

Dry Compressing Piston Vacuum Pump



EcoDry L, right with silencing hood on cart

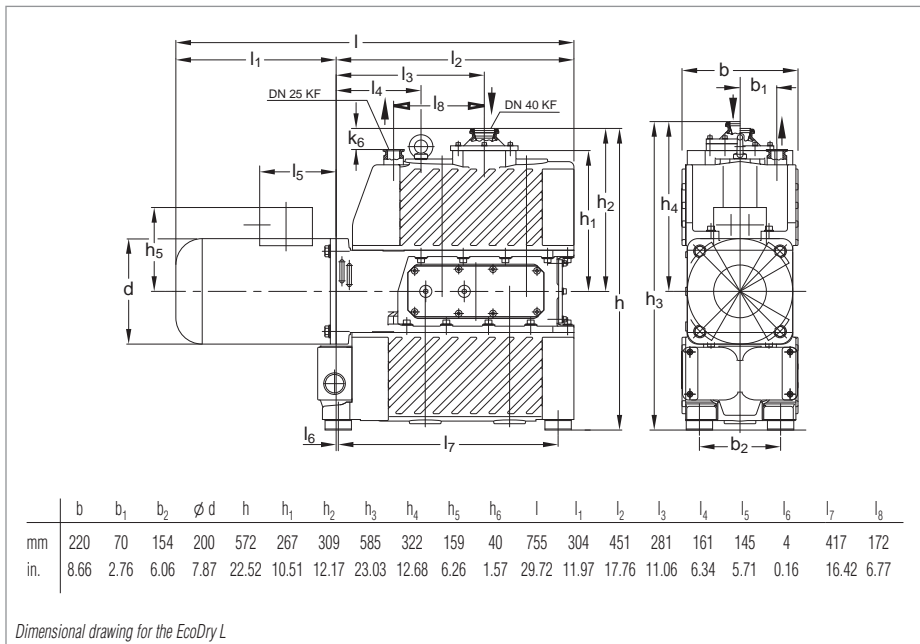
Our positive displacement pump EcoDry L is really very simple: No blower, no water cooling, no grease-lubricated bearings in the vacuum, and of course *no* oil.

In fact, the design principle of the EcoDry L is so simple that the unit can operate for approximately two years with no maintenance (depending on the application).

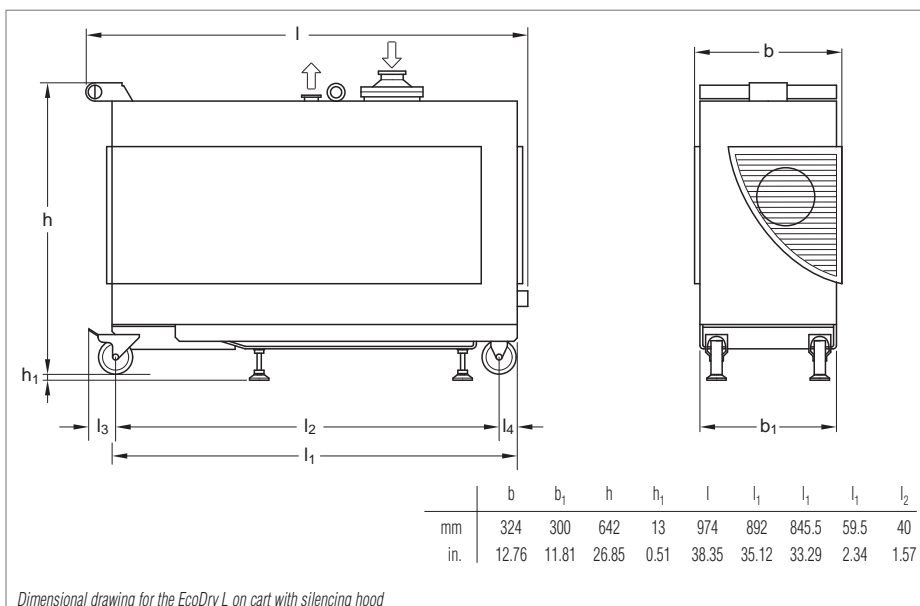
For proper use of the EcoDry L please contact our sales department.

Maintenance is simple and can be done world-wide by Leybold Service.

The EcoDry L is available as a complete system with silencing hood and fitted on to a cart. This helps to cut the already low noise level to an even much lower level (see ordering information).



Dimensional drawing for the EcoDry L



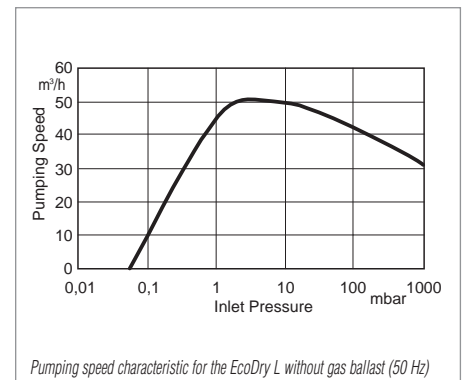
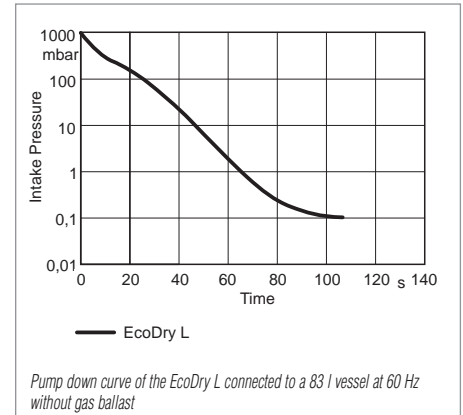
Dimensional drawing for the EcoDry L on cart with silencing hood

