

Description

These three-zone split furnaces are designed for floor standing type universal testing machines and creep testing machines.

The elements of the split furnaces have been designed to achieve optimum performance and give the longest possible useful life. The heating elements are individually wound on MULLITE half tube sections, and provide three heat zones for excellent control of temperature gradients and reliable continuous operation up to the specified maximum temperature.

High performance multi-crystal mullite refractory fabrics insulation is used to reduce heat losses and provide fast heat up rate. The specimen is heated primarily through radiation.

The exterior finish is stainless steel. Adjustable stainless steel latches keep the furnace sections locked together during tests and facilitate opening and closing of the furnace.

Ceramic closures at top and bottom fit closely around the loading bars and reduce heat loss at these points.

Each furnace has been designed for long life, good temperature uniformity and safe operation.



Water inlet /outlet

Reflector

Pull rod

Specimen holder

High temperature extensometer

Pullrods and specimen holders

Various design of pull rods and specimen holders are manufactured to satisfy different specimens.



Holders for round specimen
 With threaded end



Holders for flat specimen



Upper adapter



Lower adapter



Round specimen

Flat specimen



Pull rod

Temperature controller

Temperature Control systems are designed for controlling the heat output of furnaces. The control systems are offered for use with creep, stress-rupture, or hot tensile systems or they can be added to an existing frame using an existing furnace.

The control systems are compatible with all furnace systems offered as new equipment and can be configured to operate nearly any furnace with any one of several different thermocouple types.

Three zone control systems are designed for heat furnaces with three separate zones of heating elements, and typically three different thermocouples to control those zones.



Temperature monitoring for furnace

Specimen monitoring thermocouples are used to provide the most accurate indication of the specimen temperature. The K type thermocouple is recommended for most general purpose applications. It offers a wide temperature range, sheathed thermocouples are more convenient to mount on furnace and more accuracy to monitor temperature around specimen.



Furnace specifications:

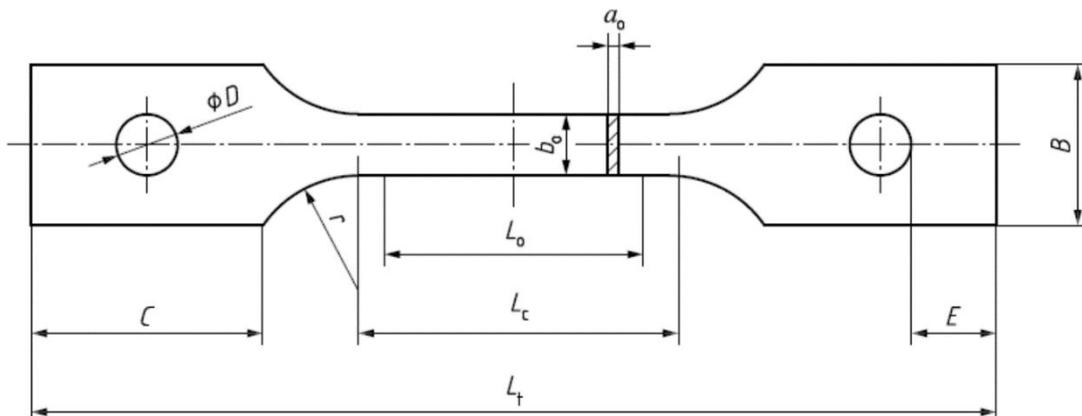
Model	WHTF113A-B	WHTF113A-C	WHTF113A-B1	WHTF113A-C1	WHTF113A-B2	WHTF113A-C2
Type	Standard		Front open (for contact extensometer)		Glass window (for video extensometer)	
Furnace structure	Split type, 3-zone heating and separate control					
Temperature range (°C)	200~1100					
Uniform zone (mm)	150	200	150	200	150	200
Inside dimension (mm)	Φ110×330	Φ110×380	Φ110×330	Φ110×380	Φ110×330	Φ110×380
Outside dimension (mm)	Φ350×450	Φ350×500	Φ350×450	Φ350×500	Φ350×450	Φ350×500
Extensometer front slot (mm), H x W	No		80 x 20		110 x 30	
Heating element	Φ 1.5mm Nichrome wire					
Power supply	3-phase, 380V±10%, 50Hz, 3.5kW					
Outer surface temperature	≤900°C, <65°C, 900°C~1100°C, <85°C					
Accuracy	Temperature		Fluctuation		Uniformity	

(°C)	200~600	±2	2
	600~900	±3	3
	900~1100	±4	4

Optional accessories:

Name	Description	Quantity
Temperature controller		1 set
Thermocouple	sheathed thermocouples	3 sets
Pull rods	Upper and lower	1 pair
Tensile grip (specimen holder) for threaded specimen	Threaded specimen: M10, M12, M14, M16, M18	1 pair
Tensile grip (specimen holder) for flat specimen	Flat specimen: 0.1~3mm	1 pair

