

Scroll pump Upgrade for Genevac Centrifugal Evaporators



Evolution of the Scroll Pump

Developed by BOC Edwards, with assistance from Genevac, and based on the "scroll" principle. The scroll pump takes it's name from the design of the pump head, where a series of crescent shaped scrolls cut into an oscillating rotor are used to repeatedly compress and decompress the gas or vapour to be pumped. The scroll pump is a progressive cavity pump – an animation of functioning scrolls can be found on the Genevac web-site via the Scroll pump page.

The main advantage to the scroll pump is that it is "dry" and therefore does not require any pumping fluid or lubricant in order to operate. This in turn makes them ideal for use in harsh chemistry environments such as high throughput chemistry and drug discovery, where corrosive or volatile solvents are frequently used. Ordinary pump designs are totally unsuitable in these labs and so Genevac designed their unique Cole principle vacuum pump for just this type of work. Whilst the Cole principle pumps have been a great success, with over 1000 in use worldwide, the inert fluid in the pumping chamber must be topped up regularly, something no longer required with the scroll pump design.

Scroll technology is not new; it has been in use in the microprocessor industry for several years, but this is the first time it has been successfully applied to a wider range of solvents in the drug discovery arena. Special materials must be used in the construction of pumps for such applications before going in to use on Genevac evaporators. The pump is available in two sizes XDS5 or XDS10.



Genevac Scroll Pumps

Features

- Developed by BOC Edwards, with assistance from Genevac
- Totally dry pump requires no pumping fluid or oil
- Designed specifically for pumping solvent vapours in the laboratory chemistry environment such as high throughput chemistry and drug discovery, where corrosive or volatile solvents are frequently used.
- Tried and tested Scroll technology has been in use in the microprocessor industry for several years,
- Special materials used in the construction of pumps for chemistry applications
- Two sizes according to required flow rate; either 180 l/min and 90 l/min,
- Achieves 0.15mbar with ease.
- The larger unit is specified for Genevac's HT-24 Workstation for the large scale purification and synthesis sector and Mega 980/1200
- Smaller unit is suitable for Genevac's bench top evaporator models from DD-4X up to HT-12.
- Cooler running temperature
- Quieter running
- Increased reliability

Specifications

	XDS 5	XDS 10	CVP 100
Pump type	Scroll pump	Scroll pump	Cole Principle Vacuum Pump
Flow rate (m ³ /hour)	5	10	3.6
Ultimate vacuum (mbar)	0.07	0.07	0.30
Weight (kg)	23	23	52
Dimensions W x D x H (mm)	530 x 305 x 398	530 x 305 x 398	540 x 290 x 405
Noise level	< 55 dBA	< 55 dBA	> 55 dBA
Power consumption	0.3 kW	0.3 kW	1.4 kW
Internal Operation Temp	+80°C	+80°C	+120°C

Upgrade your System

Most series 2 Genevac evaporators which were delivered with a Cole Vacuum Pump will benefit by being upgraded with a Genevac Scroll pump. Unfortunately series 1 evaporators cannot be upgraded. For further details and price information, please contact Genevac or your local representative.