



Environmental Chamber Upgrade Kits For Tensile Testing Machines



Temperature Range: -80 to +280 Celsius (+350 C available).

Chamber Dimensions: inside 220x220x580mm.

Chamber Dimensions: outside 360x480x766mm (custom available).

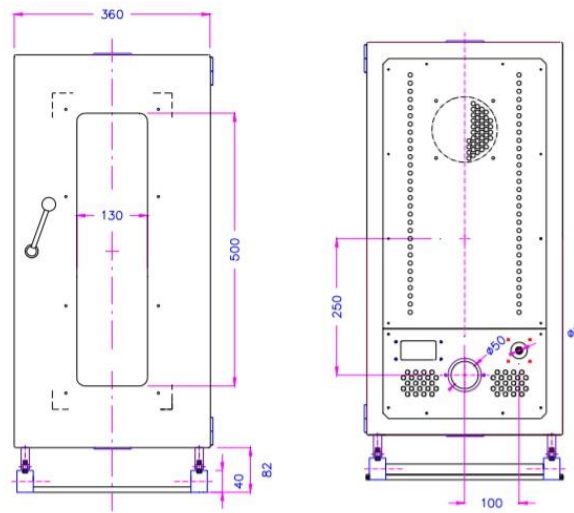
Power Draw: 2.3kW while heating (220V or 380V)

Standard design chambers are available with lead times of 4 to 5 weeks, while custom designs take a few extra weeks. Please see the option details on the pages below and the options checklist on the final page.

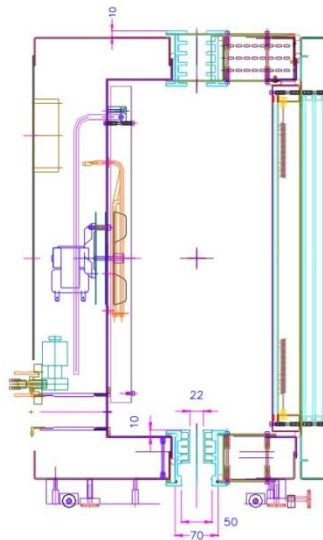


Schematic for Standard Design(mm)

