

# Laboratory Gas Burner & Sterilizer



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### Innovative products, multiple solutions

Many years of international experience have made the WLD-TEC GmbH a global well respected manufacturer of spot heating systems for laboratory and industry use.

For every standard and special application, the WLD-TEC GmbH offers the optimum stationary or mobile safety laboratory gas burners as well as electrical annealing systems without an open flame.

The devices are sturdy and durable, with maximum integrated safety and extensive optional accessories.

WLD-TEC GmbH is your gas burner specialist since 1994, with research, development and production from a single source - quality made in Germany.



# Fuego<sup>SCS</sup>



## Safety Laboratory Gas Burner



# Innovative technology that thinks with you!

The *Fuego* SCS - Series.



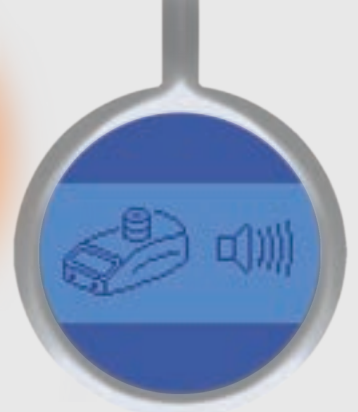
Graphical installation instructions



Zero-pressure shut-off



Gas consumption display



Acoustic signals as operating aids

User-friendly stainless steel knobs



Animated, high-contrast graphic display



Individually adjustable Single or DoubleClick IR motion sensor



Automatic unit cut-off



Cooling reminder for inoculation loops



Temperature regulation for heating media



# **Fuego**<sup>SCS</sup> - A step ahead!

The innovative *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 touch-free IR-Sensor, button function or foot pedal.

## **Modern design**

The unique shape is eye-catching\*. The low casing makes comfortable working possible; the streamlined design reduces the disturbance of the air current in a clean room workbench to a minimum. With the new DualKnob for adjusting gas and air flow, the flame can be precisely regulated. The removable burner head can simply be dismantled into its individual components for in-depth cleaning.

Clogging is no longer a problem. Spilled liquids flow out through an integrated drain, and solid substances can be effortlessly removed by opening the burner shaft.

## **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<sup>®</sup> 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.

## **Take-back guarantee**

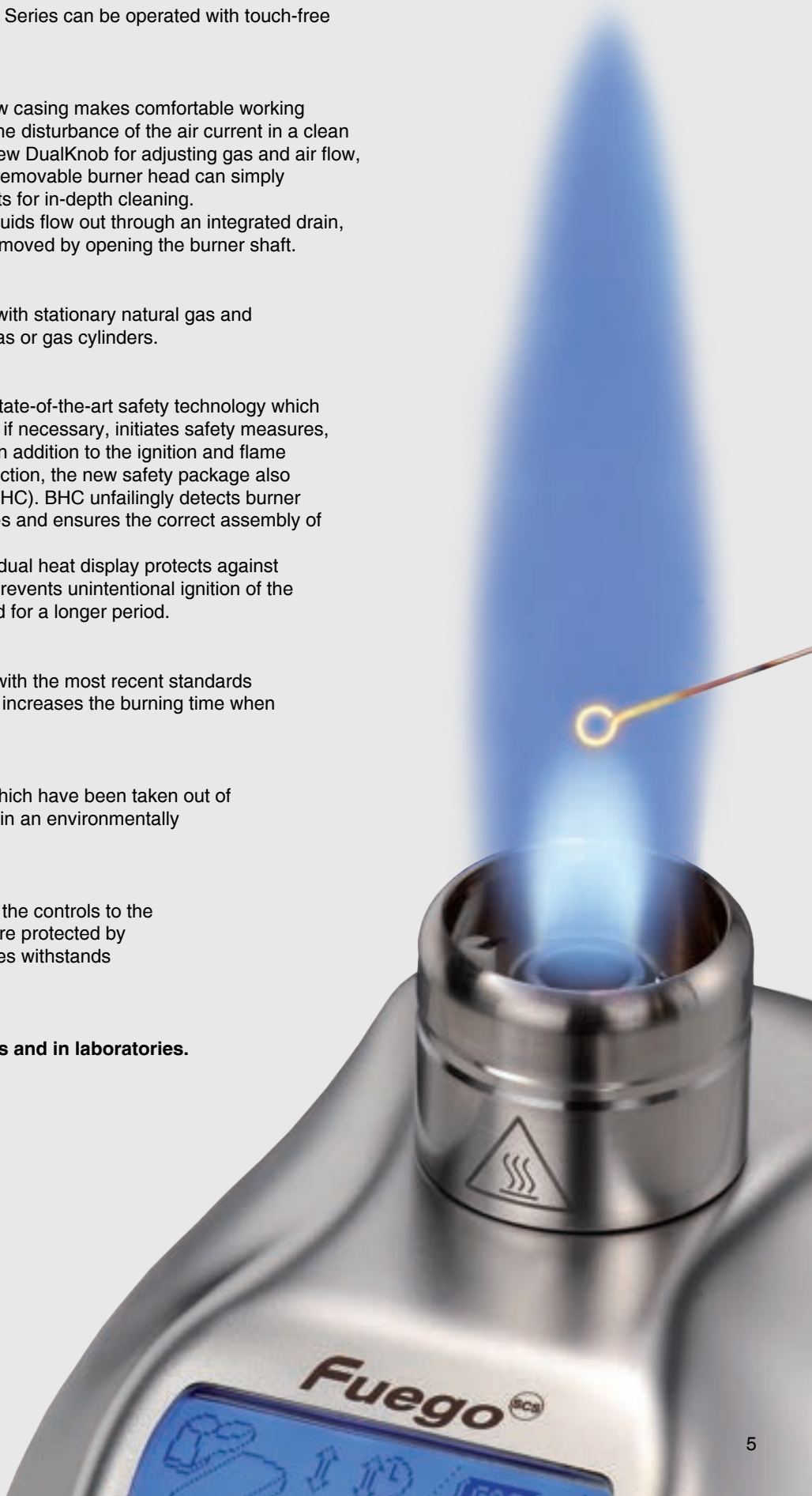
All old WLD-TEC laboratory gas burners which have been taken out of service will be taken back and disposed of in an environmentally compatible manner.

## **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.

## **The *Fuego SCS* - Series:**

**Ideal for use on cleanroom workbenches and in laboratories.**



# Fuego<sup>SCS</sup> 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<sup>SCS</sup> basic RF

## Wireless operation

Wireless and safe flame sterilization! The "RF" model allows operation via radio foot pedal without a disturbing cable. Otherwise 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<sup>SCS</sup>

## 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.

## 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 temperature 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 SCS* has to 2 user accounts and saves all safety settings, burning times and other parameters for individual and 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<sup>SCS</sup> 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. The *Fuego SCS pro* has an integrated fast charging function and can be recharged in just 3 hours. The range of functions is identical to those of the *Fuego SCS*.



	Fuego <sup>SCS</sup> basic	Fuego <sup>SCS</sup> basic RF	Fuego <sup>SCS</sup>	Fuego <sup>SCS</sup> pro
<b>Programs:</b>				
Button function	✓	✓	✓	✓
Pedal Standard	✓	✓	✓	✓
Pedal Start-Stop	✓	✓	✓	✓
Sensor Auto-Off			✓	✓
Sensor Start-Stop			✓	✓
Temperature regulation			✓	✓
<b>Safety Control System SCS<sup>®</sup></b>				
with acoustic signals	✓	✓	✓	✓
Residual heat display	✓	✓	✓	✓
<b>Animated graphic display</b>			✓	✓
<b>Foot pedal included</b>	✓	✓ (radio)		
<b>Single- or DoubleClick IR-Sensor</b>			✓	✓
<b>Battery operation with tilt sensor</b>				✓
<b>Cooling reminder</b>			✓	✓
<b>Zero-pressure shut-down</b>			✓	✓
<b>Gas consumption display</b>			✓	✓
<b>2 user accounts</b>			✓	✓
<b>Gas inlet filter</b>	✓	✓	✓	✓
<b>Removable &amp; decomposable burner head</b>	✓	✓	✓	✓
<b>Housing, burner head, gas connection &amp; controls made of stainless steel</b>	✓	✓	✓	✓
<b>DVGW approved</b>	✓	✓	✓	✓
<b>Art.-No.</b>	<b>8.201.000</b>	<b>8.203.000-RF</b>	<b>8.200.000</b>	<b>8.204.000</b>

Removable & decomposable burner head, dishwasher-safe, autoclavable, made completely of stainless steel and ceramics



Burner shaft can be opened at the flick of a wrist for cleaning purposes



Tilt adjustment



Holding device for inoculation loop holders



## The range:

### Fuego<sup>SCS</sup> basic

Art.-No. 8.201.000

with button function  
Stainless steel foot pedal  
3 standard programs for foot pedal and button (function knob)

### Fuego<sup>SCS</sup> basic RF

Art.-No. 8.203.000-RF

with button function  
Wireless radio foot pedal (stainless steel, battery operated), 2 Mignon (AA) batteries  
3 standard programs for foot pedal and button (function knob)  
**only available in EU countries**

### Fuego<sup>SCS</sup>

Art.-No. 8.200.000

with IR-Sensor, button and graphic display  
6 standard programs for IR-Sensor, foot pedal, button (function knob) and temperature regulation  
DoubleClick IR-Sensor (connectable)  
Adjustable IR-Sensor reaction distance and DoubleClick time  
Stainless steel foot pedal optional e.g.: Art.-No. 6.000.402

### Fuego<sup>SCS</sup> pro

Art.-No. 8.204.000

with IR-Sensor, button and graphic display  
6 standard programs for IR-Sensor, foot pedal, button (function knob) and temperature regulation  
DoubleClick IR-Sensor (connectable)  
Adjustable IR-Sensor reaction distance and DoubleClick time  
Tilt sensor with gas safety cut off (>90°), battery compartment  
2 Mignon(AA) rechargeable batteries, int. fast charge function  
Stainless steel foot pedal optional e.g.: Art.-No. 6.000.402

## Range of delivery for all models:

Safety Control System (SCS)  
Burner Head Control (BHC) and residual heat display  
Removable and decomposable burner head  
Tilt mechanism, right / left  
Holding device for 3 WLD-TEC inoculation loop holders  
Nozzles for natural gas, propane / butane gas  
Turbo flame  
Removable cover of burner shaft for cleaning purposes  
Multi-wrench for gas connection  
Screwdriver for burner head and cover of burner shaft  
Tubing connector with swivel nut  
Switching power supply (global, level 6)  
Instruction manual and 2-year warranty



**Assorted accessories available**  
(see page 18-19)

**Autoloop Pro**  
fully automatic carousel  
for flame sterilizing inoculation loops  
(see page 13-16)



## Technical Data:

### Technology

Microprocessor, illuminated graphic display with acoustic signals as operating aids<sup>2,3</sup>

### Programs

IR-Sensor<sup>2,3</sup>:

Start-Stop with timer, 1 sec - 2 h  
Auto-Off with timer, 0 sec - 2 h  
Standard (flame during pressed foot pedal)  
Start-Stop with timer

Foot pedal:

Fuego SCS basic / Fuego SCS basic RF: 1 h  
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<sup>2,3</sup>:

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 and flame control  
temperature monitor

Burner Head Control (BHC):

burner head clogging and assembly monitor  
tilt sensor (>90°)<sup>3</sup>

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<sup>2,3</sup>:  
end of work procedure to lower the pressure in the supply hose

### Comfort functions<sup>2,3</sup>

cooling reminder, user account selection, gas consumption display for gas cartridges, graphical installation and operating instructions

### Gas supply and consumption

Gas connection:

1/4" left hand thread with gas filter

Gas types:

Natural gas E/LL, 18 - 25 mbar,

liquid gas 47.5 - 57.5 mbar, I<sub>2ELL3B/P</sub>

95 l/h natural gas (LL), 70 g/h liquid gas

Connected load:

Campingaz: CV 360 - 40 min, C 206 - 170 min,

CP 250 - 210 min, CV 470 - 370 min,

CG 1750 - 150 min, CV 300 - 200 min

Continuous cartridge operation:  
(approx.)

