



# DRYVAC SYSTEMS

Powered by Efficiency



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## The New Leybold Standard



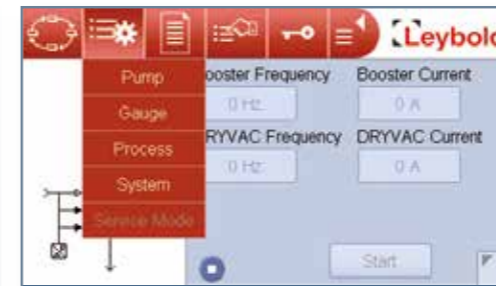
Leybold has refined its Dryvac vacuum pump systems, making them adaptable for a variety of applications — The recipe is simple and efficient: Take a dry compressing screw vacuum pump and a roots pump, combine both of the proven technologies along with pressure measurement, shut-off devices and electrical control, creating a turn-key smart vacuum system that is cost-effective and completely ready for use by the customer.

For more than five years, the fore vacuum systems of the Dryvac pump series by Leybold are already being used successfully in various

processes, which can be simple or very challenging. The pumping systems are known for their maximum suction capacity while operating at minimum operating costs.

Now, Leybold has developed the systems further: The new two-stage Dryvac systems distinguish themselves particularly by their modular design and the resulting improved user friendliness and easy servicing. All equipment features are aligned to the requirements of the different markets.

## General Advantages



Touch screen

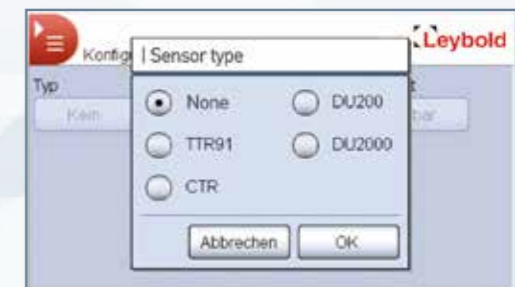
- Extremely compact design provides more space in production areas
- Very low noise level improves working environment conditions
- Significant cost reduction because of high energy efficiency
- Clean technology with no oil emissions
- Optimized for fast cycle / load lock applications

### Special Features at a Glance

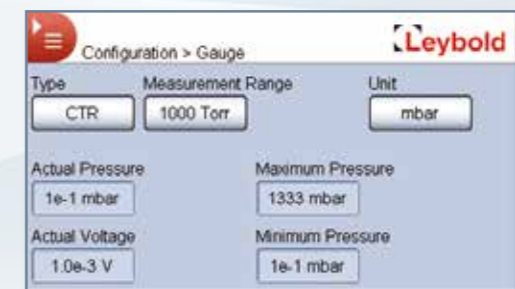
- Direct connection of measuring gauges
- Smart Version: Integrated operating and monitoring electronics
- Improved lead times due to modularization
- Easier tool integration by standard interfaces

### A Plus in Energy Efficiency

The high energy efficiency is met by the customized frequency converter. This leads to overall low power consumption. The average energy consumption of the Dryvac system is about 30 percent lower than for competitive products in the market.



Touch screen with smart phone feeling



**DRYVAC SYSTEMS** are available either as Basic or Smart system configuration

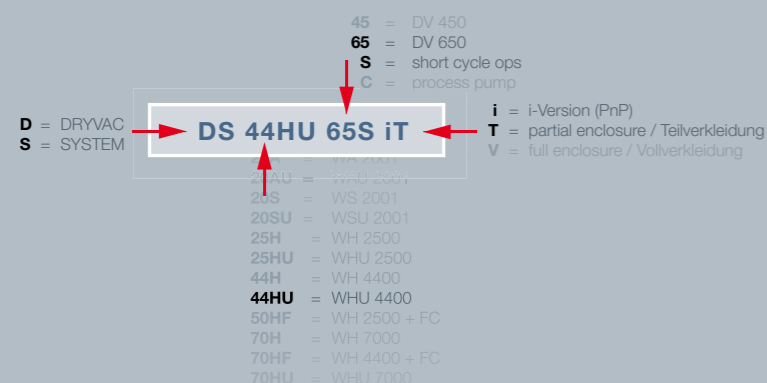


DS 2065-U



DS 4465

Example type designation: DS 44UH65-iT (WHU4400 + DV650)



Example short name (derived from the type designation)

**DS 44HU65S-iT = DS 4465-U**

### Basic

Pre-assembled vacuum pump systems (basic version). Monitoring, control, programming, and power electronic components to be provided by the customer.