Front + Back



Side View

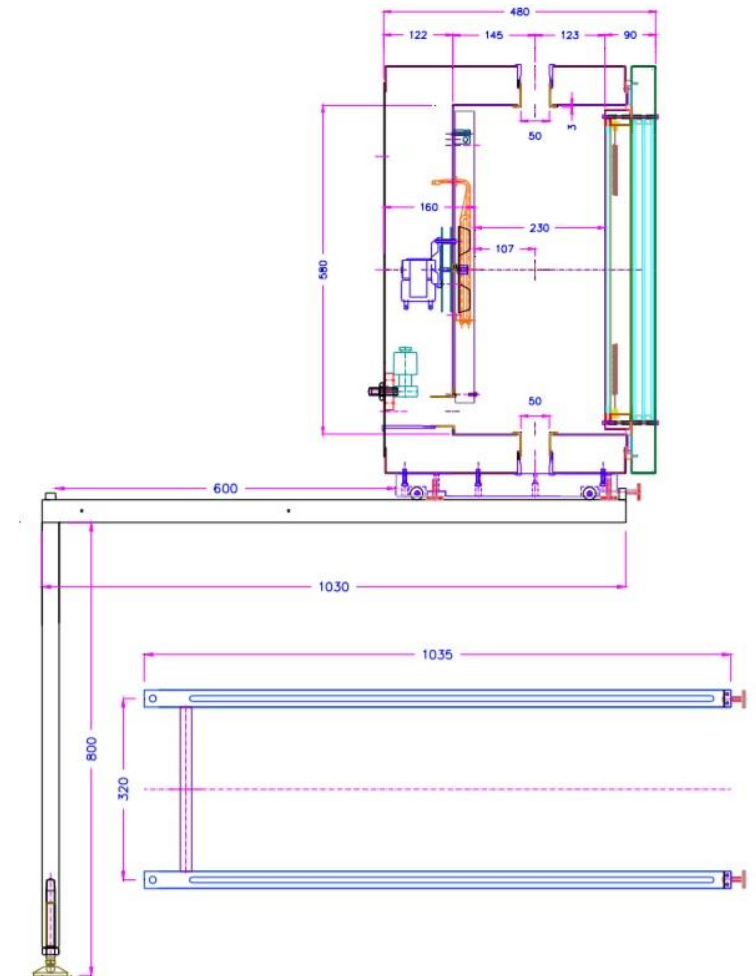


Option 1: Methods of Attaching to the Tensile Tester

1. A Rail system is permanently mounted to your machine. The system is balanced with some back legs which touch the ground. A white Teflon ring is used to eliminate any friction.



Schematic of Rail System side view (mm)



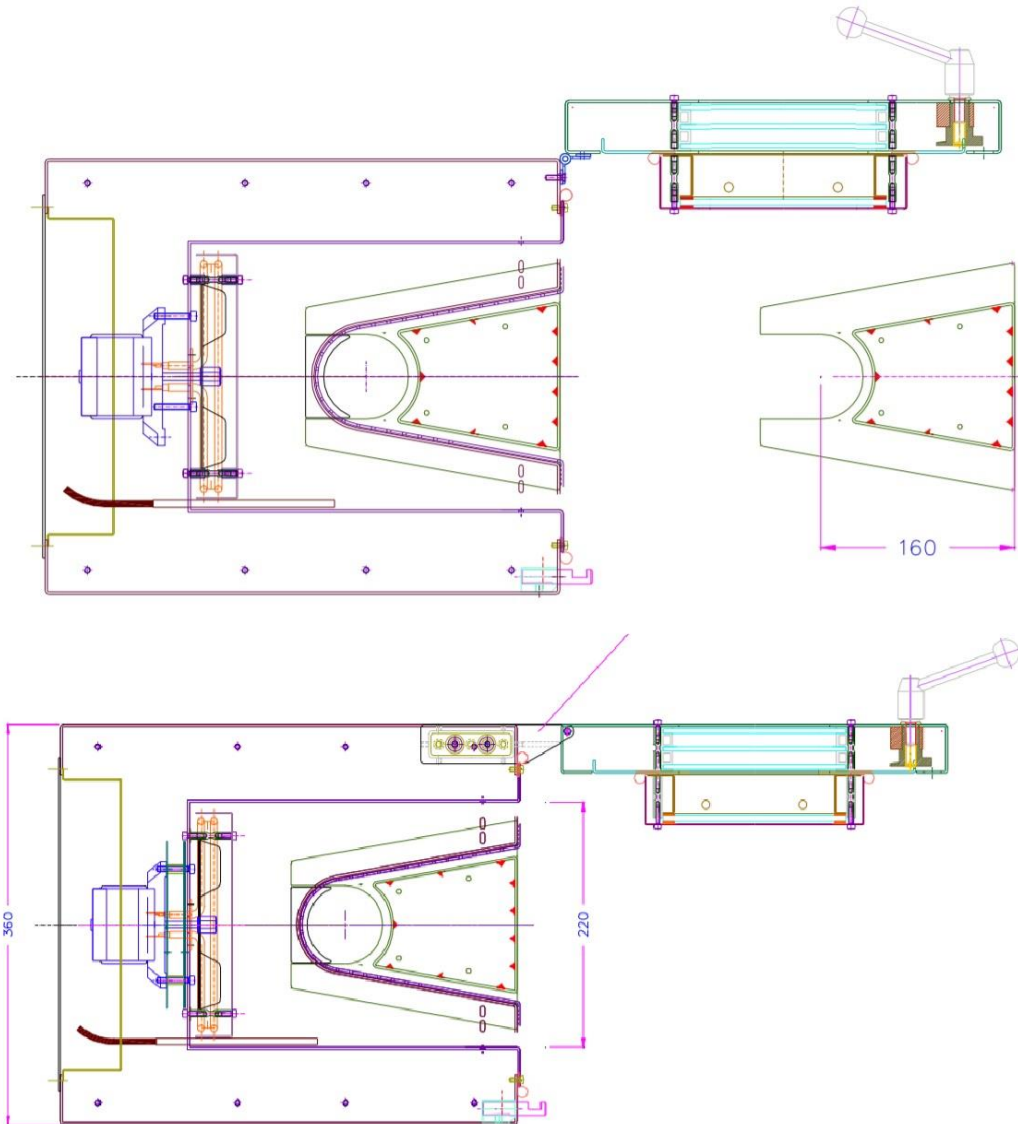
- Free Standing Cages are great for semi-permanent use. They are a bit heavy but manageable for two people. This is a simple option that is very easy to install/uninstall.



