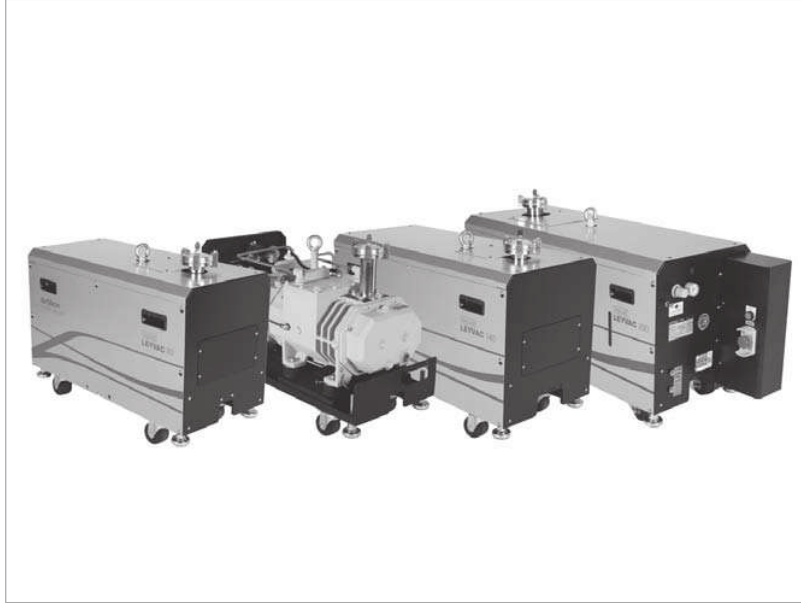


# Products

## LEYVAC

### Excellent efficiency in every respect



LEYVAC LV 80, 140 and 250

**Our LEYVAC dry vacuum pumps provide power combined with high performance.**

This product line covers the pumping speed ranges from 80 to 300 m<sup>3</sup>/h and is especially suited to meet the special requirements of industrial processes and coating applications.

LEYVAC pumps and system combinations are rugged, reliable and durable, ready to cope with harsh process requirements.

The LEYVAC product line comprises the models LEYVAC LV 80, LV 140, LV 250 and their C or CC versions.

The new LEYVAC 250 significantly expands the performance spectrum of this product range with excellent energy efficiency characteristics.

The CC versions include an overtemperature safety shutdown facility.

#### Advantages to the User

- Dry pump technology
- No contact of the process gases with oil
- Shortest pumpdown times through high pumping speed for air already starting at atmospheric pressure
- Hermetically tight
  - No shaft seals
  - No oil leakage
  - Safe pumping of toxic gases
- High reliability
  - Long service intervals (up to 5 years)
  - High uptime
  - Robust and durable design
- One motor solution
  - Multi-voltage, dual frequency motor operable at 200 V - 460 V and 50/60 Hz
- Easy and modular
  - Direct coupling of roots booster pumps without frames for models RUVAC WH 700 and WA(U)/WS(U) 251-1001