ISO6892-2: Sheets, strips and flats with thickness 0.1~3 mm

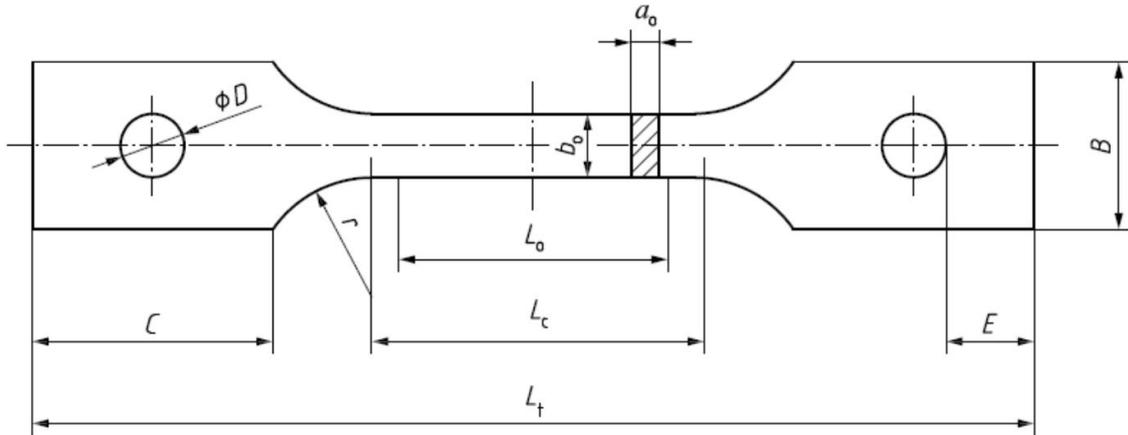


Dimensions in millimetres

a_0		b_0	L_0	r	B	C	D	E	L_c min.	L_t min. ^a
≥	≤									
0,1	3,0	12,5	50	25	35	50	15	17	62,5	205

^a The minimum value is only sufficient when the parallel length L_c is the minimum value.

ISO6892-2: Sheets, strips and flats with thickness $\geq 3\text{mm}$

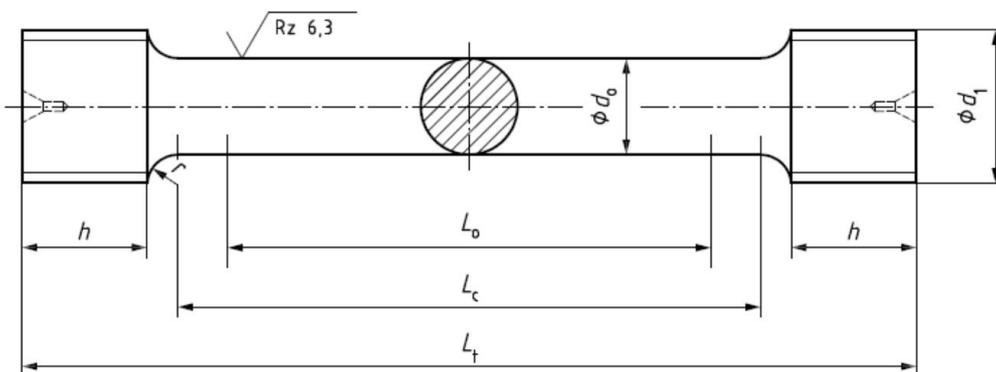


Dimensions in millimetres

a_0		b_0	L_0	r	B	C	D	E	L_c min.	L_t min. ^a
\geq	\leq									
3	3,5	12,5	35	25	35	50	15	17	48	190
3,5	4,5		40						54	196
4,5	5,7		45						61	203
5,7	6,9		50						67	209
6,9	8,3		55						73	215

^a The minimum value is only sufficient when the parallel length L_c is the minimum value.

ISO6892-2: Wires, bars and sections with diameter or thickness $\geq 4\text{ mm}$



Dimensions in millimetres

d_0	L_0	d_1	r min.	h min.	L_c min.	L_t min. ^a
4	20	M6	3	6	24	41
5	25	M8	4	7	30	51
6	30	M10	5	8	36	60
8	40	M12	6	10	48	77
10	50	M16	8	12	60	97
12	60	M18	9	15	72	116
14	70	M20	11	17	84	134
16	80	M24	12	20	96	154
18	90	M27	14	22	108	173
20	100	M30	15	24	120	191
25	125	M33	20	30	150	234

^a The minimum value is only sufficient when the transition radius r , the length of the gripped ends h and the parallel length L_c are minimum values.



Shenzhen Wance Testing Machine Co., Ltd.

Bldg.3, Yinjin Technology Industrial Park,

Fengjing South Road, Guangming, Shenzhen 518107, China

Tel: +86-755-23057280

Email: sales@wance.net.cn

www.wance.net