Advantages to the User

- ◆ Maintenance-poor, free of oil and bearing lubrication, free of hydrocarbons
- ◆ Low level of particle emissions
- ◆ Long service life and most reliable
- ◆ Low power consumption
- ◆ Low operating costs (no waste disposal costs for oil etc.)
- ◆ Service friendly
- ◆ No additional blower and water cooling system is required
- ◆ Plug & play
- ◆ High pumping speed at low pressure
- ◆ No grease-lubricated bearing in the vacuum section
- ◆ Totally dry compression chamber
- ◆ Leak tight
- ◆ Runs at 1100 rpm (60 Hz mains)
- ◆ Integrated operating hours counter in the motor junction box
- ◆ Full cross section valves
- ◆ Gas ballast (optional)
- ◆ High water vapor tolerance with gas ballast (optional)
- ◆ For both horizontal and vertical operation ¹⁾

Typical Applications

- ◆ Applications in physics
- ◆ Loadlock chambers
- ◆ Transfer chambers
- ◆ Mass spectrometers
- ◆ Electron microscopes
- ◆ Lighting
- ◆ Thinfilm coaters
- ◆ Forevacuum pump for dry high-vacuum systems
- ◆ Pumping of oxygen concentrations over 21 percent by volume upon request



¹⁾ When planning to operate the EcoDry L horizontally please contact LEYBOLD sales first.

The versions equipped with a silencing hood can only be operated vertically!

Technical Data		EcoDry L
Max. pumping speed		
50 Hz	m ³ x h ⁻¹ (cfm)	38 (22)
60 Hz	m ³ x h ⁻¹ (cfm)	48 (28)
Ultimate total pressure		
50 Hz, without gas ballast ¹⁾	mbar (Torr)	6 x 10 ⁻² (3 x 10 ⁻²)
Max. permissible inlet pressure	mbar (Torr)	1000 (750)
Max. permissible permanent inlet pressure	mbar (Torr)	
1.5 kW (2.0 hp) motor	mbar (Torr)	≤ 30 (22.5)
2.2 kW (3.0 hp) motor	mbar (Torr)	1000 (750)
Water vapor tolerance, max. ²⁾	mbar (Torr)	30 (22.5)
Main voltage		3 P - AC 190 - 210 V, 50 Hz 3 P - AC 190 - 250 V, 60 Hz 3 P - AC 380 - 420 V, 50 Hz 3 P - AC 380 - 500 V, 60 Hz
Motor power requirements ³⁾	W (hp)	≤ 500 (≤ 0.7) at ultimate pressure
Motor rating, max. ³⁾	W (hp)	1500 (2.0)
Max. ambient temperature	°C (°F)	≤ + 50 (≤ + 122)
Speed		
50 Hz	min ⁻¹	approx. 900
60 Hz	min ⁻¹	approx. 1100
Type of protection	IP	54
Weight, approx.	kg (lbs)	95 (209.5)
with silencing hood		
Part No. 130 106, approx.	kg (lbs)	140 (309)
Part No. 130 105, approx.	kg (lbs)	145 (320)
Noise level (60 Hz operation) ⁴⁾	dB(A)	64
Versions with silencing hood (60 Hz operation) ⁴⁾	dB(A)	≤ 58
Connections		
Inlet port fitting	DN	40 KF
Exhaust port fitting	DN	25 KF

Ordering Information ⁵⁾	EcoDry L
EcoDry L with 1.5 kW (2.0 hp) ⁷⁾	Part No. 139 50
EcoDry L with 1.5 kW (2.0 hp) motor and gasballast ⁷⁾	Part No. 123 15
EcoDry L (1.5 kW motor) with silencing hood (fitted to cart, fan 230 V) ⁶⁾	Part No. 130 106
EcoDry L with 2.2 kW (3.0 hp) motor ⁷⁾	Part No. 123 00
EcoDry L (2.2 kW motor) with silencing hood (fitted to cart, fan 230 V) ⁶⁾	Upon request
Cart	Part No. 139 52
Roots pump adapter	Part No. 139 55
Gas ballast valve	
manually operated	Part No. 123 05
solenoid	Part No. 169 50

- 1) By delivery
- 2) Version with gas ballast (position III)
- 3) Version with 1.5 kW (2.0 hp) motor
- 4) Operating at ultimate pressure
- 5) Other EcoDry L versions upon request
- 6) Other EcoDry L versions with silencing hood upon request
- 7) Higher pumped off volumes > 100 l (3.5 ft³) < 1 m³ are possible with optional 2.2 kW (3.0 hp) motors