

7

Tube Pump

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Peristaltic Pump MP-2000·2100·2010·2110

Standard tube pumps for supplying stable flow (Screw or Fixed groove tube fixing system).



MP-2000

MP-2100

MP-2000A

MP-2000B

Features

- All-in-one roller set implements one touch roller setting.
- Two types of tube fixing; conventional fixing screw and constant pressure spring system.
- Highly accurate discharge and high reproducibility of flow rate make the unit suitable for small volume flow.
- Forward or reverse flow is selectable.
- Tube adapter with short tube is provided for easy replacement of tubes.
- Tube stopper with lock provides smooth replacement of tube during and after pump operation.

Specifications

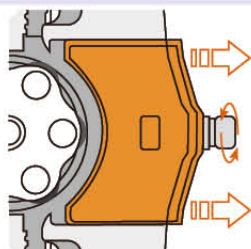
Product name	Peristaltic Pump							
Model name	MP-2000	MP-2100	MP-2000A	MP-2000B	MP-2010	MP-2110	MP-2010A	MP-2010B
Cat. No.	252620	252620	251320	251340	251300	252640	251330	251350
Type	Standard				Small volume			
Tube fixing system	Screw		Fixed width groove		Screw		Fixed width groove	
Flow rate	10~1450mL/hx2	10~1450mL/hx4	10~180mL/h	80~1450mL/h	0.5~72.5mL/hx2	0.5~72.5mL/hx4	0.5~9mL/h	5~72.5mL/h
Flow rate accuracy	±2% (Reproducibility within ±1%)							
Max. discharge pressure	196kPa (2kg/cm ²)		147kPa (1.5kg/cm ²)		196kPa (2kg/cm ²)		147kPa (1.5kg/cm ²)	
Max suction pressure	9.8kPa (0.1kg/cm ²)							
Liquid viscosity & temperature	Max. 2Pa•s (2000cP) 0~60°C (No freezing)							
Rotation setting	Volume setting							
Liquid flow direction	Forward and reverse							
Safety function	Thermal protector, fuse							
Tube case	PET		PVC		PET		PVC	
Motor	AC speed control, Induction motor 15W							
Tube case stage	1 (Option 2)	2	1		1 (Option 2)	2	1	
Connectable tube	2	4	1		2	4	1	
Connectable tube material	Silicone, Tygon, Fliran, PharMed							
Connectable tube diameter	OD 3~6.1mm		ID 1.15~OD 3.2mm	ID 3.7~OD 6.1mm	OD 3~6.1mm		ID 1.15~OD 3.2mm	ID 3.7~OD 6.1mm
Dimensions (mm)	120Wx130Dx177H	120Wx130Dx206H	120Wx130Dx178H		120Wx130Dx177H	120Wx130Dx206H	120Wx130Dx178H	
Weight	3kg	3.3kg	3.2kg		3.1kg	3.4kg	3.2kg	
Power source	40VA AC100V							

Point!

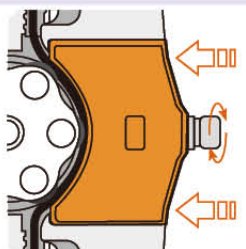
Screw type tube fixing system



Constant discharge pressure can be obtained regardless of the type or diameter of tubes.



Widen tube fixing part by rotating screw.



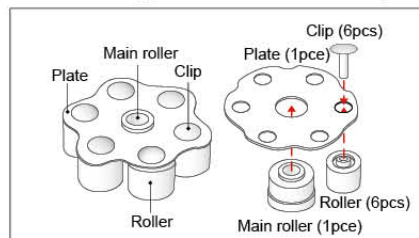
Insert tube and tighten tube fixing part.

■ All-in-one roller set



All-in-one roller set implements one touch roller setting by switching ON.

■ The configuration of the roller part



Roller set
Cat. No. 252570
Main roller
Cat. No. 252550
Roller (6pcs)
Cat. No. 252560
Clip (6), Plate (1) set
Cat. No. 196150

Options



Tube can be used by exchanging consumable part only.
Tube case connection is by one touch.

