

Syringe Pump

SyrDos™ CKP 90 bar

High-precision dosing in the high-pressure range
with flow rates from 0.31 $\mu\text{L}/\text{min}$ to 15.62 mL/min

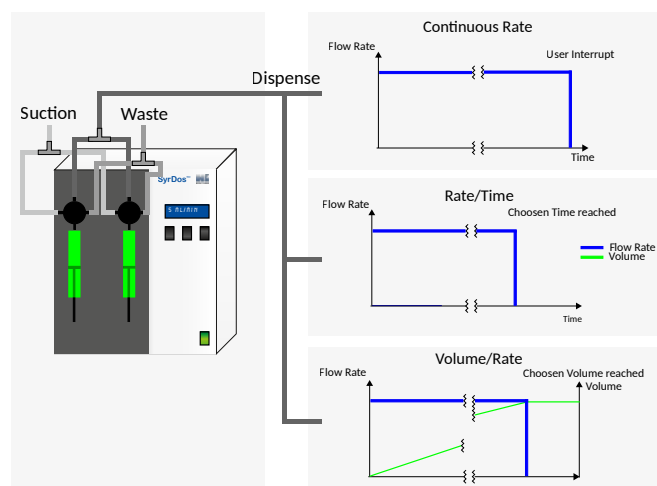


- » High-pressure precision up to 90 bar
- » Pulse-free tandem operation
- » Maximum media resistance

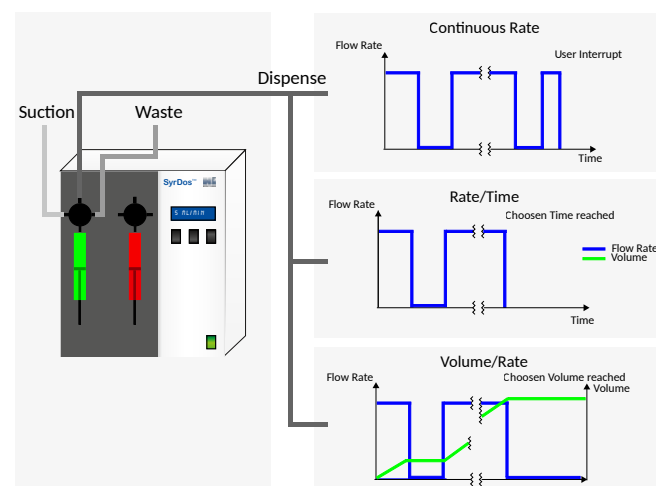
The SyrDos™ CKP 90 bar combines two powerful pump modules into a flexible high-pressure system. Experience **continuous, pulse-free delivery up to 90 bar** – ideal for microreaction technology and long-term experiments. Optionally, a pressure sensor can be connected directly to the SyrDos to monitor the pressure between pump and process during dosing and to define a maximum shutdown pressure.

Via RS-232 or an analog interface, the pump can be seamlessly integrated into your existing laboratory software or automated via a device module in our LabVision® software.

Tandem Mode



Single Mode



Your Advantages at a Glance

- » **Precise high-pressure dosing up to 90 bar with high chemical resistance:** Safe and reproducible.
- » **Near pulse-free tandem operation:** Ideal for continuous processes and stable flow profiles.
- » **Highest media resistance through borosilicate glass, PTFE/PCTFE, PEEK, and ceramic (Al₂O₃):** Suitable for aggressive or corrosive media.
- » **Wide flow rate range from 0.31 µl/min to 15.62 ml/min depending on syringe type:** Suitable for micro-applications up to higher volume flows.
- » **Plug&Play automation via RS-232, analog interfaces (4–20 mA / 0–5 V) and direct LabVision® integration:** Simplifies integration into existing control systems.
- » **Optional pressure sensor with limit shutdown:** Protects systems and devices from overpressure.

Typical Applications

- » **Microreaction technology:** Ideal for continuous processes in demanding environments.
- » **Dosing** of aggressive or corrosive media in high-pressure reactors.
- » **Continuous feeding** of laboratory and pilot-scale reactors with defined volume flows.
- » **Precise mixing** of two liquids via the two syringe modules.

Technical Data

- » **Syringe volumes:** 50 µl bis 2.5 ml, media-contacting parts made of borosilicate glass, PEEK & PTFE
- » **Valves:** Media-contacting parts made of ceramic, connection 10-32 UNF, test pressure 90 bar
- » **Low dead-volume pressure sensor (optional):** Media-contacting parts made of PEEK, PFA & FFKM, connection G1/2", measuring range 0–100 bar
- » **Device:** Protection class IP20, dimensions (W x H x D) 223 x 270 x 180 mm, weight approx. 10 kg

Find the Right Syringe for Your Application

The maximum delivery pressure depends on the maximum delivery force of the pump modules, the syringe volume, and the test pressure of the valve used.

Syringe Volume	Test Pressure [bar]	Rated Pressure EN-61010-1 [bar]	Rated Pressure 2014/68/EU [bar]	Min. Flow Rate [µl/min]	Max. Flow Rate [ml/min]	Resolution [µl/min]
50 µl	90	45	62	0.31	0.31	0.06
100 µl	90	45	62	0.62	0.63	0.13
250 µl	90	45	62	1.56	1.56	0.31
500 µl	90	45	62	3.12	3.12	0.63
1.0 ml	90	45	62	6.25	6.25	1.25
2.5 ml	70	35	48	15.62	15.62	3.13