Guilbert: Express 444 / 445 - 50 min

Coleman: C 250 - 160 min, C 500 - 320 min

### Temperatures

Flame temperature:

liquid gas: 1350 °C / natural gas (E): 1300 °C

Temperature threshold level:

liquid gas: 1.0 kW

natural gas (E): 1.0 kW, natural gas (LL): 0.90 kW

### Electrical

Switching power supply (global):

100-240V / 50/60Hz / max. 0.3 A; 9 V DC / 1.3 A

Level 6 (stand-by max. 0.1 W)

2 VA (stand-by max. 0.1 VA)

Power consumption:

IR-Sensor detection range<sup>2,3</sup>:

5 - 50 mm, adjustable

DoubleClick IR-Sensor<sup>2,3</sup>:

time range 0.5 - 2.5 sec (adjust. / disengageable)

### Technical Data Battery Operation<sup>3</sup>

Type rechargeable battery:

NiMH, 2.4 V (2 x Mignon(AA), 1.2 V, 2600 mAh)

Operating time:

up to 9 hours continuous operation

Charging time:

90% / 3 hours

Charging current:

700 mA

### Radio Frequency System<sup>1</sup>

Safety standard:

WLD-TEC 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  
flame-sterilizable

Burner head:

removable and decomposable, stainless steel / ceramic

Cover of burner shaft:

Ø 23 mm, with drains

Measurements (w x h x d):

103 x 49 x 130 mm

Weight:

700 g

### Licenses

DIN-DVGW Reg.-No.:

NG-2211AS0167

CE:

EN 61326-1, EN 61010-1, EN 61010-2-010,

EN 301489<sup>1</sup>, EN 300440-1<sup>1</sup>, EN 300440-2<sup>1</sup>

2014/30/EU, 2014/35/EU, 2011/65/EU,

2014/53/EU (RED)<sup>1</sup>

EU guidelines:

<sup>1</sup> only Fuego SCS basic RF, <sup>2</sup> only Fuego SCS, <sup>3</sup> only Fuego SCS pro



# gasprofi 1 <sup>SCS</sup> micro



Safety Laboratory  
Gas Burner

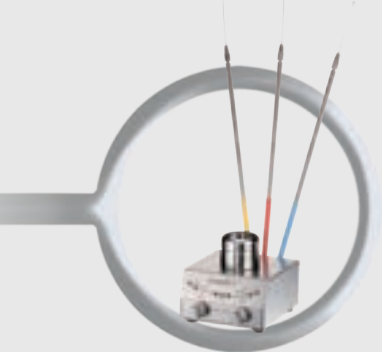
**The smallest professional among the laboratory gas burners!**  
**The *Gasprofi 1 SCS micro* - Series.**



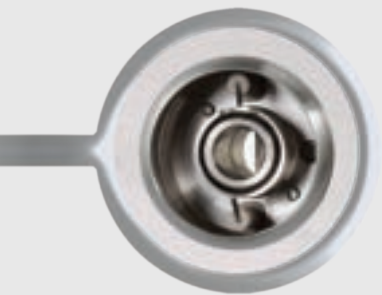
**Button function**



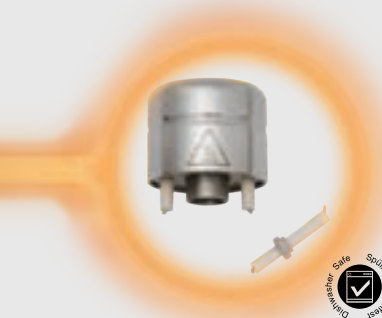
**DoubleClick IR-Sensor**



**Holding device for inoculation loop holders**



**Burner shaft can be opened at the flick of a wrist for cleaning purposes**



**Removable & decomposable burner head, autoclavable, completely made of stainless steel and ceramics**



***Gasprofi 1 SCS micro* - Series: Safety and comfort in the smallest possible space. Optimal for all flame-related applications in the laboratory.**

**Simply safe to operate**

Depending on the model, the *Gasprofi 1 SCS micro* - Series can be operated with touch free IR-Sensor, button function or foot pedal. With the DualKnob for adjusting gas and air flow, the flame can be precisely regulated.

**More room to work**

The *Gasprofi 1 SCS micro* - Series is extremely space-saving. This allows nearly effortless work as a result of its extraordinarily low working height.

**Outstanding safety**

The Safety Control System SCS® demonstrates 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.

**Robust**

All external components are made of stainless steel; this guarantees the greatest possible working sterility. The removable burner head can simply be dismantled into its individual components for in-depth cleaning.

Clogging is no longer a problem. Spilled liquids flow out through an integrated drain, and solid substances can be easily removed by opening the burner shaft.

**Universal**

The *Gasprofi 1 SCS micro* - Series can be operated with stationary natural gas and propane / butane gas supplies, cartridge gas or gas cylinders.

**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.

***Gasprofi 1 SCS micro* - Series: Ideal for use in cleanroom workbenches and laboratories.**



# gasprofi 1<sup>SCS</sup> *micro* school edition

## For optimal safety in modern schools

Bunsen burners were standard equipment in schools for many years but they were the cause of many accidents and fires. *Gasprofi 1 SCS micro school edition* changes all this! A safe gas burner for sterilizing, heating and other flame related applications.

## Excellent safety due to the Safety Control System SCS®

The flame is re-ignited automatically if it goes out inadvertently. For example, if the flame is extinguished due to over-boiling of liquids and cannot be re-ignited, the burner automatically shuts the gas supply off for safety.

## Easy operation

Switch flame on and off at the touch of a button. Optionally, the *Gasprofi 1 SCS micro school edition* can also be operated by a foot pedal\* or an external DoubleClick IR-Sensor\*.



\*optional

	gasprofi 1 <sup>SCS</sup> micro school edition	gasprofi 1 <sup>SCS</sup> micro
<b>Programs:</b>		
Button function	✓	✓
Pedal Standard	✓	✓
Pedal Start-Stop		✓
Sensor Auto-Off & Start-Stop		✓
<b>Safety Control System SCS®</b>	✓	✓
Residual heat display		✓
Burner Head Control BHC		✓
<b>Foot pedal included</b>		✓
<b>DoubleClick IR-Sensor</b>		✓
<b>Gas inlet filter</b>	✓	✓
<b>Removable &amp; decomposable burner head</b>	✓	✓
<b>Housing, burner head, gas connection &amp; controls made of stainless steel</b>	✓	✓
<b>DVGW approved</b>	✓	✓
<b>Art.-No.</b>	<b>6.007.000</b>	<b>6.004.000</b>

# gasprofi 1<sup>SCS</sup> *micro*

## Multi-Use

The *Gasprofi 1 SCS micro* can be operated with touch free IR-Sensor, button function or foot pedal. For all options, different programs exist that have been developed from practical experience: flexible start-stop functions, continuous application for up to 60 minutes or programs for short flame sterilization – exact to the second.

## Innovative - The DoubleClick IR-Sensor

This safety function ensures that the burner can only be ignited by activating the DoubleClick IR-Sensor twice. As a result, unintentional ignition or ignition due to dropping or falling objects is virtually impossible, increasing safety considerably.

## Top-off-the-Line safety

In addition to the ignition and flame control function and the overheating protection, the Safety Control System SCS® 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: After prolonged use, the residual heat display will signal that the burner head is still hot in order to protect the user from burns.





## The range:

**gasprofi 1<sup>SCS</sup> school edition**  
*micro*

**Art.-No. 6.007.000**

with button function  
2 standard programs  
for button (function knob) and foot pedal  
Safety Control System (SCS)  
Stainless steel foot pedal optional e.g.: **Art.-No. 6.000.402**

**gasprofi 1<sup>SCS</sup>**  
*micro*

**Art.-No. 6.004.000**

with DoubleClick IR-Sensor, button function  
and stainless steel foot pedal  
5 standard programs for IR-Sensor,  
button (function knob) and foot pedal  
Adjustable IR-Sensor reaction distance  
Safety Control System (SCS)  
with Burner Head Control (BHC) and residual heat display  
Holding device for 3 inoculation loop holders

## The range for both models:

Removable and decomposable burner head  
Tilt mechanism, right / left  
Nozzles for natural gas, propane / butane gas  
Turbo flame  
Wrench 17 mm for gas connection  
Screwdriver for burner head and cover of burner shaft  
Tubing connector with swivel nut  
Switching power supply (global, level 6)  
Instruction manual and 2-year warranty



## Technical Data:

### Programs

Button:  
Foot pedal:

Start-Stop with timer, 60 min  
Standard (flame during pressed foot pedal)  
Start-Stop with timer, 60 min<sup>1</sup>  
Start-Stop with timer, 60 min  
Auto-Off with learn function, 1 sec - 60 min

IR Sensor<sup>1</sup>:

### Safety features

Safety Control System (SCS)  
with gas safety cut off:

ignition and flame control  
temperature monitor  
automatic unit switch off, 10 min / 4 h  
burner head clogging  
and assembly monitor  
indicates a hot burner head

Burner Head Control (BHC)<sup>1</sup>:

Residual heat display<sup>1</sup>:

### Gas supply and consumption

Gas connection:  
Gas types:

1/4" left with gas filter  
natural gas E/LL, 18 - 25 mbar  
liquid gas 47.5 - 57.5 mbar, I<sub>2</sub>ELL3B/P:  
95 l/h natural gas (LL), 70 g/h liquid gas  
Campingaz: CV 360 - 40 min, C 206 - 170 min,  
CP 250 - 210 min, CV 470 - 370 min,  
CG 1750 - 150 min, CV 300 - 200 min  
Guilbert: Express 444 / 445 - 50 min  
Coleman: C 250 - 160 min, C 500 - 320 min

Connected load:  
Continuous cartridge operation:  
(approx.)

