

TUBING PUMPS-1 TO 8 CHANNELS

Ecoline

Economical and powerful
 다양한 flow-rate로 dispensing, filling이 가능한 stackable pump

- Robust stainless steel housing(Stackable)
- 2-digit potentiometer adjustable in 1% steps



Ecoline VC-MS/CA8-6

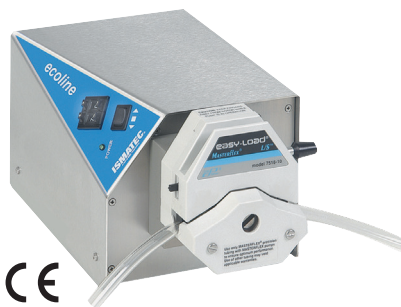
0.005-150 ml/min

- 8 channels
- 6 rollers

Ecoline VC-MS/CA4-12

0.003-83 ml/min

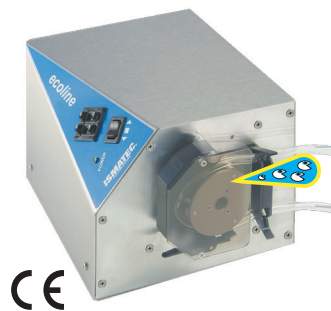
- 4 channels
- 12 rollers (low pulsation)
- 자동 압력 세팅의 Click'n'go cassettes
- 3-stopper tubing 사용
- Differential pressure 1.0 bar
- Differential pressure는 tubing의 재질에 따라 좌우되며, 작은 내경 일수록 높은 압력이 가능



Ecoline VC-Easy-Load®

0.23-1600 ml/min

- 1 channel
- 3 rollers
- 쉽게 장착 가능한 Pump Head
- 신속하고 간편한 Tubing 교체 가능
- PSF housing pump-head (Polysulfone)
- Standard Tubing 1.6 mm Wall Thickness



Ecoline VC-360

0.25-1300 ml/min

- 1 channel
- 3 convex rollers treat the liquid and tubing gently
- 액체와 tubing을 부드럽게 움직일 수 있는 3개의 convex roller
- Tubing 교체가 빠르고 간편한 Hinged type의 tube-bed
- Standard Tubing 1.6 mm Wall Thickness
- Differential pressure 1.5bar
- Differential pressure는 tubing의 재질에 따라 좌우되며, 작은 내경 일수록 높은 압력이 가능

Specifications

Motor type	DC motor
Speed	3.5 - 350 rpm
Speed setting	1-99%, resolution 1 % 2-digit potentiometer
Power consumption	100 W
Mains connection	230V _{AC} /50Hz, 115V _{AC} /60Hz adjustable
Protection rating	IP 30

Size

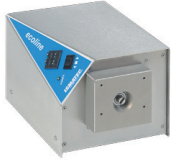
Model	Depth/Width/Height	Weight
Ecoline VC-280	256 X 169 X 138 mm	5.2 kg
Ecoline VC-380	256 X 169 X 138 mm	5.3 kg
Ecoline VC-360	238 X 169 X 138 mm	4.9 kg
Ecoline VC-Easy-Load®	285 X 169 X 138 mm	5.2 kg
Ecoline VC-MS/CA8-6	313 X 169 X 138 mm	5.5 kg
Ecoline VC-MS/CA4-12	281 X 169 X 138 mm	5.4 kg

Interfaces

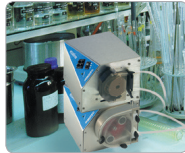


Speed control (0-5 or 0-10 V, 0-20 or 4-20 mA)
Start/Stop, Rotaton direction

0.003-5400 ml/min



Available without pumphead: ISM 1077



Easy stackable



These pump-heads are also available as OEM Version
Ask for the detailed data sheet



Ecoline VC-280
1.7-5400 ml/min
Ecoline VC-380
1.6-5000 ml/min



Easily exchangeable rotor

WT 1.6 mm, 2 or 3 rollers
VC-280 or VC-380

WT 2.4 mm, 2 or 3 rollers
VC-281 or VC-381

- 액체와 tubing을 부드럽게 움직일 수 있는 2개 또는 3개의 convex roller
- 낮은 pulsation, 높은 flow rate, 향상된 differential pressure를 위한 rotor 교체 가능
 - Standard Tubing 1.6 mm Wall Thickness
 - Differential pressure 1.5bar
- Differential pressure는 tubing의 재질에 따라 좌우되며, 작은 내경 일수록 높은 압력이 가능