Tube mounted



Connection example

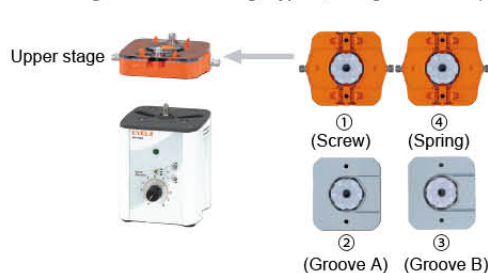


Adapter Set Tube

Tube material	ID x OD (mm)	Cat. No.
Silicon	1.15×3.2	252680
	2.15×4.2	252690
	3.15×5.2	252700
	3.7×6.1	252710
PharMed®	1.15×3.2	252720
	2.15×4.2	252730
	3.15×5.2	252740
	3.7×6.1	252750
Tygon®	1.15×3.2	252760
	2.15×4.2	252770
	3.15×5.2	252780
	3.7×6.1	252790
Fluran®	1.15×3.2	252800
	2.15×4.2	252810
	3.15×5.2	252820
	3.7×6.1	252830

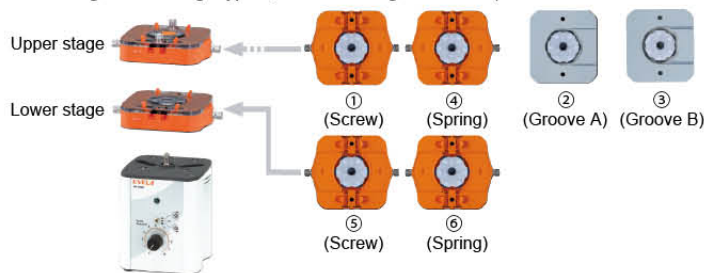
■ Compatibility by changing or adding tube case (MP-30003-100)

Change to other one stage type (Change tube case)



	Tube case set	Model	Cat. No.
①	Change to MP-2000 • 2010 For MP-2000 • 3000 • 4000	TCS-0	251220
②	Change to MP-2000A • 2010A For MP-2000A • 3000A	TCS-A	251240
③	Change to MP-2000B • 2010B For MP-2000B • 3000B	TCS-B	251250

Change to two stage type (Add lower stage tube case)



	Tube case set	Model	Cat. No.
④	Change to MP-2001 • 2011 For MP-2000 • 3000 • 4000	TCS-1	251260
⑤	Change to MP-2100 • 2110 For MP-2000 • 3000 lower stage	TCS-100	251230
⑥	Change to MP-2101 • 2111 For MP-2000 • 3000 lower stage	TCS-101	251270

1 Rotary Evaporator

2 Vacuum Pump & Aspirator

3 Organic Synthesizer

4 Freeze Dryer / Spray Dryer

5 Shaker

6 Stirrer

7 Tube Pump

8 Low Temperature Circulator

9 Cold Trap

10 Constant Temperature Bath

11 Incubator

12 Oven

13 Fermentor

101

Peristaltic Pump MP-2001series

Spring-tube case reduces the time and effort for tightening adjustment.



MP-2001

MP-2101

Features

- Constant pressure on tube by spring prevents over pressure fixing.
- Lock stoppers are provided at both ends of the tube case to facilitate shift or exchange of tubes.
- MP-2001•2011 allow two tube lines and MP-2101•2111 allows four tube lines.
- Forward or reverse flow is selectable.
- By changing tube case, the pump can be changed to MP-2000•2100 (screw fixing, fixed width groove) model.

Specifications

Product name	Peristaltic Pump			
Model name	MP-2001	MP-2101	MP-2011	MP-2111
Cat. No.	251290	252630	251310	252650
Type	Standard		Small volume	
Tube fixing system	Spring			
Flow rate	10~1450mL/h x 2	10~1450mL/h x 4	0.5~72.5mL/h x 2	0.5~72.5mL x 4
Flow rate accuracy	±2% (Reproducibility within ±1%)			
Tube case stage	1 (Option 2)	2	1 (Option 2)	2
Connectable tube	2	4	2	4
Max. discharge pressure	98kPa (1kg/cm ²)			

Peristaltic Pump MP-3000•3100

Super extensive flow range and outstanding reproducibility by digital rotation number display.

Features

- DC servo motor implements x3000 variable magnification. Wide discharge volume range is available by one tube.
- Three types of tube fixing; conventional screw fixing, fixed groove or constant pressure spring system.