### Temperatures

Flame temperature:

1350 °C on liquid gas  
1300 °C on natural gas (E)  
Temperature threshold level:  
liquid gas: 1.0 kW  
natural gas (E): 1.0 kW, natural gas (LL): 0.90 kW

### Electrical

Power consumption:  
Switching power supply (global):

2 VA (Stand-by max 0.1 VA)  
100-240 V / 50/60Hz / max. 0.3 A; 9V DC / 1.3 A  
Level 6 (Stand-by max. 0.1 W)

IR-Sensor coverage<sup>1</sup>:  
DoubleClick IR-Sensor<sup>1</sup>:

35 - 70 mm, adjustable  
time range 1 sec

### Mechanical

Casing and operating controls:

stainless steel / glass, UV and solvent resistant  
flame-sterilizable

Burner head:  
Cover of burner shaft:  
Measurements (w x h x d):  
Weight:

removable and decomposable, stainless steel  
Ø 23 mm, with drains  
85 x 49 x 86 mm  
700 g

### Licenses

DIN-DVGW Reg.-No.:  
CE:  
EU guidelines:

NG-2211AS0167  
EN 61326-1, EN 61010-1, EN61010-2-010  
2014/30/EU, 2014/35/EU & 2011/65/EU

<sup>1</sup> only Gasprofi 1 SCS micro



### Windshield

stainless steel, for a stable flame  
under conditions of strong air flow  
**Art.-No. 8.000.600**



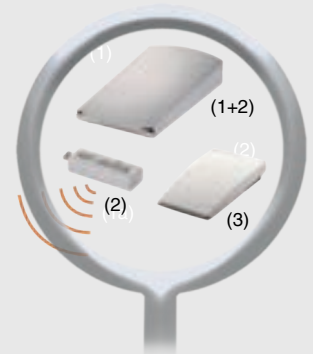
### Spray protector

for more safety when handling  
with pathogenic material  
**Art.-No. 6.000.200**



### Autoloop Pro

fully automatic carousel for  
flame sterilizing inoculation loops  
**Art.-No. 6.000.400**



### (1) Foot pedal

stainless steel, cable length 3.0 m  
**Art.-No. 6.000.402**

### (2) Foot pedal radio set RF-Stick

only available in EU countries  
**Art.-No. 6.000.404-RF**

### (3) Foot pedal Mini

plastic, cable length 3.0 m  
**Art.-No. 6.000.403**



### Safety adapter

with integrated pressure regulator  
for gas cartridges **CV 360**  
**Art.-No. 8.000.700**



### External IR - Sensor

touch-free flame activation,  
stainless steel, cable length 0.4 m  
**Art.-No. 6.000.406**



### Burner head

double length, decomposable  
and autoclavable  
**Art.-No. 8.100.091**



**Additional accessories**  
see page 18-19



# *Autoloop* PRO



Carrousel for flame  
sterilizing inoculation loops

# Autoloop<sup>PRO</sup>

## The fully automatic carousel for flame sterilizing inoculation loops.

The inoculation loop carousel *Autoloop<sup>PRO</sup>*, which is suitable for up to 4 inoculation loops, was developed to comply with current requirements in microbiological, cellbiological and biotechnological laboratories.

### Modern design

The stable housing enables comfortable and easy access to inoculation loops. Removal positions on both sides make the carousel equally suitable for right and left handers.

### More comfort

Keep all functions in view with the fully graphic display. The graphic menu control makes it easy to select all functions quickly. Flaming and cooling time can be adjusted to the second. During the flame sterilizing, the display shows the remaining flaming time. The *Autoloop<sup>PRO</sup>* rotates and controls flaming automatically.

No unintentional use of hot inoculation loops: When flaming is completed, the display shows the remaining cooling time and the removal positions of cool inoculation loops. All the suspended inoculation loops can be flamed as needed in one full rotation of the carousel. For additional flame sterilization (e.g. of bottle necks or test tubes) a foot pedal\* can be activated during the automatic operation. For this purpose the *Autoloop<sup>PRO</sup>* turns the inoculation loop out of the flame position and enables additional flame sterilization.

### More safety

The nearly perpendicular position of the inoculation loop holder protects even the sleeve nut of the holder from possible contaminations. Additionally, an intelligent sensor of the *Autoloop<sup>PRO</sup>* monitors safe sterilization.

### Saves energy, time and costs

Precise flame sterilization time extends the life of the inoculation loops and reduces gas consumption. Continuous working during the flaming and the cooling phases of the inoculation loops saves a great deal of time and makes it possible to work efficiently.

### Robust

Fabricated entirely of stainless steel, anodized aluminium and a display, protected by heat resistant glass, the *Autoloop<sup>PRO</sup>* can withstand extreme laboratory conditions.

\* foot pedal optional



#### Easy to use

All parameters are easy to set; quick start button for immediate start.



#### Mount safely

Coordinated mounts and reliable optical detectors for inoculation loop holders.



#### Optimal sterilization

Sterilization monitor for safe sterilization of inoculation loops.



**Start options**

Start immediately or sterilize all inoculation loops in a full rotation.



**Flame time**

Precise settings of the required flame sterilization time.



**Cooling period**

The cooling time can be set for the inoculation loop material used - exact to the second.



**Sterilization monitor**

An intelligent sensor monitors the safe sterilization. Three setting options /off switch.



**Additional flame sterilization**

e.g. of bottle necks or test tubes during the automatic operation by activating a foot pedal.



**Everything visible at a glance**

Removal positions of cool inoculation loops or the remaining cooling time, residual heat display and sterilization time.



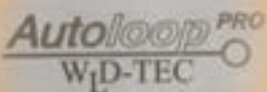
*Autoloop*<sup>PRO</sup> with Fuego SCS / pro



*Autoloop*<sup>PRO</sup> with Fuego SCS basic / RF



*Autoloop*<sup>PRO</sup> with gasprofi 1 SCS micro

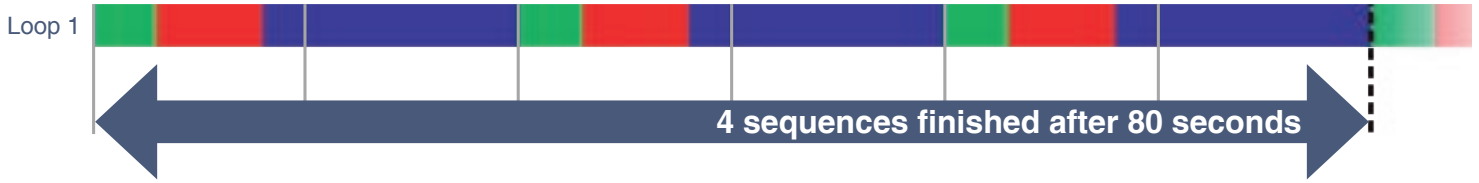


**SAVE UP TO 70% TIME**

# Speed-up Flame Sterilizing Inoculation Loops and Cut Down Your Costs!

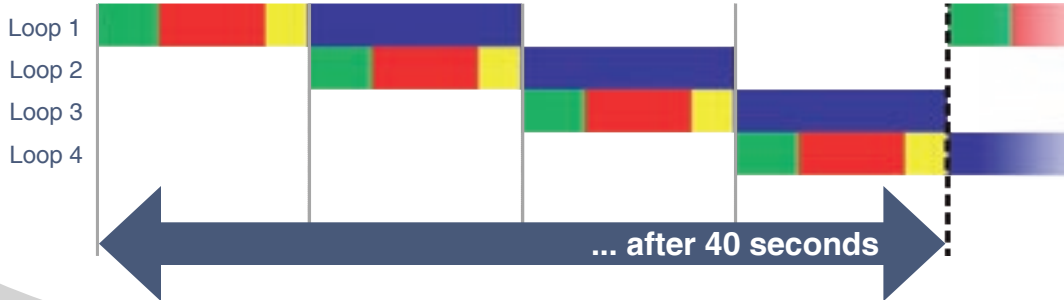


**Case 1: Bunsen Burner & 1 Inoculation Loop**

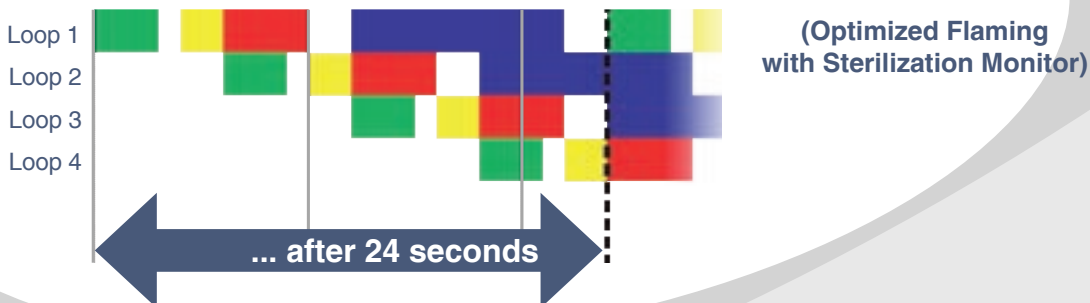


- Working with inoculation loop
- Flaming inoculation loop
- Time to change loops
- Cooling down period

**Case 2: Fuego SCS & 4 Inoculation Loops placed on a Tray**



**Case 3: Fuego SCS with Automated Carousel Autoloop Pro & 4 Inoculation Loops**



**Working with the Autoloop Pro (Case 3):**  
 Save 70% working time compared to Case 1  
 Save 40% working time compared to Case 2



**Compared to Case 2 the Autoloop Pro has paid off after approx. 50 working hours!\***



## The range:

# Autoloop<sup>PRO</sup>

4 inoculation loop holders  
4 inoculation loops  
Pedestal  
Foot pedal connector  
Instruction manual  
2-year warranty

Laboratory gas burner **not** included

### for Fuego SCS - Series

Art.-No. 8.000.400

### for Gasprofi 1 SCS micro - Series

Art.-No. 6.000.400



made  
in  
Germany



## Technical data:

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
Additional flame sterilization:	by foot pedal (optional)
Safety features:	temperature control flame activation warning indicator of remaining cooling time 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 gas burner (foot pedal socket)
Casing:	stainless steel & aluminum, UV and solvent resistant
Measurements:	Pedestal (Art.-No. 8.000.400): 135 x 180 mm (w x d) Pedestal (Art.-No. 6.000.400): 135 x 135 mm (w x d) height <i>Autoloop<sup>PRO</sup></i> : 305 mm
Weight:	Art.-No.: 8.000.400: 1200 g Art.-No.: 6.000.400: 1100 g
CE:	EN 61326-1, EN 61010-1, EN 61010-2-010
EU guidelines:	2014/35/EU, 2014/30/EU, 2011/65/EU



