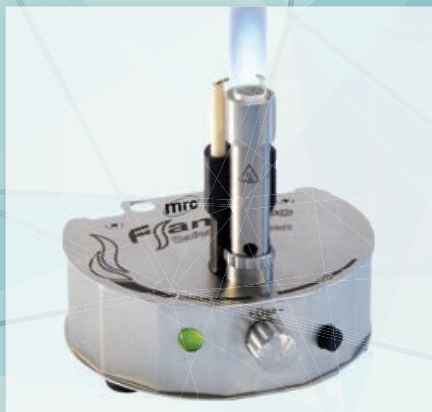# Bunsen Burners Sterilizers
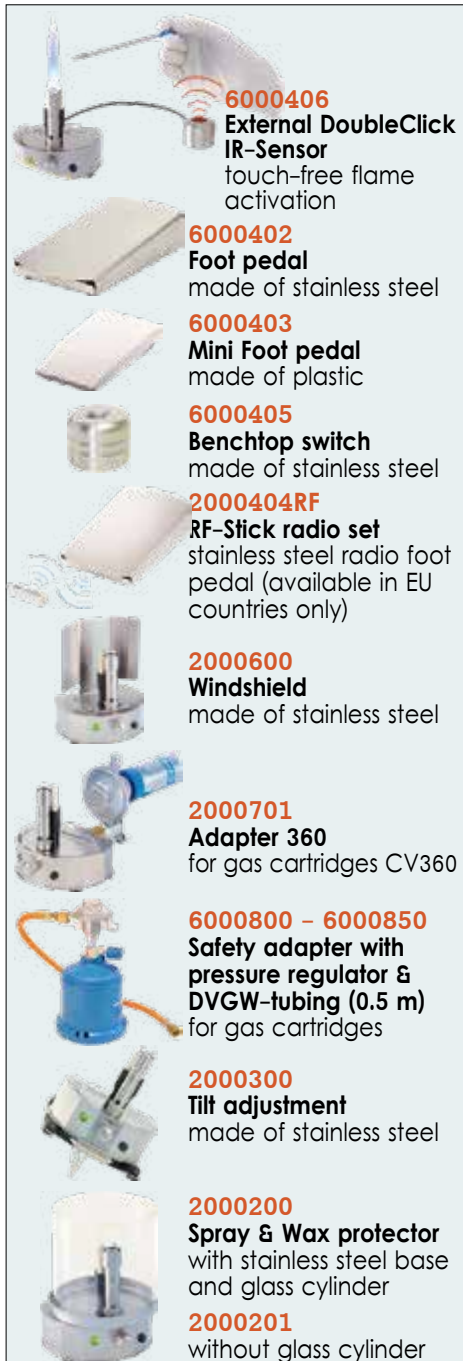
FLAME–100

Accessories:

6000406
External DoubleClick IR-Sensor
touch-free flame activation

6000402
Foot pedal
made of stainless steel

6000403
Mini Foot pedal
made of plastic

6000405
Benchtop switch
made of stainless steel

2000404RF
RF-Stick radio set
stainless steel radio foot pedal (available in EU countries only)

2000600
Windshield
made of stainless steel

2000701
Adapter 360
for gas cartridges CV360

6000800 – 6000850
Safety adapter with pressure regulator & DVGW-tubing (0.5 m)
for gas cartridges

2000300
Tilt adjustment
made of stainless steel

2000200
Spray & Wax protector
with stainless steel base and glass cylinder

2000201
without glass cylinder

FLAME–100, Safety Bunsen

The safe alternative for all traditional Bunsen or alcohol burners!

Multi-Use
The Flame 100 is ideally suited for all flame related applications in the laboratory. The 15 millimeter precision flame allows graduated heating of dental tools as well as safe sterilization of microbiological instruments. Flame size and intensity can be adjusted infinitely.

Easy operation
The safety Bunsen burner Flame 100 activates immediately with the push of a button. No match or a pilot flame are required. Optionally, the Flame 100 can also be operated by a foot pedal* or an external infrared motion sensor*. The Flame 100 is suitable for stationary natural gas and propane/butane gas supplies as well as gas cartridges or gas cylinders. Numerous adapter systems are optionally available.

Reliable safety
The proven Safety Control System (SCS) is also incorporated in the Flame 100. All potential hazards are constantly monitored and, if necessary, protective measures – such as the shutting off the gas supply – are activated. In addition to the ignition and flame control function and the overheating protection the safety package also features the continuous burner head control BHC. BHC unfailingly identifies burner head clogging by liquids or solid substances. Compared with a conventional Bunsen burner, the Flame 100 with the safety standard „SCS" eliminates the risk of a gas leak or an explosion.

