

# **Renewable Energies**

Vacuum Solutions  
for Solar Technologies





# Realize a New World for a Bright Future

Leybold is a proven supplier for vacuum equipment used in semiconductor, display and industrial processes.

Close collaboration with major equipment suppliers for the energies industry took Leybold into a leading position for vacuum solutions.

Innovative products manufactured to highest quality standards provide high system up-time day by day in the most demanding processes.

Our global manufacturing capacity serves different markets and allows us to manage the ramp-up in the photovoltaic industry as well as the demands of wind energy system and fuel cell producers.



# High Quality Solutions

## Crystal casting and pulling

### SCREWLINE / DRYVAC

dry compressing vacuum pumps

- High system availability and reliability
- High particle tolerance
- Low cost of ownership
- Modular concept and accessories for process optimization
- Suited to handle large amounts of dust
- High uptime and low maintenance



## Crystalline silicon wafer-based modules and TCO sputtering

### SCREWLINE / DRYVAC

dry compressing vacuum pumps in combination with roots blowers

- High pumping speed
- High reliability
- Suitable for demanding process applications (dust, vapors, etc.)
- Monitoring system

### TURBOVAC MAG

turbomolecular pumps

- Suited for handling particles
- High forevacuum tolerance
- Installation in any orientation

### SOGEVAC

single-stage rotary vane pumps in combination with roots blowers

- Designed for fast pump down of Load Lock and Transfer Chambers
- Robust vacuum generator for the rough vacuum range
- High reliability
- Cost optimized



# proven in demanding processes

## Thin film

### **DRYVAC / RUVAC** pump systems with dry compressing pumps

- High hydrogen pumping speed
- Particle resistant
- High media compatibility for typical process gases
- Integrated monitoring of operating parameters and roots pump control
- Adjustable temperature and purge gas flow
- Parameter controllable via Profi bus



## Lamination

### **SCREWLINE** dry compressing vacuum pumps

- Optimized for handling byproducts created in the lamination process
- High up-time and low maintenance
- High vapor tolerance and particle compatibility
- Easy on-site cleaning
- Low operating costs
- Minimum maintenance with prolonged service intervals



# Trust in the experts for vacuum solutions

Many years of experience in the design and manufacture of vacuum systems led to a broad portfolio of standard solutions, forming the basis for all types of customized systems.

A team of specialists with different qualifications is at your disposal, always prepared to openly discuss complex and challenging issues with you at any time.

In line with customer's specifications we integrate additional components and equipment to provide a complete solution for your process.

## Enhanced Services of Leybold

- Vacuum engineering/design of all kinds of vacuum systems
- Worldwide application support
- Customer consulting and training at strategic centers of competence in Europe, USA and Asia
- Coordination of customer inquiries in our worldwide sales and service network
- Customer Care packages for globally acting customers

## What we can do for you

- Together with your project teams our application engineers realize customized solutions for your needs
- We constantly align our product roadmap to your process changes
- We support you during commissioning and production
- We improve and upgrade our products continuously in order to improve productivity based on our experiences in different applications
- We focus on high up-time because this is the key to achieve best EUR/Wp
- We provide outstanding solutions, but never lose sight on the costs

# Our Service – more than you expect!

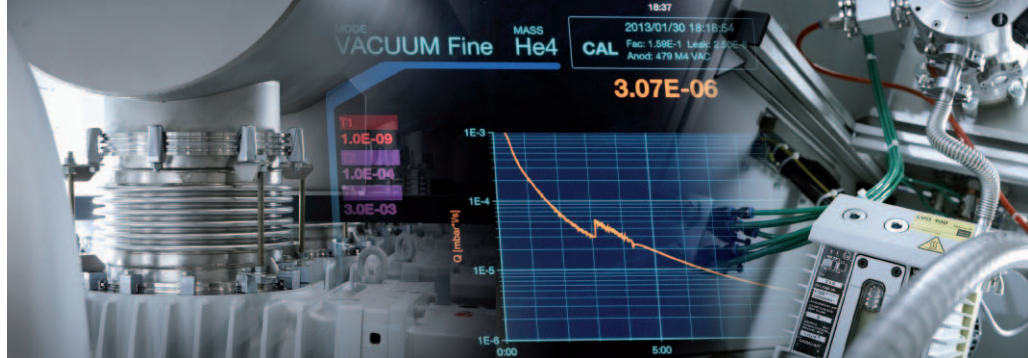
**We provide maximum up-time. Fast, competent and customer oriented.**

- 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 worldwide network is prepared to forward tailor-made solutions rapidly and flexible covering maintenance and support for your vacuum equipment.

# Leybold

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