ENRICO BRUNO s.r.l.
APPARECCHI SCIENTIFICI
SANITARI – INDUSTRIALI

1960 50° 2010

Over 50 years in cooperation with the health world, the scientific research, the environmental and quality control world

INCUBATORS THERMOSTATIC

TS NATURAL AIR CONVECTION

TSF FORCED AIR CIRCULATION

FOR BACTERIOLOGY

WITH DIGITAL PID CONTROLLER

Vers. 11/26



Key Features

- Full stainless steel construction: internal walls AISI 430, external structure AISI 304 “Scotch Brite”, allows maximum corrosion resistance and easy cleaning
- Internal chamber with laminar air circulation and uniform warmth distribution offered by two lateral convection ducts with perforated walls and by resistors position in pre-warming chamber
- Motor with fan for air circulation fixed in lateral position, allows an horizontal and diagonal air flow among all the volume of the chamber (only model TSF/)
- Thermal insulation by high quality mineral fiber in adequate thickness
- Double kind front door (one or two according to the model), external stainless steel with thermal insulation, tempered glass interior and magnetic closure to allow visual inspections without thermal modifications
- Perforated stainless steel AISI 430 shelves, extractable and fixable on different heights
- Pass-through port (on the back wall) for exhaust air external probes
- Rubber antiskid feet adjustable in height

Standard thermal equipment

- PID microprocessor-based digital temperature controller with touchscreen, auto-tuning, and PT100 platinum probe
- Temperature range: from +5°C above ambient temperature to +80°C
- Sensitive touch keypad protecting the instrument's front panel against dust and liquids (IP65 rating)
- 3-digit display resolution (0.1°C increments); dual display showing actual temperature/set point and time (countdown) simultaneously
- Integrated digital timer (99h 59m) with countdown/continuous operation and delayed start functions
- Adjustable independent over-temperature safety thermostat (Class 3.1 – DIN 12880); activates in the event of main controller or probe failure, accompanied by a visual alarm
- Temperature uniformity in the chamber: ± 0,5°C at 37°C (model TS)
  ± 0,4°C at 37°C (model TSF)
- Thermal Accuracy (time): ± 0,2°C at 37°C
- Manufactured is in compliance with the DIRECTIVES of the EUROPEAN COUNCIL 2006/42/CE (Machinery Directive), 2014/35/UE (Low Voltage Directive), 2014/30/UE (EMC Directive) and standards EN 6101-1:(2001).
- Temperature calibration certificate using an ACCREDIA-certified thermometric chain





Optional

Code	Description	
8843201	Touch screen programmer 8 segments (4 ramps + 4 permanencies) / Digital Timer 99h, 59'.	
8843203	Touch screen programmer 8 programs up to 12 segments (6 ramps + 6 permanencies) / Digital Timer 99h, 59'.	
8843224	3.5 "color touch screen programmer, LED backlight, max. 24 segments, 20 programs, hour/minute and minute/second setting, delayed start, program repeat, exportable stored data, micro USB port, SD card slot	
8844101	USB port with RS 485 converter, for data recording (management software occurs)	
8849324	Overtemperature Acoustic / Visual Alarm Lamp (rather than standard visual alarm lamp)	
8864623	Forced ventilation speed continuous regulator (Min-Max)	
8867106	By pass duct for external thermometric probes	
	Stainless Steel AISI 304 Floor Stand	Supplementary perforated Stainless Steel Shelves AISI 430
Model	Codes	Codes
TS/TSF 21	8853202	8853502
TS/TSF 40	8853204	8853504
TS/TSF 58	8853206	8853506
TS/TSF 96	8853210	8853510
TS/TSF 162	8853216	8853516
TS/TSF 245	8853225	8853525
TS/TSF 400	8853340 Varnished steel Floor Stand (assembly kit)	8853540
TS/TSF 760	8853375 Varnished steel Floor Stand with feet	8853575
	8853475 Painted steel base 4 pivoting wheels (2 with brake)	

On request:

- Serial interface RS485 – RS232
- Management software (reporting, graphics, alarms, running process visualization)
- 4 wheels kit for floor stand (n.2 with brake)



TS Natural air convection	Internal Dimensions (mm)			External Dimensions (except for opening knob) (mm)			Cap.	Shelves supplied/max	Doors	Weight	Power (230V 50-60Hz) (**)
Model / Code	W	H	D	W	H	D	Litres	n.	n.	Kg	W
TS 21 / 9061002	310	260	250	610	575	405	20	1 / 5	1	25	200
TS 40 / 9061004	430	310	300	730	610	455	40	1 / 6	1	36	270
TS 58 / 9061006	460	360	350	760	660	455	58	2 / 8	1	42	320
TS 96 / 9061010	540	440	420	840	760	550	100	2 / 9	1	59	400
TS 162 / 9061016	600	600	450	900	900	560	162	2 / 9	1	71	450
TS 245 / 9061025	650	700	550	950	1020	660	250	2 / 10	1	79	650
TS 400 / 9061040	830	830	600	1130	1130	710	413	2 / 10	2	91	750
TS 760 / 9061075	1000	1200	630	1300	1520	750	756	3 / 18	2	127	1280

(**) on request execution 115 V

TSF Forced air circulation	Internal Dimensions (mm)			External Dimensions (except for opening knob) (mm)			Cap.	Shelves supplied/max	Doors	Weight	Power (230 V 50 Hz) (**)
Model / Code	W	H	D	W	H	D	Litres	n.	n.	Kg	W
TSF 21 / 9064002	310	260	250	610	575	405	20	1 / 5	1	26	200
TSF 40 / 9064004	430	310	300	730	610	455	40	1 / 6	1	37	270
TSF 58 / 9064006	460	360	350	760	660	455	58	2 / 8	1	43	320
TSF 96 / 9064010	540	440	420	840	760	550	100	2 / 9	1	61	400
TSF 162 / 9064016	600	600	450	900	900	560	162	2 / 9	1	73	450
TSF 245 / 9064025	650	700	550	950	1020	660	250	2 / 10	1	81	650
TSF 400 / 9064040	830	830	600	1130	1130	710	413	2 / 10	2	93	750
TSF 760 / 9064075	1000	1200	630	1300	1520	750	756	3 / 18	2	132	1280

(**) on request other voltage / tension