Efficient
The Flame 100 is economical to operate and attractively priced for any laboratory, thus making savings for both your budget and the environment. Compared with traditional Bunsen burners, the gas consumption is reduced to a minimum, because the flame burns only when it is really needed Compact and rugged. The housing and burner tube are made of stainless steel. The removable burner tube makes cleaning easy and the small footprint is an advantage for any lab bench.

Flame 100 – for a safe flame in the laboratory!

- Flame without match
- Innovative safety technology
- Simple handling
- Cost-saving and environmentally friendly
- Minimum space required.

With button function Safety Control System (SCS) With Burner Head Control (BHC)2 standard Programs for button (function knob) and foot pedal Removable burner tube Holding device for 2 inoculation loop holders Nozzles for natural gas, propane / butane gas Wrench 17mm for gas connection Tubing connector with swivel nut

Screwdriver for electrode holder, Switching power supply (global) Instruction manual and 2-year warranty Stainless steel foot pedal optional: **6000402**

Model	FLAME–100
Technology	Microprocessor
Programs	**Button: Start-Stop mit Ubetwachungs timer, 60 min** **Foot pedal: Standard (Flame during pressed foot pedal, Foot pedal optional)**
Safety features	**Safety Control System (SCS) with gas safety cut off: ignition & flame control temp. monitor, burner head clogging monitor (BHC) automatic unit switch off, 4 h**
Gas supply & consumption	Gas connection: 1/4" left with Gas filter Gas types: II2ELL3B/P: natural gas E/LL,18 – 25mbar. liquid gas, 20 – 50mbar Connected load: 48 g/h liquid gas Continuous cartridge operation: CV360–65min, CG1750–210min, (approx.) C206–230min, CP250–305min, CV470–550min, CV270–280min
Temperature	Flame temperature: 1200°C liquid gas, 1170°C on natural gas (E) Temp. threshold level: 0.66 kW liquid gas, 0.66 kW natural gas
Electrical	**Power consumption: 2VA.** **Power connection: 100–240V / 50/60Hz / max. 0.3A, 9V DC / 1A**
Mechanical	**Burner tube: removable, stainless steel. Measurements (WXHxD): 89x34x88mm. Height with burner tube: 94mm. Weight: 385g.**

FLAME110

Accessories:

**2110400
Bracket
Sidewise (r/l)**
stainless steel

**2110450
Bracket
Horizontal**
stainless steel

**6000402
Foot pedal**
made of stainless steel

**6000403
Mini Foot pedal**
made of plastic

**2000404RF
RF–Stick radio set**
stainless steel radio foot
pedal (available in EU
countries only)

**6000406
External DoubleClick
IR–Sensor**
touch–free flame
activation

**6000800 – 6000850
Safety adapter with
pressure regulator &
DVGW–tubing (0.5 m)**
for gas cartridges

**6000183/6000185
/6000190–Gas car-
tridges propane/butane**
with/without valve

**2110150
Safety medium pressure
regulator – 1.5 bar**
for gas cylinders of 5, 11
or 33 kg

**2110310–DVGW Safety
tubing** for threaded connection 3/8" L«–
»1/4" L (1.5 m)

**2110131–Schlauchbruchsicherung /
Gas leak protection.**

FLAME110, Flaming from any angle

The extraordinary precision burner. Are you searching for a solution to heat
or flame any item under any angle – even upside down?

Multi–talent

The new Flame 110 is ideally suited for any kind of flaming process in
laboratory or industry.

Its long precision flame can heat your dental instruments, can sterilize your
microbiological tools or flame deburr resp. flame polish your moulded plastic
or rubber parts in any type of industrial production.

Always safe and perfect!

Simple and safe handling

Simply push the button: Flame will start or stop instantly!

You may also control it by foot pedal* or external IR motion sensor*. Safety is
built–in and always active (overheat protection and automatic re–ignition).

Compact and efficient

Stainless steel, efficient cleaning, small footprint, exclusive variability and
convincing economics are vital for any type of laboratory and industrial
workstation. Flame 110 is offering a perfect combination of features:

- Variable flame from any angle – even upside down
- Safety in any operation mode
- Very easy cleaning of removable burner head
- Operation with liquid gas from cylinders or cartridges
  (with optional adapters)
- Very economic consumption of gas.

2110000L

Nozzle for propane / butane gas Removable special burner head Bracket
with 2 wing nuts for upside down mounting

Wrench 17 mm

Switching power supply (worldwide) Instruction
manual.