Flow rates and tubing

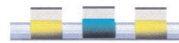
Model Type			Ecoline VC-280		Ecoline VC-380		Ecoline VC-360		Ecoline VC-Easy-Load®	
Channels	Rollers		1	2	1	3	1	3	1	3
Speed rpm			3.5	350	3.5	350	3.5	350	3.5	350
Tygon® LMT-55 Order No.	WT (mm)	Tubing i.d.(mm)	ml/min per channel		ml/min per channel		ml/min per channel		ml/min per channel	
			min.	max.	min.	max.	min.	max.	min.	max.
SC0355T	1.6	0.8					0.25	25	0.23	23
SC0373T	1.6	1.6	1.7	170	1.6	160	0.9	90	0.86	86
SC0374T	1.6	3.2	6.6	660	5.9	590	3.5	350	3.2	320
SC0379T	1.6	4.8	51	1500	13	1300	7.7	770	6.5	650
SC0375T	1.6	6.4	25	2500	23	2300	13	1300	11	1060
SC0376T	1.6	8.0	37	3700	34	3400			16	1600
SC0383T	1.6	9.5	48	4800	44	4400				
SC0384T	1.6	11.1	54	5400	50	5000				

Approx. values: determined with water, at 22°C, no differential pressure, Tygon ST tubing

Applications

- Ecoline VC-280- 상자에 보호 라커를 칠할 때
- Ecoline VC-380- Thermostat bath의 냉각순환 pump
- Ecoline VC-360- 분광광도계 (spectrophotometer)의 cuvette를 채우기 위한 pump
- Ecoline VC-MS/CA 8-6- 디지털 섬유 프린팅 장비 tubing system의 8 channel 세척용 pump

Flow rates and tubing



Model		Ecoline VC-MS/CA8-6		Ecoline VC-MS/CA4-12	
Channels	Rollers	8	6	4	12
Speed rpm		3.5	350	3.5	350
Tygon® LMT-55 Order No.	Tubing i.d.(mm)	ml/min per channel		ml/min per channel	
		min.	max.	min.	max.
SC0189T	0.13	0.005	0.49	0.003	0.32
SC0050T	0.25	0.017	1.7	0.013	1.3
SC0053T	0.51	0.067	6.7	0.055	5.5
SC0056T	0.76	0.15	15	0.12	12
SC0059T	1.02	0.26	26	0.20	20
SC0062T	1.22	0.36	36	0.26	26
SC0065T	1.52	0.53	53	0.36	36
SC0068T	1.85	0.73	73	0.47	47
SC0071T	2.54	1.2	120	0.68	68
SC0224T	3.17	1.5	150	0.83	83

Approx. values: determined with water, at 22°C, no differential pressure, Tygon® ST tubing

Ordering information

Model	Order No.	Flow rates ml/min per channel	Channels max.	Rollers
Ecoline VC-280 WT 1.6	ISM 1078	1.7 to 5400	1	2
Ecoline VC-380 WT 1.6	ISM 1079	1.6 to 5000	1	3
Ecoline VC-281 WT 2.4*	ISM 1085	13 to 4600	1	2
Ecoline VC-381 WT 2.4*	ISM 1080	12 to 4200	1	3
Ecoline VC-360	ISM 1076	0.25 to 1300	1	3
Rotor with 2 rollers WT 1.6	IS 3762	1.7 to 5400	1	2
Rotor with 3 rollers WT 1.6	IS 3763	1.6 to 5000	1	3
Rotor with 2 rollers WT 2.4	IS 3757	13 to 4600	1	2
Rotor with 3 rollers WT 2.4	IS 3754	12 to 4200	1	3
Ecoline Pumps with Special Pumpheads				
Ecoline Drive	ISM1077A	0.005 to 150	8	12
Order One of the Following Pumpheads with the Ecoline Drive				
VC-Easy-Load®	MF0313	0.23 to 1600	1	3
VC-MS/CA8-6	ISM185A	0.005 to 150	8	6
VC-MS/CA4-12	ISM737A	0.003 to 83	4	12
Foot switch	IS 3572	see Page 65		
Spare cassettes MS/CA	IS 3510	see Page 64		

*For standard tubing 2.4 mm wall thickness 4.8 - 9.5 mm (3/16" - 3/8") inner diameter