R&D cluster tool SAF for vacuum deposition

Simple, adjustable, flexible

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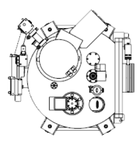

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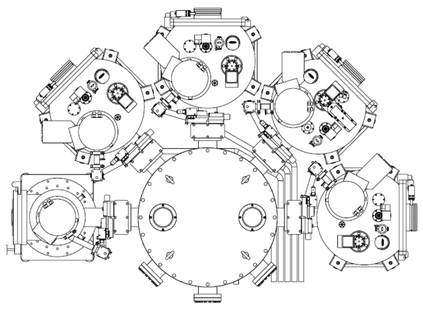


Simple:
Easy and simple tool control and maintenance.

Adjustable:
Customized configuration and setup.

Flexible:
Wide spectrum of possible technological processes.

Options:

- Any solo process chamber.
- Cluster with necessary process chambers.
- Customized arrangements and instrumentation.
- Additional chambers.

Sidrabe

Develops and manufactures customized and standard vacuum deposition equipment responding to the changes in the innovative materials market with unique solutions.

Coating systems are intended for a wide range of applications and industries, such as: battery, astrooptics, medical, energy control, automotive, displays, electronics and others.

Vacuum deposition systems:

- Roll-to-roll systems for different materials (plastic films, metallic foils and strips, paper, fabrics, foam materials).
- Large 3D objects coating systems.
- Powder coating systems.
- Other vacuum deposition systems.

R&D and Engineering Works:

- Contract research.
- Technology transfer from research to industrial scale.
- Production of coated material.
- Development of design documentation.

Additional manufacturing works:

- Manufacturing of winding systems for roll-to-roll machines.
- Manufacturing of evaporation boats.
- Retrofit of vacuum deposition equipment.

R&D Cluster Tool SAF

Purpose:

- Research and development work, feasibility study and general academic work in the field of thin film technologies.
- Sample manufacturing aimed at product prototyping for market evaluation of out-of-box technologies

Developed, produced and backed by Sidrabe:

- Experience and innovations in vacuum technology since 1962.
- Experienced and knowledgeable partner all the way from idea into production equipment.

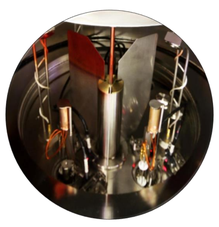
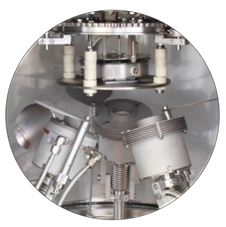
Dimensions, full set: (LxWxH) 3x3x2 m
Weight, full set: 2.8 t
Installed power: 50 kW
Cooling water: 2.7 m^3/h

Design advantages

- The cluster tool is modular, expandable and flexible.
- Each chamber can operate independently due to individual pumping, control and utility flange.
- Deposition chambers and sources are interchangeable due to identical design of the chambers and utility flanges.
- All chambers can operate simultaneously.
- Central chamber equipped with 8 flanges for chambers of choice.

Processing chambers and features

- Substrate loading and unloading.
- Substrate storage.
- Pre-treatment.
- Deposition:
  - Electron Beam evaporation;
  - Thermal evaporation;
  - Thermal sublimation;
  - Magnetron sputtering;
  - Other deposition processes.
- Residual gas analysis/Mass Spectrometry.
- Plasma emission monitoring.
- Glove box.
- Blanked-off flanges allow customized instrumentation.
- Various substrates (metal, glass, plastic, ceramic) with standard size 50x50x5 mm.
- Ion pretreatment
- Contact and contactless heating and cooling.
- Multi-layer stacks without venting
- Uniform due to substrate rotation
- Debris-free due to upward deposition.
- Base pressure 10^{-7} mbar.
- Process control.

A. Balabkins, C.P.G. Schrauwen

Sidrabe, Inc

17 Krustpils St., Riga, Latvia LV-1073
Phone: +371 67249806, Fax: +371 67139506
E-mail: balabkins@sidrabe.eu, cor.schrauwen@sidrabe.eu
www.sidrabe.com