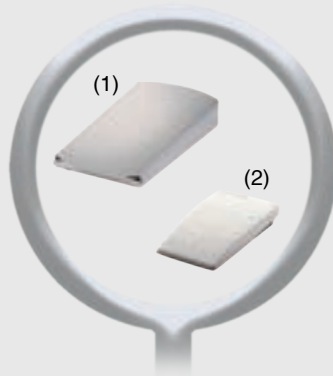
**Inoculation loop holder**  
stainless steel, with sleeve nut,  
for inoculation loops  
with wire Ø 0.6 - 1 mm

Length 245 mm

Art.-No. 6.000.360

Length 215 mm

Art.-No. 6.000.365



### (1) Foot pedal

stainless steel, cable length 3.0 m

Art.-No. 6.000.402

### (2) Foot pedal Mini

plastic, cable length 3.0 m

Art.-No. 6.000.403



### Inoculation loops, wire Ø 0.6 mm

Special stainless steel

Ø 3 mm Art.-No. 6.000.373

Ø 5 mm Art.-No. 6.000.375

Platinum / Iridium

Ø 1 mm Art.-No. 6.000.381

Ø 3 mm Art.-No. 6.000.383

Ø 5 mm Art.-No. 6.000.385



### Tray, mobile

stainless steel, 5 places

Art.-No. 6.000.320



### Spray protector for *Autoloop<sup>PRO</sup>*

for more safety when handling with  
pathogenic material

Art.-No. 6.000.210

### Suitable gas burners

see page 3-12

Accessories



**Windshield**

stainless steel, for a stable flame under conditions of strong air flow

**Art.-No. 8.000.600**



**Spray protector**

for more safety when handling with pathogenic material of strong air flow

**Art.-No. 6.000.200**



**Burner head**

stainless steel, double length for better heating of Erlenmeyer flasks, decomposable, dishwasher-proof and autoclavable

**Art.-No. 8.100.091**



**Tray**

stainless steel, right, left or rear side for Fuego SCS - Series

**Art.-No. 8.000.340**

for Gasprofi 1 SCS micro - Series

**Art.-No. 6.000.341**



**Tray mobil**

stainless steel, 5 places

**Art.-No. 6.000.320**



**External IR - Sensor**

touch-free flame activation, stainless steel, cable length 0.4 m

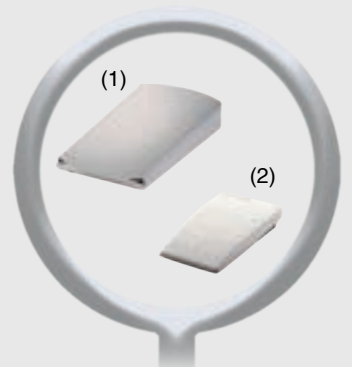
**Art.-No. 6.000.406**



**Foot pedal radio set RF Stick**

cable-free foot pedal operation, simply connect the RF-Stick and control the gas burner with wireless radio technology (available in EU countries only) for Fuego SCS - Series and Gasprofi 1 SCS micro - Series (as of Serial-No. 05...)

**Art.-No. 8.000.404-RF**



**(1) Foot pedal**

stainless steel, cable length 3.0 m

**Art.-No. 6.000.402**

**(2) Fußpedal Mini**

plastic, cable length 3.0 m

**Art.-No. 6.000.403**



**Inoculation loop holder**

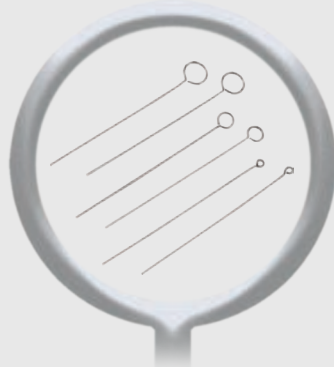
stainless steel, with sleeve nut, for inoculation loops with wire Ø 0.6 - 1 mm

Length 245 mm

**Art.-No. 6.000.360**

Length 215 mm

**Art.-No. 6.000.365**



**Inoculation loops, wire Ø 0.6 mm**

Special stainless steel

Ø 3 mm **Art.-No. 6.000.373**

Ø 5 mm **Art.-No. 6.000.375**

Platinum / Iridium

Ø 1 mm **Art.-No. 6.000.381**

Ø 3 mm **Art.-No. 6.000.383**

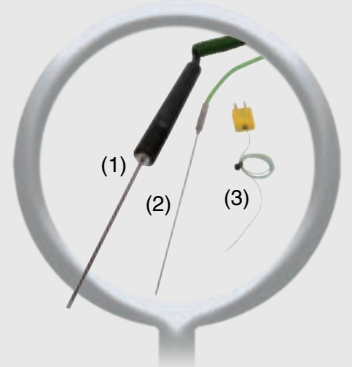
Ø 5 mm **Art.-No. 6.000.385**



**Measuring adapter**

for thermocouples, type K, temperature range from +35 °C to +350 °C (only Fuego SCS / Fuego SCS pro as of Serial-No. 12Z...)

**Art.-No. 8.200.230**



**Thermocouple type K**

(only Fuego SCS / Fuego SCS pro as of Serial-No. 12Z...)

(1) Immersion sensor Ø 3 mm with handle, sensor length 130 mm, helix connection cable

**Art.-No. 8.200.240**

(2) Immersion sensor Ø 1.5 mm, sensor length 150 mm, bendable, cable length 2 m

**Art.-No. 8.200.241**

(3) Air sensor, PTFE insulated, cable length 1 m

**Art.-No. 8.200.242**



**Safety adapter**  
with integrated pressure regulator  
for gas cartridges **CV 360**  
**Art.-No. 8.000.700**  
for gas cartridges **Express 444**  
**Art.-No. 6.000.750**



**Safety adapter C 206**  
with integrated pressure regulator,  
gas leak protection and DVGW-tubing  
(0.5 m) for gas cartridges **C 206**  
**Art.-No. 6.000.800**



**Safety adapter CV**  
with integrated pressure regulator,  
gas leak protection, DVGW-tubing  
(0.5 m) and stainless steel stand  
for gas cartridges  
**CV 470 Art.-No. 6.000.850**  
**CV 300 Art.-No. 6.000.831**



**DVGW low pressure regulator**  
DIN 4811-4, for household liquid  
gas installation, with overpress.-,  
temperature- fuse & manometer,  
for **gas bottles up to 14 kg**  
**Art.-No. 6.000.150**



**Safety adapter CP 250**  
with integrated pressure regulator  
and DVGW-tubing (0.5 m)  
for gas cartridges **CP 250**  
**Art.-No. 6.000.820**



**Safety adapter CG 1750**  
with integrated pressure regulator,  
DVGW-tubing (0.5 m) and stainless steel  
stand for gas cartridges with 7/16" x 28  
UNEF-thread, e.g. **CG 1750**  
**Art.-No. 6.000.810**



**Tubing deflector**  
for front side gas connection  
**Art.-No. 6.000.124**



**90° connection**  
for sidewise tubing connection  
**Art.-No. 6.000.123**

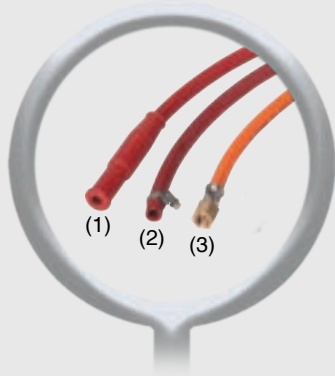


**Gas cartridges propane / butane**  
with valve

- (1) CV 360, 52 g **Art.-No. 6.000.180**
- (2) CV 300, 240 g **Art.-No. 6.000.183**
- (3) CV 470, 450 g **Art.-No. 6.000.185**
- (4) CP 250, 250 g **Art.-No. 6.000.192**
- (5) CG 1750, 170 g **Art.-No. 6.000.181**
- (6) Express 444, 60 g **Art.-No. 6.000.182**

without valve

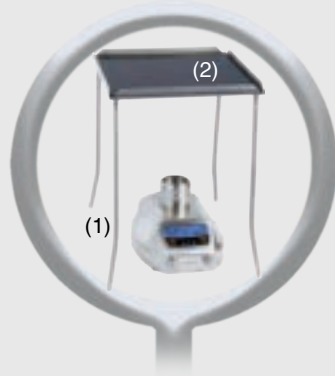
- (7) C 206, 190 g **Art.-Nr. 6.000.190**



**DVGW-Safety tubing**

- (1) for push-fit connection (0.5 m)  
**Art.-No. 6.000.102**
- (2) for push-fit connection,  
with 2 tubing clips (0.5 m)  
**Art.-No. 6.000.101**
- (3) for threaded connection (0.5 m)  
**Art.-No. 6.000.112**