Specifications

Product name	Peristaltic Pump					
Model name	MP-3000	MP-3001	MP-3000A	MP-3000B	MP-3100	MP-3101
Cat. No.	251360	251370	251380	251390	252660	252670
Tube fixing system	Screw	Spring	Fixed width groove		Screw	Spring
Flow rate	0.06～1400mL/h x 2		0.06～180mL/h	0.5～1400mL/h	0.06～1400mL/h x 4	
Flow rate accuracy	±2% (Reproducibility within ±1%)					
Tube case stage	1 (Expandable to 2 stages)		1		2	
Connectable tube	2		1		4	
Max. discharge pressure	196kPa (2kg/cm ²)	98kPa (1kg/cm ²)	147kPa (1.5kg/cm ²)		196kPa (2kg/cm ²)	98kPa (1kg/cm ²)

Peristaltic Pump MP-4000•4001

LCD digital setting and display pump with multi function display including flow conversion.

Specifications

Product name	Peristaltic Pump	
Model name	MP-4000	MP-4001
Cat. No.	251400	251410
Tube fixing system	Screw	Spring
Flow rate	0.06~1450mL/h x 2	
Flow rate accuracy	±1% (Reproducibility within ±1%)	
Tube case stage	1 (Expandable to 2 stages)	
connectable tube	2	
Max. discharge pressure	196kPa (2kg/cm ²)	98kPa (1kg/cm ²)

Roller pump type Peristaltic Pump NRP-3000

Roller type peristaltic pump equipped with basic functions.

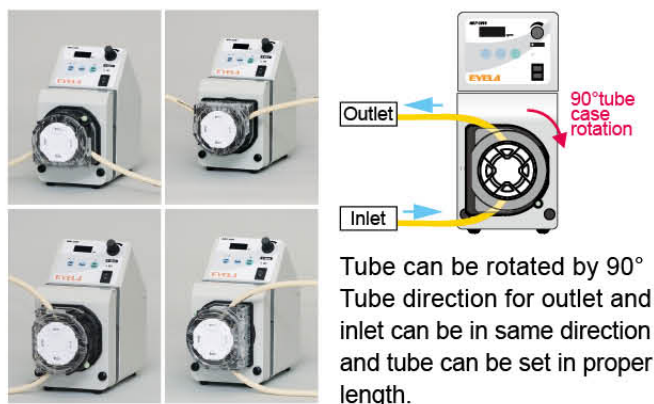
Wide flow rate from 0.7~138L/h.

Viscosity: Max. 2Pa·S (2000cP)



NRP-3000

■ Tube case can be rotated to adjust to installation circumstances.



■ Multi stage tube case



By adding multi stage tube case (option), different diameter tubes can be connected to each tube case. Simultaneous pumping to 2~3 places.

Cat. No. 265830

Features

- Three different diameter tubes can be connected.

Without changing tube holder, three different diameter tubes can be mounted.

Unit construction of tube and tube holder prevents tube holder loss.

Tube diameter: ID 4.76 x OD 7.94mm

ID 6.35 x OD 9.53mm

ID 7.94 x OD 11.11mm

- Rapid function is provided.

Fill tube in short time by operating pump at maximum flow rate.

■ Automatic pumping stop



In case leak is detected by leak sensor (option), pumping is automatically stopped. Leak sensor is made of highly chemical resistive teflon.

■ Retractable carrying handle



Retractable carrying handle provides easy to carry handling.

Specifications

Product name	Roller type Peristaltic Pump
Model name	NRP-3000
Cat. No.	265818
Flow rate	0.7~64L/h (ID4.76xOD7.94mm tube) 1.2~104L/h (ID6.35xOD9.53mm tube) 1.5~138L/h (ID7.94xOD11.11mm tube)
Flow rate accuracy	±4% (Reproducibility within ±2%)
Max. discharge pressure	137.3kPa (1.4kg/cm ²)
Liquid viscosity & temperature	Max. 2Pa·s (2000cP) -10~100°C (No freezing)
Rotation control	Feedback control
Rotation speed	Continuously variable 5~450rpm
Rotation setting & display	Volume setting & digital display
Liquid flow direction	Forward and reverse•Rapid function
Connectable tube	1/stage
Connectable tube material	Silicon, Tygon, Fluran, PharMed (Karlz)
Dimensions (mm) & Weight	121W x 273D x 226H 5.3kg
Power source	352VA AC220V

Rotary Evaporator

1

Vacuum Pump & Aspirator

2

Organic Synthesizer

3

Freeze Dyer, Spray Dyer

4

Shaker

5

Stirrer

6

Tube Pump

7

Low Temperature Circulator

8

Cold Trap

9

Control Temperature Bath

10

Incubator

11

Oven

12

Fermentor

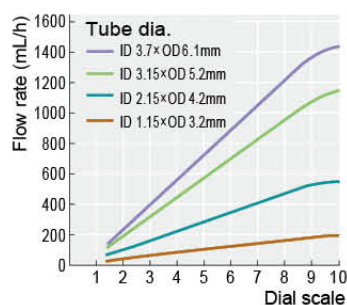
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Flow characteristics of tube pumps

