



- > Pumps for OEM, Metering and Dispensing
- > Single Channel and Multi Channel Peristaltic Pumps
- > Ceramic Piston Pumps
- > Accurate Dispensing System
- > Tubes
- > Fittings



# Modular OEM-pumps

## SP pumps are our new developed plastic molded pump line for high volume applications

- > Unique design with adjustable, spring loaded flexible band as pressure plate. This feature offers easy tube replacement, adjustable pressure level, less load on the motor and longer tube life.
- > 3, 4 or 6 roller head.
- > Material specifications: Head and rotor in PPS Ryton with 40% glasfiber, parts for the tube clips and flexible band in PBT with 20% glasfiber, stainless steel hardware and the flexible band in stainless steel with Teflon® support for less friction.
- > SP pumps are available with 12 or 24 V DC low cost or high end gear-motors, 17 or 23 size stepper motors, synchronous motors or motor-less head with 6mm outer diameter bareshaft.
- > Stackable pump head design, the number of heads depends on the torque of the motor.



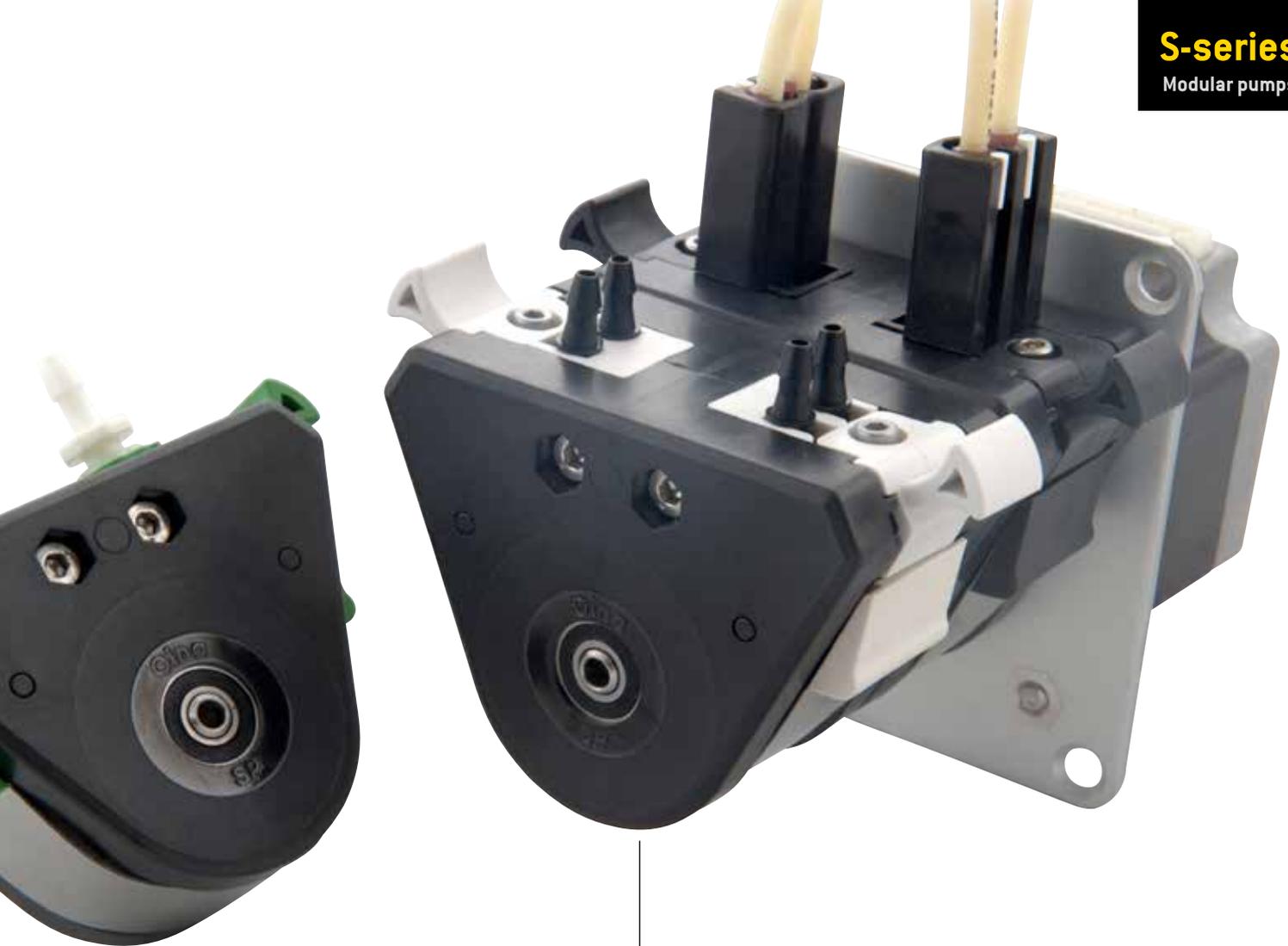
### SP-1 OEM

- > One channel pump for max 4,8mm ID tube.
- > 4 roller head as standard.
- > 3 roller head for approx. 20% higher capacity but less pressure.
- > 1.6mm, 2.4mm, 3.2mm, 4.0mm or 4.8mm ID tubes.
- > Tube elements with LUER LOCK connectors, offer a possibility to connect different inlet and outlet tubes independently the tube elements ID.
- > Alternatively continuous tube with spring-loaded V-shape tube clamp.

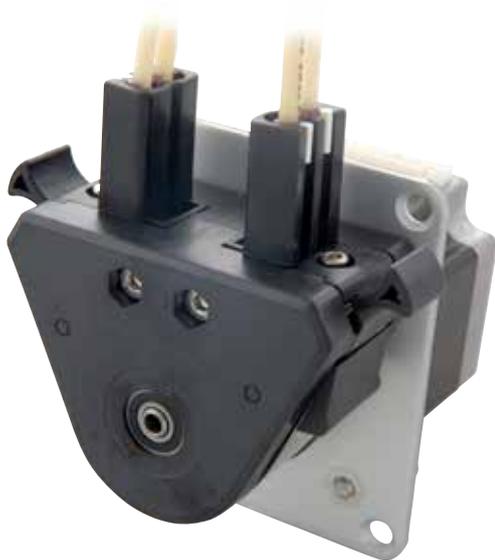


### SP-2 OEM dual

- > Two channel pump for two 1mm, 2mm or 3mm ID tube.