other length on demand



**(1) Quadrupod**

155 x 155 x 210 mm (l x w x h)  
**Art.-No. 6.000.930**

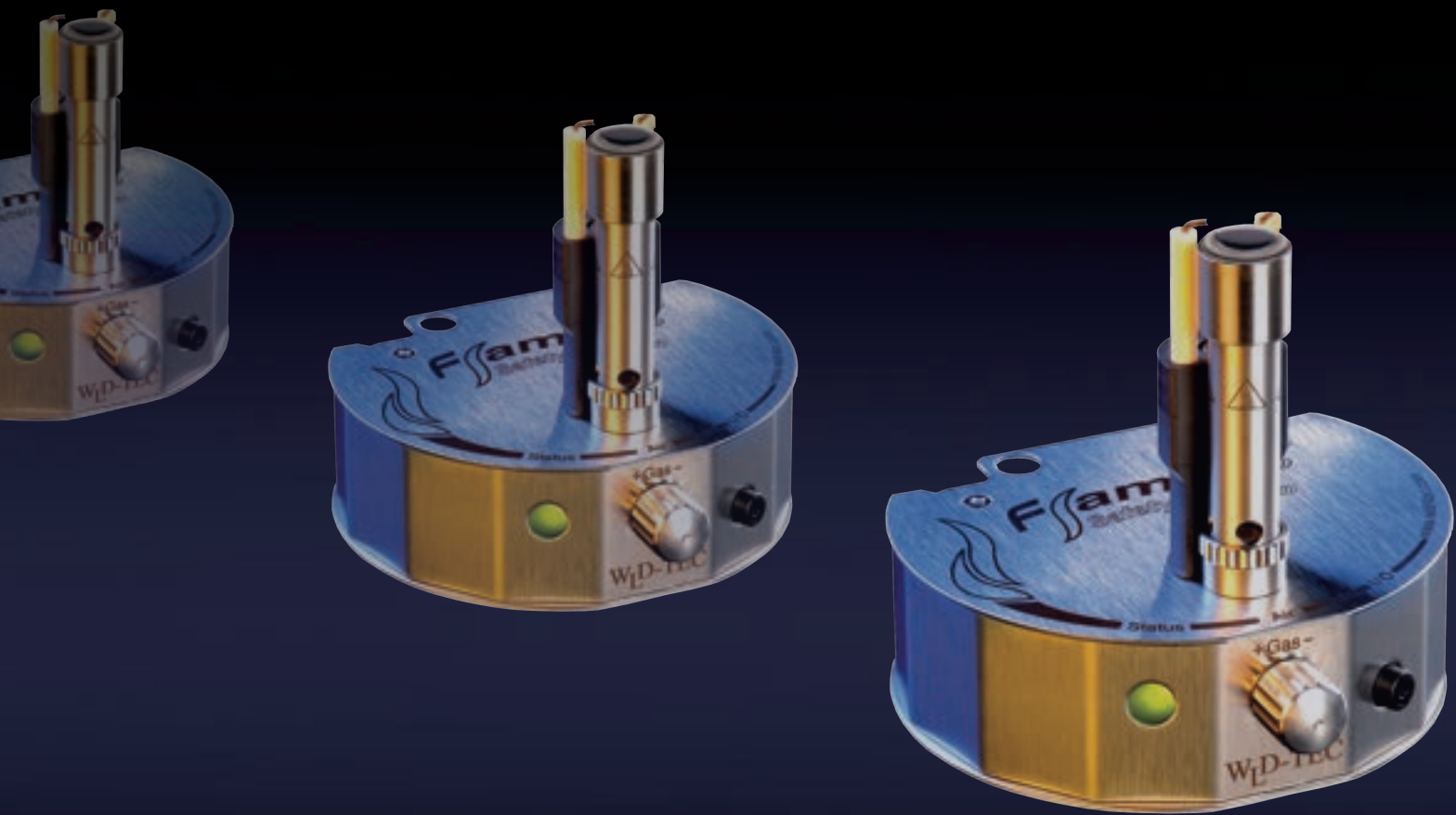
**(2) Ceran cover plate**

155 x 155 mm (l x w)  
**Art.-No. 6.000.931**



**External charging station**

for rechargeable batteries:  
Mignon (AA), NiMH  
(only Fuego SCS pro)  
**Art.-No. 8.000.950**



- 🔥 **Innovative safety technology**
- 🔥 **Flame without match**
- 🔥 **Easy handling**



# *Flame*<sup>100</sup> Safety Bunsen



Safety Laboratory  
Gas Burner

## The Flame<sup>100</sup> – sets new standards in the Bunsen burner class! The safe alternative for all traditional Bunsen or alcohol burners!

### Multi-Use

The Flame<sup>100</sup> is ideally suited for all flame related applications in the laboratory. The 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<sup>100</sup> activates immediately with the push of a button. No match or a pilot flame are required. Optionally, the Flame<sup>100</sup> can also be operated by a foot pedal\* or an external IR - Sensor\*.

The Flame<sup>100</sup> 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<sup>®</sup> is also incorporated in the Flame<sup>100</sup>. 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 unflinchingly identifies burner head clogging by liquids or solid substances. Compared with a conventional Bunsen burner, the Flame<sup>100</sup> with the safety standard "SCS" eliminates the risk of a gas leak or an explosion.

### Efficient

The Flame<sup>100</sup> 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 sturdy

The housing and burner tube of the Flame<sup>100</sup> are made of stainless steel. The removable burner tube makes cleaning easy and the small foot print is an advantage for any lab bench.

**Flame<sup>100</sup> - for a safe flame in the laboratory!**

\* optional

### The range:



Art.-No. 2.100.000

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 17 mm for gas connection  
Tubing connector with swivel nut  
Screwdriver for electrode holder  
Switching power supply (global, level 6)  
Instruction manual and 2-year warranty  
Stainless steel foot pedal optional e.g.: Art.-No. 6.000.402



### Technical Data:

#### Programs

Button: Start-Stop with timer, 60 min  
Foot pedal (optional): Standard, flame during pressed foot pedal

#### Safety features

Safety Control System (SCS)  
with gas safety cut off: ignition and flame control  
temperature monitor  
burner head clogging monitor (BHC),  
automatic unit switch off after 4 h

#### Gas supply and consumption

Gas connection: 1/4" left with gas filter  
Gas types: natural gas E/LL, 18 - 25 mbar,  
liquid gas 47.5 - 57.5 mbar, I<sub>2</sub>ELL3B/P  
43 g/h liquid gas, 49 l/h natural gas (LL)  
Connected load: Campingaz: CV 360 - 65 min, C 206 - 230 min,  
CP 250 - 305 min, CV 470 - 550 min,  
CG 1750 - 210 min, CV 300 - 290 min  
Continuous cartridge operation: (approx.)  
Guilbert: Express 444 / 445 - 70 min  
Coleman: C 250 - 230 min, C 500 - 440 min

#### Temperatures

Max. Flame temperature: 1200 °C on liquid gas  
1170 °C on natural gas (E)  
Temperature threshold level: 0.55 kW liquid gas, 0.50 kW natural gas (E)  
0.40 kW natural gas (LL)

#### Electrical

Power consumption: 2 VA (Stand-by max 0.1 VA)  
Power connection (global): 100-240V / 50/60Hz / max. 0.3A; 9V DC / 1.3A  
Level 6 (Stand-by max. 0.1 W)

#### Mechanical

Burner tube: removable, stainless steel  
Measurements (w x h x d): 89 x 34 x 88 mm  
Height with burner tube: 4 mm  
Weight: 385 g

#### Licenses

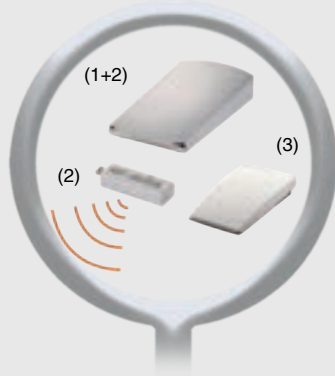
DIN-DVGW Reg.-No.: NG-2211AS0167  
CE: EN 61326-1, EN 61010-1, EN 61010-2-010  
EU guidelines: 2014/35/EU, 2014/30/EU, 2011/65/EU



**Safety adapter with DVGW-tubing (0.5 m) and pressure regulator**

for gas cartridges:

- C 206: **Art.-No. 6.000.800**
- CP 250: **Art.-No. 6.000.820**
- CG1750: **Art.-No. 6.000.810**
- CV 300: **Art.-No. 6.000.830**
- CV 470: **Art.-No. 6.000.850**



**(1) Foot pedal**  
stainless steel, cable length 3.0 m  
**Art.-No. 6.000.402**

**(2) Foot pedal radio set RF-Stick**  
only available in EU countries  
**Art.-No. 6.000.404-RF**

**(3) Foot pedal Mini**  
plastic, cable length 3.0 m  
**Art.-No. 6.000.403**



**Spray and Wax protector**  
stainless steel base and glass cylinder  
**Art.-No. 2.000.200**

without glass cylinder  
**Art.-No. 2.000.201**



**Inoculation loop holder**  
stainless steel, with sleeve nut, for inoculation loops with wire Ø 0.6 - 1 mm

- Length 245 mm  
**Art.-No. 6.000.360**
- Length 215 mm  
**Art.-No. 6.000.365**



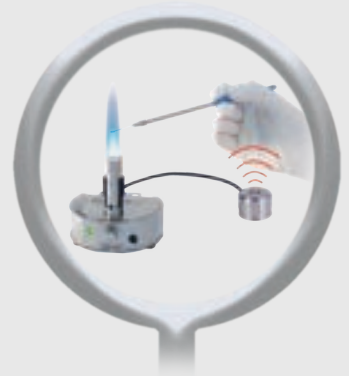
**Safety adapter 360**  
with integrated pressure regulator for gas cartridges CV 360  
**Art.-No. 2.000.701**



