

NEW

VAPCAB

Unique turnkey gas/vapor cabinet featuring **DLI vaporizer(s)**

High Performance, Precise, Innovative liquid and solid precursors **Delivery and Vaporization Cabinet** for **ALD, CVD, MOCVD, PECVD** and **all gas phase processes**.

DLI = Direct Liquid Injection

The **VAPCAB** is able to handle and **vaporize most of solid and liquid compounds** including **low vapor pressure, thermally labile and viscous** ones.

The **VAPCAB** features one or more **VAPBOX** DLI Vaporizers. These **unique DLI vaporizers** provide **unmatched performances** based on a very fine atomization of a pulsed liquid flow mixed with a carrier gas prior to injection inside the vaporizer.

The vapors delivered by the **VAPCAB** can be used for the synthesis by **CVD** and **ALD at atmospheric pressure or under vacuum** of thin films, nanoparticles and nanoobjects of numerous functional materials such as oxides, chalcogenides, nitrides and metals.

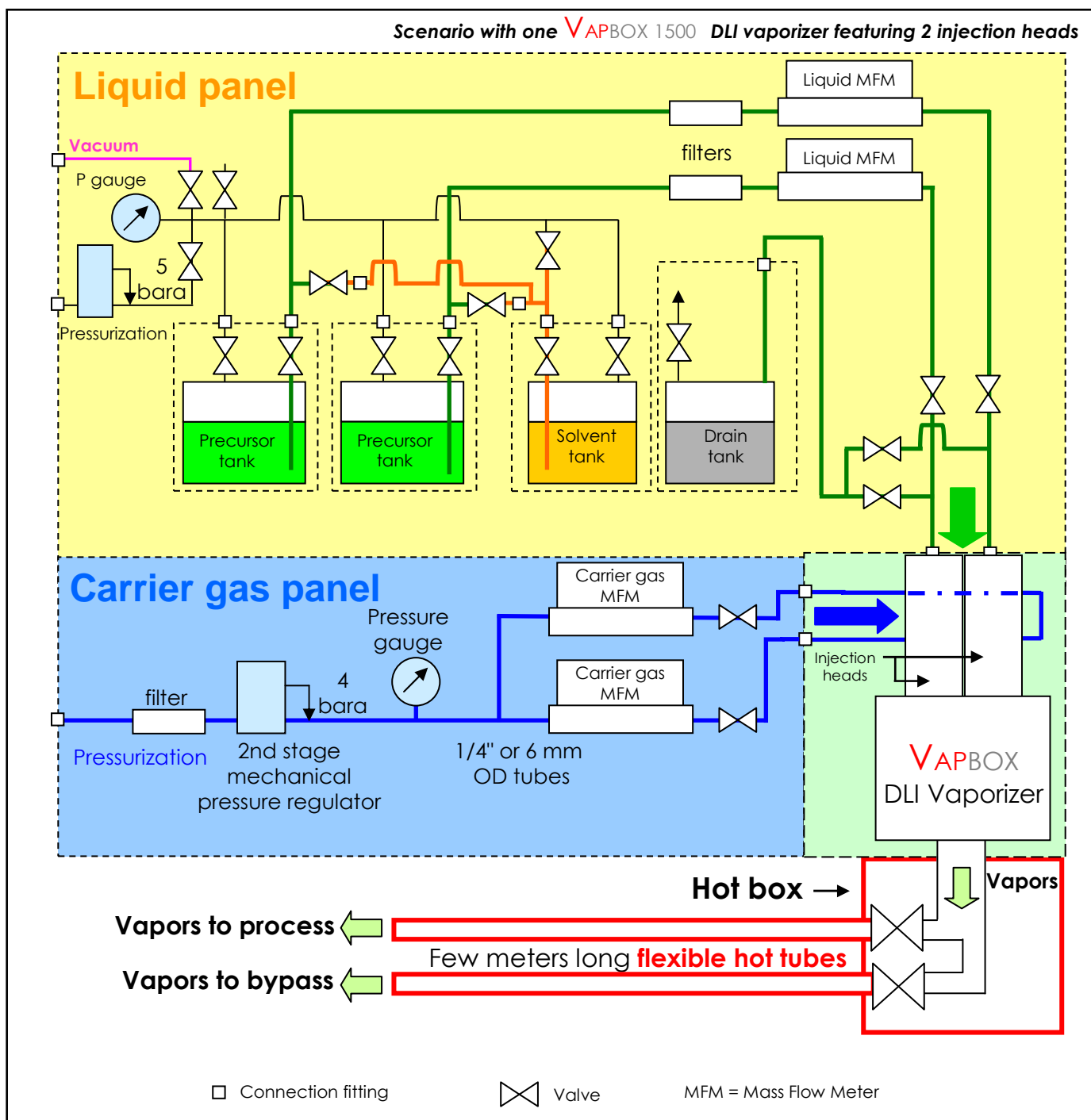
VAPCAB is particularly well adapted for delivering vapors to Atmospheric Pressure CVD (**APCVD**) process for coatings on glass and stainless steel. It can also be used for producing optical fibers preforms by **MCVD, FCVD, PECVD, OVD and VAD** processes. For optical fibers preforms applications, KEMSTREAM works exclusively with **OPTACORE** (www.optacore.si). Please contact OPTACORE for these applications (optacore@optacore.si).



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VAPCAB Configuration



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The VAPBOX vaporizes pure **liquid** compounds and **solid ones dissolved in a carrier liquid** (organic solvent). Because of its unique **proprietary** way to deliver and atomize the liquid inside the vaporizer, the VAPBOX is able to achieve a **real non-contact flash vaporization** therefore generating **particle free vapors**.