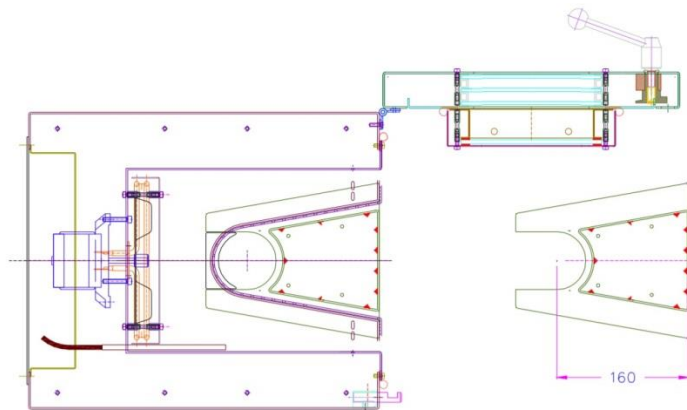
- Weighted Floor Sleds are good for semi-frequent chamber usage. The whole arrangement can be wheeled into place between the columns of the testing machine. This setup does require a little extra floor space within the lab.



Option 2: Special Door Hinge allows the door to open without taking up any extra lateral space. Good for fitting chambers into tight spaces.



Option 3: A sliding wedge attachment can be used to allow the machine to slide in and out freely when the chamber is not in use.



Option 4: Heating Coils help to remove any frosting which may occur when a sample is replaced inside of the chamber while it is cold.



Option 5: Inside light for better viewing.

Option 6: Extra windows side port viewing.





Option 7: Heating - Standard 280 degree C temperature or increased 350 Celsius. Chamber heats at a rate of 15 Celsius per minute between 20-80. Heating speed then trails off and takes about 30 minutes to reach maximum temperature. An internal fan circulates the heat.

Option 8: Cooling – 1. Liquid Nitrogen is the standard option. It takes 4kg of LN2 to go from room temperature to -80 Celsius. It then requires .5kg per hour of LN2 to remain at -80 C.



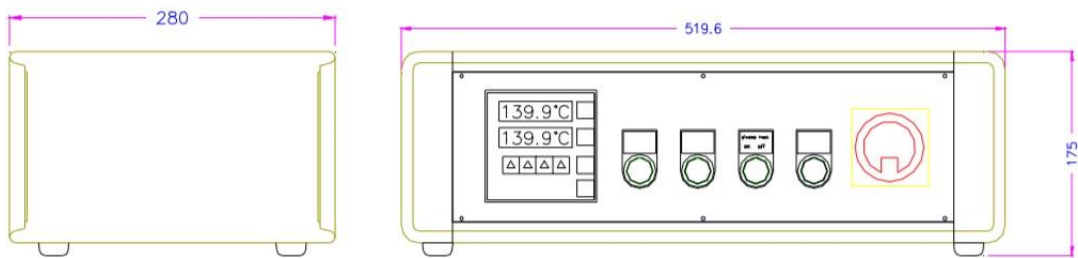
2. Long Term Cooling Option:

*With removable cooler -20°C .. +280°C
Over +70°C cooler must be removed*



with heat exchanger for long time cooling down to -50°C

Option 9: Controller Unit. The system ships standard with a Sika TLK 96 external temperature controller. The controller self-regulates the temperature to within 0.1 of a degree Celsius. The option is to add an analog I/O either Omron RS232 or Eurotherm RS485.



Option 10: Extensometer use. A section in the back of the chamber can be opened up to support a contact extensometer.