schuett phoenix II

The new sense of flaming

schuett-biotec.de

Safety Bunsen Burner

For flame-sterilizing, scarfing or heating

schuett phoenix II
Unique Bunsen Burner with highest safety standard and outstanding quality features.

For operation in microbiological safety cabinets or in the chemical laboratory.

Designed for laboratory requirements in research, industry and education.

- *Operating information in written form for most international languages*
- *Easy-to-read highlighted colour display*
- *Unique joystick navigation*
- *Comfortable operation by hand, foot-switch or motion sensor mode*
- *3 models available*

schuett phoenix II standard

- *Colour display and language selection, sensor and foot-switch.*
- *Flame activation by sensor 1x or 2x, foot-switch or pressing button by hand (START/STOP).*
- *Display of burn-time (1 sec...120 min) digitally visualized and adjustable to the second in all operating modes.*

schuett phoenix II eco

- *Best suited for safety cabinets.*
- *Flame activation by foot-switch or pressing button by hand (START/STOP).*
- *Best low-cost-model.*

schuett phoenix II accu

- *Colour display and language selection, sensor and foot-switch (optional), built-in high-power battery.*
- *Ideal for mobile operation.*
- *Flame activation by sensor 1x or 2x, foot-switch or pressing button by hand (START/STOP).*
- *Display of burn-time (1 sec...120 min) digitally visualized and adjustable to the second in all operating modes and with display of battery power status.*
- *Battery operating time:*

  ***30 hours** in cyclic operation (ON_4 sec...OFF_12 sec)*
  ***15 hours** in continuous operation (ON).*
- *Complete with high-speed battery charger incl. overcharge protection, the burner may also be operated during charging process. After 3 hours of charging, the schuett phoenix II accu is ready for mobile operation again.*

User navigation - comfortable and comprehensible

Large display - multilingual menu navigation - easy self-explanatory operation
Excellently readable, highlighted LED-Display, even with bright ambient light, offers maximum comfort and easy menu navigation, comprehensible in standard international languages.

Clever design facilitates work
The gas and air control as well as the joystick for menu navigation are clearly arranged and easily accessible at the burner's front.

Service
The burner head may be easily removed for cleaning or replacement by the user without need for tools.

Easy to clean
The surface of the stainless steel housing is specially treated and dirt-repellent. The display is made of tempered special glass. Display and housing may be easily cleaned and kept sterile by flame-sterilization. No discoloring thanks to UV-resistant housing.

Self-explanatory menu navigation in most international languages.

Gas and air adjustment with "Click-Stop"-feature

ON- and OFF-switch as well as comfortable joystick for menu navigation

Highest comfort. Clever design facilitates work.

Modern Design**
The schuett phoenix II with its new design - easy to handle, robust and operated without the slightest effort.

Large Display
A well readable, highlighted colour LED-display offers maximum comfort.

Self-explanatory operation
Easy and comprehensible menu navigation.
Choose your language and have all settings, information and warning remarks of the schuett phoenix II shown in more than 10 international languages.

Reliable and safe. State-of-the-art technology.

Information and warning remarks
Have all information and warning remarks of the schuett phoenix II Safety Bunsen Burner shown in your language.

Stable flame
Even in strong currents inside a safety cabinet.

No soiling
An outlet inside the burner drains liquids. A special filter prevents particles from entering the burner.

Overheating protection with sensors
Double temperature control: The burner itself does not heat up to more than 60 °C even in continuous mode. A clearly visible and blinking remark in the display warns the user to beware of the hot burner head.

Safety shutdown
Highest safety by automated shut-down if the burner is not operated (after 15, 30, 60 or 120 min, adjustable).

** design patent

No more trouble with the flame

The benefits are in the details - extensive range of accessories, for any application.

Tilting

schuett phoenix II may be tilted to both sides with a bracket under-neath the burner (suitable for left and right hander). This facilitates flame-sterilizing of e.g. bottle-necks. The risk of spilling liquids into the burner is minimized.

Instrument tray

The instrument tray allows for putting down inoculating loops and tweezers for cooling. The tray may be mounted to the right or to the left side of the burner and can be moved by the user for optimum workplace convenience.

