

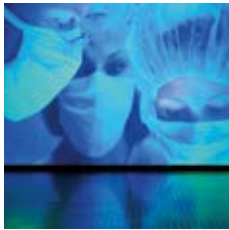


Steriliser SN and SF with SingleDISPLAY
Steriliser SNplus and SFplus with TwinDISPLAY
Natural convection or forced ventilation
AtmoCONTROL software

Model sizes:
30 / 55 / 75 / 110 / 160 / 260 / 450 / 750
+30 °C to +250 °C

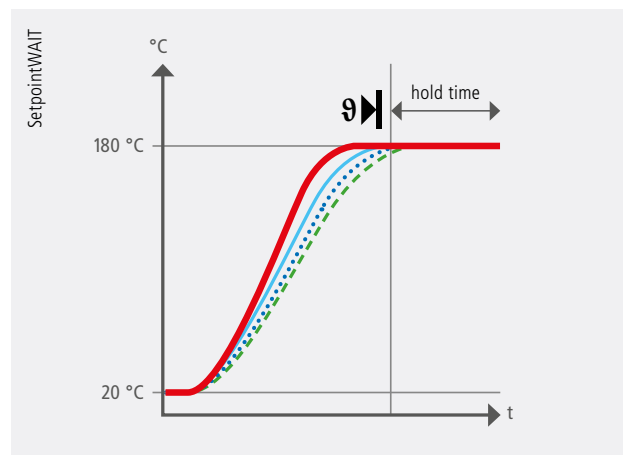
STERILISER S Medicine has the goal of protecting and saving lives. Therefore, disinfection of receptacles and instruments is not enough. The setpoint-dependent programme resume function SetpointWAIT of Memmert hot air sterilisers guarantees precise sterilisation times and the complete killing off of even the most resistant microorganisms. The classification as class IIa medical device confirms that all Memmert sterilisers comply with the basic safety requirements of the European Medical Devices Directive 93/42/EEC.





SetpointWAIT function

Exactly timed temperature control helps to save lives when it comes to sterilisation of instruments and laboratory equipment. Therefore, the SetpointWAIT function guarantees that the sterilisation time does not start before the compensation time is reached. When measuring with additional freely positionable Pt100 sensors (optional), reaching the set temperature at all measuring points on the chamber load is decisive for the continuation of the programme. Up to three measurements can be displayed directly on the ControlCOCKPIT or one measurement on an external measuring device or a 4 – 20 mA interface.



When the SetpointWAIT function is activated, the hold time does not start until the temperature within a very narrow tolerance range is reached at all measuring points

—
Temperature of the Pt100 sensor inside the chamber

Temperature of the flexible Pt100 sensors inside the chamber

Validation without problems

Particularly thanks to the SetpointWAIT function, Memmert hot air sterilisers comply with all strict requirements on quality assurance and can therefore be validated without problems. Besides the possibility to measure the temperature directly at the load inside the chamber (optional), the appliances completely document the entire process. In combination with the User-ID-Key for TwinDISPLAY appliances, the process-controlled door locking mechanism (optional) is the icing on the cake in terms of safety.



Intended purpose as a medical device:

Hot air sterilisers SN/SF and SNplus/SFplus are applied for sterilisation of medical materials. All Memmert sterilisers are classified as class IIb medical device. They are also suited without restriction for the special application of depyrogenisation with hot air.

STERILISERS S

according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010 and 61010-2-40

Standard units are safety-approved and bear the test marks:



Standard equipment

Interior: Stainless steel, material 1.4301 (ASTM 304), with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath

Internals: Stainless steel grids (sizes 30 and 55: 1 grid, sizes 75 – 750: 2 grids)