⬆ Programs – Button function,
  Pedal Standard (food pedal optional)
⬆ Gas inlet filter
⬆ Removeable burner head
⬆ Housing, gas connection & controls made of stainless steel
⬆ DVGW approved.

Model	FLAME110
Programs	Button: Start–Stop with timer, 60 min Foot pedal: flame during pressed foot pedal
Safety features	with gas safety cut off: re–ignition 1 x per second overheat protection pressure monitoring at approximately 3 bar
Gas supply & consumption	Gas connection: 1/4" left hand thread with gas filter Gas types: I3P 1.5 bar liquid gas Connected load: 38 g/h Cartridge operation (type – time): C 206 – 4,5 h, CV 300 – 6 h, CV 470 – 11 h
Temperature	Max. flame temperature: approx. 1200°C Flame measurements (h x Ø): max. 120 x 10 mm Temperature threshold level: 500 W
Electrical	Power consumption: 2 VA Switching power supply: 100 – 240 V / 50 / 60 Hz / max. 0.3 A 9 V DC / max. 1 A
Mechanical	Burner head: removable Measurements (h x Ø): 120 x 10 mm Height with burner tube: 135 mm Weight: 580g

FUEGO SCS BASIC

FUEGO SCS-Series, provides maximum safety and highest convenience for all flame-related applications in the laboratory.

Simply safe to operate Depending on the model, the Fuego SCS Series can be operated with wireless IR-Sensor, button function or foot pedal.

Universal The Fuego SCS Series can be operated with stationary natural gas and propane / butane gas supplies, cartridge gas or gas cylinders.

Top-off-the-Line safety The Safety Control System SCS © means state-of-the-art safety technology which constantly analyzes potential hazards and, if necessary, initiates safety measures, such as an interruption of the gas supply. In addition to the ignition and flame control functions and the overheating protection, the new safety package also features continuous burner head control (BHC). BHC unfailingly detects burner head clogging by liquids or solid substances and ensures the correct assembly of the burner head.
Exceptional passive safety features: A residual heat display protects against burns. The automatic unit cut-off function prevents unintentional ignition of the flame when the burner has not been ignited for a longer period.

Environment-conscious Excellent energy efficiency in accordance with the most recent standards reduces gas and power consumption.
This increases the burning time when gas cartridges are used.

Robust Fabricated entirely of stainless steel – from the controls to the gas connection – and with displays which are protected by heat resistant glass, the Fuego SCS Series withstands even extreme laboratory conditions.

FUEGO SCS BASIC-RF

Fuego-SCS-Basic: More than standard
The Fuego SCS basic can be safely operated by means of the supplied foot pedal or the button function. Different programs are available: a flexible start-stop function or the conventional foot pedal control for short-time applications. In addition, the flame can be started and stopped by briefly pressing on the function knob.

Fuego-SCS-BasicRF: Wireless operation
Wireless and safe flame sterilization! The "RF" model allows operation via radio foot pedal without a disturbing cable. Other than that, the Fuego SCS basic RF has the same functions and safety systems as the standard model Fuego SCS basic. The radio foot pedal is included in the range of delivery.

Fuego-SCS-Digital: Versatile The Fuego SCS can be operated with the touch-free IR-Sensor, button function or foot pedal (optional). For all options, different programs exist that have been developed on the basis of practical experience: flexible start-stop functions, continuous application for up to 2 hours or programs for short flame sterilization – exact to the second.

FUEGO SCS BASIC-RF

Model	FUEGO-SCS BASIC	FUEGO-SCS BASIC-RF	FUEGO-SCS DIGITAL	FUEGO-SCS DIGITAL-Pro
Programs				
Button function	✓	✓	✓	✓
Pedal Standard	✓	✓	✓	✓
Pedal Start-Stop	✓	✓	✓	✓
Sensor Auto-Off			✓	✓
Sensor Start-Stop			✓	✓
Temp. Regulation			✓	✓
Safety Control System with acoustic signals	✓	✓	✓	✓
Residual heat display	✓	✓	✓	✓
Animated graphic display			✓	✓
Foot pedal included	✓	✓ (radio)		
Single or DoubleClick IR-Sensor			✓	✓
Battery operation with tilt sensor				✓
Cooling reminder			✓	✓
Zero-pressure shut-down			✓	✓
Gas consumption display			✓	✓
2 user accounts			✓	✓
Gas inlet filter	✓	✓	✓	✓
Removable & decomposable burner head	✓	✓	✓	✓
Housing, burner head, gas connection & controls made of stainless steel	✓	✓	✓	✓
DVGW approved	✓	✓	✓	✓

4

FUEGO SCS DIGITAL

More convenience The animated and high-contrast graphic display can be easily read under all lighting conditions due to the blue background illumination. The self-explanatory, language-less symbol menu facilitates a rapid selection of all functions. The display is not in your line of sight? Acoustic signals additionally aid the user.