Foot-switch

The foot-switch made of premium stainless steel is suitable for all 3 models. Round, easy and safe all-over access by foot.
Slip-proof and stable.

Universal power supply
The universal power supply (100-240 V) includes a set of exchange plugs in the delivery extent to guarantee immediate readiness for operation of the schuett phoenix II - worldwide.

Burner head
The burner head is easily removable for cleaning without need for tools. It has been designed to allow for cleaning in a dish washer.

Perfect start at any time

Choose your preferred operating mode:

- **Activation by IR-sensor**
- **Activation by hand/button**
- **Activation by foot-switch**

Activation by IR-sensor - sensor feature adjustable by the user
Precise flame activation.
The burner may be started and stopped by a movement of the hand or a pipette/inoculating loop in front of the IR-Sensor (1x operation, 2x operation).
This new feature as well as the sensor indicator lamps in the display, provide the user with maximum safety. The sensor sensitivity may be freely adjusted within 4 levels. Upon ignition the gas supply is automatically cut after the exact preset time (1 sec…120 min) has elapsed and the flame stops.

Activation by hand/button
The flame may be started and stopped by simply pressing the button by hand or it stops after the preset time has elapsed.

Activation by foot-switch, mode 1
The flame is only burning as long as the foot-switch is pressed and is thereby permanently controlled. As soon as the foot is removed from the foot-switch, the gas supply is cut and the flame stops.

Activation by foot-switch, mode 2
The flame is activated as soon as the foot-switch is shortly pressed and stops after shortly pressing again or after the preset time has elapsed.

The remaining burn-time is permanently shown in the display.

Certified safety
The schuett phoenix II meets the latest safety regulations such as DIN 30665 part 1 and has been registered under DIN-DVGW-certificate NG-2211AR0750.

The schuett phoenix II guarantees highest safety standards

Controlled burn-time:
Digitally visualized and exact to the second adjustable burn-time (1 sec...120 min).
Automated safety shutdown of the burner.

Exact flame adjustment:
Economic operation,
easy handling provided by state-of-the-art regulation system. Choose yourself - soft, bright or sharp flame. The exact setting of burn-time and the precise flame adjustment by using the "Click-Stop"-feature, both considerably reduce the gas consumption.

Flame monitoring:
No interruption of your work.
In case of inadvertently extinguishing the flame, it is automatically re-ignited.

Ignition monitoring:
The display shows the remark "Check gas supply".
If no flame may be produced after 10 seconds of automated re-ignition, the schuett phoenix II automatically cuts the gas supply permanently.

Permanent burner control:
The display shows the remark "Clean burner head".
If the flame stops due to e.g. spilled liquids and the burner may not be re-ignited, the gas supply is automatically and permanently shut.

Gas-safety hose for natural gas, slip-on (DVGW-certified)

Gas-safety hose for propane/butane, screwed (DVGW-certified)

Sources of energy? You need it - we have it

schuett phoenix II with CV 360-adapter incl. pressure reducer and cartridge

schuett phoenix II with C 206-adapter incl. pressure reducer and gas-safety hose as well as cartridge

Optional to operate with central gas supply (natural gas) or with gas cartridges (propane/butane)

The delivery extent of the schuett phoenix II includes a nozzle for natural gas as well as a nozzle for propane/butane gas. In few steps, the nozzles may be exchanged or replaced, without need for tools, according to the required gas.

The schuett phoenix II is suitable for operation with various gas cartridges (with or without integrated valve, propane/butane or butane). The corresponding gas cartridge adapters are equipped with pressure reducer and gas-safety hose or are designed for direct mounting to the burner.

Even gas bottles (e.g. in sizes of 5 or 11 kg) may be connected to the schuett phoenix II by using a gas-safety hose and a separate pressure reducer.

The gas connection of the schuett phoenix II is both suitable for slipping-on natural gas hoses as well as screwing threaded propane/butane gas hoses.