- > 4 roller head as standard.
- > 6 roller head for less pulsation.
- > Tube elements with barb fittings .



Stackable pump head design, the number of heads depend on the torque of the motor



## SP-2BT OEM

- > Two channel pump for two standard bridged tubes.
- > 6 roller head for low pulsation.
- > 4 roller head for 20% higher capacity.
- > 20 different tube sizes are available from 0.1mm ID to 3mm ID.

### SP pumps capacity table

#### SP-1 with 4 rollers

Tube size IDxW (mm)	ml/rev
0.5x1.6	0.01
0.8x1.6	0.03
1.6x1.6	0.12
2.4x1.6	0.32
3.2x1.6	0.55
4.0x1.6	0.8
4.8x1.6	1.0

#### SP-2 with 4 rollers

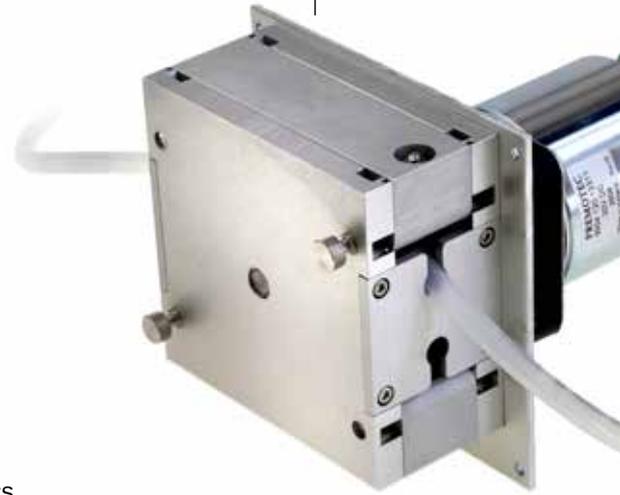
Tube size IDxW (mm)	ml/rev
0.5x1	0.01
1.0x1	0.05
2.0x1	0.22
3.0x1	0.5

**SP-2BT with 6 rollers**  
See last page

# High end Peristaltic Pumps for OEM, Metering and Dispensing

- > All QP pumps are available as OEM and bench top in lab or process.
- > All parts are machined in anodized aluminum and stainless steel for highest possible tolerance and durability for maintenance free long life.
- > Adjustable spring loaded cartridge pressure plate for easy load of tubes and adjustable pressure level.
- > Rigid aluminum case with built in speed and time control for brush- or brushless DC motors.
- > Panel control for start, forward, reverse, stop, speed and time set.
- > Remote control for external start, forward or reverse and stop.
- > External speed control via 0-1V, 0-5V, 0-10V, 0-20mA or 4-20mA.
- > Speed range 5-100% with 5% accuracy.
- > Immediate start and stop.
- > 1-99 second dispensing time.

