



# TS/TSF Series

Dry incubators



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LABORATORY



# TS/TSF Series



## Dry incubators

### 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/DG)
- 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, internal tempered glass to allow visual inspections without thermal modifications
- Perforated stainless steel AISI 430 shelves, extractable and fixable on different heights
- By pass duct for introduction of monitoring thermometric probes (for mod. TS/TSF 58 DG and larger ones)
- Rubber antiskid feet adjustable in height

### Standard thermal equipment

- Digital P.I.D controller with autotuning. PT100 probe
- Temperature range: from + 5°C beyond ambient up to + 80°C
- Visualized resolution: three digits (0,1°C), double display (set point, measured temperature)
- Double overtemperature protection system:
  - a) Safety independent adjustable thermal controller (class 3.1 – DIN 12880), is activated in case of default of the main digital controller or of the main probe, with visual alarm
  - b) Safety device with adjustable entry point related to set point (fixed 1,5°C beyond set point), in case of default of the main digital controller, with visual alarm
- Temperature uniformity in the chamber:  $\pm 0,5^{\circ}\text{C}$  at  $37^{\circ}\text{C}$  (model TS)  $\pm 0,4^{\circ}\text{C}$  at  $37^{\circ}\text{C}$  (model TSF)
- Thermal Accuracy (time):  $\pm 0,2^{\circ}\text{C}$  at  $37^{\circ}\text{C}$
- Manufactured in compliance with Directions of the European Council 2006/42/CE (Machinery), 2006/95/CE (Low Voltage), 2004/108/CE (Electromagnetic Compatibility EMC), norms EN 61010-1:(2001).



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### Optional

Code	Description	
8843001	Digital Timer 99h 59' (integrated in the digital PID controller), count down – continuous modes	
8843201	Programmer 8 segments (4 ramps + 4 permanencies) / Digital Timer 99h, 59'.	
8843203	Programmer 8 programs up to 12 segments (6 ramps + 6 permanencies) / Digital Timer 99h, 59'.	
8844101	USB port with RS 485 converter, for data recording (management software occurs)	
8849324	Overttemperature Acoustic / Visual Alarm Lamp (rather than standard visual alarm lamp)	
	Stainless Steel AISI 304 Floor Stand	Supplementary perforated Stainless Steel Shelves AISI 430
Model	Codes	Codes
TS/TSF 21 DG	8853202	8853502
TS/TSF 40 DG	8853204	8853504
TS/TSF 58 DG	8853206	8853506
TS/TSF 96 DG	8853210	8853510
TS/TSF 162 DG	8853216	8853516
TS/TSF 245 DG	8853225	8853525
TS/TSF 400 DG	8853240	8853540
TS/TSF 760 DG	8853275	8853575

On request:

- Factory temperature calibration certificate (standard 1 measure for 3 points in the chamber)
- Serial interface RS485 – RS232
- Management software (reporting, graphics, alarms, running process visualization)
- 4 wheels kit for floor stand (n.2 with brake)





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### Specification

TS Natural air convection	Internal Dimensions (mm)			External Dimensions (except for opening knob) (mm)			Cap.  Litres	Shelves  n.	Doors  n.	Weight  Kg	Power (230V 50-60Hz) (**)  W
	Model Code	W	H	D	W	H					
TS 21 DG 9061002	310	260	250	610	560	380	20	1	1	25	200
TS 40 DG 9061004	430	310	300	730	610	455	40	1	1	36	270
TS 58 DG 9061006	460	360	350	760	660	515	58	2	1	42	320
TS 96 DG 9061010	540	440	420	840	760	575	100	2	1	59	400
TS 162 DG 9061016	600	600	450	900	900	605	162	2	1	71	490
TS 245 DG 9061025	700	700	500	1000	1000	655	245	2	2	79	580
TS 400 DG 9061040	830	830	580	1130	1130	710	400	2	2	91	750
TS 760 DG 9061075	1000	1200	630	1300	1500	760	756	3	2	127	1280

(\*\*) on request execution 115 V

TSF Forced air circulation	Internal Dimensions (mm)			External Dimensions (except for opening knob) (mm)			Cap.  Litres	Shelves  n.	Doors  n.	Weight  Kg	Power (230 V 50 Hz) (**)  W
	Model Code	W	H	D	W	H					
TSF 21 DG 9064002	310	260	250	610	560	380	20	1	1	26	200
TSF 40 DG 9064004	430	310	300	730	610	455	40	1	1	37	270
TSF 58 DG 9064006	460	360	350	760	660	515	58	2	1	43	320
TSF 96 DG 9064010	540	440	420	840	760	575	100	2	1	61	400
TSF 162 DG 9064016	600	600	450	900	900	605	162	2	1	73	490
TSF 245 DG 9064025	700	700	500	1000	1000	655	245	2	2	81	580
TSF 400 DG 9064040	830	830	580	1130	1130	710	400	2	2	93	750
TSF 760 DG 9064075	1000	1200	630	1300	1500	760	756	3	2	132	1280

(\*\*) on request other voltage / tension



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