Innovative – The DoubleClick IR-Sensor When activated, this additional safety function ensures that the burner can only be ignited by activating the DoubleClick IR-Sensor twice. The detection range and the time interval of the DoubleClick can be individually adjusted. As a result, unintentional ignition or ignition due to dropping or falling objects is virtually impossible, this increases safety considerably.

Precisely adjusted With the new temp. regulation system and an optional temperature sensor, the laboratory gas burner becomes a temperature-control station.

Pressureless The zero-pressure shut-down provides additional safety at the end of work. With it the residual pressure is released from the connection hose and the gas hose's service life is increased.

Gas exhausted? No new cartridge at hand? The new gas consumption display reminds you to have a fresh gas cartridge on hand in a timely manner.

Flexible and individual The Fuego has to 2 user accounts & saves all safety settings, burning times and other parameters for individual & flexible use.

Cooled down The precisely adjustable, exact to the second, cooling time reminder aids you in exactly complying with the required cooling period for inoculation loops.

Properly connected! Graphic installation and operating instructions at the first switch-on facilitate the initial start-up.

Fuego-SCS-Digital-Pro:
Battery performance The exclusive Fuego SCS pro provides maximum flexibility. Wireless operation using state-of-the-art rechargeable battery technology guarantees independent operation. Two standard rechargeable batteries allow up to 9 hours of continuous operation. This corresponds to approximately 2000 inoculation loop flaming operations. TheFuego SCS pro has an integrated fast charging function and can be recharged in only 3 hours. The range of functions is identical to those of the Fuego SCS.

FUEGO SCS DIGITAL-PRO

Technology	Microprocessor, illuminated graphic displaywith acoustic signals as operating aids 2,3
Programs	IR-Sensor[2,3]: Start-Stop with timer, 1 sec – 2 hAuto-Off with timer, 0 sec – 2 h Foot pedal: Standard (flame during pressed foot pedal) Start-Stop with timer, Fuego SCS basic / Fuego SCS basic RF: 1 h Fuego SCS / Fuego SCS pro: 1 sec – 2 h Button: Start-Stop with timer, Fuego SCS basic / Fuego SCS basic RF: 1 h Fuego SCS / Fuego SCS pro: 1 sec – 2 h Temperature regulation[2,3]: with timer, 1 sec – 2 h temperature range from +35°C to +350°C
Safety features	Safety Control System (SCS) with gas safety cut off: ignition & flame control temperature monitor, burner head clogging and assembly monitor (BHC), tilt sensor (>90°)[3] Automatic unit switch off: Fuego SCS basic / Fuego SCS basic RF: 4 h Fuego SCS / Fuego SCS pro: 1 min – 2 h Residual heat display: indicates a hot burner head Zero-Pressure shut-off[2,3]: end of work procedure to lower the pressure in the supply hose
Comfort functions[2,3]	cooling reminder gas consumption display for gas cartridges
Gas supply and consumption	Gas connection: 1/4" left with gas filter Gas types: II2ELL3B/P: natural gas E/LL,18 – 25 mbar liquid gas, 20 – 50 mbar Connected load: 70 g/h liquid gas Continuous cartridge operation: CV 360 – 40 min, Express 444 – 50 min, CG 1750 – 150 min, C 206 – 170 min, CP 250 – 210 min, CV 470 – 370 min
Temperatures	Flame temperature: 1350°C on liquid gas, 1300°C on natural gas (E) Temperature threshold level: 1 kW liquid gas, 1kW natural gas
Electrical	Switching power supply:100 – 240 V / 50/60 Hz / 0.3 A; 9 V DC / 1 A Power consumption: 2 VA IR-Sensor detection range[2,3]: 5 – 50 mm, adjustable DoubleClick IR-Sensor[2,3]: time range 0.5 – 2.5 sec (adjust. / disengageable)
Technical Data Battery Operation[3]	Type rechargeable battery: NiMH 2.4V (2 x Mignon (AA), 1.2V, 2600mAh) Operating time: up to 9 hours continuous operation Charging time: 90% /3 hours Charging current:700mA
Radio Frequency System[1]	Safety standard: MRC safety radio protocol Range: 2 – 5 m Frequency: 2.4 GHz Channels: 253 Batteries foot pedal: 2 x AA (Mignon) Life time batteries (foot pedal): approx. 2000 hours (operation 8 hours per day: > 1 year)
Mechanical	Casing and operating controls: stainless steel / glass, UV and solvent resistant Burner head: removable and decomposable, stainless steel Cover of burner shaft: Ø 23 mm, with drains Dimensions (w x h x d): 103 x 49 x 130 mm Weight: 700 g

