

# Products

## Oil-free Scroll Vacuum Pumps SCROLLVAC 7 plus to 18 plus



Scroll vacuum pump SCROLLVAC 15 plus

### Advantage for the User

- Flexibility for customer requirements
- Four different pumping speeds available as required for the application
- Single- and Three-phase configurations available
- High robustness for each application
- ATEX certification (**Ex II 3 G c IIB T4**)
- Variants for aggressive applications available (SCROLLVAC C plus)
- High water vapour capacity
- Electronic-free three-phase variant for reduced radiation sensitivity
- Better work environment and low environmental impact
- quiet operation
- Simple operation
- intelligent and easy to use controls
- No contamination and no oil to dispose of
- hermetically sealed for a lubricant-free vacuum environment
- Low cost of ownership
- long service interval and low power consumption from a single sided scroll arrangement
- Maximised up-time
- long service intervals

### Typical Applications

- General clean pumping applications
- Scanning Electron Microscopes - SEM
- Beam lines and high energy physics
- Research and development
- Backing turbomolecular pumps
- Centrifuges, ultra-high speed
- Chamber evacuation
- Chemical applications including gel dryers and solvent recovery

In 1905 the principle of the scroll compressor was developed by the Frenchman Leon Creux.

SCROLLVAC plus is the next generation in completely oil free, dry scroll pumps by offering increased pumping speeds, combined with lower ultimate pressures, lower power consumption and lower noise. Gas ballast allows for pumping of condensable vapours including, water, solvents, dilute acids and bases. SCROLLVAC plus pumps also feature the latest in tip seal technology giving significantly longer life between tip seal changes. Integrated inverter drive with auto sensing voltage input delivers optimised pumping performance globally.

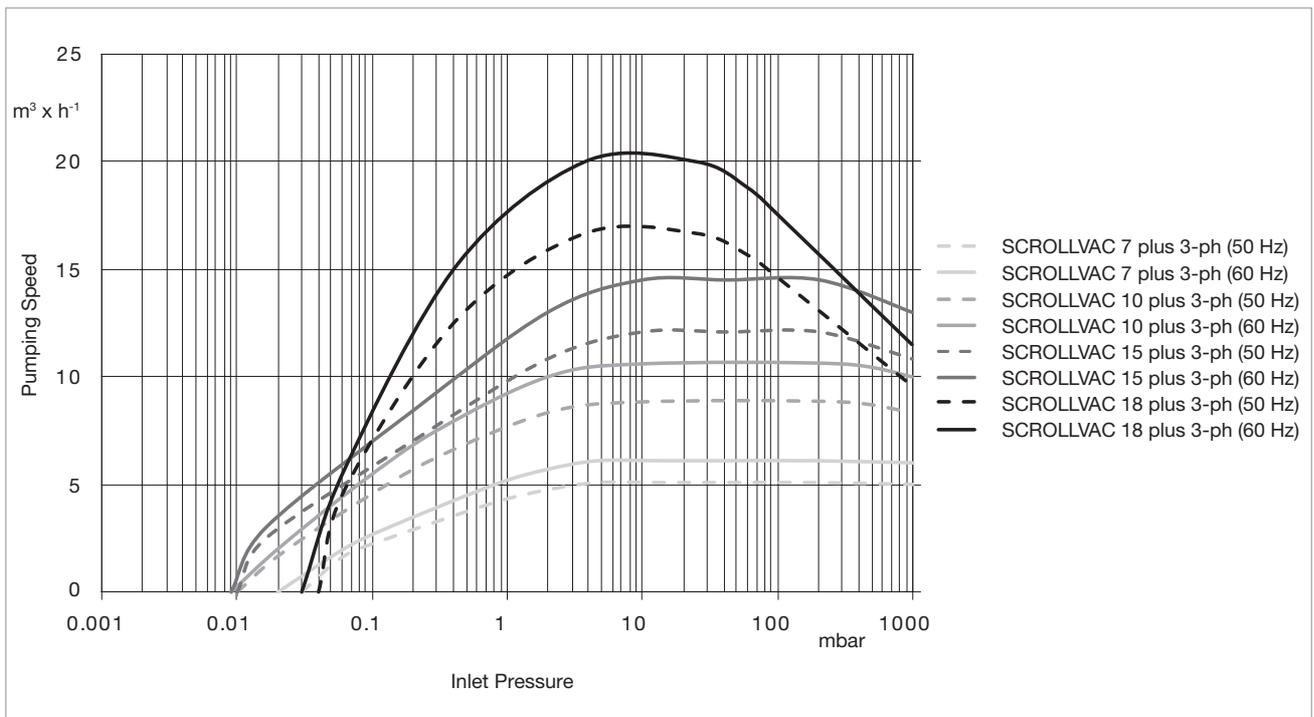
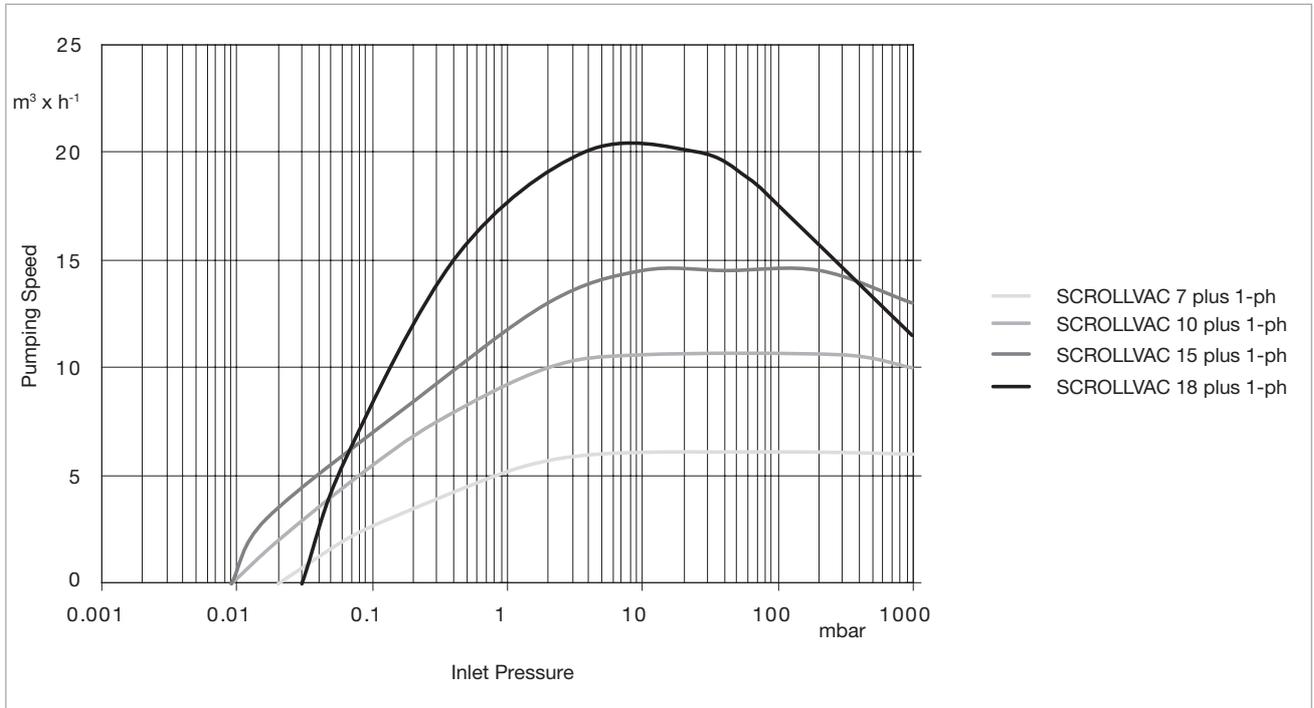
SCROLLVAC plus pumps are designed to be completely field serviceable.