Adapters for the following gas cartridges are available as standards. They are equipped with a pressure reducer and DVGW*-certified gas-safety hose or designed for direct mounting to the burner. *

CV 360
Cartridge with valve
52 g butane gas
*Ø burn-time (continuous): approx. 40 min**

C 206 (worldwide available)
Pierceable cartridge without valve
190 g propane/butane gas (80/20)
*Ø burn-time (continuous): approx. 160 min**

CV 270 / CV 300 / CV 470
Cartridges with valve
230 g / 240 g / 450 g
propane/butane gas (80/20)
Ø burn-time (continuous):
*approx. 180 min / 190 min / 350 min**

Express 444
Cartridge with valve,
60 g propane/butane gas
*Ø burn-time (continuous): approx. 50 min**

CG 1750 / AT 2000
Cartridge with valve
175 g propane/butane gas (70/30)
*Ø burn-time (continuous): approx. 150 min**

CP 250
Cartridge with valve
250 g butane gas
*Ø burn-time (continuous): approx. 210 min**

R 901 / R 904 / R 907
Refillable gas bottles without valve (purchasable bottles for international Campingaz®-exchange system)
400 g / 1.8 kg / 2.75 kg butane gas

***Adapters for other cartridges available on request.
* approximate values, depending on gas adjustment, ambient temperature etc.

Mobile flame sterilizer

schuett easyflame
Flame sterilizer
- mobile and handy
- operation with gas cartridges or natural gas
- piezo-ignition

For sterilizing fire-proof working surfaces and devices, e.g. in production, research and quality control. Piezo-electric ignition at the push of a button. Infinite adjustment of the flame. Gas supply control for producing a "soft" or "sharp" flame.

2 models available:
schuett easyflame to use with propane/butane gas, suitable for all gas cartridges with 7/16" connection thread, e.g. CG 1750. Adapter for CV 360 cartridges optionally available.
schuett easyflame^{plus} to use with natural gas, use of the central gas supply in the lab.

Light-weighted and handy, ready-to-use in every situation, even overhead. Single-handed operation. In short-term use, the flame is activated as long as the push button is pressed. For continuous operation with lock key.

For flame sterilizing cotton or butyl rubber plugs with a "soft/coloured" flame at low temperature. For safe and gentle sterilization.

For sterilizing bottlenecks, hose connections and openings, e.g. when loading autoclave or fermenter. Keeps the air at the opening sterile.

For sterilizing of fire-proof surfaces of product packing in Quality Control before taking out the sample.

Flame sterilization carousels

Flame sterilization carousels
- Rotation und scarfing happen semi- or fully automated
- No need for cooling down of inoculating loops in agar
- Sterilizing time adjustable

Semi-automated:
schuett easyloop
(for 6 inoculating loop holders)
The rotation is effected manually, while the flaming process is fully automated. Operated in combination with Safety Bunsen Burners schuett phoenix II standard and accu.

Fully automated:
schuett flammy R
(for 5 inoculating loop holders)
Ideal for flame sterilization of inoculating loops in combination with gas-safety-burners.

Your benefit from both models
The flame sterilizing time is infinitely adjustable
1 s to 120 min (easyloop)
2 to 10 s (flammy R)

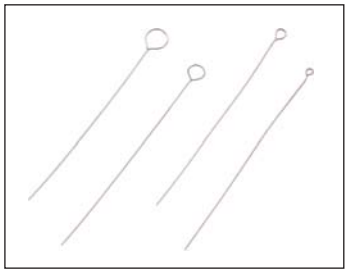
Accurate flame sterilizing adjustment according to type of inoculating loop. Minimizes the gas consumption and increases the longevity of the inoculating loops.

The inoculating loop holder with the inoculating loop is placed into the carousel after use and will be rotated manually by hand or automatically moved to the burner where it is flame sterilized.

The carousels have been designed for continuous work-flow with sample series, e.g. for the workbench.

Inoculating loops - Holders - Racks

Inoculating loops, sterilizable
Made of three different materials. Suitable for multiple flame sterilization. Best results in long-term tests.