**Windshield**  
stainless steel, for a stable flame under conditions of strong air flow  
**Art.-No. 2.000.600**



**Tilt adjustment**  
stainless steel  
**Art.-No. 2.000.300**



**External IR - Sensor**  
touch-free flame activation, stainless steel, cable length 0.4 m  
**Art.-No. 6.000.406**

**F flame**<sup>100</sup>  
Safety Bunsen

**Programs:**

- Button function ✓
- Pedal Standard (foot pedal optional) ✓

- Safety Control System SCS®** ✓
- Brennerkopfüberwachung (BHC) ✓

- Gas inlet filter** ✓

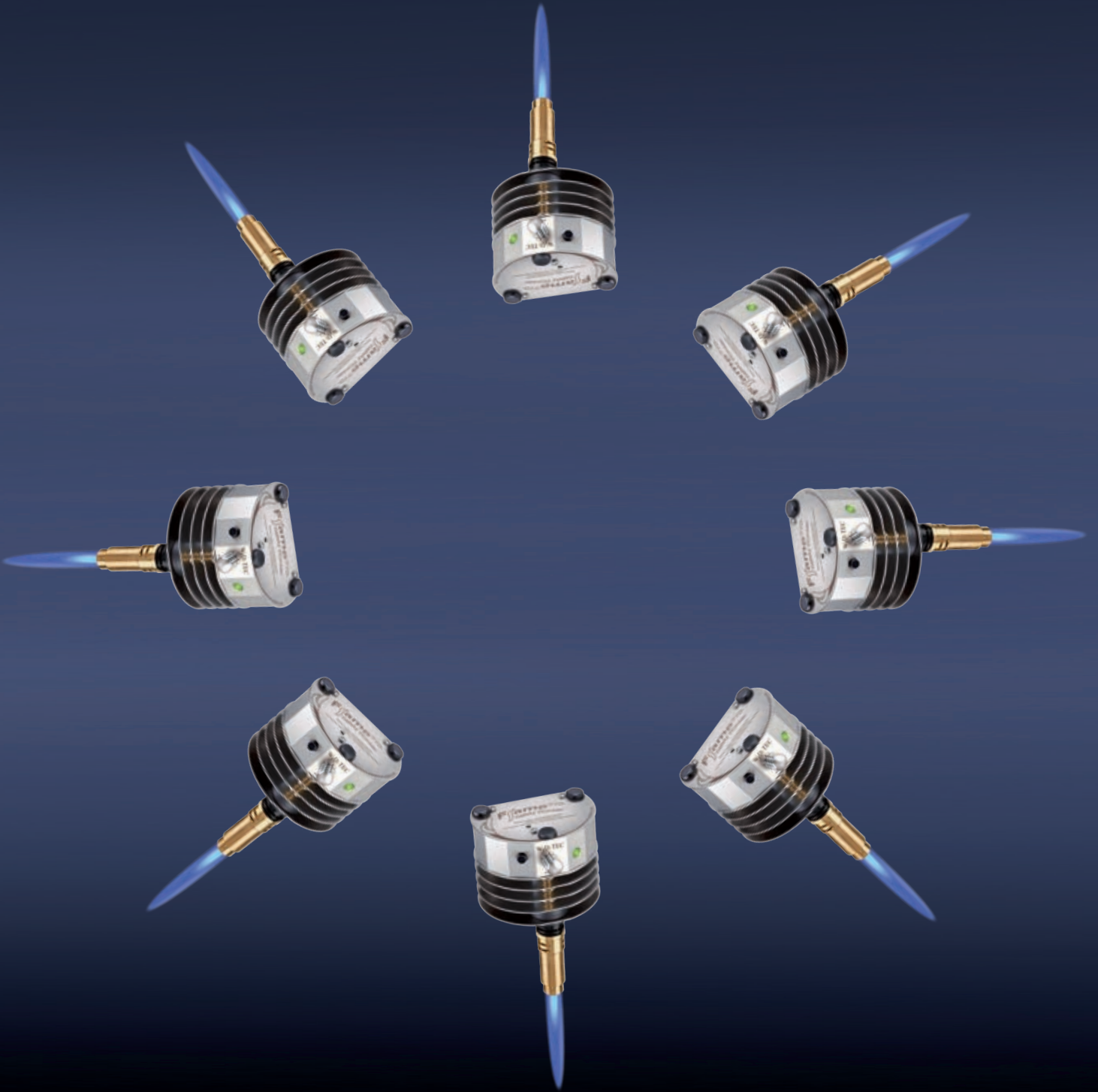
- Removable & decomposable burner head** ✓

- Housing, burner head, gas connection & controls made of stainless steel** ✓

- DVGW approved** ✓



Inoculation loop holder





# *F*ame<sup>110</sup> Safety Bunsen



Flaming  
from any angle

## The Flame<sup>110</sup> – the extraordinary precision burner

Are you looking for a solution to heat or flame any item under any angle - even upside down?

**Here is what you need:** Our new precision burner *Flame<sup>110</sup>*!

### Multi-talent

The *Flame<sup>110</sup>* 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 - Sensor\*. Safety is built-in and always active (overheat protection and automatic re-ignition).

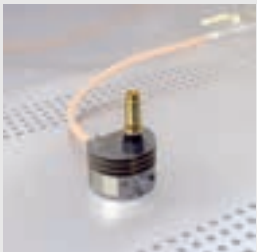
### Compact and efficient

Stainless steel, efficient cleaning, small footprint, exclusive variability and convincing economics are vital for any type of laboratory and industrial workstation. *Flame<sup>110</sup>* 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

\* optional

## Flaming from any angle



standard



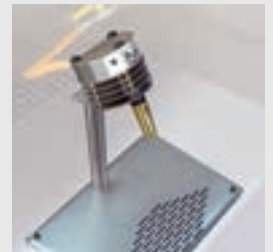
sidewise (left)



sidewise (right)



horizontal



overhead



### Programs:

Button function ✓  
Pedal Standard (foot pedal optional) ✓

### Gas inlet filter



### Removeable burner head



Housing, gas connection & controls made of stainless steel



DVGW approved



## The range:

# Flame<sup>110</sup>

Safety Bunsen

Art.-No. 2.110.000-L

Nozzle for propane / butane gas  
Removable special burner head  
Bracket with 2 wing nuts for  
upside down mounting  
Wrench 17 mm  
Switching power supply  
(global, level 6)  
Instruction manual  
2-year warranty



### Industrial version:

on request



## Technical Data:

### Programs

Button:  
Foot pedal (optional):

Start-Stop with timer  
flame during pressed foot pedal

### Safety features

with gas safety cut off:

re-ignition 1 x per second  
overheat protection  
automatic unit switch off, 4h  
pressure monitoring at approx. 3.5 to 4 bar  
tilt sensor for overhead usage

### Gas supply and consumption

Gas connection:  
Gas types:  
Connected load:  
Cartridge operation (type - time):

1/4" left hand thread with gas filter  
I3P 1.5 bar liquid gas  
38 g/h  
C 206 - 4.5 h / CV 300 - 6 h / CV 470 - 11 h

### Flame characteristics

Max. flame temperature:  
Flame measurements (h x Ø):  
Temperature threshold level:

approx. 1200 °C  
max. 120 x 10 mm  
500 W

### Electrical

Power consumption:  
Switching power supply (global):

2 VA (stand-by max 0.1 VA)  
100-240V / 50/60Hz / max. 0.3A; 9V DC / 1.3A  
Level 6 (stand-by max. 0.1 W)

### Mechanical

Burner head:  
Dimensions (h x Ø) / with burner head:  
Weight:

removable  
75 x 88 mm / 135 x 88 mm  
580 g

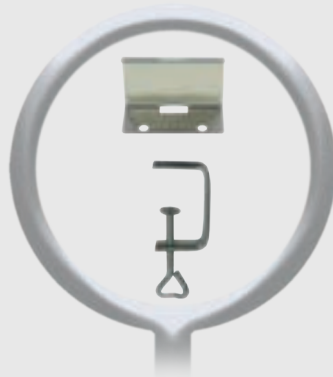
### Licenses

DIN-DVGW Reg.-No.:  
CE:  
EU guidelines:

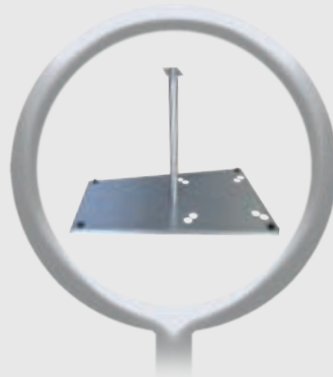
NG-2211AS0167  
EN 61326-1, EN61010-1, EN61010-2-010  
2014/30/EU, 2014/35/EU, 2011/65/EU



**Bracket sidewise  
right / left  
stainless steel**  
Art.-No. 2.110.400



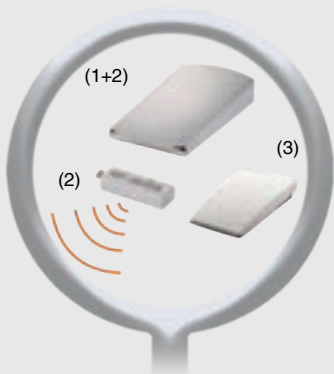
**Bracket horizontal  
stainless steel**  
Art.-No. 2.110.450



**Base bracket overhead  
with fixing holes for  
CV 300 / 470 holder,  
stainless steel**  
Art.-No. 2.110.490



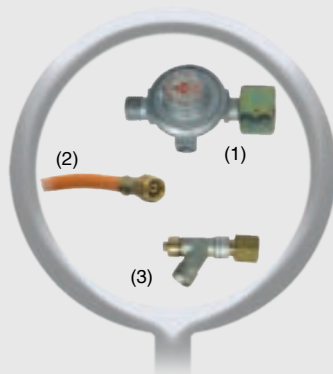
**External IR - Sensor  
touch-free flame activation,  
stainless steel, cable length 0.4 m**  
Art.-No. 6.000.406



**(1) Foot pedal**  
stainless steel, cable length 3.0 m  
Art.-No. 6.000.402

**(2) Foot pedal radio set  
RF-Stick**  
only available in EU countries  
Art.-No. 6.000.404-RF

**(3) Foot pedal Mini**  
plastic, cable length 3.0 m  
Art.-No. 6.000.403



**(1) Safety medium pressure  
regulator 1.5 bar - for gas bottles**  
with 5, 11 or 33 kg  
Art.-No. 2.110.150

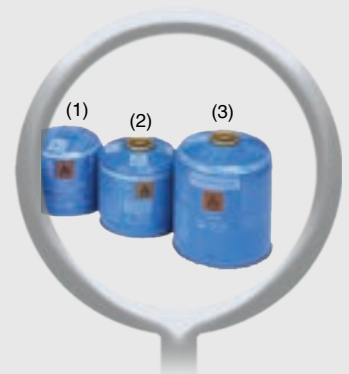
**(2) DVGW-Safety tubing**  
for threaded connection  
3/8" L ↔ 1/4" L (1.5 m)  
Art.-No. 2.110.310

**(3) Gas leak protection 1.5 bar**  
Art.-No. 2.110.131



**Safety adapter for gas cartridges**  
with integrated pressure regulator,  
gas leak protection and  
DVGW-tube (0.5 m)  
C 206 - 1.5: Art.-No. 2.110.800

additional with stainless steel holder  
CV 300 - 1.5: Art.-No. 2.110.831  
CV 470 - 1.5: Art.-No. 2.110.850



**Gas cartridges  
propane / butane**  
without valve  
**(1) C 206**, 190 g:  
Art.-No. 6.000.190

with valve  
**(2) CV 300**, 240 g:  
Art.-No. 6.000.183

**(3) CV 470**, 450 g:  
Art.-No. 6.000.185

# smart **SteriMax**



Sterilizing

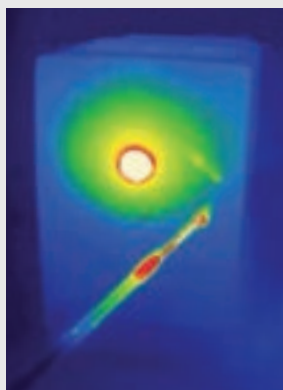


New

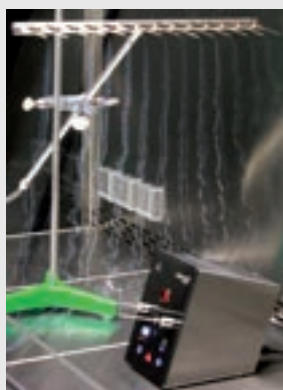
# *SteriMax* basic



by IR-HotSpot



Efficient use of energy



No air turbulences

## Infrared loop sterilizer - using IR-HotSpot technology

### High-Speed annealing and sterilizing the smartest 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 basic / 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 basic / smart* just needs to be plugged in and will be immediately ready to use, without any 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 pathogenes. The annealing tube can be slid out in a matter of seconds for easy cleaning.

### Smart operation – comfortable working

*SteriMax basic / 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. Depending on the model you can start the sterilization process via touch panel, IR-Sensor or foot pedal\*.