Model	Fuego SCS Basic	Fuego SCS Digital
Technology	Microprocessor	Microprocessor, LC–display
IR–Sensor	Start–stop with timer~2h, auto–off with timer~2h	
Foot pedal	Standard (flame during pressed foot pedal)	
Button	start–stop timer – 60min,	start–stop timer ~2h
Safety control system (SCS) with gas safety cut off	Ignition and flame control, temperature monitor, burner head clogging and assembly monitor (BHC), automatic unit switch off, 4h residual heat display	Ignition and flame control, temperature monitor, burner head clogging and assembly monitor (BHC), automatic unit switch off, 1–2h residual heat display
Gas connection	1/4" left with gas filter	
Gas types	II2ELL3B/P, nature gas E/LL 18–25 mbar, liquid gas, 20–50 mbar	
Connected load	70 g/h liquid gas	
Continuous cartridge operation	CV360 – 40min, Express 444 – 50min, CG1750 – 150min, C206 – 170min, CP250 – 210min, CV470 – 370min	
Flame temperature	1350°C on liquid gas, 1300°C on natural gas (E)	
Temperature threshold level	1kw liquid gas, 1kw natural gas	
IR–Sensor coverage	–	5–50mm, Adjustable
Power consumption	2 VA	
Power connection	100–240V 50/60Hz max. 0.3A 9V DC/1A	
Casing & operating controls	Stainless steel/glass, UV and solvent resistant	
Burner head	removable and decomposable, stainless steel	
Cover of burner shaft	Ø23 mm, with drains	
Measurements (mm)	W103xD49xH130	
Weight	700g	

AutoLoop

Model: AutoLoop, Carousel For Flame Sterilizing Inoculation Loops

The inoculation loop carousel Autoloop PRO, which is suitable for up to 4 inoculation loops, was developed to comply with current requirements in microbiological, cell biological and bio technological laboratories.

Model	AutoLoop
Technology	Microprocessor
Display	fully graphic dot–matrix
Rotational direction	left / right, depends on removed holder
Inoculation loop holder	1 – 4, with optical holder detection
Time of flame sterilizing	1 – 15 sec
Time for cool–down period	1 – 45 sec
Safety features	temperature control, flame activation warning, indicator of remaining cool–down, tilt sensor,residual heat display
Adjustable sterilization monitor	1 – Off, 2 – low intensity, 3 – middle intensity, 4 – high intensity
Stand by	automatic unit switch off: 1 h (or with stand–by time of the burner)
Operating voltage	via Fuego (foot pedal socket)
Casing	stainless steel & aluminum, UV & solvent resis-tant
IR–Sensor coverage	5–50mm, Adjustable
Measurements(mm)	W135xD180 Height Autoloop: 305
Weight	1200 g

STER-100
STER-200

STER–Series, Gas Burners, 1300°C

Features:
- Electronic instant ignition ● High temp. attainable: 1300°C
- Safety, clearing ● Adjustable flame ● Refillable butane fuel tank.

Applications:
- Sterilizing ● Welding ● Heating ● Brazing ● Digestion ● Cooking.

Model	STER-100	STER-200
Max. temperature	1300°C	1300°C
Fuel capacity (g)	45	45
Working time (min)	60	60
Safety lock	YES	–
Dimensions (mm)	H161xW137xD79	H92xW115xD79
Dry weight (g)	380	407

Spare Heater
STER-815

STER–815/ STER–816, Bacti–Cinerator Sterilizer, 835°C

The Bacti–Cinerator Sterilizer sterilizes microorganisms utilizing infrared heat produced by a ceramic core element. The ceramic element contains no asbestos and ensures maximum sterility without splatter across the work surface area. Complete sterilization occurs within 5-7 seconds at optimum sterilizing temperature of 1500°F (815.6°C). The small footprint makes the Bacti–Cinerator Sterilizer an ideal instrument for anaerobic and aerobic chambers alike.