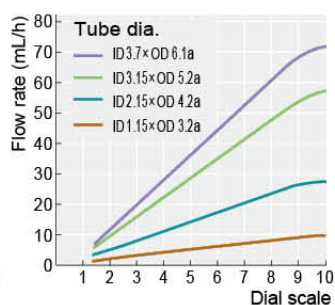
Silicone tube, ion-exchange water, liquid temp. 18°C、RT 20°C、back pressure 0

Peristaltic pump MP-2000 series

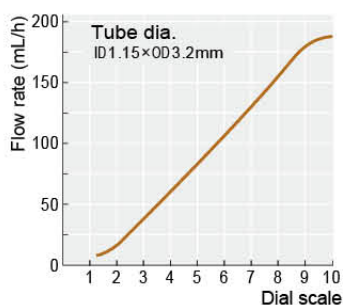
MP-2000 · 2100



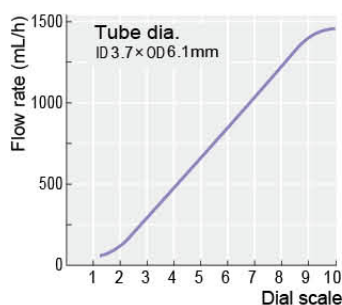
MP-2010



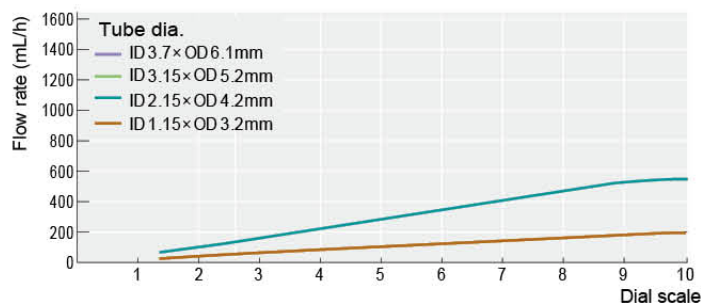
MP-2000A



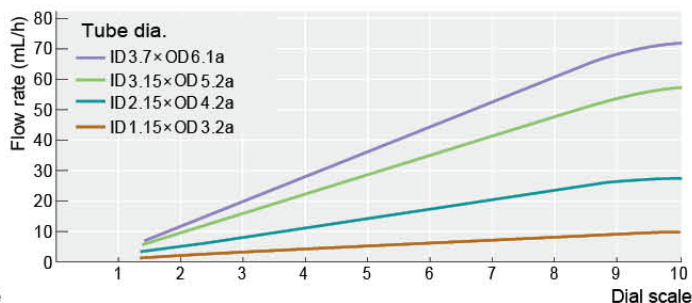
MP-2000B



MP-2001 · 2101

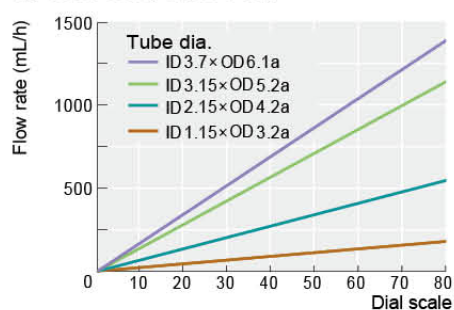


MP-2011 · 2111

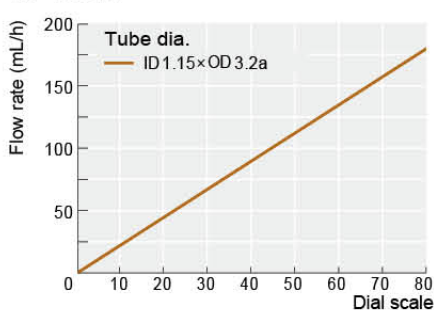


Peristaltic pump MP-3000 series

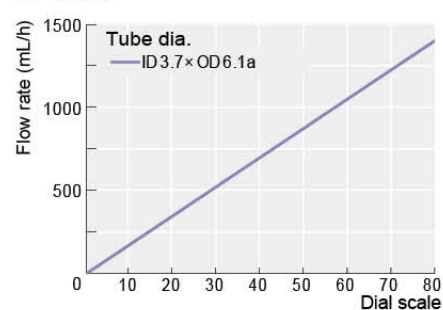
MP-3000 · 3001 · 3100 · 3101



MP-3000A



MP-3000B



Cassette tube type Peristaltic Pump SMP-11·21·21S·23·23S

Compact, cassette tube type peristaltic pump for a wide range of applications. Digital display of rotation Panel tube type available (SMP-11)



