.5 – 49.5 (0.5/step)	0.2 – 19.8 (0.2/step)	0.1 – 9.0 (0.1/step)
Liquid Contact Parts	SUS316, Sapphire, Ruby, PEEK, Teflon		SUS316, Zirconia, Sapphire, Ruby, PEEK, Teflon	SUS316, Alumina, Sapphire, Ruby, PEEK, Teflon
Tubing	Inlet : 3 mm, Outlet : 1/16"		Inlet: 3 mm, Outlet: 1/16" (Inlet: 5 mm & Outlet: 1/8" on request)	Inlet : 1/4" Outlet : 1/8"
Input/Output	Through DC voltage, flow rate and pressure settings external input, pump RUN/STOP input, pressure limiter reset input, pressure monitor DC voltage output, pump RUN output, pressure limiter output			
Dimensions	240 (W) x 264 (H) including 24 of rubber feet x 483 D mm / 9.5 (W) x 10.4 (H) x 19.0 (D)"			
Weight kg	20			
Power Supply	AC 100, 115, 220, or 240 V, 50/60 Hz, Rated Current 4A, Max. 11.3A			
Ambient Temperature	4 – 35 degrees C (without dew condensation)			

Model	uf-20500SAWP	uf-21000SAW	uf-21000SAWP	uf-2200SAW
General Application	Column packing, High pressure preparative works			
Feed Method	Linear-cam, dual plunger			
Mode	Constant flow rate and constant pressure flow			
Flow rate (mL/min)	0.5 – 499.5 (0.5/step)	1 – 1,000 (1/step)		2 – 2,000 (2/step)
Accuracy	+/-3%(5mL/min - )	+/- 3% (10 mL/min - )		+/-3%(20mL/min-)
Reproducibility	1%max(5mL/min-)	1% max. (10 mL/min - )		1%max.(20mL/min-)
Plunger Dia. x Stroke	14 x 10	14 x 20	22.57 x 10	22.57 x 20
Volume/Stroke (μL)	1539	3078	4000	8000
Max. Output Pressure (MPa)	0.5 – 25.0 (0.5/step)	0.1 – 9.9 (0.1/step)	0.2 – 17.0 (0.2/step)	0.1 – 8.5 (0.1/step)
Liquid Contact Parts	SUS316, Alumina, Sapphire, Ruby, PEEK, Teflon			
Tubing	Inlet : 1/4" Outlet : 1/8"	Inlet : 1/4", Outlet : 1/8" (Inlet: 3/8" & Outlet: 1/4" on request)		Inlet : 1/2" Outlet : 1/4"
Input/Output	Through DC voltage, flow rate and pressure settings external input, pump RUN/STOP input, pressure limiter reset input, pressure monitor DC voltage output, pump RUN output, pressure limiter output			
Dimensions	240 (W) x 264 (H) including 24 of rubber feet x 483 (D) mm / 9.5 (W) x 10.4 (H) x 19.0 (D)"	240 (W) x 264 (H) including 24 of rubber feet x 510 (D) mm / 9.5 (W) x 10.4 (H) x 20.1 (D)"	240 (W) x 264 (H) including 24 of rubber feet x 490 (D) mm / 9.5 (W) x 10.4 (H) x 19.3 (D)"	240 (W) x 264 (H) including 24 of rubber feet x 520 (D) mm / 9.5 (W) x 10.4 (H) x 20.5 (D)"
Weight kg	20	25	30	28
Power Supply	AC100, 115, 220 or 240V, 50/60 Hz, Rated Current 6A, Max. 17.0A			
Ambient Temperature	4 – 35 degrees C (without dew condensation)			

*The specifications are subject to change without prior notice.*

(22 October 2003)