Heaters:
300-07021-01 – 220V Heater for STER-815
300-07021-02 – 120V Heater for STER-815
300-07051-01 – 220V Heater for STER-816
300-07051-02 – 120V Heater for STER-816

Model	STER-815	STER-816
Central High–temperature	825°C±50°C	
Max-diameter of Sterilizer Goods	Φ14mm	Φ35mm
Length of Sterilizer	150mm	100mm
Dimension (mm)	D185×W98×H190	D162×W98×H225
Power	170W	320W
Weight	1.3kg	1.3kg

STER–817D/ STER–818, Dry Glass Bead Sterilizer, 260°C

STER-817D
Stainless

STER-817D and STER-818 Glass Bead Sterilizers are incorporated with an imported thermostat, which heats the highest temperature with 300°C in 25m in, these units having a stainless steel body, are compact enough to be placed on any Laminar Air Flow Work benches or any other workside tables in a clean room atmosphere.
STER-817D and STER-818 are a quick, easy and accurate alternative to traditional methods of sterilization. Once switched "ON", the units are ready to use within 25min and ensure total sterilization by destruction of all micro–organisms within 10sec.

Model	STER-817D	STER-818
Crucible size	Ø40 x 80mm Depth	Ø40 x 140mm Depth
Temperature Range	100°C~300°C	
Heating Time (40°C~300°C)	≤25min	
Weight of Glass Bead	150g	300g
Material of Lid	Stainless steel	
Dimension (DxWxH)	130x145x155mm	130x145x215mm
Temperature Control Range	100°C~300°C	
Temp. Control Accuracy	≤5°C	

STER–101, Boiling Sterilizer

STER-101

Model	STER-101
Timer	0~60 min. mechanical timer
Heater	1500W
Thermostat	Temperature over to 150°C auto cut–off power
Tray Dimension (WxDxH) mm	350x165x30
Chamber Dimen. (WxDxH)mm	360x180x125
Overall Dimension (WxDxH) mm	525x190x170

Features:
- All hydraulically pressed 18.8 stainless steel, can wit hstand electrolysis without corrosion.
- Long life immersio nstainless nickel pipe heater, explosion & corrosion proof. ● Precision mechanical timer with bell.
- Waterless overheating prevention system with auto power cut–off. ● Quality certificate: ISO 9001, ISO 13485.

Smart-SteriMAX, Infrared Loop Sterilizer, using IR-HotSpot Technology

SMART-SteriMAX

High-Speed Annealing and Sterilizing the Smart Way
Are you looking for a fast, efficient and flameless product to anneal or sterilize your inoculation loops and delicate micro instruments? Then our electrical SteriMax smart should be your first choice – ideally suited for use in any type of lab, anaerobic work environment and Laminar Flow Cabinet.

Smart Infrared Light – Instantly Ready to Work
Specifically focused infrared light generates an IR-HotSpot in which your inoculation loop is sterilized at temperatures from 750 to 1000°C after only 5 to 10 seconds. The SteriMax smart just needs to be plugged in and will be immediately ready to use, without any unnecessary warm-up period.
Our highly sophisticated annealing tube is based on many years of experience. It is made of special quartz glass. The tube is closed at one end preventing any risk of contamination with pathogens.
The annealing tube can be slid out in a matter of seconds for easy cleaning.

Smart Operation – Touchless Working
SteriMax smart allows you to fully focus on your core task. Hardly any attention is needed for inserting your inoculation loop into the annealing tube – which is easily accessible from the front of the flat glass panel. Touchless IR-Sensor technology starts each sterilization process automatically. Adjustable timers signal both the completion of sterilization and cooling via the display and an audible signal. After that your inoculation loop is ready for use. Both timers can be adjusted and recalled individually & up to the second for two users by gently touching the panel.

Smart Use of Power – Minimum Heat Dissipation
'Thermocontrol' is the key element for an efficient use of power. It allows for quick but smooth softstart of the infrared light, a short heating period and the re-use of residual heat for the next sterilization process, which will be respectively shorter. Whenever you pause, your energy consumption and heat dissipation will pause as well.

Smart Design – Outstanding Features
SteriMax smart comes in an elegant stainless steel housing with a touch safety glass control panel designed for extreme laboratory environments with many unique features:

- Instantly ready to work without any unnecessary warm-up
- Auto-Start through touchless IR-Sensor technology
- Touch operation
- Adjustable sterilization & cool-down timers for two users
- Annealing tube made of special quartz glass
- Very simple cleaning of the device and annealing tube.