Features

- Cassette type tube case is easy to exchange.
- Three tubeheads are available for SMP-23·23S and different type tube can be connected to each head.
- Four different tube materials are available; Silicon, Tygon, Fluran and PharMed.
- Liquid contact part does not contain metal and there will be no liquid contamination.
- Forward or reverse flow is selectable.
- SMP-21S·23S are with external signal input terminal.
- Panel type mini pump exclusive for coupling realizing compact system (SMP-11).

Specifications

Product name	Cassette tube type Peristaltic Pump				(Panel Tube Type)
Model name	SMP-21	SMP-21S	SMP-23	SMP-23S	SMP-11
Cat. No.	124740/124748	124760/124768	124750/124758	124770/124778	124820
Flow rate	9~160mL/h (ID1.15xOD3.2mm tube)		9~160mL/hx3 (ID1.15xOD3.2mm tube)		Same with SMP-21・21S
	30~507mL/h (ID2.15xOD4.2mm tube)		30~507mL/hx3 (ID2.15xOD4.2mm tube)		
	51~900mL/h (ID3.15xOD5.2mm tube)		51~900mL/hx3 (ID3.15xOD5.2mm tube)		
Flow rate accuracy	±2% (Reproducibility within ±1%)				
Max. discharge pressure	196kPa (2kg/cm ²)				
Liquid viscosity & temperature	Max. 2Pa・s (2000cP) -10~100℃ (Tygon tube; 0~70℃) (No freezing)				
Dimensions (mm) & Weight	73W x 188D x 121H 2.5kg		73W x 295D x 121H 3.0kg		73W x 169D x 78H 1.0kg
Power source	10VA AC100V/22VA AC220V		25VA AC100V/55VA AC220V		10VA AC100V

Point!

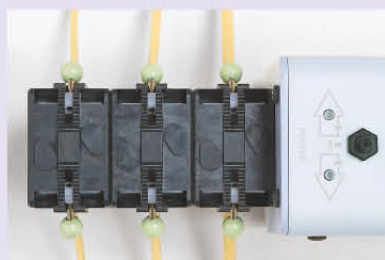
External signal inlet terminal



SMP-21S·23S are equipped with external signal inlet terminal. Discharge volume can be controlled by DC 0~10V signal.

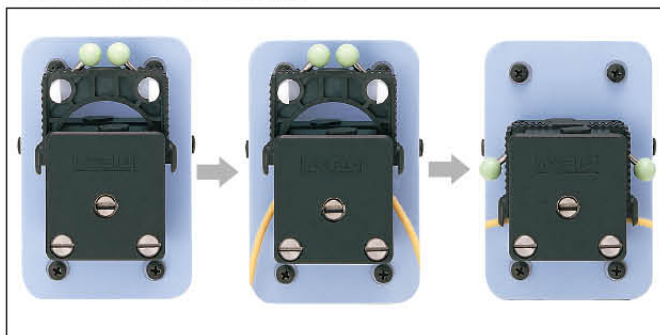
Point!

Different size tubes can be connected



SMP-23·23S are equipped with three tube heads. Each head accommodates different size and material tube.

One touch tube mounting.



Liftup lever and remove tube case cover.

Mount tube and set tube case cover.

Push down lever.



Conventional tube can be connected using adjuster set.



Adjuster set
Cat. No. 124780

Rotary Evaporator

1

Vacuum Pump & Aspirator

2

Organic Synthesizer

3

Freeze Drier / Spray Drier

4

Shaker

5

Stirrer

6

Tube Pump

7

Low Temperature Circulator

8

Cold Trap

9

Constant Temperature Bath

10

Incubator

11

Oven

12

Fermentor

13

Tube selection guide



PharMed BPT Tube Long life 1/60 glass transparency

Made by Saint-Gobain (USA) exclusively for Eyela.
Expected lifetime of the tube is 5~10 times longer compared to silicone tube. Significantly small risk of liquid leakage by tube breakage will also requires less frequency of tube change.

Transparency of glass against nitrogen, oxygen, CO₂ is 1/60 compared to silicone tube.