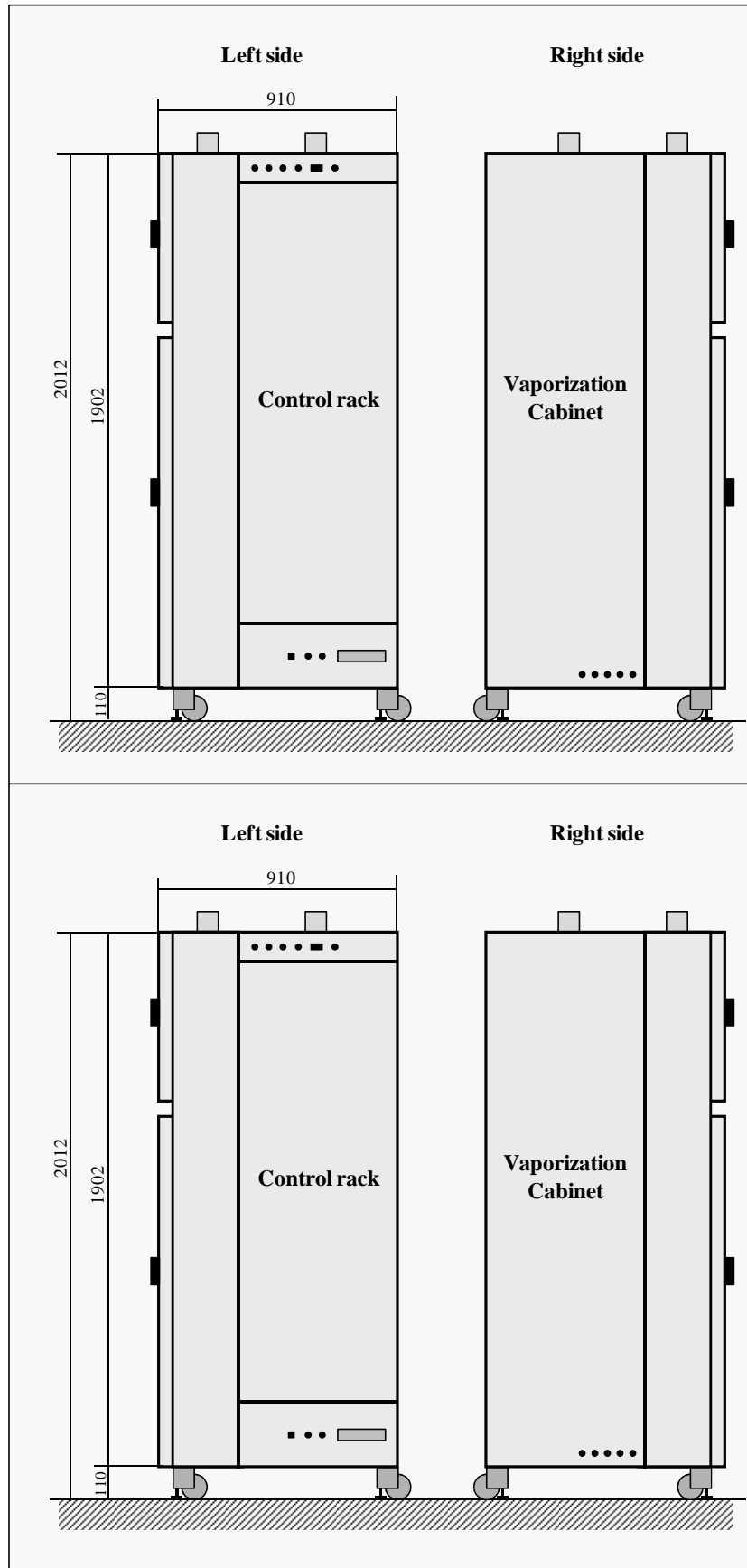
VAPCAB Technical Specifications

- **General features**
 - Integrated liquid and carrier gas panels with up to 4 liquid lines (4 precursor tanks) and up to 4 carrier gas lines
 - Liquid panel equipped with a solvent tank (for lines rising) and with a drain tank (for lines cleaning/purging)
 - Liquid panel architecture compatible with air sensitive precursors
 - Multiloop temperature controller for VAPBOX DLI Vaporizer(s), hot box and hot flexible tubes.
 - Equipped with a PLC connected to a PC
 - **Cabsoft** PC control software provided:
 - Access modes:
 - Operator, Engineer, Administrator
 - Process:
 - Full machine data logging
 - All data can be saved in process historical
 - Manual mode:
 - Manual control of parameters
 - Recipe mode:
 - Up to 100 steps per recipe
- **DLI vaporizer(s)**
 - 2 VAPBOX 500 (each with 1 injection head) or 1 VAPBOX 1500 (with 2 injection heads) or 1 VAPBOX 4000 (with 3 or 4 injection heads)
- **Liquid tanks**
 - Mobile for ex-situ refilling in a glove box
 - Solvent tank
 - 2.6 liters
 - Precursor tanks
 - Number: up to 3
 - Volume: up to 6 liters
- **Heating zones**
 - Control of 10 independent heating zones
 - 3 to 6 heating zones controls are available for heating control of vapors lines (depending on the Vapbox scenario)
 - Voltage: 3 x 400V (± 5%) + Neutral + Ground, 50/60 Hz
 - Maximum power: 6 kW
 - Maximum current: 10 A
- **Size and weight**
 - Weight: 400kg
 - Total : 2012mm (H) x 1104mm (W) x 850mm (D)
- **Options**
 - Low level pressure sensor for precursor tanks
 - Low level sensor for solvent tank
 - High level sensor for trash tank
 - Smaller cabinet when small footprint is required

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VAPCAB Dimensions

All dimensions are in mm



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