

DRYVAC

The benchmark in
dry vacuum systems



DRYVAC

Racing for Records

The benchmark in dry vacuum pumps

DRYVAC range of dry vacuum pumps and solutions:

All models from the DRYVAC platform have been designed and adapted to the special needs of applications in the photovoltaic production chain (e.g. PECVD, PVD and crystal growing, etc.), coating applications and process industry in general. DRYVAC pumps and system combinations are rugged, reliable and durable, ready to fulfill stringent process requirements.

One design platform - numerous opportunities

The DRYVAC range comprises the following models:

- DRYVAC DV 450
- DRYVAC DV 650-r
- DRYVAC DV 650 S
- DRYVAC DV 650 S-i
- DRYVAC DV 650 C
- DRYVAC DV 650 C-i
- DRYVAC DV 650 C-r
- DRYVAC DV 1200
- DRYVAC DV 1200 S-i
- DRYVAC DVR 5000 C-i

plus multiple system combinations with roots blowers from the RUVAC® series.

DRYVAC models and favorite applications:

The DRYVAC DV standard version and the DRYVAC DV S deliver an optimized pumping speed at pressures >100 mbar. DRYVAC DV and DV S types are suited for short cycle operation (load locks, for example) or for the evacuation of large vacuum chambers.

Furthermore, these DRYVAC models cover all features needed for process industry applications such as heat treatment, industrial coating, high voltage electrical manufacturing or nuclear drying.

Models from the DV C range have been designed to provide highest reliability in harsh process duties. DRYVAC DV C pumps are optimized for handling typical gases from the production in the photovoltaic and flat panel display industry. They excel through their robust design and meet industrial safety requirements.

The DRYVAC DV-i versions include housing, castors, PLC and touch screen display as standard. Control and monitoring via intuitive menu navigation software and field bus.

The main DRYVAC benefits in order to optimize costs and performance:

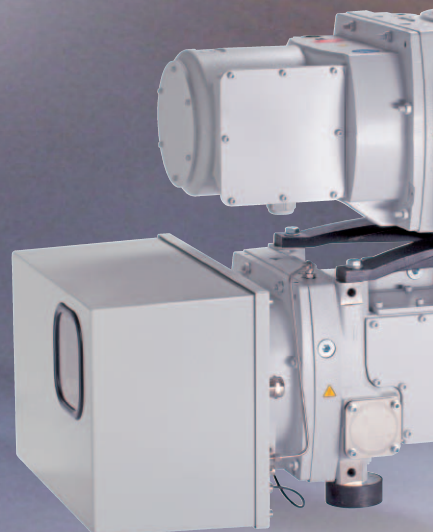
Minimized

- Cost of Ownership
- footprint and space requirements
- installation time
- power consumption

Maximized

- flexibility
- reliability
- process throughput
- system uptime

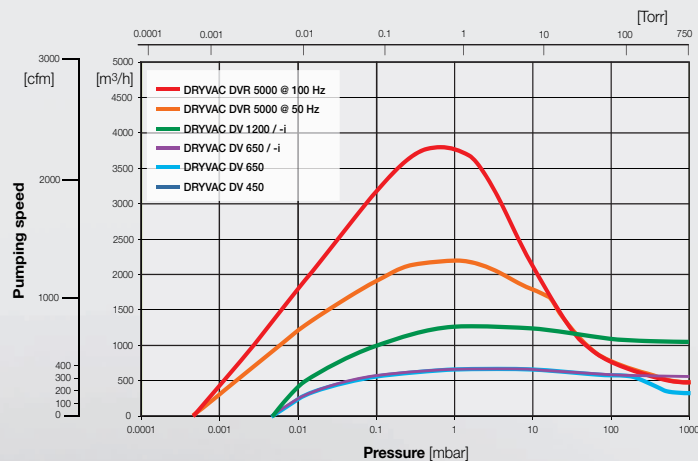
Choose the DRYVAC -
Master any process challenges!