Applicable pump	Size (mm)	Length (m)	Cat. No.
MP-2000•2001•2000A•2010•2011•2010A•2100•2101•2110•2111•3000•3001•3000A•3100•3101•4000•4001, SMP	ID 1.15×OD 3.2	7.5	125320
		1.5	125330
MP-2000•2001•2010•2011•2100•2101•2110•2111•3000•3001•3100•3101•4000•4001, SMP	ID 2.15×OD 4.2	7.5	125340
		1.5	125350
	ID 3.15×OD 5.2	7.5	125360
		1.5	125370
MP-2000•2001•2000B•2010•2011•2010B•2100•2101•2110•2111•3000•3001•3000B•3100•3101•4000•4001	ID 3.7×OD 6.1	7.5	125380
		1.5	125390
RP-1000•2000•2100 NRP-3000	ID 4.76×OD 7.94	7.5	125400
	ID 6.35×OD 9.53	7.5	125420
	ID 7.94×OD 11.11	7.5	125440



Silicone tube Stable flow rate

Max. heat resistance of 200°C.
Material used is exclusively prepared for tube pumps to realize long life time. Tube dimensions are checked by every lot to secure stable flow rate. Can be used with auto clamp.

Applicable pump	Size (mm)	Length (m)	Cat. No.
MP-2000•2001•2000A•2010•2011•2010A•2100•2101•2110•2111•3000•3001•3000A•3100•3101•4000•4001, SMP	ID 1.15×OD 3.2	15	125460
		5	125470
MP-2000•2001•2010•2011•2100•2101•2110•2111•3000•3001•3100•3101•4000•4001, SMP	ID 2.15×OD 4.2	15	125480
		5	125490
	ID 3.15×OD 5.2	15	125500
		5	125510
MP-2000•2001•2000B•2010•2011•2010B•2100•2101•2110•2111•3000•3001•3000B•3100•3101•4000•4001	ID 3.7×OD 6.1	15	125520
		5	125530
RP-1000•2000•2100 NRP-3000	ID 4.76×OD 7.94	7.5	125540
	ID 6.35×OD 9.53	7.5	125560
	ID 7.94×OD 11.11	7.5	125580



Tygon tube Strong anti-corrosion against inorganic solvents

Made by Saint-Gobain (USA) exclusively for Eyela.
Less tube deterioration thanks to strong anti-corrosive character of the tube material.
Transparent tube makes it possible to observe flow rate and make it easy to connect tube to piping.



Fluran tube Strong anti-chemical characteristic

Made by Saint-Gobain (USA) exclusively for Eyela.
Strongest anti chemical characteristic in 4 tube models.
Fluorine rubber based tube material realizes strong chemical resistance.
Max. heat resistance of 204°C.

Applicable pump	Size (mm)	Length (m)	Cat. No.
MP-2000•2001•2000A•2010•2011•2010A•2100•2101•2110•2111•3000•3001•3000A•3100•3101•4000•4001, SMP	ID 1.15×OD 3.2	15	125600
		5	125610
MP-2000•2001•2010•2011•2100•2101•2110•2111•3000•3001•3100•3101•4000•4001, SMP	ID 2.15×OD 4.2	15	125620
		5	125630
	ID 3.15×OD 5.2	15	125640
		5	125650
MP-2000•2001•2000B•2010•2011•2010B•2100•2101•2110•2111•3000•3001•3000B•3100•3101•4000•4001	ID 3.7×OD 6.1	15	125660
		5	125670
RP-1000•2000•2100 NRP-3000	ID 4.76×OD 7.94	15	125680
	ID 6.35×OD 9.53	15	125700
	ID 7.94×OD 11.11	15	125720

Applicable pump	Size (mm)	Length (m)	Cat. No.
MP-2000•2001•2010•2011•2100•2101•2110•2111•3000•3001•3100•3101•4000•4001, SMP	ID 2.15×OD 4.2	7.5	125760
		1.5	125770
	ID 3.15×OD 5.2	7.5	125780
		1.5	125790
MP-2000•2001•2000B•2010•2011•2010B•2100•2101•2110•2111•3000•3001•3000B•3100•3101•4000•4001	ID 3.7×OD 6.1	7.5	125800
		1.5	125810
RP-1000•2000•2100 NRP-3000	ID 4.76×OD 7.94	7.5	125830
	ID 6.35×OD 9.53	7.5	125850
	ID 7.94×OD 11.11	7.5	125870