

# VAPBOX 4000

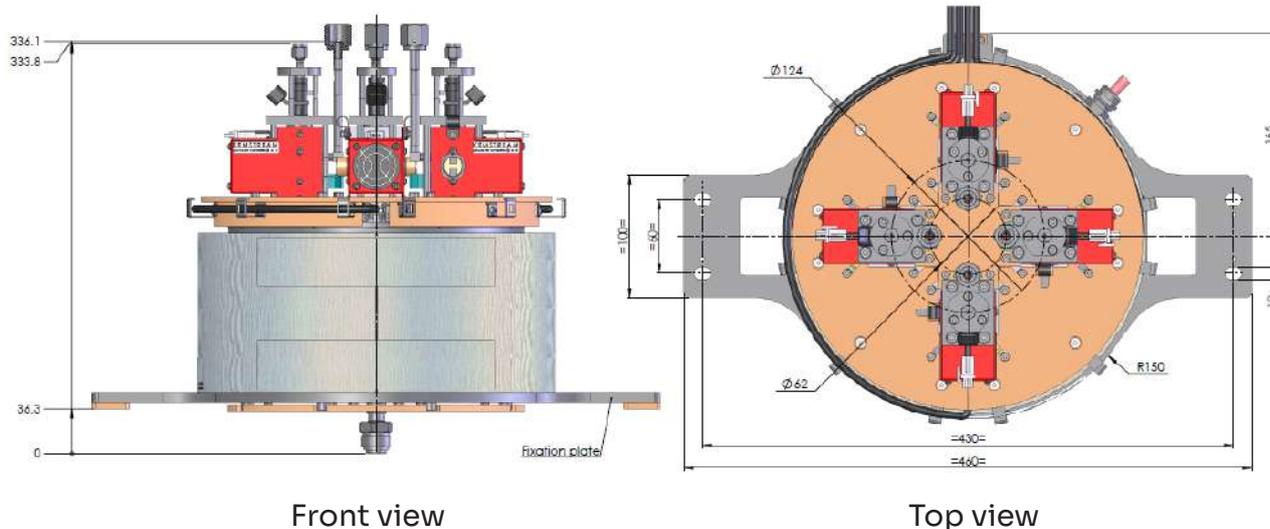
## High performance DLI CVD & ALD vaporizers

- Vaporizes pure liquid compounds and solid ones dissolved in a carrier liquid (organic solvent) up to 250°C.
- Is able to handle and vaporize most of solid and liquid compounds including low vapor pressure, thermally labile and viscous CVD and ALD precursors.
- Provides high and unmatched performances based on a pulsed injection of a mixture of liquid and carrier gas. That pulsed injection is performed by a proprietary Injection Head (atomizer) and allows a very fine atomization and thus flash vaporization of the liquid.
- Operates from vacuum to atmospheric pressure.
- Features an special internal design with undirect vapor outlet
- Can inject and vaporize up to 4 liquids or solutions simultaneously or sequentially.



## Dimensions (mm)

Total weight is about 35 kg



Front view

Top view

# VAPBOX 4000

## High performance DLI CVD & ALD vaporizers

### Technical Specifications

#### Injection Heads (liquid inlets)

- 1 to 4

#### ICU (Injection Control Unit)

- 110–230 VAC remote and rackable 19" 2U unit (1 or 2)

#### Heating:

- 6 heating zones, up to 250°C, 2400 W
- 7 K type thermocouples: 1 per heating zone + 1 alarm

#### Fittings:

- 1/8" compression type or 1/8" VCR male fitting for liquid inlet(s) (1-4)
- 1/4" VCR female fitting for carrier gas inlet(s) (1-4)
- 1/2" VCR male fitting for vapor outlet

#### Versions:

- 230 VAC version and 115 VAC version

#### Accessories:

- 1 Liquid flow controlling kit per Injection Head, including a Liquid Flow Meter (LFM)
- Liquid panel with 1 precursor tank per Injection Head and with an optional solvent tank (for rinsing purpose)
- Carrier gas panel with 1 carrier gas Mass Flow Meter (MFM) per Injection Head
- TCU (Temperature Control Unit): 19" remote and rackable 3U unit

#### Flows range (per Injection Head):

- Typical carrier gas flow range = 120 to 7500 sccm
- Typical liquid flow range = 0.1 to 10 g/min

### Ordering Information

#### Injection Head

Liquid Inlet Fitting	
HB4 - 0394	1/8" Swagelok

Carrier Gas Inlet Fitting	
HB4 - 0394	1/4" VCR female (standard)

#### Vaporizer

Voltage (for heating)	
HBR51	230 VAC
LBR51	115 VAC

Vapor outlet fitting	
M8	1/2" VCR male (standard)

Vaporizer pressure (process P)	
V	From 0 to 1.5 bara
A	Above 1.5 bara