**QP-1/2 OEM, High Pressure Pump for 1 or 2 channels**



## QP 1/2 Channel pumps

- > 5 roller head. Rollers are available in stainless steel or different suitable plastics.
- > The rigid design allows for PharMed®, Silicone, Viton® or Tygon® tubes and also flexible semi rigid tubes up to 80 Shore for high pressure applications or viscous fluids.

**QP-1/2-ASC, 1 or 2 channel benchtop pump for continuous tubing.**



### QP-1/2 capacity table

ID (mm)	Flow rate (ml/rev)
0.8	0.13
1.6	0.45
2.4	0.95
3.2	1.8
4	2.2
4.8	3
6.4	5
8	8
9.5	9

**QP-1/2 OEM, 1 or 2 channel pump for continuous tubing**



# QP-3/6 & QP-5/10 Multichannel pumps

- > 15 roller head for pulseless flow.
- > Rollers are available in stainless steel or different suitable plastics.
- > Unique design for 3 to 6 or 5 to 10 standard bridged tubes or tubes with barb fittings.
- > Each channel with individually adjustable pressure plate.

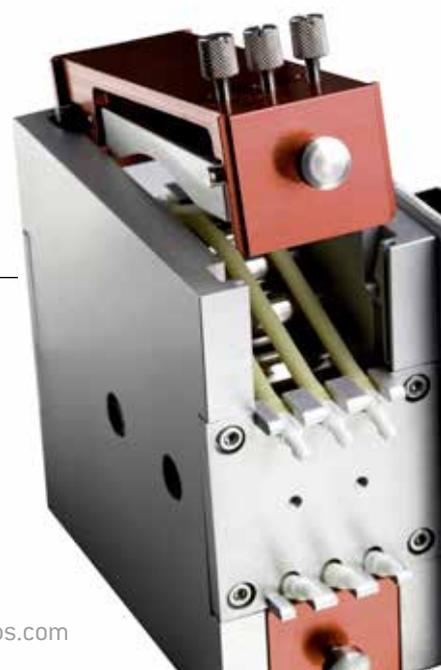
QP-3/6-ASC, 3 or 6  
channel benchtop  
pump for bridged  
tubes.



**3 channel cartridge**  
Adjustable occlusions  
for each tube



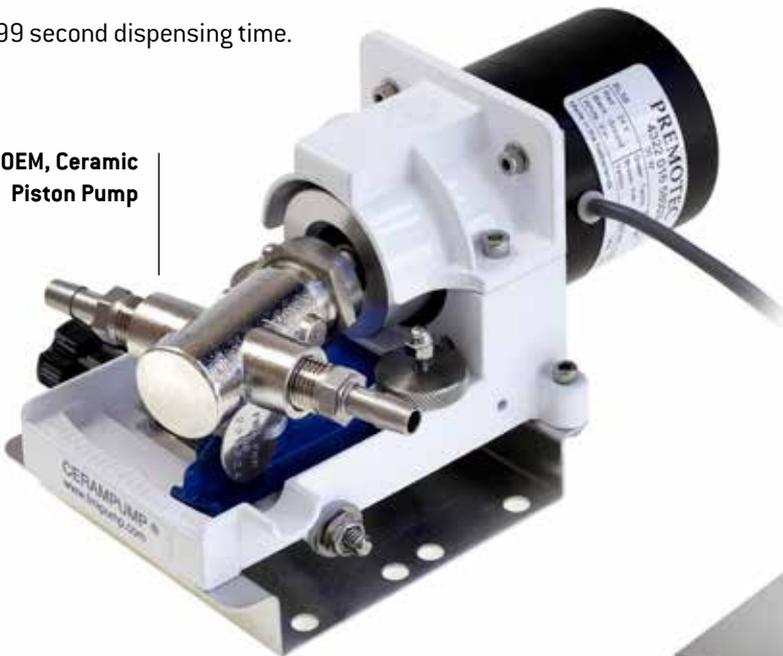
QP-3/6-OEM, 3 or 6  
channel pump for  
barbed fittings



# Ceramic Piston Pumps for OEM, Metering and Dispensing

- > All FMI pumps are available as OEM and bench top in lab or process.
- > Rigid aluminum case with built in speed and time control for brush DC or brushless DC motors.
- > Panel control for start forward, reverse, stop, speed and time set.
- > Remote control for external start, forward or reverse and stop.
- > External speed control via 0-1V, 0-5V, 0-10V, 0-20mA or 4-20mA.
- > Speed range 5-100% with 5% accuracy.
- > Immediate start and stop.
- > 1-99 second dispensing time.