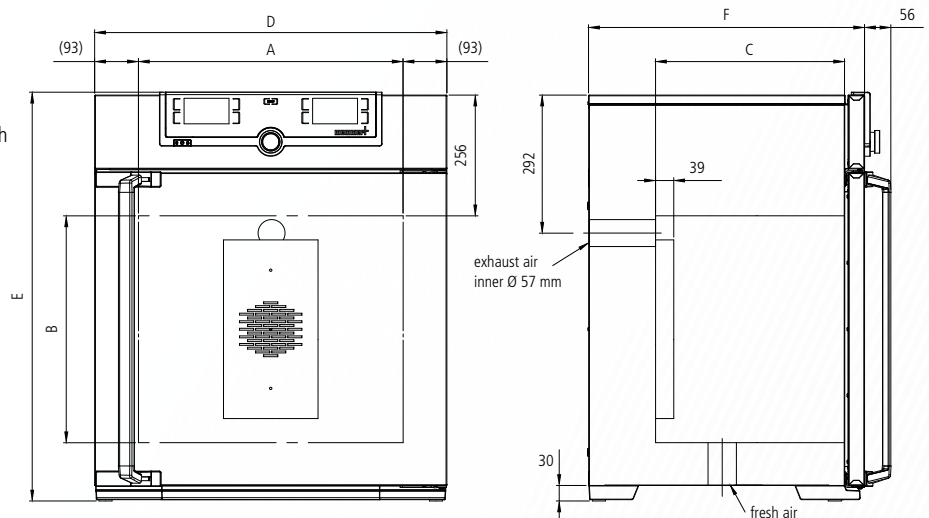
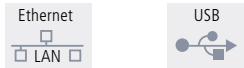
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen (from size 450 two leaves)

Fresh air: Admixture of pre-heated fresh air by electronically adjustable air flap

Connection: Mains cable with plug (German type) CEE plug for 400 V

Installation: 4 feet; sizes 450 and 750 mounted on lockable castors

Interfaces: Ethernet (LAN) and USB (only TwinDISPLAY)



Model sizes/Description			30	55	75	110	160	260	450	750	
Stainless steel interior	Volume	approx. l	32	53	74	108	161	256	449	749	
	Width	(A) mm	400	400	400	560	560	640	1040	1040	
	Height	(B) mm	320	400	560	480	720	800	720	1200	
	Depth (less max. 39 mm for fan)	(C) mm	250	330	330	400	400	500	600	600	
	Stainless steel grids (standard equipment)	number	1			2					
	Max. number of grids/shelves	number	3	4	6	5	8	9	8	14	
	Max. loading per grid/shelf	kg	20							30	
Max. loading of chamber	kg	60	80	120	175	210	300				
Textured stainless steel exterior	Width	(D) mm	585	585	585	745	745	824	1224	1224	
	Height (size 450, 750 with castors)	(E) mm	704	784	944	864	1104	1183	1247	1726	
	Depth (without door handle), door handle + 56 mm	(F) mm	434	514	514	584	584	684	784	784	
Further data	Electrical load at 230 V, 50/60 Hz	approx. W	1600	2000	2500	2800	3200	3400	–		
	Electrical load at 115 V, 50/60 Hz	approx. W	1600	1700	1800					–	
	Electrical load at 400 V and 3 x 230 V w/o neutral, 50/60 Hz	approx. W	–							5800	7000
	Working-temperature range	°C	at least 5 (SN/SNplus) 10 (SF/SFplus) above ambient temperature to +250								
	Setting temperature range	°C	+20 to +250								
Setting accuracy	°C	up to 99.9: 0.1 / from 100: 0.5									
Packing data	Net weight	approx. kg	46	57	66	74	96	110	161	217	
	Gross weight (packed in carton)	approx. kg	62	76	85	99	122	161	227	288	
	Width	approx. cm	66	73	73	83	83	93	133	133	
	Height	approx. cm	89	95	113	105	130	138	144	191	
	Depth	approx. cm	65	67	67	80	80	93	105	105	
Order No. Sterilisers			SN30	SN55	SN75	SN110	SN160	SN260	SN450	SN750	
S = Steriliser			SN30plus	SN55plus	SN75plus	SN110plus	SN160plus	SN260plus	SN450plus	SN750plus	
N = Natural convection			SF30	SF55	SF75	SF110	SF160	SF260	SF450	SF750	
F = Forced air circulation			SF30plus	SF55plus	SF75plus	SF110plus	SF160plus	SF260plus	SF450plus	SF750plus	
plus = Model with TwinDISPLAY											