Stainless steel
0.5 mm thickness, 60 mm long (qty=10)

Loop diameter 1.5 mm	3.686 312
Loop diameter 2.5 mm	3.686 322
Loop diameter 4 mm	3.686 332

Special stainless steel
0.5 mm thickness, 60 mm long (qty=10)

Loop diameter 1 mm	3.686 112
Loop diameter 2 mm	3.686 122
Loop diameter 3 mm	3.686 132
Loop diameter 5 mm	3.686 152

Platin-Iridium-wire (90/10),
0.5 mm thickness, 60 mm long (qty=1)

Loop diameter 1 mm	3.686 212
Loop diameter 2 mm	3.686 222
Loop diameter 3 mm	3.686 232
Loop diameter 5 mm	3.686 252

Wire made of Platin-Iridium (90/10)
charges in cm

0.5 mm thickness	3.686 050

Inoculating loop holders
Made of stainless steel with handle. For inoculating loops with wire thickness 0.5 to 0.7 mm. Fixture with lock nut.

Inoculating loop holders
Inoculating loop holders 160 mm 3.686 362
Inoculating loop holders 240 mm 3.686 442

Racks for inoculating loop holders made of PVC
with 6 holes a Ø 7 mm.

Rack R (round)
80 x 50 mm (Ø x h) 3.687 082
Rack L (long)
180 x 50 x 50 mm (w x h x d) 3.687 182

Data and facts

schuett phoenix II with glass spatter guard

schuett phoenix II with flame shield

Hot-Tray with schuett phoenix II and CV 360-adapter/cartridge for operation in chemical lab (height-optimized)

Instrument tray with inoculating loop holder, rotatable for optimum workplace convenience

Choice of gas cartridges with adapters, partially including pressure reducer and gas-safety hose.