**Q-OEM, Ceramic Piston Pump**



**RH-OEM, Ceramic Piston pump**



## FMI pump capacity table

Head	Capacity [ml/stroke]
RH00	0-0.025
RH0	0-0.05
RH1	0-0.1
Q0	0-0.008
Q1	0-0.32
Q2	0-0.72
Q3	0-1.28

**Pump head materials:** Piston Ceramic or Stainless Steel  
**Cylinder case:** PVDF, Tefzel(R) or Stainless Steel  
**Cylinderliner:** Ceramic or Carbon



**Q-ASC, Ceramic Benchtop Piston Pump**

# Accurate Dispensing Systems



**RH-ADS, Ceramic Piston pump**



**Q-ADS, Ceramic Piston Pump**

**QP-3/6-ADS, 3 or 6 chanel pump for bridged tubing**



**QP-1/2-ADS, High Pressure Pump for 1 or 2 channels with**



**QP-1/2-ADS, 1 or 2 channel pump for continuous tubing**

**Functions**

- Metering Speed control in 1000 steps, 1-100 % speed. Max speed = 1500 rpm.
- Single dispensing 1-999 seconds/dispensing.
- Single dispensing 1-999 strokes/dispensing.
- Single dispensing + Suck Back 1-999 strokes/dispensing and 1-999 strokes for Suck back.
- Multidispensing, endless 1-999 strokes/dispensing, pause time 1-999 sec between dispensings.
- Multidispensing + Suck Back, endless 1-999 strokes/dispensing, 1-999 strokes Suck back, Pause time 1-999 sec between dispensings.

- Multidispensing, 1-999 times 1-999 strokes/dispensing, pause time 1-999 sec between dispensings.
- Multidispensing + Suck Back, 1-999 times 1-999 strokes/dispensing, 1-999 strokes Suck back, Pause time 1-999 sec between dispensings.
- Home position (chosen manually).
- Forward, Reverse and momentary Max Speed with Function Metering.
- Remote Control Functions via 15 poles D-sub

**In signals**

- Start Forward, Start Reverse and Stop.
- Remote speed control via 0-20 m A or 4-20 m A.
- Flush options.

**Out signals**

- Forward, Reverse and 0-20 m A or 4-20 m A.
- Special function for ex for magnetic valve.
- Delay function 0,01 sec-10 sec.
- RS232 via 9 pole D-sub.



## Speed control board

- > OEM DC motor control for 12 or 24VDC high end brush DC motors , for max 2,5A.
- > Speed range 5-100% with 3% accuracy.
- > Feedback for constant speed independent the load on the motor.
- > Single or 10 turn digital potentiometer.
- > Additionally extra potentiometer for scale function for parallel run of more than one board on same external signal.
- > Forward, Reverse and Stop functions.
- > Remote control (0-1V, 0-5V, 0-10V, 0-20mA or 4-20mA).
- > Unique design, no heat sink needed.

## Tubings and Fittings

**Tubes:** PharMed®, Flexilene®, Viton®, Silicone, Tygon®, Norpren®, PUR

**Fittings:** Straights L, Y, T, X & Reductions, Luer Lock, Quick Connectors



## SP- QP-series Multi-channel pump, bridged tubing

Color code	ID (mm)	QP-5-roller rotor Flowrate (ml/rev)	QP-15-roller rotor Flowrate (ml/rev)	SP-BT 6 roller pump (ml/rev)
Orange/Black	0.13	0.006	0.003	0.0012
Orange/Red	0.19	0.01	0.005	0.002
Orange/Blue	0.25	0.016	0.008	0.0032
Orange/Green	0.38	0.03	0.015	0.006
Orange/Yellow	0.51	0.065	0.033	0.0132
Orange/White	0.64	0.11	0.053	0.0212
Black/Black	0.76	0.14	0.067	0.0268
Orange/Orange	0.89	0.18	0.09	0.036
White/White	1.02	0.22	0.11	0.044
Red/Red	1.14	0.28	0.14	0.056
Gray/Gray	1.3	0.34	0.17	0.068
Yellow/Yellow	1.42	0.4	0.2	0.08
Yellow/Blue	1.52	0.44	0.22	0.088
Blue/Blue	1.65	0.5	0.25	0.1
Green/Green	1.85	0.6	0.3	0.12
Purple/Purple	2.06	0.7	0.35	0.14
Purple/Black	2.29	0.8	0.4	0.16
Purple/Orange	2.54	0.96	0.48	0.192
Purple/White	2.79	1.04	0.52	0.208