### Service

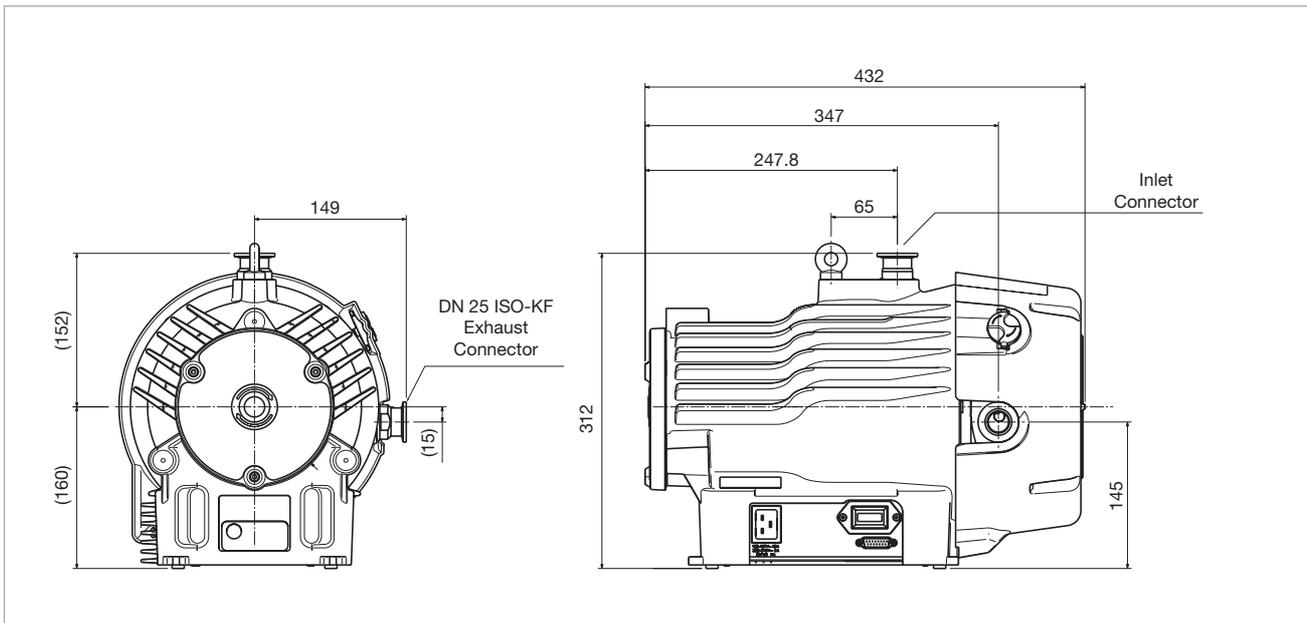
Our wide portfolio of services is designed with you in mind: to help keep your process and equipment running in the most economical and environmentally efficient manner.