The range
- Infrared light technology and quartz glass annealing tube
- Replacement quartz glass annealing tube
- Inoculation loop holder with inoculation loop Φ 3 mm
- Holding device for 3 MRC inoculation loop holders.
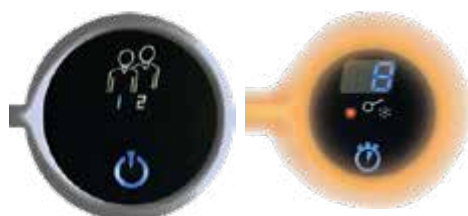
Touch operation
ON / OFF – user selection

Touch-Timer
sterilization time

Touch-Timer
cooling down reminder for loops

Touchless IR-Sensor
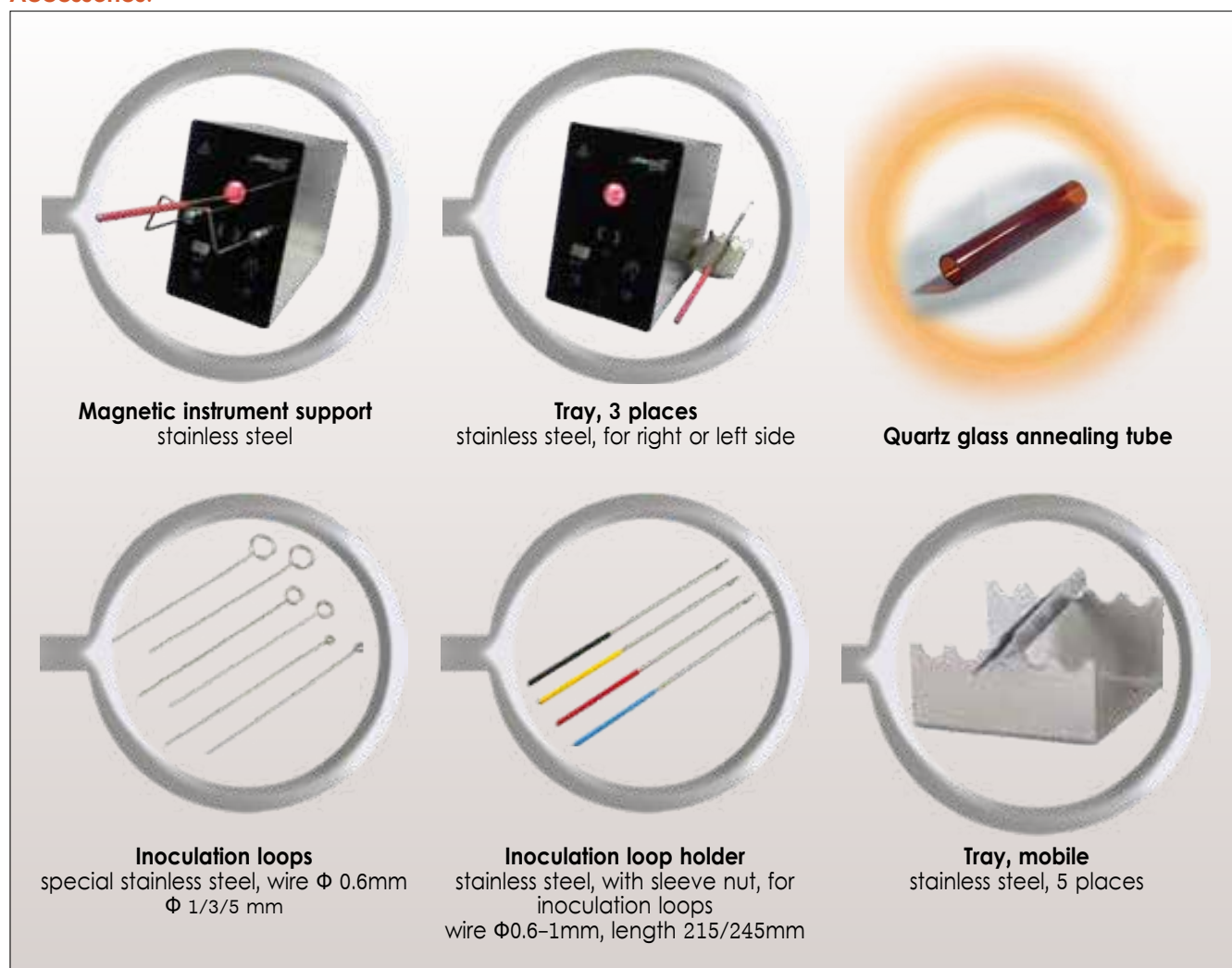for an automatic start of the sterilization process

Thermocontrol
with residual heat display

Annealing tube
removable in a matter of seconds

Cool-Touch

Accessories:

Magnetic instrument support
stainless steel

Tray, 3 places
stainless steel, for right or left side

Quartz glass annealing tube

Inoculation loops
special stainless steel, wire Φ 0.6mm
Φ 1/3/5 mm

Inoculation loop holder
stainless steel, with sleeve nut, for
inoculation loops
wire Φ0.6–1mm, length 215/245mm