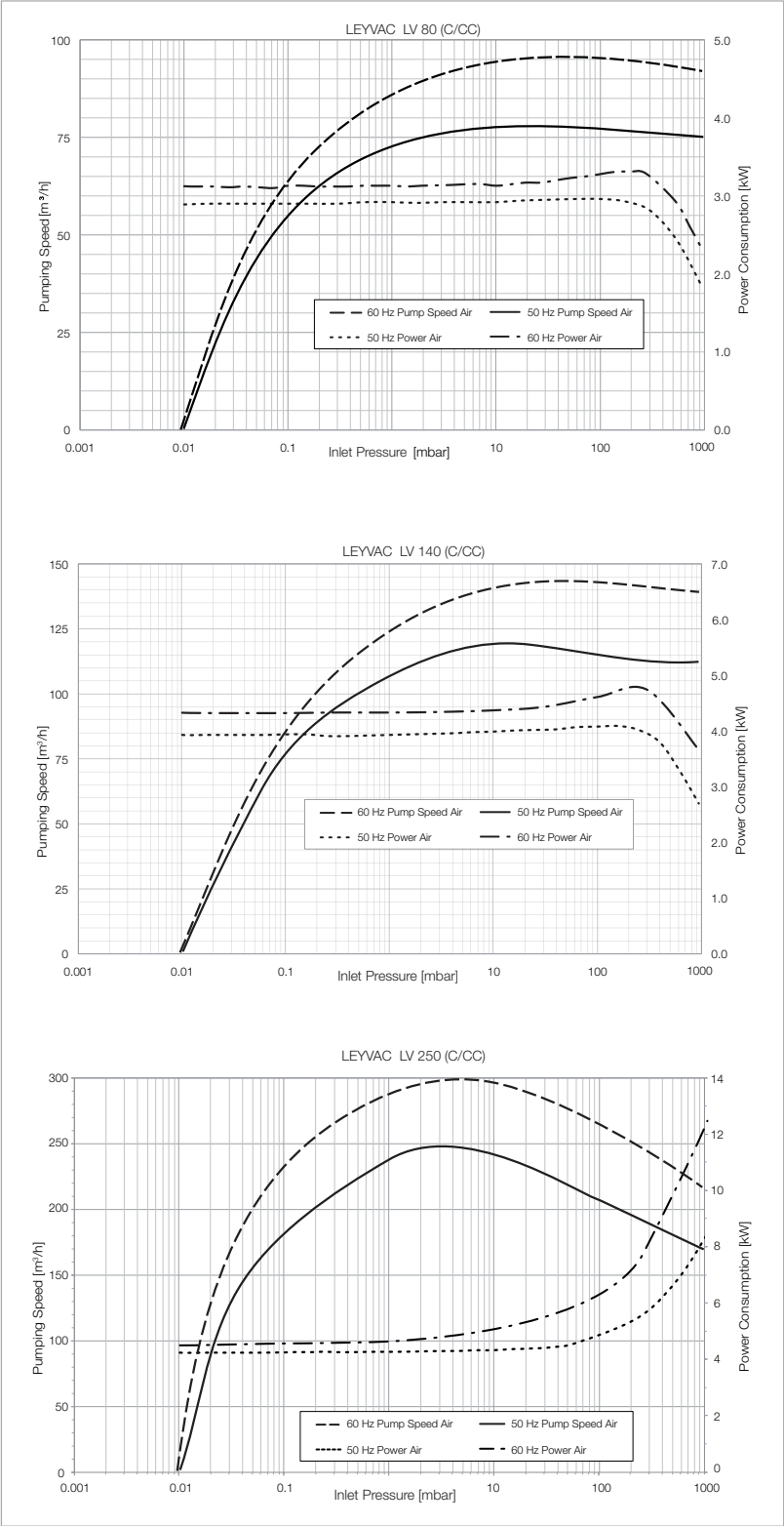
#### Typical Application

- Process industry
  - Industrial furnaces
  - Degassing
  - Charging
  - Casting
  - Drying processes
  - Freeze drying
  - Electron beam welding
  - Packaging
- Coating
  - PVD/CVD coating
  - Wear resistant coating
  - Optical coating
  - Web coating
  - Load locks/transfer chambers
- Solar
  - CVD/PECVD
  - Crystal pulling and casting
- Support functions
  - Regeneration of cryo pumps
  - Forevacuum pumps for turbomolecular pumps

#### Performance Details at a Glance

LEYVAC dry vacuum pumps provide **optimized**

- System uptime
  - Robust design based on the proven RUVAC and DRYVAC technology
  - Most effective cooling system
  - Thermal protection on board (for CC versions)
  - Tolerant to pressure shocks
  - Long intervals for bearing exchange
- Process safety
  - designed for harsh applications
- Performance data
  - High pumping speed already at high intake pressures
  - Good pumping speed also for lighter gases (with purge)
- Environmental properties
  - Low noise and low heat emission
- Price-to-performance ratio
  - Low investment costs
  - Small, price optimized pumping systems



Pumping speed curves of the LEYVAC LV 80 (C/CC), LEYVAC LV 140 (C/CC) and LEYVAC LV 250 (C/CC)