Standard configuration:

- exhaust to the side
- triple purge gas module

Optional configurations: double purge gas module, gas ballast system, non-return valve, quick-access couplings (water), mating connector for power & signal supply, relay board (digital I/O)

Advantages:

- high performance with excellent cost-performance ratio
- worldwide service & spare parts availability
- rapid response times

### Smart

The smart pump system versions are characterized by integrated power electronics, monitoring devices for the purge gas system and key parameters, easy and user-friendly operation handling (local / remote), and additional features, e.g. connecting a gauge head.

Standard configuration:

- digital I/O interface
- prepared for connecting a variety of different gauge heads (CTR, DU, TTR)
- Emergency Stop (EMS)
- compensation for voltage drops ( $\leq 2s$ )
- triple purge gas module
- exhaust to the side

Optional configurations: double purge gas module, gas ballast system, non-return valve, quick-action couplings, Profibus, Ethernet or Profinet interfaces!

Advantages:

- high performance at attractive prices
- autonomous vacuum pump system
- worldwide service & spare parts availability
- rapid response times

BASIC SMART

# DRYVAC SYSTEMS are robust, reliable and durable, ready to fulfill highest process requirements.



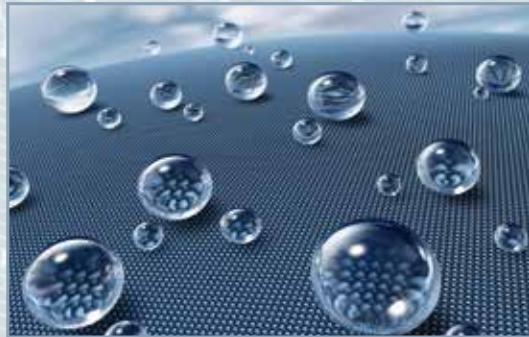
Glas Coating



Sputtering / Decorative Layers



Freeze Drying



Protective Coating



Display



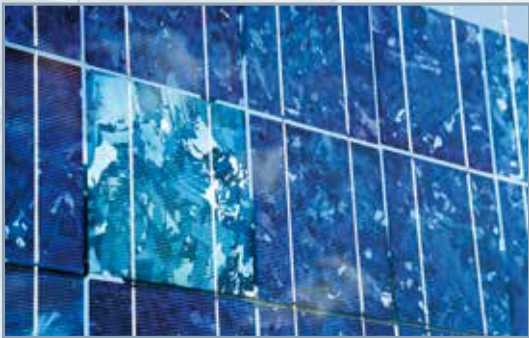
Crystal Pulling



Furnace



Battery



Solar

### Performance

- Fastest pump down times – by high throughput pump mechanisms
- Highest pumping speed for dry and booster pumps

### Range of Vacuum

- Pumping speed from 2,000 m<sup>3</sup>/h up to 9,800 m<sup>3</sup>/h
- Integrated smart monitoring of major parameters
- Standard Digital I/O interface and Profibus (optional) for the whole product family

### Reliability

- Platform based product design proven in a huge installed base
- Tolerance to misuse

### Efficiency

- Optimized design and screw profile
- Lowest power consumption
- Low cost of ownership
- minimized for foot print

BASIC



DS 2045-U

SMART



DS 2065-U



DS 2545-U



DS 2565



DS 2565-F



DS 4445-U



DS 4445S



DS 4465S-F



DS 7065-F

Exemplary illustrations. Recommended pump systems / solutions may deviate.

# Our Service – more than you expect!

We provide maximum up-time. Fast, competent and customer oriented.

- On-site service
- 24/7 support
- Organization of back up pools
- Complete service contracts for FABs

High-quality products are combined with our comprehensive after sales service, a worldwide service network and an internationally unified quality standard.

Our service capability guarantees fast and efficient support - in your local language.

We offer tailor-made solutions for all of your vacuum technological requirements and related maintenance for your vacuum equipment.



### The Customer Care Program

The Customer Care Program has been developed as a comprehensive and, if necessary, global solution for your service requirements. The Customer Care programs covers the whole range of vacuum engineering and offers any support.

### Field Service

If required by our customers' processes, our professional field service engineers will be your direct contact in order to find an on-site solution for your vacuum demands.

### All Brand Repairs

For us, one face to the customer and an optimized cost situation go hand in hand. Therefore, we have qualified our service personnel to repair many vacuum pumps of other brands – just as professional as our own.