Discover a new world of vacuum

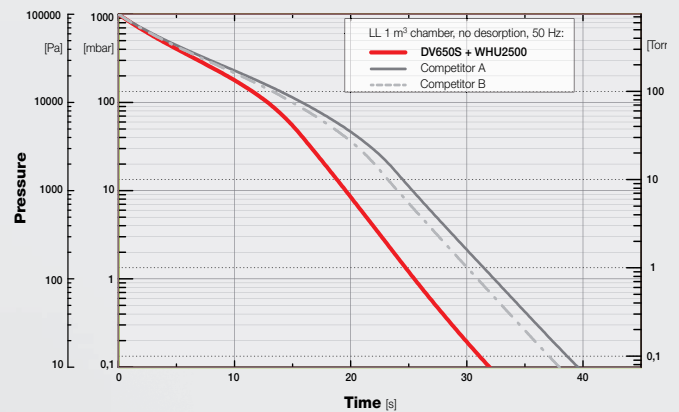
Specifications

Pumping speed characteristics



Competitor comparison

Benchmark test with load lock chamber DRYVAC pumps offer best performance available on the market today



DRYVAC DV 650 with WH 2500 roots pump

DRYVAC DVR 5000 C-i

Technical details

- Water cooled
- Low power consumption: 7 kW below 10 mbar for DRYVAC 650 S
- Energy efficiency IE2
- Hermetically sealed pump without external shaft seals
- Wide voltage and wide frequency drive due to integrated inverter(s)
- No need to provide motor protection switch due to integrated inverter(s)
- NRTL listed (cTUVus)
- RoHS conform (2002/95/EG, Restriction of Hazardous Substances)

Features at a glance

- Most compact dry pump, with the smallest footprint for pump systems
- Optimized Cost of Ownership including the lowest power consumption available on the market today
- Utmost package flexibility
- Low noise level
- Highest reliability
- Integrated self-monitoring and control
- No unscheduled down times
- Minor maintenance demands

Technical Data

DRYVAC		DVR 5000-i	DV 1200-i	DV 1200	DV 650-i	DV 650	DV 450
Nominal pumping speed	m³/h	5000	1250	1250	650	650	450
Max. effective pumping speed	m³/h	3800	1250	1250	650	650	450
Ultimate pressure	mbar	$< 5 \times 10^{-4}$	$< 5 \times 10^{-3}$	$< 5 \times 10^{-3}$	$< 5 \times 10^{-3}$	$< 5 \times 10^{-3}$	$< 5 \times 10^{-3}$
Power consumption at ultimate pressure	kW	≤ 9.5	≤ 14	≤ 14	≤ 7	≤ 7	≤ 4.7
Weight	kg	1200	1400	1400	750	580	620
Noise level *	dB(A)	65	65	65	65	65	65
Intake connection	DN	DN 250	DN 100	DN 100	DN 100	DN 100	DN 100
Exhaust side connection	DN	DN 63 ISO-K or 50 KF	DN 100 ISO-K	DN 100 ISO-K	DN 63 ISO-K	DN 63 ISO-K	DN 63 ISO-K
Electrical connection, 3-ph.		380-460 V	380-460 V	380-460 V	380-460 V	380-460 V	380-460 V
		–	–	–	–	200-240 V	200-240 V
		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Nominal power at 400 V	kW	21	30	30	15	15	11
Cooling		water	water	water	water	water	water
Max. cooling water temperature	°C	5 to 35	5 to 35	5 to 35	5 to 35	5 to 35	5 to 35
Cooling water throughput, nominal	l/min	11	15	15	7.5	7.5	6
Permissible ambient temperature	°C	+5 to +40	+5 to +40	+5 to +50	+5 to +40	+5 to +50	+5 to +50
Protection class EN 60529	IP	20	20	54	20	54	54
Dimensions (W x D x H)	mm	1370 x 677 x 1105	1370 x 677 x 1105	1370 x 677 x 1105	1340 x 677 x 681	1280 x 570 x 420	1280 x 570 x 420

* at ultimate pressure and with rigid exhaust line DIN EN ISO 2151

leybold

Headquarter Germany

Oerlikon Leybold Vacuum GmbH
Bonner Strasse 498
D-50968 Köln

T +49 (0) 221-347-0
F +49 (0) 221-347-1250
info.vacuum@oerlikon.com

www.oerlikon.com/leyboldvacuum