Tray, mobile
stainless steel, 5 places

Model	SMART–SteriMAX
Technical Data	
IR–Sensor	sensor range 8–stage adjustable
Touch operation	ON/OFF, selection for 2 users sterilization timer 5 – 10 s inoculation loop cooling timer 0 – 25 s with audible signal (disengageable)
Thermocontrol	dynamic sterilization timer
Annealing tube	**Sterilization temperature**
Quartz glass	750 °C – 1000 °C (1382 °F – 1832 °F)
Safety features	
Residual heat display	indicates a hot annealing tube
Automatic unit switch off	15, 30 or 60 min.
Temperature monitor	thermal circuit breaker
Electrical	
Power supply	220 – 240 V or 112 – 128 V, 50/60 Hz
Power consumption	approx. 600 W / short time (5 – 10 s)
Protection class	IP 20
Heat source	IR halogen spot light
Mechanical	
Quartz glass annealing tube	outer–Φ 19 mm, inner–Φ 16 mm, length 112 mm
Casing	heat resistant glass / stainless steel, UV and solvent resistant
Measurements (w x h x d)	110 x 170 x 180 mm
Weight	approx. 1800 g

STE-UHT-CO2

STE-UHT-CO2, Mini UHT Sterilizer

STE-UHT-CO2 mini uht sterilizer is manufactured for simulating industrial manufacture and research in laboratory,completely duplication the industrial production, which is adaptive to wide ranges of viscidity, and be same with preparation of fibers and granules, precisely mimic prepare, homogenizing, aging, pasteurism, fast sterilization under ultra-temperature and aseptic filling. The whole system is integrated with the CIP and SIP online, which can be configured optionally a homogeniser and a aseptic filling cabinet on your needs.

Applications:
Such as beverage, fruit juice, fresh milk, yogurt, tea, sauce dressings, soups and so on.

Technical Parameter:
● Capacity of material processing: 20L per hour (Highly available by your demand).
● Heating to 150°C at the flow rates stated.
● Cooling to below 5°C at the flow rates stated.
  heated hot water recirculators, no steam required
● PLC controller, 8 inch LCD touch screen, two modes of run: Automatic-mode, and Eye-monitored mode for the purpose of easily controlling experimental process.
● Temperature Precision: ±0.5°C
● The times of sterilizing include: 3S, 5S, 10S, 30S, 300S (optional)
● Product system pressures to 10 bar.
● SIP (Sterilise In Place) an option for Aseptic sampling.
● Built in true CIP (Clean In Place), flow for CIP more than 400 Ltr per hour
● Outlet temp. adjustable by request.
● Each heating section is individually controlled to enable a wide setting of product temperatures, the product is heated by pressurised hot water recirculators which are PID controlled for greater stability and accuracy (the precision of sterilizing temperature is ±0.5°C). The cooling is in 1 or 2 stages dependant on the final cooling temperature required.
● 380 volt 3 phase, 50 or 60 Hz.
● Power: 13 KW.

Technological Flow:
● Tube preheating & sterilizing: to sterilize the tube by superheated water and last for some time, then chill out to normal temperature and stand by.
● Material sterilizing: to ensure the sterilizing temp. & time according to experiment requirement(In line homogeniser can be added either upstream or downstream).
● Aseptic filling: hot filling or normal temp. filling based on laboratory needs.
● CIP cleanup.
Material▶hopper▶screw pump▶preheating tube▶(homo.)▶sterilizing tube (137~150°C)water-cooling▶(homo.)▶(▶ice-cold)▶aseptic filling.

Model	STE-UHT-CO2
Power	13KW ,380V ,50/60Hz
Rated capacity	20-25l/h
Min. sample	3-5L
Max. heating temperature	150°C
Cooling temperature	normal temperature or 5°C (optional)
Heating unit	Heat hot water recirculators
Temperature control	PID control
Heating precision	±0.5°C
Sterilizing time	3s 5s 10s 30s 300s (optional)
System pressure	10Bar
Sterilize	SIP an option for aseptic sampling
Clean	CIP (400LPH)
Outlet temperature	Adjustable
Dimensions	1150x910x1650mm
Operation mode	Automatic/Manual
USB connector	Yes
Body material	SUS304 Stainless steel
Filling system	Sterile cabinet(optional)
Filtering membrane	HEPA (filter efficiency 99.99%)
PET bottle	suitable
Jacketed filling device	10L (5L)
Filling valve	Air operated filling device
Ozone generating system	Optional
Material touch part	SUS316L
Operation mode	Automatic/Manual
Display	7-Inch LCD display