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schuett phoenix II Safety Bunsen Burner	
Burn-time, adjustable (standard/accu)	1 sec - 120 min
Line/mains voltage power supply	100-240 V AC, +/- 5%, 50-60 Hz
Connected voltage (standard/accu)	6 V DC, 3 VA max.
Maximum burn-time with battery, continuous ON (accu)	15 hours
Olive-shaped hose coupling for gas hose (natural gas)	10 mm diam. (inner)
Working pressure natural gas / propane/butane gas	20 mbar / 50 mbar
Rated heat load natural gas / propane/butane gas	600 W / 1200 W
Consumption natural gas / propane/butane gas	0.06 cbm/h / 77.2 g/h
Dimensions (w x h x d)	125 x 85 x 160 mm
Weight	approx. 1000 g
Ordering information	Cat.-No.
schuett phoenix II eco with foot-switch	3.354 202
schuett phoenix II standard with sensor and foot-switch	3.355 202
schuett phoenix II accu with sensor, integrated high-power battery (foot-switch optional)	3.356 202
Accessories	
Foot-switch stainless steel (works in 2 operation modes), 3500 mm cable length**	3.358 392
Glass spatter guard, to work with pathogene materials	3.358 332
Windshield stainless steel, to protect the flame from sideway currents	3.358 342
Instrument tray stainless steel, with 5 holding spaces	3.358 352
Hot-Tray stainless steel for use in chemistry laboratories, 160x140x160 mm (w x h x d), height-optimized	3.358 362
Cable for the connection to 12 V (car cigarette lighter)	3.358 382
Pressure reducer for 5 kg and 11 kg propane gas bottles (TÜV-certified, indoor/outdoor)	3.358 302
Gas-safety hose for natural gas 1/2" for the connection to a gas-outlet with thermal shut-off device (TAE) (1,0 m / 2,0 m)**	3.358 512 / 3.358 522
Gas safety hoses	
for natural gas (0.75 m / 1.5 m / 2.0 m)**	3.359 212 / 3.359 222 / 3.359 232
for propane/butane gas, with threaded connection (0.5 m / 2.0 m)**	3.359 272 / 3.359 282
Adapter incl. pressure reducer for the connection	
of gas cartridges CV 360	3.357 212
of gas cartridges Express 444	3.357 362
Adapter incl. pressure reducer and gas safety hose (0.5 m) for the connection	
of gas cartridges C 206	3.357 232
of gas cartridges CV 270 / CV 300 / CV 470	3.357 252
of gas cartridges CP 250	3.357 302
of gas cartridges CG 1750	3.357 322
of gas cartridges CG 901, CG 904 and CG 907	3.357 342
Gas cartridges (GGVSEB 2/5 F, UN 2037, LQ 2)	
Gas cartridges CV 360, with valve, 52 g/cartridge butane gas (qty=6)	3.351 322
Gas cartridges C 206, without valve (Piercable cartridge), 190 g/cartridge butane gas (qty=6)	3.351 332
Gas cartridges CV 470, with valve, 450 g/cartridge butane gas (qty=3)	3.351 342
Gas cartridges CG 1750, with screw-valve, 175 g/cartridge propane/butane gas (qty=6)	3.351 352
Gas cartridges CP 250, with valve, 250 g/cartridge butane gas (qty=6)	3.351 362
Gas cartridges CV 270, with valve, 230 g/cartridge propane/butane gas (qty=6)	3.351 372
Gas cartridges CV 300, with valve, 240 g/cartridge propane/butane gas (qty=6)	3.351 392
Gas cartridges Express 444, with valve, 60 g/cartridge propane/butane gas (qty=6)	3.351 382
Stainless steel holder for mobile sterilizer or cartridges for safely holding gas cartridges, e.g. CG 1750, CP 250	3.359 202
Spare parts	
Burner head (standard)	3.935 700
Burner head (long)	3.935 710
Universal plug-in power supply (eco, standard), 100-240 V, 50/60 Hz, worldwide (incl. set of exchange plugs - Euro, UK, US, Australien)	3.935 800
Universal battery charger (accu), 100-240 V, 50/60 Hz, worldwide (incl. set of exchange plugs - Euro, UK, US, Australien)	3.935 810
Spare-part nozzle for propane/butane gas	3.935 730
Spare-part nozzle for natural gas	3.935 740
Spare-part olive-shaped hose coupling	3.935 790
Adapter for natural gas connection 1/2" (France)	3.934 192
Flame sterilizing carousel schuett easyloop, semi-automated (schuett flammy R, fully automated)	
Line/mains voltage power supply	110-240 V AC +/-5 %, 50-60 Hz (230 V /115 V AC, +/- 5 %, 50-60 Hz)
Connected voltage schuett flammy R	6 V / DC (9 V / DC, 500 mA)
Dimensions (w x h x d)	150 x 315 x 190 mm (100 x 345 x 160 mm)
Weight	approx. 900 g (approx. 2,000 g)
Ordering information	
schuett easyloop Semi-automated Flame sterilizing carousel, line/mains voltage power supply	3.353 202
schuett flammy R Flame sterilizing carousel incl. 5 inoculating loop holders, line/mains voltage power supply	3.353 102
Glass spatter guard (with cut-outs), to work with pathogene materials (for both models)	3.353 232
schuett easyflame Flame sterilizer	
Dimensions (w x h x d)	260 x 90 x 60 mm
Weight	approx. 350 g
Ordering information	
schuett easyflame Flame sterilizer for propane/butane gas	3.359 102
schuett easyflameplus Flame sterilizer to use with natural gas	3.359 112
schuett easyflame CV 360 adapter (for operation with 3.359 102)	3.359 502
Stainless steel holder for mobile sterilizer or cartridges for safely holding gas cartridges, e.g. CG 1750, CP 250	3.359 202

** additional lenghts on request

Made in Germany

DIN DVGW product

CE

Delivery extent schuett phoenix II standard:
Sensor feature with 1x/2x operation / Adjustment of sensitivity and indicator lamps / Operating mode hand / Foot-switch feature / LED-Colour-Display - burn-time, information and warning remarks in 13 languages / Joystick-navigation / Universal plug-in power supply, incl. set of exchange plugs (worldwide) / Olive-shaped hose coupling / Nozzles for natural gas and propane/butane gas / Tilting / Removable burner head (no need for tools) / Operating instructions / Warranty

We reserve the right to make changes in the interest of further technical development. - 0810 2M PR