

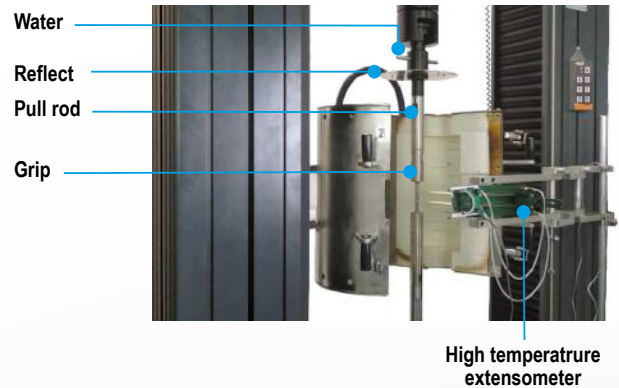
Furnace HF110

- > Three zone split furnaces designed for models ETM 100, ETM 200, ETM 300, ETM 600.
- > Elements designed to achieve optimum performances. Heating elements individually mullite covered, three heat zones for an excellent temperature gradients control and reliable continuous operation up to maximum temperature.
- > High performance multi-crystal refractory fabrics insulation reduce heat losses and provides fast heat up rate. Sample is heated primarily through radiation.
- > Stainless steel cover. Adjustable latches keep the furnace sections locked together during tests and facilitate the furnace opening and closing.
- > Ceramic closures at top and bottom turn around the leading bars and reduce heat loss at these points.



- > Furnaces needs to be firmly fixed to the test system during use but also easily removed to allow the access to specimen for setting-up.
- > Radiation reflector protect grips from heat diffusion.
- > Wide range of pull rods and grips available.

- > Furnace is supplied with K type temperature monitoring thermocouples, to provide the most accurate indication of the specimen temperature.
- > Control systems are compatible with all furnace systems.



Model	HF110	
Temperature range	°C	300-1100
Uniform temperature zone	mm	150
Temperature gradient	°C	300-600:2
		600-900:3
		900-1100:4
Temperature fluctuation	°C	300-600:≤±2
		600-900:≤±3
		900-1100:≤±4
Inside diameter	mm	ø110x350
Outer diameter	mm	ø310x450

Included accessories

Pull rod & tensile grips for round specimen ø10mm and threaded specimen M16 at temperature range 300-1050°C in according to ISO6892-2, ISO783

Optional accessories

Model	Description
HF11001	Tensile grip for round specimen ø5mm
	Threaded specimen M12
	Working temperature range 300-950°C ISO6892-2 ISO783
HF11002	Tensile grip for flat specimen 1-3mm
	Working temperature range 300-950°C ISO6892-2 ISO783
	HF11003
HF11004	S type thermocouple

NOTE: For high temperature tests it is necessary a special type extensometer for high temperatures

ETT300

Environmental chamber for ETM series.

- > Temperature range from -40°C to 150°C and -40°C to 350°C using compressor cooling system.
- > ETT300A-1 and ETT300B-1 are designed for ETM 10, ETM 20 and ETM 50.
- > ETT300A-2 and ETT300B-2 are designed for ETM 100, ETM 200 and ETM 600.



Model		ETT300A-1	ETT300A-2	ETT300B-1	ETT300B-2
Temperature range	°C	-40 to 350		-70 to 350	
Air circulation method	-	Centrifugal blower			
Temperature accuracy	°C	< 200 ≤±2 ≥ 200 ≤±3,5			
Temperature fluctuation	°C	≤±1			
Temperature uniformity	°C	< 200 ≤±2 ≥ 200 ≤±3,5			
Temperature control meter accuracy	°C	0.1			
Heating time	°C/min	≥3			
Cooling time	°C/min	≥2			
Cooling method	-	Compressor			
Heat insulating material	-	Ammonia polyester bubbled			
Heating power	kW	4,3	4,9	4,7	5,3
Pull rod hole diameter	mm	48			
Inner dimensions	mm	240x200x600	320x300x600	240x200x600	320x300x600
Outside dimensions	mm	1820x650x930	1900x710x930	1820x650x930	1900x710x930
Weight	kg	310	330	320	350
Power supply	V-Hz-ph	400-50/60-3			

Included accessories	
Bracket	
Pt100 temperature sensors	
Temperature controller	

Optional accessories	
Model	Description
WXSb204B	Tensile grip
	V jaw: Ø4 - Ø9, Ø9 - Ø14
	Flat jaw: 0-6mm, 6-12mm Maximum specimen size: 40mmx54mm
WYA304A	Compression fixture
	Platen diameter: Ø100mm
WZWA304	Bending fixture
	Maximum span: 80mm, adjustable
	Bending nose: R5mm, support roller: R2mm

ETT100

Environmental chamber for ETM series.

- > Temperature range from -70°C to 350°C using liquid nitrogen cooling system.
- > ETT100-1 is designed for ETM 10, ETM 20 and ETM 50.
- > ETT100-2 is designed for ETM 100, ETM 200 and ETM 600.



Model		ETT100-1	ETT100-2
Temperature range	°C	-70 to 350	
Air circulation method	-	Centrifugal blower	
Temperature accuracy	°C	-70 to 200: ≤±2 200 to 350: ≤±3,5	
Temperature fluctuation	°C	≤±1	
Temperature uniformity	°C	-70 to 200: ≤±2 200 to 350: ≤±3,5	
Temperature control meter accuracy	°C	0,1	
Heating time	°C/min	≥3	
Cooling time	°C/min	≥2	
Cooling method	-	Liquid nitrogen	
Heat insulating material	-	Aluminum silicate wool	
Heating power	kW	1,6	2,4
Inner dimensions	mm	240x200x600	320x300x600
Outside dimensions with nitrogen cylinder	mm	900x350x760	950x450x760
Dimensions with machine	mm	2300x730x1500	2500x780x1800
Power supply	V-Hz-ph	230-50/60-1	400-50/60-3



Configuration Sample

Optional accessories	
Model	Description
WXSb204B	Tensile grip
	V jaw: Ø4 - Ø9, Ø9 - Ø14
	Flat jaw: 0-6mm, 6-12mm Maximum specimen size: 40mmx54mm
WYA304A	Compression fixture Platen diameter: Φ100mm
	Bending fixture Maximum span: 80mm, adjustable
WZWA304	Bending nose: R5mm, support roller: R2mm

Included accessories	
Bracket	
Liquid nitrogen cylinder	Capacity: 15.2 liter
	Working pressure: <0.1MPa
	Outside diameter: 355mm
	Height: 600mm Empty weight: 8.6kg
	Nitrogen effective days: 126-157 days