

1200°C Hybrid Furnace (12x8x5", 7.2L), Tube / Muffle 3-In-1 - KSL-1200X-H-UL















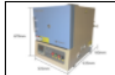







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KSL-1200X-H-UL is a newly designed hybrid tube / muffle furnace, which is built with two processing tubes with vacuum flange and one 7.2L box chamber. The furnace can process different samples at the time under various atmosphere. It is the most cost-effective furnace for material research.



Specification:

Structure	<ul style="list-style-type: none"> High purity alumina fiber insulation surrounding the chamber provides maximum energy efficiency. Heavy duty double layer structure with a cooling fan to keep furnace exteriors safe to touch. 18 heating elements installed on top and both sides. Vent port installed on top doubles as an outlet for gas flow. A 0.5" diameter observation window made of quartz glass allows the user to see inside the chamber. A protection latch is installed to prevent accidental explosive damage An interlock is installed to cut off power as soon as the door is open The fibrous heating module is replaceable at low cost (click pic below right to order) Optional Al2O3 sample plate can also be ordered for this furnace. 
Muffle/Tube Hybrid Furnace	<ul style="list-style-type: none"> Muffle furnace in the front for oxidized material. Two 2" O.Dx12"L . atmosphere-controlled furnace tubes are included in the back for vacuum or inert gas (< 3 PSI) Two tube blocks are included to replace the tubes for using the furnace solely as a muffle furnace. The furnace can be customized as 12 quartz tube (1") with flange for high throughput annealing 12 sample with a different composition at the same temperature. 

Vacuum Flange & Optional	<ul style="list-style-type: none"> Two single side vacuum flanges with vacuum gauge and K25 vacuum port are included. The flange has spare 1/4" ID port to insert a spare thermal couple or electric property testing fixture inside processing tube. Please click picture below-left 2-3 to order them separately. Vacuum level can reach 10e-3 by a mechanical pump and 10e-5 torr by a turbo pump. Click the picture below to order pump separately Optional: This furnace can be modified into multi-temperature display as pic below right <div>       </div>
Chamber Dimensions 	<ul style="list-style-type: none"> 12" D x 8" W x 5H" (300 x 200 x 120 mm) 480 cubic-inch or 7.2 Liter Click picture to see details
Power	3.5KW
Voltage	208 -240V Single Phase 50/60 Hz Note: Power cable included without a plug. Please install a plug by yourself or click link below picture to choose a plug according to your country or your lab requirement 
Maximum Working Temp	1200°C Max continuously
Stability at 1000 °C	+/- 0.5 °C
Uniformity at 1000 °C	+/- 2.0 °C
Max. Heating Rate	30°C/ min.
Temperature Controller 	<ul style="list-style-type: none"> FA-YD518P-AG temperature controller is included. Proportional–integral–derivative control (PID control) and auto-tune function 30 segments programmed with ramping, cooling and dwelling steps Built-in over-temperature alarm and thermocouple failure alarm +/- 1 °C temperature control accuracy Default DB9 PC communication port MET Certified
Temperature controller (optional) 	<ul style="list-style-type: none"> MTS02-Y Temperature control software kit (for YD518P series controllers) + 15" laptop package is available at the options bar. Click for the detail information about the MTS02-Y software kit. You may upgrade the temperature controller to the Eurotherm Temperature Controller which is fully compatible with LabVIEW. This package includes a Eurotherm programmer, a communication cable (RS485 - USB) and a software CD. Click the pic below to view the full spec of the Eurotherm temperature controller.
Net Weight	110 Lbs
Shipping Weight	160 Lbs (shipping by pallet)
Dimensions 	<ul style="list-style-type: none"> 25" x 21" x 27" / 635mm x 535mm x 670mm (D x H x W) Flanges in the back add 100mm in depth Leave extra space to slide out tubes and thermocouples in the back.
Warranty	<ul style="list-style-type: none"> One-year limited warranty with lifetime support. ATTENTION: Any damages caused by the use of corrosive and acidic gasses are not under the coverage of MTI One Year Limited Warranty.
Compliance	<ul style="list-style-type: none"> CE Certified All electric components (>30V) are UL / MET / CSA certified The furnace is ready to pass TUV(UL61010) or CSA certification at extra cost. (pls click mark below to learn details) <div>       </div>
Application Notes 	<ul style="list-style-type: none"> For preserving the longevity of the furnace components, we recommend the heating rate not to exceed 10 °C /min. The cooling rate shall also not exceed 10 °C /min. This furnace lacks vacuum sealing, toxic or explosive gasses are not recommended for use with this furnace without necessary safety controls and supervision. Small cracks may appear on the surface of the refractory ceramics over extended use. This is a normal occurrence and the cracks may be repaired with alumina coating. Click the pic left to choose a crucible