### Service centers worldwide

Leybold maintains service centers and support bases throughout the world. In order to ensure the shortest possible door-to-door time for pump repairs. Our staff of over 1500 experienced people in our closely woven world-wide network is prepared to forward tailor-made solutions rapidly and flexible covering maintenance and support for your vacuum equipment.

# Technical Data

DRYVAC SYSTEM	2000		2500		2500	
	DS 2045-U	DS 2065-U	DS 2545-U	DS 2565-U	DS 2545C-F	DS 2565C-F
Technical Data						
Max effective pumping speed m <sup>3</sup> /min.	1600 (50 Hz) 1850 (60 Hz)	1750 (50 Hz) 2050 (60 Hz)	2100 (50 Hz) 2400 (60 Hz)	2150 (50 Hz) 2500 (60 Hz)	3500 (50 Hz) 3500 (60 Hz)	3750 (50 Hz) 3750 (60 Hz)
Power kW	7.8 (50 Hz) 8.0 (60 Hz)	7.8 (50 Hz) 8.0 (60 Hz)	5.6 (50 Hz) 5.7 (60 Hz)	7.8 (50 Hz) 7.9 (60 Hz)	5.6 (50 Hz) 6.2 (100 Hz)	7.8 (50 Hz) 8.4 (100 Hz)
Water l/min.	6	6	8.2	9.7	8.2	9.7
Inlet ISO	160	160	250	250	250	250
Outlet ISO	63	63	63	63	63	63
Dimension (L x W x H) mm	1532 x 666 x 1124	1532 x 666 x 1124	1532 x 666 x 984	1532 x 666 x 984	1532 x 666 x 984	1532 x 666 x 984
Noise Level (@ pend) dB/A	<80	<80	<65	<65	<65	<65

DRYVAC SYSTEM	4400		7000	
	DS 4465-U	DS 4465C-F	DS 7065-U	DS 7065-F
Technical Data				
Max effective pumping speed m <sup>3</sup> /min.	3600 (50 Hz) 4200 (60 Hz)	5150 (50 Hz) 5150 (60 Hz)	5200 (50 Hz) 5950 (60 Hz)	6800 (50 Hz) 6800 (60 Hz)
Power kW	8.1 (50 Hz) 8.3 (60 Hz)	8.1 (50 Hz) 8.9 (80 Hz)	8.1 (50 Hz) 8.3 (60 Hz)	8.1 (50 Hz) 8.9 (80 Hz)
Water l/min.	13.2	13.2	13,2	13,2
Inlet ISO	250	250	320	320
Outlet ISO	63	63	63	63
Dimension (L x W x H) mm	1532 x 666 x 1074	1532 x 701 x 1074	1532 x 666 x 1074	1532 x 701 x 1074
Noise Level (@ pend) dB/A	<65	<65	<65	<65

Reliable Original Equipment  
Manufacturer Service from one Source

# Full line vacuum solutions

## Vacuum and pressure gauges

Reliable monitoring and control for all vacuum processes.



## Helium leak detectors

Designed for the requirements of industrial series production. Well-proven and easy to use in production and quality control programs.



## Turbomolecular pumps

TURBOVAC line with mechanical rotor suspension, TURBOVAC MAG line with magnetic rotor suspension and the TUBOVAC i series with hybrid rotor suspension.



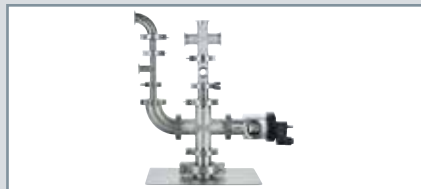
## Refrigerator cryo pumps

Hydrocarbon-free high-vacuum generation with highest water-vapor pumping capability, long maintenance intervals, installation in any orientation.



## Flange systems

Small flanges from DN 10 to DN 50  
Clamped flanges from DN 63 to DN 630  
CF flanges from DN 16 to DN 250



We are the leading supplier for vacuum products. For 165 years, customers all over the world rely on our experience and expertise as partner in vacuum technology.

All products must pass an extended qualification program with strict toll gates before they are released into the market. For all serial products we have a continuous improvement program in place.

- Worldwide service network - we are where you need us
- On-site support by our field service team
- 24 hours / 7 days a week
- Exchange program with back-up pool management
- Customized service contracts
- Remote service
- Extended warranty program
- Genuine spare parts

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