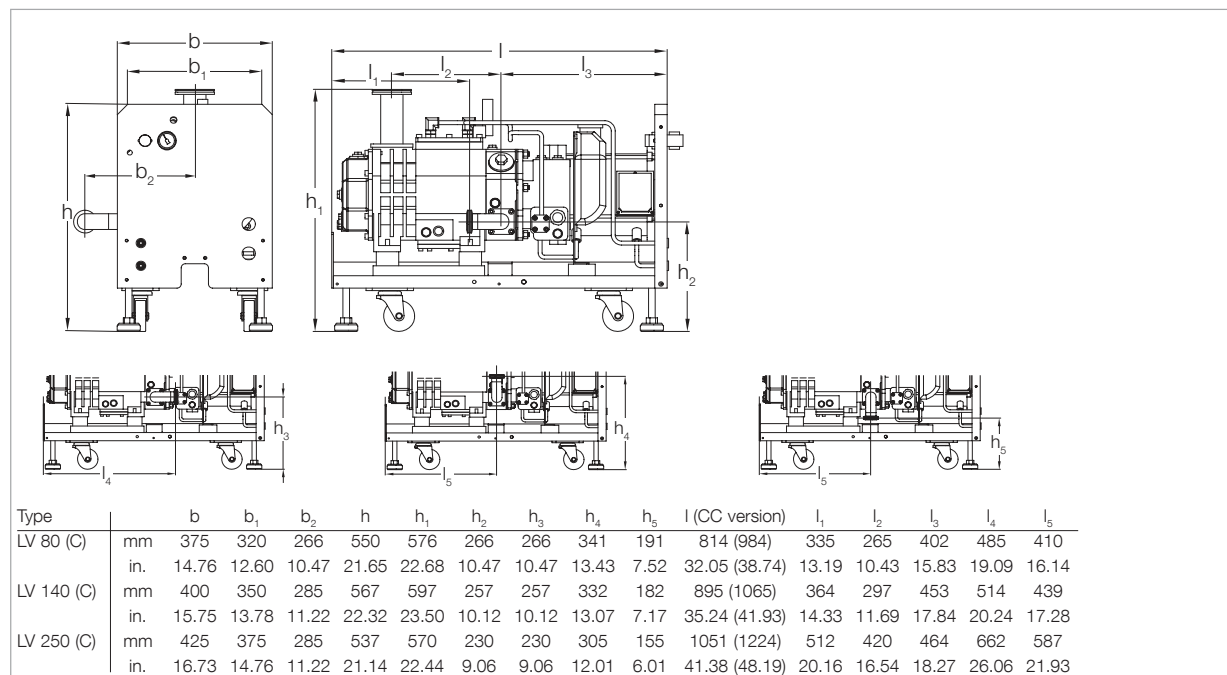
## Technical Data

## LEYVAC

		LV 80 (C/CC)	LV 140 (C/CC)	LV 250 (C/CC)
Nominal pumping speed without gas ballast at 50/60 Hz				
	m <sup>3</sup> x h <sup>-1</sup> (cfm)	80/96 (47.1/56.5)	125/145 (73.6/85.3)	250/300 (147.1/176.6)
Ultimate pressure with seal and rotor purge				
	mbar (Torr)	1 x 10 <sup>-2</sup> (0.75 x 10 <sup>-2</sup> )	1 x 10 <sup>-2</sup> (0.75 x 10 <sup>-2</sup> )	1 x 10 <sup>-2</sup> (0.75 x 10 <sup>-2</sup> )
Power consumption at ultimate pressure and 50/60 Hz operation				
	kW (hp)	2.9/3.2 (3.9/4.3)	3.9/4.3 (5.2/5.8)	4.2/4.7 (5.6/6.3)
Weight, approx.				
LV ...	kg (lbs)	280 (617)	300 (661)	330 (728)
LV ... C/CC	kg (lbs)	300 (661)	320 (705)	350 (772)
Noise level <sup>1)</sup>				
	dB(A)	< 65	< 65	< 72
Connection flange				
Intake	DN	63 ISO-K	63 ISO-K	63 ISO-K
Discharge	DN	40 ISO-KF	40 ISO-KF	40 ISO-KF
Mains voltage (± 10%)				
LV ...	V	200 - 460	200 - 460	200 - 460
LV ... C (with housing)	V	200 - 460	200 - 460	200 - 460
LV ... CC (with housing and Temperature monitoring)	V	380 - 460	380 - 460	380 - 460
Nominal power at 50/60 Hz				
	kW (hp)	4.1 (5.5)	5.5 (7.4)	8.0 (10.7)
Nominal current consumption 50/60 Hz at 400 V				
	A	6	8	16
Cooling				
		water/glycol	water/glycol	water/glycol
Cooling water temperature				
	°C (°F)	+15 to +30 (+59 to +86)	+15 to +30 (+59 to +86)	+15 to +30 (+59 to +86)
Min. cooling water throughput				
	l/min	3	3	3
Water vapor tolerance (with gas ballast)				
80 slm 50/60 Hz	mbar (Torr)	20/30	125/160	-/-
150 slm 50/60 Hz <sup>2)</sup>	mbar (Torr)	-/-	-/-	30/37
Water vapor capacity (with gas ballast)				
80 slm 50/60 Hz	kg/h	1.24/2.3	11.5/18.0	-/-
150 slm 50/60 Hz <sup>2)</sup>	kg/h	-/-	-/-	6.3/6.5
Permissible ambient temperature				
	°C (°F)	+5 to +45 (+41 to +113)	+5 to +45 (+41 to +113)	+5 to +45 (+41 to +113)
Protection class EN 60529				
	IP	54	54	54
Dimensions (W x H x D)				
LV ... and LV ... C	mm	814 x 375 x 550	895 x 400 x 567	1051 x 425 x 537
	(in.)	(32.05 x 14.76 x 21.65)	(35.24 x 15.75 x 22.32)	(41.38 x 16.73 x 21.14)
LV ... CC	mm	984 x 375 x 550	1065 x 400 x 567	1224 x 425 x 537
	(in.)	(38.74 x 14.76 x 21.65)	(41.93 x 15.75 x 22.32)	(48.19 x 16.73 x 21.14)

