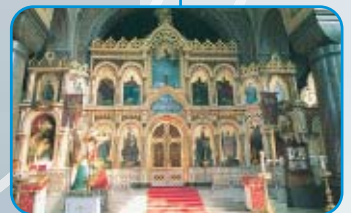


# VapaLab

## Humidification Production Without Interruption



Humidification and Steam Generation Specialists

**Vapac**<sup>®</sup>

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## Humidification Production Without Interruption

**The newly enhanced VapaNet electrode boiler steam generator gives continuous steam output no matter what the water quality.**

Laboratories are typically small spaces with frequent and sometimes continuous outdoor air changes. Brief 'blips' in humidity levels associated with the humidifier feed and drain cycles are usually unacceptable. To meet such exacting demands Vapac has developed the LEC, a range of twin cylinder systems that delivers and maintains humidification levels, instantly modulating, to match changes in demand. The LEC system is designed to give continuous output of steam for close control application using raw mains water. No supply water treatment is necessary for this unique system to deliver steam to the process without interruption.

The VapaNet LEC system combines the unique Pulsed Energy routine using solid state relays together with additional features that control the system so that both cylinders deliver 50% of the duty all the time. When one cylinder needs to enter a drain routine, the other is ramped up in capacity to cope with the demand. The result is a modulating close tolerance uninterrupted steam supply.

### Features

- ⓧ Continuous steam output.
- ⓧ 5 - 45 Kg/hr steam production.
- ⓧ Accuracy to  $\pm 1\%$  RH.
- ⓧ Response from 8 - 100% demand.
- ⓧ User display.
- ⓧ Foam protection.
- ⓧ Stainless steel drain tray.
- ⓧ Drain pump.
- ⓧ Run and alarm interface.
- ⓧ Emergency power off security circuit.
- ⓧ Load shed.
- ⓧ Low temperature drain.
- ⓧ Master/Slave capability.

## Steam Output and Electrical Requirements

Model:		Pulsed Energy Control (8 – 100% Per Cylinder)									
		LEC05		LEC09		LEC18		LEC30		LEC45	
Nominal Output (Min / Max):	Kg/hr	0.4 / 5		0.72 / 9		1.5 / 18		2.4 / 30		3.6 / 45	
Number of Cylinders:		2		2		2		2		2	
Number of Power Supplies:		2		2		2		2		2	
Number of Steam Outlets / Diameter of Pipe:	mm	2 / 35		2 / 35		2 / 35		2 / 54		2 / 54	
Electrical Supply:		Phase + Neutral or 2 Phase						3 Phase			
Voltage*:	V	230	400	230	400	230	400	230	400	230	400
Maximum Power Rating (Per Cylinder):	kW	3.7	3.8	6.8	6.8	13.4	13.5	22.4	22.4	33.7	33.9
Full Load Current (Per Cylinder Per Phase):	Amps	19.5	11.5	35.5	20.5	40.5	23.5	68	39	102	59
Maximum Overcurrent (Per Cylinder Per Phase):	Amps	29.25	17.25	53.25	30.75	46.6	27	78.2	45	117.3	67.9
Maximum Fuse Rating Range (Per Cylinder Per Phase):	Amps	32	16	50	32	50	32	80	50	125	80

\*Full voltage range for all models is: 200, 230, 380, 400, 415, 440. Consult installation manual for all values.

See installation and operational manual for full electrical specification.



## Technical Data

### Optional Accessory

Ⓟ Frost Protection Kit.

Operating Limits	Water Supply	Water and Drain Connections
Ambient Air Temperature † 5°C to 35°C	Conductivity: 80 to 1000µs	Supply Water: 2 × ¾" BSP Drain Outlet: 1 × 35mm OD
Water Temperature † 1°C to 30°C	Ph: 7.3 to 8.0	
Duct Pressure: +2000 to -600 Pa	Supply Pressure: 1 to 8 bar	
	Silica: 0	
	Hardness: 50 to 500 ppm	

† Without frost protection.

## Dimensions and Weights

Model:		LEC05	LEC09	LEC18	LEC30	LEC45
Height:	mm	810	810	810	810	810
Width:	mm	990	990	990	990	990
Depth:	mm	415	415	415	415	415
Dry Weight:	kg	68	71	72	74	75
Wet Weight:	kg	96	100	125	127	128



*The Vapac logo is an internationally registered trademark and its equipment is covered by international patents.*

*We reserve the right to change the design or specification of the equipment without prior notice.*

**Distributor:**

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