Options	30	55	75	110	160	260	450	750	
Voltage 115 V, 50/60 Hz	X2						–		
Extended overtemperature protection by additionally integrated Pt100 sensor for independent temperature monitoring for models SN/SF							A6		
Full-sight glass door (4-layer insulating glass)							B0		
Interior lighting for observing the load							R0		
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids	–						K1		
Fresh-air filter (filtration efficiency 80 %) mounted at the appliance bottom (for SF/SFplus) (for sizes 30 – 260 castor frame or subframe necessary – see page 29)							R8		
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap, standard positions	left centre/centre left centre top right centre/centre right centre top			F0 F1 F2 F3					
Entry port, 23 mm clear diameter, for introducing connections, can be closed by flap in special positions (please, state location)	left right rear			F4 F5 F6					
Entry port, 14 mm clear diameter, can be closed by flap, in special positions at the back (please, state location)							D6		
Entry port, 38 mm clear diameter, can be closed by flap, in special positions at the back (please, state location)							F7		
4 – 20 mA current loop interface (0 to +310 °C \pm 4 – 20 mA) Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY)							V3 V6		
Fan speed monitoring with switching off the heating and with alarm in case of failure optional for SFplus only							V4		
Works calibration certificate for 3 temperatures: +160 °C, +180 °C, +250 °C Standard works calibration certificate (measuring point chamber centre) at +160 °C							D00132		

Accessories	30	55	75	110	160	260	450	750
Stainless steel grid (standard equipment)	E28884	E20164		E20165		E28891	E20182	
Additional reinforced stainless steel grid, max. loading 60 kg; from size 450 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–		E29767		E29766		B32190	
Perforated stainless steel shelf	B29727	B03916		B00325		B29725	B00328	
Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–						B32191	
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	E02070	E02072		E02073		E29726	E02075	
Max. loading per slide-in drip tray (kg)	1.5		3		4		8	
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1)	–						B32763	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	B04356	B04358		B04359		B29722	B04362	
Max. loading per bottom drip tray (kg)	1.5		3		4		8	
Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1)	–						B34055	
Wall bracket for wall mounting	B29755	B29756	B29757	B29758	B29759		–	
Guarantee extension by 1 year	GA1Q5						GA2Q5	

SOFTWARE AtmoCONTROL

AtmoCONTROL – The innovative control and logging software

Parameters such as temperature and humidity as well as the process time can be set directly at the ControlCOCKPIT.

Ramp programming is done via the control and logging software AtmoCONTROL, which features a completely new software design.

Drag, drop & go!

Numerical and graphic programming of complex processes is a thing of the past. Today, programming is done via AtmoCONTROL by means of the mouse or touchpad on your notebook. Even the most complex ramp programmes are created within minutes. Simply drag & drop the graphical symbols for the desired parameters to the input field and change the values according to your wishes with a mouse click.



Programme functions

SingleDISPLAY and TwinDISPLAY

- Reading out, managing and organising the data logger
- Saving the log memory in various formats
- Online monitoring of up to 32 connected appliances
- Optical alarms when the alarm limits individually set at the ControlCOCKPIT are exceeded
- Automatic alarm to one or several e-mail addresses

Additional functions

TwinDISPLAY

- Intuitive programming and archiving of ramps and programme sequences
- Synchronous visualisation of the created programme sequence during programming
- Application-specific repeat functions (loops) can be inserted within a temperature control programme in any place
- Simple creation of repeating weekly programmes
- Programming, managing and transferring programmes via Ethernet interface or USB port

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH

Options for models Modelle U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH	30	55	75	110	160	260	450	750	1060	50	105	150	240
Door with lock (safety lock); for models UF TS per side; standard with SN/SF and SNplus/SFplus 450 and 750 (not for models ICO)						B6							–
Door hinged on the left; for models UF TS per side				B8				–					B8
Potential-free contact (24 V/2 A) with socket to NAMUR NE 28 for external monitoring (indicates when setpoint is reached); models ICO: when set points of temperature and CO ₂ are reached								H5					
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)								H6					
Potential-free contact (24 V/2 A) with socket to NAMUR NE 28, for signal generation, controlled by programme segment, for free-selectable functions to be activated (e.g. activation of audible and visual signals, exhaust motors, fans, stirrers, etc.). Only for units with TwinDISPLAY; max. 2 contacts on 1-phase appliances; max. 4 contacts on 3-phase appliances (not for models ICO)													
						2 contacts							
						4 contacts							
								H72					–
									H74				–
Process-dependent door lock (only for units with TwinDISPLAY); for models UF TS see page 11; not for models ICO						D4							–
Door-open-recognition (only for units with TwinDISPLAY); for models UF TS per side; standard with ICO, ICH C, ICH L									V5				
Flexible Pt100 for positioning in chamber or in load with socket, 4-pin, according to NAMUR NE 28, for external temperature recording (load temperature) max. 3 sensors; not for models ICO								H4					–
Flexible Pt100 temperature sensor, positioned flexibly in chamber or load, for local temperature measurement (up to 3 additional sensors are possible). The measured temperature can, if required, be indicated on the display, recorded in the integral data store, and can be documented via the AtmoCONTROL software. Not for models ICO								H8					–
MobileALERT, notification by SMS in case of any error or alarm of the device. Requires option H6 "floating contact for alarm"									C3				
MobileALERT for up to 4 alarm notifications; standard: temperature and CO ₂ alarm, additionally humidity alarm (when equipped with option K7) and O ₂ alarm (when equipped with option T6)													C4
Temperature restriction (for UN/UF/UNplus/UFplus and models UF TS) Temperatures: +60, +70, +80, +95, +100, +120, +160, +180, +200, +220 or +250 °C (Please, indicate upon ordering)													A8
Castor frame (2-part), height 140 mm (not for models UF TS, ICP, ICH, ICH L, ICH C, ICO)													R9
													–