### Smart use of energy – minimum heat dissipation

"Thermocontrol" is the key element for an efficient use of energy. It allows a quick but smooth softstart of the infrared light, a short heating period and the re-use of residual heat for the next sterilization process. Whenever you pause, your energy consumption and heat dissipation will pause as well.

### Smart design – outstanding features

*SteriMax smart / basic* is presented in an elegant stainless steel housing with a safety glass touch panel designed for extreme laboratory environments with many unique features.

- Instantly ready to work without any warm-up period
- No ranger of combustion on the housing (Cool-Touch)
- Comfortable touch operation
- Efficient use of energy through Thermocontrol
- Annealing tube made of special quartz glass
- Very simple cleaning of the device and annealing tube

\* optional



Cool-Touch

# **SteriMax**<sup>basic</sup>

The sterilization process starts with just a fingertip on the touch panel or by pushing the foot pedal\*.

A fixed timer (10 sec.) controls the annealing of your instruments automatically.

Thermocontrol uses the residual heat and automatically shortens the energy supply for the next sterilization.

The course of the sterilization can be followed from start to end by looking upon the inoculation loop symbol.

**After that your inoculation loop is ready for use!**

\*optional



## **SteriMax**<sup>basic</sup>

## **SteriMax**<sup>smart</sup>

**Programs:**

Start via IR-Sensor		✓
Start via touch	✓	
Start via foot pedal*	✓	
2 user accounts		✓
Sterilization at start-up	✓	✓
Adjustable sterilization- / cool down period		✓
Adjustable sensor range		✓
Timer display		✓
Sterilization display	✓	✓
No warm-up period	✓	✓
Thermocontrol	✓	✓
Residual heat display	✓	✓
Buzzer		✓
Holding device for 3 WLD-TEC inoculation loop holder		✓
Cool-Touch casing	✓	✓

\*optional

# **SteriMax**<sup>smart</sup>

Touchless IR-Sensor technology starts the sterilization process automatically.

The timer can be viewed and adjusted (exact to the second) for 2 different user accounts simply by touching the panel.

Thermocontrol is using the residual heat and automatically reduces the time of sterilization up to 5 seconds.

2 adjustable timers indicate the completion of the sterilization period (5 - 10 sec.) and cooling down process (0 - 25 sec.) via the display and an audible signal.

**After that your inoculation loop is ready for use!**



## The range:

Infrared light technology and quartz glass annealing tube  
 Replacement quartz glass annealing tube (smart)  
 Inoculation loop holder with inoculation loop Ø 3 mm  
 Holding device for 3 WLD-TEC inoculation loop holders (smart)  
 Instruction manual, 2-year warranty (except parts of wear and tear)

### **SteriMax** basic

for 230 V mains voltage  
 for 120 V mains voltage  
 for 100 V mains voltage

**Art.-No. 4.101.000**  
**Art.-No. 4.102.000**  
**Art.-No. 4.103.000**

### **SteriMax** smart

for 230 V mains voltage  
 for 120 V mains voltage  
 for 100 V mains voltage

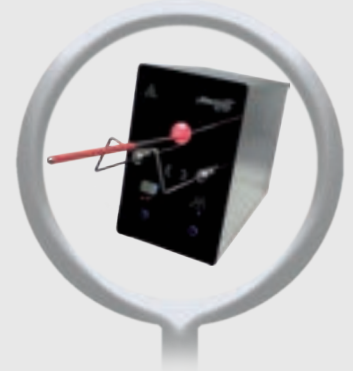
**Art.-No. 4.001.000**  
**Art.-No. 4.002.000**  
**Art.-No. 4.003.000**



made  
 in  
 Germany



**Tray, 3 places**  
 stainless steel, for right or left side  
**Art.-No. 4.000.341**



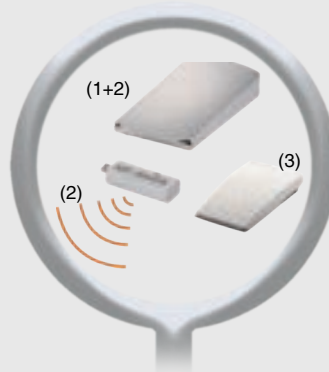
**Magnetic instrument support**  
 stainless steel  
**Art.-No. 4.000.350**



**Quartz glass annealing tube**  
**Art.-No. 4.000.400**



**Inoculation loop holder**  
 stainless steel, with sleeve nut,  
 for inoculation loops Ø 0.6 - 1 mm  
 length 245 mm  
**Art.-No. 6.000.360**  
 length 215 mm  
**Art.-No. 6.000.365**



**Foot pedals**  
 only SteriMax basic

**(1) Foot pedal**  
 stainless steel, cable length 3.0 m  
**Art.-No. 6.000.402**

**(2) Foot pedal radio set**  
**RF-Stick**  
 only available in EU countries  
**Art.-No. 6.000.404-RF**

**(3) Foot pedal Mini**  
 plastic, cable length 3.0 m  
**Art.-No. 6.000.403**



**Inoculation loops, wire Ø 0.6 mm**

Special stainless steel  
 Ø 3 mm **Art.-No. 6.000.373**  
 Ø 5 mm **Art.-No. 6.000.375**

Platinum / Iridium  
 Ø 1 mm **Art.-No. 6.000.381**  
 Ø 3 mm **Art.-No. 6.000.383**  
 Ø 5 mm **Art.-No. 6.000.385**

## Technical Data

### SteriMax smart

IR-Sensor: start of sterilization  
 sensor range (8-stages adjustable)

Touch operation: ON / OFF, 2 user accounts  
 sterilization timer 5 - 10 sec.  
 inoculation loop cooling down timer 0 - 25 sec.  
 with acoustic signal (disengageable)

Automatic unit switch off: 15, 30 or 60 min.

### SteriMax basic

Touch operation: start of sterilization (10 sec.)  
 Foot pedal\* operation: start of sterilization (10 sec.)  
 Automatic unit switch off: 15 min.

### All models

Status display: optical display of the sterilization progress  
 Thermocontrol: dynamic sterilization timer  
 Sterilization at start-up: sterilization of the annealing tube before usage  
 (disengageable for SteriMax smart)

### Annealing tube

Quartz glass: 750 °C - 1000 °C sterilization temperature

### Safety features

Residual heat display: indicates a hot annealing tube  
 Temperature monitor: thermal circuit breaker

### Electrical

Power supply: 230 V mains voltage: 220 - 240 V 50/60 Hz 2.6 A  
 120 V mains voltage: 112 - 128 V 50/60 Hz 5.1 A  
 100 V mains voltage: 95 - 105 V 50/60 Hz 6 A  
 approx. 600 W / short time (5 - 10 sec.)

Protection class: IP 20  
 Heat source: IR-Halogen lamp

### Mechanical

Quartz glass annealing tube: outer-Ø 19 mm, inner-Ø 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

### Licences

CE: EN 61326-1, EN 61010-1, EN 61010-2-010,  
 EN 62471

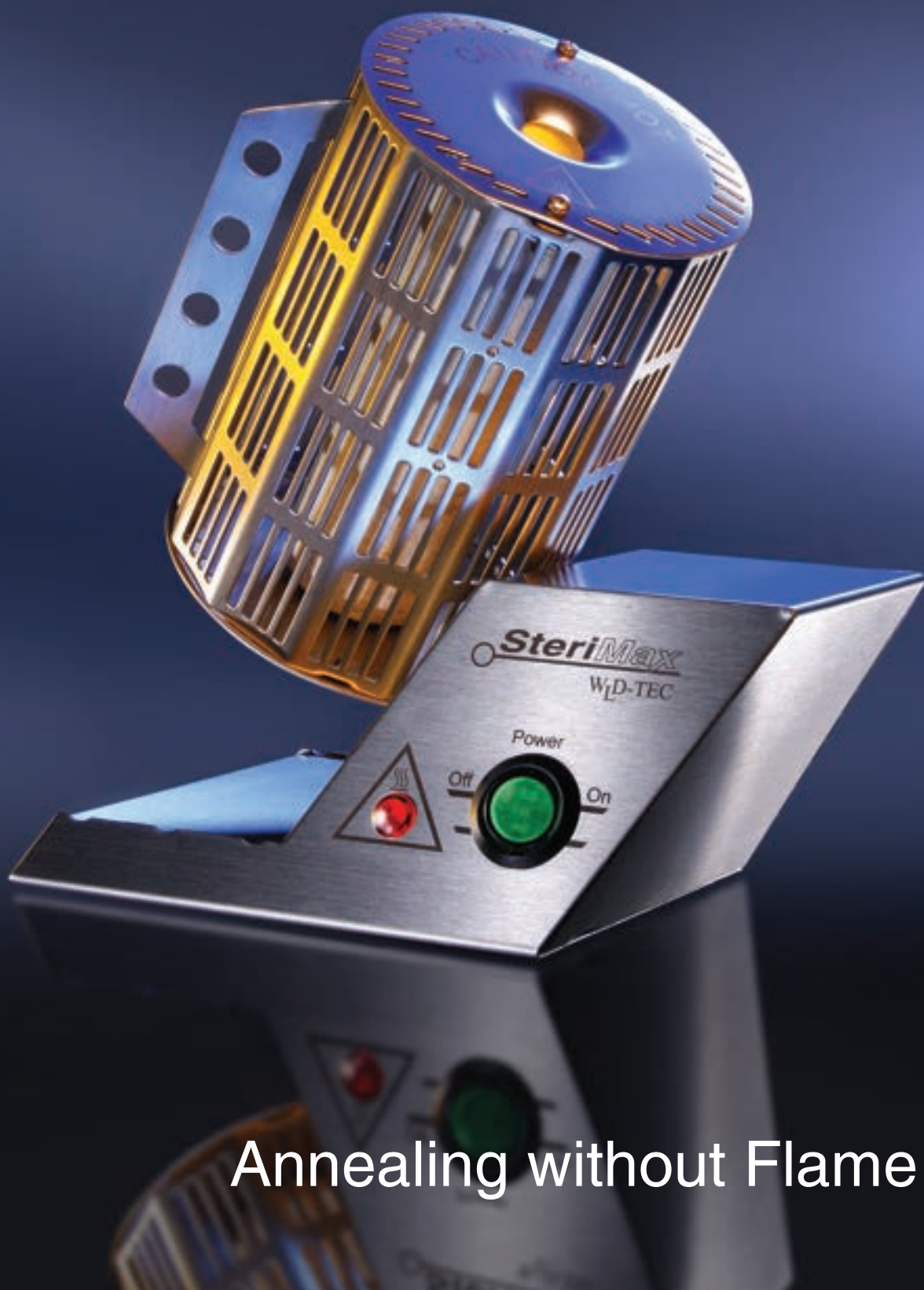
EU guidelines: 2014/30/EU, 2014/35/EU, 2011/65/EU, 2006/25/EG

Protected Design: (D) DM/082 011 (smart)  
 (U) DE 20 2016 101 067 (basic)

\* foot pedal optional



# *SteriMax*



Annealing without Flame

## Annealing without Flame!

The electrical sterilization system *SteriMax* is most suitable for the sterilization of inoculation loops, needles and instruments. It is ideal for laboratories and safety cabinets where the use of gases and open flames is not permitted.