<sup>1)</sup> At ultimate pressure and with rigid exhaust line DIN EN ISO 2151

<sup>2)</sup> 2nd case: with 24 V gas ballast kit 115005A13 fitted to port 2, standard purge also opened



Dimensional drawing for the LEYVAC LV 80/C and LV 140/C; below for exhaust connection

## Ordering Information

	<b>LEYVAC</b>		
	<b>LV 80 (C/CC)</b>	<b>LV 140 (C/CC)</b>	<b>LV 250 (C/CC)</b>
	<b>Part No.</b>	<b>Part No.</b>	<b>Part No.</b>
Dry compressing vacuum pump LEYVAC including LEYBONOL LVO 410 lubricant, base plate, castors, temperature switch, shaft seal and rotor purge	<b>115080V15</b>	<b>115140V15</b>	<b>115250V15</b>
additionally with casing (C version)	<b>115080V30</b>	<b>115140V30</b>	<b>115250V30</b>
additionally with casing and temperature monitoring (CC version)	<b>115080V35</b>	<b>115140V35</b>	<b>115250V35</b>
<b>Accessories</b>			
Non-return ball valve	<b>115005A01</b>	<b>115005A01</b>	<b>115005A01</b>
Non-return valve, spring-loaded	<b>115005A02</b>	<b>115005A02</b>	<b>115005A02</b>
Roots pump adapter for RUVAC WS/WSU 251/501 and WH 700	<b>115005A03</b>	<b>115005A03</b>	<b>115005A05</b>
Adapter ring for RUVAC WA(U)/WS(U)1001	—	<b>115005A04 and 115005A03</b>	<b>115005A06 and 115005A05</b>
Exhaust pressure sensor			
LV 80	<b>115005A10</b>	—	—
LV 140	—	<b>115005A11</b>	—
LV 250	—	—	<b>115005A09</b>
Gas ballast kit			
manually operated	<b>115005A12</b>	<b>115005A12</b>	<b>115005A12</b>
24 V	<b>115005A13</b>	<b>115005A13</b>	<b>115005A13</b>
Silencer			
standard			
(with integrated non-return valve)	<b>115005A20</b>	<b>115005A20</b>	<b>115005A20</b>
serviceable	<b>115005A22</b>	<b>115005A22</b>	<b>115005A22</b>
emptyable	<b>115005A23</b>	<b>115005A23</b>	<b>115005A23</b>
High-performance silencer	<b>115005A21</b>	<b>115005A21</b>	<b>115005A21</b>
Elbow for silencer, emptyable	<b>115005A26</b>	<b>115005A26</b>	<b>115005A26</b>
Inlet screen	<b>115005A28</b>	<b>115005A28</b>	<b>115005A28</b>
External frequency converter (including mains filter) for			
LEYVAC LV 80 (400 V)	<b>115005A30</b>	—	—
LEYVAC LV 140 (400 V)	—	<b>115005A35</b>	—
LEYVAC LV 250 (400 V)	—	—	<b>115005A40</b>
Profibus module <sup>1)</sup>	<b>155212V</b>	<b>155212V</b>	<b>155212V</b>
Relais module (digital output) <sup>1)</sup>	<b>112005A01</b>	<b>112005A01</b>	<b>112005A01</b>
Ethernet interface module <sup>1)</sup>	<b>112005A02</b>	<b>112005A02</b>	<b>112005A02</b>
ProfiNet module <sup>1)</sup>	<b>112005A35</b>	<b>112005A35</b>	<b>112005A35</b>
EtherCAT module <sup>1)</sup>	<b>112005A36</b>	<b>112005A36</b>	<b>112005A36</b>

<sup>1)</sup> For optional, external frequency converter