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH

Accessories for models U, UF TS, UNpa, S, I, ICO, ICP, IPP, IPS, HPP, ICH	30	55	75	110	160	260	450	750	1060	50	105	150	240	
USB-Ethernet adapter													E06192	
Ethernet connection cable 5 m for computer interface													E06189	
USB User-ID stick (with User-ID licence): Oven-linked authorisation licence (User-ID-programme) on Memory-stick, prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number (only for units with TwinDISPLAY)													B33170	
USB stick with documentation software AtmoCONTROL and operation manual for products with SingleDISPLAY (the standard equipment of appliances with TwinDISPLAY includes one USB stick with AtmoCONTROL)													B33172	
Set of height adjustable feet (4 pcs) – standard on models ICO				B29768					–				B29768	
Stacking set (4 pcs) for stacking of appliances of same size (not for models 160, 260, 450, 750, 1060, ICH110, ICH110L, ICH110C, ICO150, ICO240)		B29744						–		B29744			–	
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), straight, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS						B29718							–	
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), angled, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS						B29719							–	
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots – technical clarification required	B29728	B29730	B29732	B29734	B29736	B29738	B29740		B29742				–	
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots – technical clarification required; for models UF TS see page 11; not for models ICO	B29729	B29731	B29733	B29735	B29737	B29739	B29741		B29743				–	
Subframe, adjustable in height (size 30 to 75: height 600 mm, size 110 to 450: height 500 mm); not for models ICO and UF TS	B29745	B29747	B29747	B29749	B29749	B29751	B29753						–	
Subframe, on castors (size 30 to 75: height 660 mm, size 110 to 160: height 560 mm); not for models ICO and UF TS	B29746		B29748		B29750								–	
Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter; not for models ICO and UF TS	B33657		B33659		B33661		B33664						–	
Software conforming to FDA AtmoCONTROL. Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit (only for units with TwinDISPLAY)													FDAQ1	
Integration of additional units (up to max. 15 units) into an already existent FDA-software licence (only for units with TwinDISPLAY)													FDAQ2	
IQ document with device-specific works test data, OQ/PQ check list as support for validation by customer													D00124	
IQ/OQ document with device-specific works test data, for one free-selectable temperature value incl. temperature distribution survey for 9 measuring points (size 30), 27 measuring points (sizes 55 – 1060) to DIN 12880:2007-05 (further temperature values on demand), PQ check list as support for validation by customer	D00125												D00127	–
IQ/OQ document with device-specific works test data, for one free-selectable temperature and humidity value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP and ICH)		–		D00136	–	D00136	–	D00136					–	
IQ/OQ document with device-specific works test data, for one free-selectable temperature, humidity and light value incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP with light and ICH L)		–		D00137	–	D00137	–	D00137					–	
IQ/OQ document with device specific works test data for one free-selectable CO ₂ , humidity and temperature value, incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models ICH C and ICO; on models ICO a free-selectable humidity value is only possible with option K7)		–		D38897	–	D38897	–	D38897					D38897	
IQ/OQ document with device specific works test data for one free-selectable CO ₂ and temperature value, incl. temperature distribution survey for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models ICO)													D38898	
External measuring instrument with sensors for daylight and UV-light. Product information on demand (models HPP, ICH L, IPPplus)					B04713								–	
Ditto with additional measuring head for temperature and humidity measurement. Product information on demand (models HPP, ICH L, IPPplus)					B04714								–	