Service include:

- Overhaul and repair using genuine Leybold OEM parts
- OEM spares and kits available for cost-effective expansion and backups
- Remanufactured products available for cost-effective expansions and backups
- Global network of expert field service engineers available to respond quickly to unexpected equipment failures



Pumping speed curves for the SCROLLVAC plus – pumps



Dimensional drawing for the scroll vacuum pumps SCROLLVAC 7 plus to SCROLLVAC 18 plus (dimensions in mm)

## Technical Data

## SCROLLVAC plus

		7	10	15	18
Rotation speed	rpm	1740			
Max. pumping speed	m <sup>3</sup> /h	6.1	10.6	14.5	20.0
Ultimate vacuum (total pressure)	mbar (Torr)	$2 \times 10^{-2}$ ( $1.5 \times 10^{-2}$ )	$9 \times 10^{-3}$ ( $6.5 \times 10^{-3}$ )	$9 \times 10^{-3}$ ( $6.5 \times 10^{-3}$ )	$3 \times 10^{-2}$ ( $2.25 \times 10^{-3}$ )
Maximum water vapour pumping rate (with gas ballast)	g/h	100	140	280	220
Maximum continuous inlet pressure	mbar	200			
Mains voltage 1-ph	V	100 – 127, 200 – 240 ( $\pm 10\%$ )			
Mains voltage 3-ph	V	200 / 380 – 415, 200 – 230 / 460			
Frequency	Hz	50/60			
Motor power (at ultimate pressure)	W	260	280	300	260
Power connector 1-ph		IEC EN60320 C19			
Weight	kg (lb)	26 (58)	25 (56)	26 (58)	25 (56)
Inlet flange		DN 25 ISO-KF			
Exhaust flange		DN 25 ISO-KF			
Noise level	dB(A)	55			
Leak tightness (Static)	mbar x l/s	$1 \times 10^{-6}$			
Operating temperature range	°C (°F)	10 to 40 / 41 to 104			

## Ordering Information

## SCROLLVAC plus

	<b>7</b>	<b>10</b>	<b>15</b>	<b>18</b>
	<b>Part No.</b>	<b>Part No.</b>	<b>Part No.</b>	<b>Part No.</b>
Oil-free scroll vacuum pump, Single-phase motor *				
Standard (with manual gas ballast)	<b>141007V10</b>	<b>141010V10</b>	<b>141015V10</b>	<b>141018V10</b>
C-Version (for aggressive applications)	-	-	<b>141015V12</b>	<b>141018V12</b>
Oil-free scroll vacuum pump, Three-phase motor *				
Standard (with manual gas ballast)	-	<b>141010V30</b>	<b>141015V30</b>	<b>141018V30</b>
C-Version (for aggressive applications)	-	<b>141010V32</b>	<b>141015V32</b>	<b>141018V32</b>
<b>Accessories Mains cable (required for pump operation)</b>				
Mains cable Europe				
CEE 7/7 (Schuko) – IEC-60320 C19				
Length 2.0 m	<b>161810EU</b>			
Mains cable Great Britain				
BS 1363 – IEC-60320 C19				
Length 2.0 m	<b>161810UK</b>			
Mains cable US				
115 V: NEMA 5-15P – IEC-60320 C19				
Length 3.0 m	<b>141103US</b>			
208/230 V: NEMA 6-15P – IEC-60320 C19				
Length 2.5 m	<b>161810US</b>			
<b>Optional accessories</b>				
Gas ballast adaptor blank (H-conversion KIT)	<b>141100A01</b>			
Gas ballast adaptor for external gas line – no restriction (Quick connect 1/4 inch)	<b>141100A02</b>			
Gas ballast adaptor for external gas line – with fine restriction (Quick connect 1/4 inch)	<b>141100A03</b>			
Chemical resistance conversion kit (C-conversion KIT)	<b>141101A01</b>	<b>141101A01</b>	<b>141101A01</b>	<b>141101A02</b>
Vibration isolators	<b>141102A01</b>			
Silencer	<b>141102A02</b>			
Minor Service Kit				
Standard (with manual gas ballast)	<b>EK117141000</b>	<b>EK117141000</b>	<b>EK117141000</b>	<b>EK117141001</b>
C-Version (for aggressive applications)	<b>EK117141002</b>	<b>EK117141002</b>	<b>EK117141002</b>	<b>EK117141003</b>

\* Other pump variants on request