

WellChrom

► Pneumatic Pump K-1900



Powerful and reliable

The WellChrom Pneumatic Pump K-1900, powered by compressed air, has been designed for solvent delivery in process chemistry, column packing or preparative chromatography.

Benefits of the pump

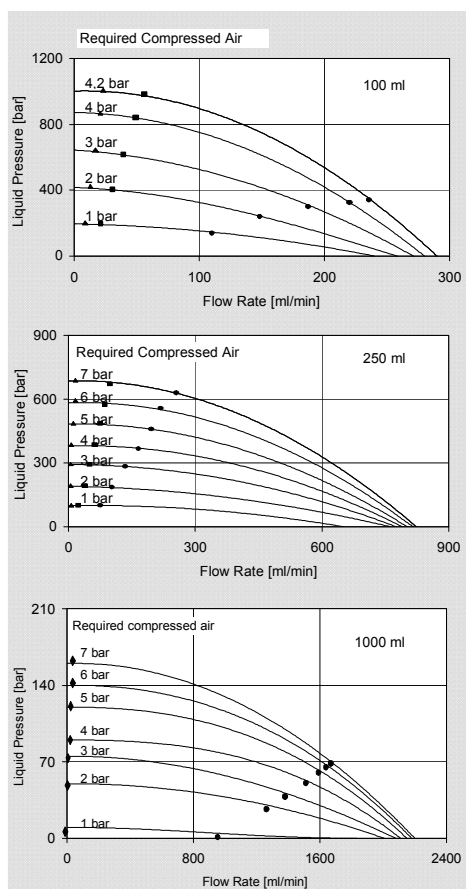
- Since no electrical connection is required, the WellChrom Pneumatic Pump K-1900 is suitable for operation in explosion proof environments.
- The Pneumatic Pump K-1900 can be configured with four different pump heads (double piston design) to fulfil the most pressure and flow rate requirements.
- The pump heads are very easy to exchange and can optionally be equipped with a cooling device.
- The pump runs maintenance free

Application areas

- Packing of high performance columns with pressures up to 1,000 bar
- Delivery of supercritical fluids such as CO₂ (with mounted pump head cooling)
- Metering against constant pressure

The delivery volume depends on the required air pressure and the loss of pressure along the column or any device that generates back pressure. You can reach the maximum delivery volume at minimum eluent pressure (below 1 bar). The minimum flow rate (ca. 5 ml/min) is achieved at the maximum eluent pressure.

Technical data



The figures 1 to 3 show the delivery volume as a function of the eluent pressure for available pump heads. In those figures you can see the limitation values for liquid pressure and flow rate according to the individual pump heads and the maximum allowed air pressure for each of them. With constant air pressure the flow rate increases, if the liquid pressure decreases. The diagrams show the reachable flow rates and eluent pressures Δp for different columns (marked by a \blacktriangle , \blacksquare or \bullet) with different hydraulic resistants.

Pneumatic Pump K-1900

Required air pressure Minimum 1 bar, maximum* 7 bar
 Dimensions 220 x 185 x 340 mm (WxHxD)
 Weight 10.2 kg

Pump head characteristics

Pump head type	100 ml	250 ml	500 ml	1,000 ml
Maximum flow rate (ml/min) at minimum back pressure	300	500	1.000	2.000
Maximum back pressure (bar) for solvent delivery	1,000	670	250	160
Maximum allowed air pressure (bar)	4.2*	7	7	7
Piston stroke (mm)	9.5	9.5	9.5	9.5
Piston diameter (mm)	6.35	9.525	14.29	19.05
Piston stroke volume per cycle (ml)	0.6	1.35	3.05	5.4
Pneumatic transformation ratio	1:250	1:96	1:47	1:23

* Using the 100 ml pump head, the external air pressure should never exceed 4.2 bar. Otherwise the pump head and mechanics can be damaged.

Ordering information

Order No.	WellChrom Pneumatic Pump K-1900
A40289-1	Pneumatic Pump K-1900 with 100 ml pump head, stainless steel inlay
A40281-1	Pneumatic Pump K-1900 with 250 ml pump head, stainless steel inlay
A40283-1	Pneumatic Pump K-1900 with 500 ml pump head, stainless steel inlay
A40282-1	Pneumatic Pump K-1900 with 1,000 ml pump head, stainless steel inlay

Order No.	Pump heads
A4029-1	100 ml pump head, stainless steel inlay, including accessory kit
A4021-1	250 ml pump head, stainless steel inlay, including accessory kit
A4038-1	500 ml pump head, stainless steel inlay, including accessory kit
A4022-1	1,000 ml pump head, stainless steel inlay, including accessory kit
A2034-1	Cooling device, suitable for all pump heads

Technical data are subject to change without notice.

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