Description:
e.g. LMH 04/12 – laboratory muffle horizontal volume in litres/shortened max. temperature

Application
Furnaces are used in laboratories for heat-treatment testing of various samples, where the aggressive products of combustion, which would affect the spirals, can be formed.

Benefits
Stainles finish, attractive design, ventilation preventing from vapours condensing at firing and considerably reducing surface temperature; excellent temperature distribution, top insulating materials (low energy consumption, possibility of fast rise time to the required temperature), high-accuracy progammable temperature regulation, solid-state rellays (easier and noiseless running, minimal disturbance of surrounding equipments), perfect manifacturing, technical equipment and safety of operation.

PROFI FOTO





Furnace construction
All the types have a frameless construction. The mantle is made of stainless bent metal plate. A ceramic muffle is set in the mantle which is installed in the frame with insulation and connected to door face of the furnace. In the area behind the muffle the electric equipment of the furnace is placed, the space is ventilated by the ventilator, which is placed inside of rear cover of the furnace. The muffle is equipped with a ventilating chimney made of a ceramic pipe, which is, outside the muffle, protected by a stainless pipe. All models are designed as desktop types.
The controller is placed below the muffle with the display on the mask of the furnace.

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Production plant Furnaces and Dryers
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The door
The door is made of bent metal plate shaped as a tank and it opens upwards parallelly. The adherence pressure is extrapolated by extension springs. Inside the sight glass there is protective clear glass Robax.

Furnace insulation
The muffle is insulated by a matress of mineral fibre and by an insulation panel. The door is made of an insulation panel.
Exchange of a damaged muffle, or a damaged heating spiral for the furnaces of LMH type and has the following procedure:
The damaged or functionless heating modulus (cracked muffle or burned spiral) needs to be taken out of the frame of the furnace and changed for a new **complete** heating module, whereas the complete heating modulus means a muffle equipped with heating coils and insulation tightened to the muffle by a steel belt.

Door insulation
The door is filled with an 80 mm panel, which is fixed to the door.

Heating
For all volumes the furnaces are designed for 1200°C. The heating is provided by a heating spiral, wound on the muffle.

Electrical construction
All electrical elements are placed in the area behind the muffle. The circuit breaker and the safety fuse are placed on the back of the furnace. The controller and the switch are placed on the front panel below the door.
The door is equipped with a security limit switch. When opening the furnace the heating will switch off.
The cooling ventilator of the space of the furnace isn't controlled by the controller.
All the types are equipped with fitted with a power flex of 3m.

Measurement and the regulation
The temperature inside of furnace is scanned by a thermocouple type S (PtRh-Pt). The regulation and control of the furnace is provided by HT 40AL controller. The furnaces are fitted with contact less semiconductor SSR switch relays. The furnace has no limit unit.

Warranty:
- 24 months

Standard equipment of the furnace covers:
- Ht40 AL controller
- Manually operated door opening upwards with an end switch
- Inside of the peephole is protective clear glass
- Muffle insulated with the matting of the mineral grain and encased in the insulation desks
- Heating spiral on the muffle
- Airing chimney on the back part of the furnace
- Supply cable fitted with single-phase plug
- Thermocouple Type “S”

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Accessories for extra charge

- INDUSTRY controller
- Ejector with an exhaust fan and draft diverter
- Protection atmosphere inlet
- Calibration of the controller measuring entry
- Interface RS232 or RS485
- Set HtMonit (includes interface + software)

Order No.		Type LAC	*t max**	Volume	Outside dimensions (wxhxd)	Chamber dimensions (wxhxd)	Power input	Weight	Protection	Voltage
HT40A	INDUSTRY		°C	l	mm	mm	kW	kg		V
610442	610443	LMH 04/12	1200	4	490x540x720	170x90x275	3	42	16/1	230
610444	610445	LMH 07/12	1200	7	490x540x720	170x170x275	3	48	16/1	230
610395	610394	LMH 11/12	1200	11	570x540x720	255x165x255	3,5	53	16/1	230

** Tmax is the maximum temperature which can be attained by the furnace, but is not suitable for long-term operation.*

Type LAC	Max. bottom load capacity (kg)
LMH 04	10
LMH 07	10
LMH 11	15

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Index změny	Změnu/revizi provedl	Popis změny/revize a č. změněných kapitol/listů	Datum, podpis	Změnu schválil Datum, podpis
2	Furchová	Change of the controller for HT 40AL in the paragraphs Measurement and regulation and Furnaces standardly equipped with.	22. 9. 2008	Žilka
3	Furchová	Warranty changed for 12 months, a photo added.	26. 2. 2009	Žilka
4	Horáková	Warranty changed for 24 months	17.4.2012	Diblík
5	Horáková	Removed the door portal made of refractory shapes from standard equipment.	16.3.2016	Názler

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