### Robust

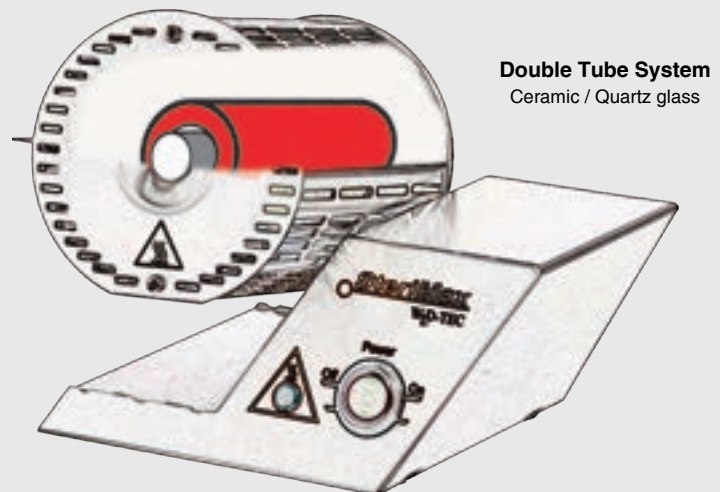
The unique double tube system, which is made of robust quartz glass and wear-resistant ceramic, reaches its optimal temperature of 900°C after only a few minutes. To sterilize the inoculation loop, simply insert it into the ceramic annealing tube. After 5 - 7 seconds, the inoculation loop is sterilized\*. A back side spray protector is integrated for more safety when handling with pathogenic material. Even clogging is not an issue. The ceramic annealing tube can be removed easily for in-depth cleaning. A 100% stainless steel design makes the *SteriMax* resistant to even the most extreme laboratory conditions.

### Flexible and safe

The sterilization tube can lock itself into place, using the specially designed angular adjusting device. The low and stable housing facilitates ergonomic operation; the unique design protects the working surface from contamination. Exceptional passive safety feature: After prolonged use, the residual heat display signals a hot surface of the sterilization tube in order to protect the user from burns.

- **Stainless steel design**
- **Long - lasting double tube system**
- **Sterilization period 5-7 seconds\***
- **Self - locking angular adjustment**
- **Two different sizes available**

\* tested with inoculation loops, WLD-TEC Art.-No. 6.000.373



Quartz glass heating element





**Holding device for WLD-TEC  
inoculation loop holders**  
suitable for all angles  
**Art.-No. 5.000.100**

**Universal support for all  
inoculation loop holders**  
for angular pos.1 - 3  
**Art.-No. 5.000.101**



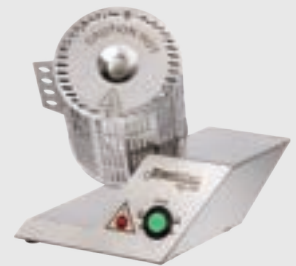
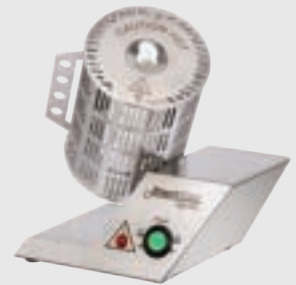
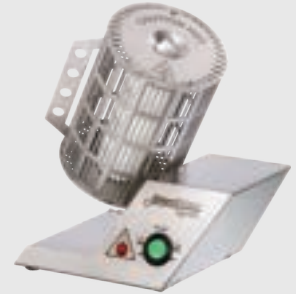
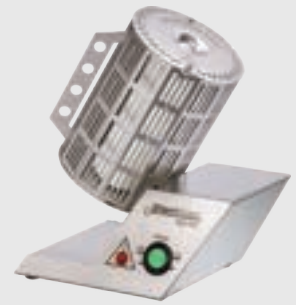
**Inoculation loop holder**  
stainless steel, with sleeve nut,  
for inoculation loops  $\varnothing$  0.6 - 1 mm  
length 245 mm  
**Art.-No. 6.000.360**  
length 215 mm  
**Art.-No. 6.000.365**



**Tray, 3 places**  
for left side,  
stainless steel  
**Art.-No. 6.000.341**



**Inoculation loops, wire  $\varnothing$  0.6 mm**  
Special stainless steel  
 $\varnothing$  3 mm **Art.-No. 6.000.373**  
 $\varnothing$  5 mm **Art.-No. 6.000.375**  
Platinum / Iridium  
 $\varnothing$  1 mm **Art.-No. 6.000.381**  
 $\varnothing$  3 mm **Art.-No. 6.000.383**  
 $\varnothing$  5 mm **Art.-No. 6.000.385**



**7 angular  
adjustments**

## The range:

# SteriMax

with 7 angular adjustments  
Residual heat display  
Inoculation loop holder and inoculation loop  
Tray for 3 instruments, screwdriver  
Instruction manual  
2-year warranty (except parts of wear and tear)

### Short version:

**Diameter Ø 15 mm, length 118 mm:**

for 230 V mains voltage  
for 120 V mains voltage  
for 100 V mains voltage

**Art.-No. 5.001.000**  
**Art.-No. 5.002.000**  
**Art.-No. 5.003.000**

### Long version:

**Diameter Ø 20 mm, length 161 mm:**

for 230 V mains voltage  
for 120 V mains voltage  
for 100 V mains voltage

**Art.-No. 5.101.000**  
**Art.-No. 5.102.000**  
**Art.-No. 5.103.000**



made  
in  
Germany



## Technical Data:

### Short version

Ceramic annealing tube: Ø 15 mm, length 118 mm  
Quartz glass heating element: Ø 21 mm  
Power consumption: 160 W  
Weight: 960 g  
Measurements (w x h x d): 175 x 129 x 139 mm  
Heating up time: 700 °C / 11 minutes  
800 °C / 14 minutes  
900 °C / 24 minutes

### Heat transfer:

a stainless steel surface located above,  
warms up at motionless air and at an  
ambient temperature of 20°C; Distance:  
20 cm: 65°C, 30 cm: 34°C, 40 cm: 28°C

### Long version

Ceramic annealing tube: Ø 20 mm, length 161 mm  
Quartz glass heating element: Ø 26 mm  
Power consumption: 225 W  
Weight: 1060 g  
Measurements (w x h x d): 175 x 129 x 169 mm  
Heating up time: 700 °C / 15 minutes  
800 °C / 22 minutes  
900 °C / 40 minutes

### Heat transfer:

a stainless steel surface located above,  
warms up at motionless air and at an  
ambient temperature of 20°C; Distance:  
20 cm: 65°C, 30 cm: 40°C, 40 cm: 32°C

### All models

Angular adjustments: 7  
Sterilization temperature: 900°C - 950°C  
Sterilization time: 5 - 7 seconds\*  
Safety features: residual heat display  
Casing: stainless steel, UV and solvent resistant  
CE: EN 61326-1, EN 61010-1, EN 61010-2-010  
EU guidelines: 2014/30/EU, 2014/35/EU, 2011/65/EU

\* tested with inoculation loops, WLD-TEC Art.-No. 6.000.373





powerjet 2



Mobil sterilizing



## The mobil handheld laboratory gas burner with piezoelectrical ignition

The solution for all flame sterilization processes in microbiology or biotechnical fields. The burner ignites immediately by pressing the button. The flame can be regulated in size and will be extinguished again by releasing the button.

Additional the button of the powerjet / powerjet 2 is equipped with a locking device. The locking device comprises both, short and long term ranges.

### powerjet

- Automatic ignition due to piezo effect
- For propane / butane gas cartridges
- Connection for gas cartridges CG 1750
- Gas supply only when button is pressed
- Stainless steel stand (optional)
- Safe handling due to one-handed operation

### powerjet 2

- Automatic ignition due to piezo effect
- For propane / butane gas cartridges and natural gas
- Connection for gas cartridges or gas tubing
- Gas supply only when button is pressed
- Stainless steel stand
- Safe handling due to one-handed operation

The range:

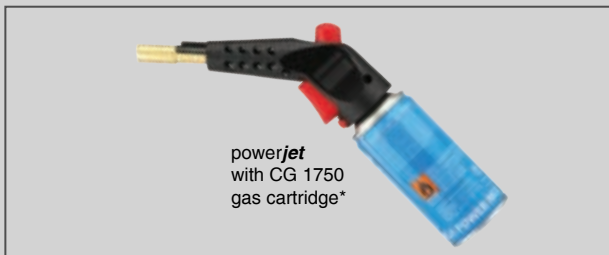
### powerjet

Art.-No. 6.005.000

for propane / butane gas cartridges with 7/16" x 28 UNEF thread  
(e.g. CG 1750 from Campingaz)  
Instruction manual, 2-year warranty

#### Technical Data:

Gas types:	liquid gas, gas cartridges
Connected load:	0.12 kg / h liquid gas
Flame temperature:	1350°C liquid gas
Temp. threshold level:	1.54 kW liquid gas
Measurements (w x h):	150 x 180 mm
Weight:	300 g



\* gas cartridge is not included in the delivery range

The range:

### powerjet 2

Art.-No. 6.006.000

for propane / butane gas cartridges and natural gas  
Adapter for gas cartridges CV 360 from Campingaz  
Tubing connector with swivel nut, stainless steel stand  
Nozzle for natural gas (08)  
Nozzle for propane / butane gas (06)  
Nozzle-box spanner, wrench 14 / 17 mm  
Instruction manual, 2-year warranty

#### Technical Data:

Gas types:	natural gas E/LL, liquid gas II <sub>2ELL3BP</sub> 20 - 50 mbar gas cartridge CV 360 (Campingaz) / Express 444
Connected load:	0.13 kg / h liquid gas
Flame temperature:	1350°C liquid gas, 1300°C natural gas (E)
Temp. threshold level:	1.7 kW liquid gas, 1 kW natural gas
Measurements (w x h):	150 x 210 mm
Weight:	500 g



\* gas cartridge is not included in the delivery range



**Stainless steel stand  
for powerjet**  
Art.-No. 6.000.816



(1) CG 1750 gas cartridge  
(2) CV 360 gas cartridge  
(3) Express 444 gas cartridge  
see page 19



**powerjet 2  
gas cartridge adapter for  
Express 444 gas cartridges**  
Art.-No. 6.006.080





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(03/18) Subject to technical changes.