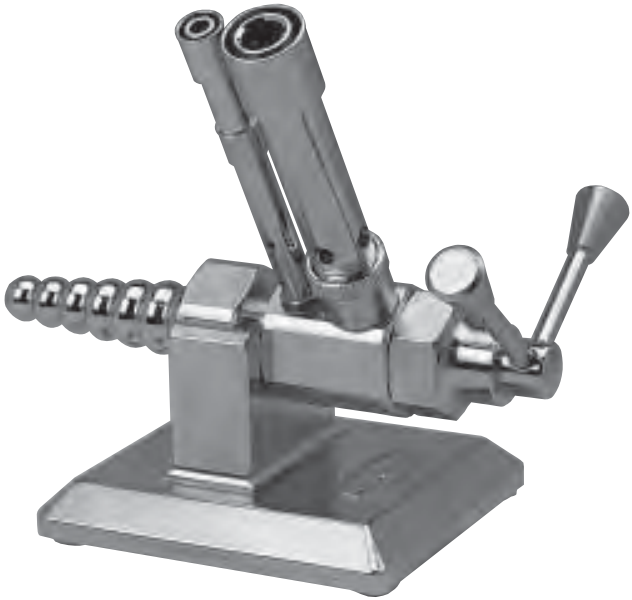
Bijou 90

No. 960-0000 F / 961-0000 N (H) / 961-0001 N (L)

Bedienungsanleitung
Instruction manuel • Manuel de service
Modo d´impiego • Instrucciones para el servicio
Handleiding



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Bijou 90

No. 960-0000 F / 961-0000 N (H) / 961-0001 N (L)

ENGLISH

You have purchased a brand product from Renfert. To ensure that you enjoy using this product for many years, please follow these instructions carefully.

1. Description / Applications

The *Bijou Burner 90* (F=propane, N=natural gas) is a very stable laboratory burner with easily adjustable working position and the option of operation with pilot flame or ignition flame.

The burner is supplied in the following versions:

No. 960-0000 F
>>> burner for propane

No. 961-0000 N (H)
>>> burner for natural gas E

No. 961-0001 N (L)
>>> burner for natural gas LL

Please note:

Old	New
natural gas N (H)	natural gas E
natural gas N (L)	natural gas LL

The burner is type-tested and approved by the DVGW (German Association of Gas and Water Installers).

Type: GH-100-011,
Reg.No. NG-2211A00737
(93.01e044)

2. Installation / Operation

The burner may only be installed by qualified staff in accordance with the DVGW regulations.

1. Insert and fix the gas lever supplied with the burner into the screw thread hole on the burner's operating element.
2. Check whether the type of gas and operating pressure required for the burner are compatible with your gas supply.
3. Inspect the connection pipe to ensure it is correctly fitted and in perfect condition.
4. Shut off the gas tap on the laboratory bench.
5. Push the gas hose (DIN 30664) onto the inlet nozzle of the *Bijou Burner* right up to the last groove. If necessary, secure the tube with a clip or circular spring to prevent it slipping off (see DVGW worksheet G 621).
6. Adjust the *Bijou Burner's* gas lever to position A and open the shutoff valve on the laboratory bench. You should now clearly hear gas flowing out. Carefully ignite the burner from the side. Regulate the flame as des-cribed in point 4. (Handling).

3. Areas of Caution

- **The burner should not be used in areas where there is a strong draught, as this may cause the flame to be extinguished unintentionally.**
- **Laboratory burners must only be used under constant supervision. After finishing work, the gas supply to the burner must be shut off(shutoff valve, disconnection from the gas main).**
- **When used in classrooms, laboratory burners may only be put into operation after first switching on the upstream shutoff devices, such as central shutoff for the entire room, group shutoff device and shutoff valve.**
- **For installation and operation of gas systems in labs and science lecture rooms the regulations in the DVGW Worksheet G621 (German regulations) must be heeded.**
- **After use, the gas supply should be shut off immediately via the shutoff valve, or, by separating the gas connection safety valve.**
- **If there is a strong smell of gas, close the gas shutoff valve immediately and take safety precautions (see DVGW regulations).**
- **Always observe the accident prevention regulations of the relevant employer's liability insurers.**

3.1 Exclusion of liability

Renfert GmbH rejects any claims for compensation as well as warranty claims in case of:

- **the product is used for any other purpose than those mentioned in the instruction manual**
- **the product is changed or amended in any way beyond those mentioned in the instruction manual**
- **the product is repaired by a non-authorized party or the product is not fitted with original Renfert replacement parts**
- **the product is used continuously despite visible safety faults**

4. Handling

The laboratory burner does not have a closed position! The flame of the *Bijou Burner* can be preselected by means of the gas lever.

The play in the control elements is intentional. It results from the prescribed decoupling of valve and control element. This guarantees that the valve is always activated under identical conditions, which is essential for operational safety.

Position A:
Ignition or pilot flame burns

Position B:
Main flame and ignition flame burn

Position C:
Main flame burns

When selecting positions A and C the gas lever must always be moved all the way to the limit stop so that, firstly, the position is quickly and unambiguously identifiable if the burner goes out and, secondly, to prevent any possibility of flashback to the burner's jet.

4.1 Regulating the main flame

The burner's main flame can be regulated by simply turning the knurled ring on the main burner tube.

A smooth flame is produced by turning the knurled ring upwards. The air feed is reduced and the flame becomes smooth.

A harsh flame is produced by turning the knurled ring downwards. The air feed is increased and the flame becomes harsh.

4.2 Regulating the pilot flame

A smooth flame, which burns very stably, is produced by pushing the sleeve over the air-feed holes of the small burner tube.

A harsh flame, which is, however, more easily extinguished, is produced by pushing the sleeve away from the air-feed holes of the small burner tube.

The ignition flame should be as stable, and therefore as smooth, as possible in order to ensure reliable burner operation. Adjust the flame so that it cannot be extinguished unintentionally.

4.3 Adjusting the burner position

The burner can be positioned at three different angles:

To adjust the burner to the angle which suits you best, simply lift it out of its base and reinsert in the required position.

The burner is thus equally well suited for left-handed and right-handed users.

The burner should not be used in the 90° position when wor-king with wax, since dripping wax may block the jets and cause the burner to malfunc-tion.

5. Troubleshooting Guide

Fault	Cause	Remedy
If the burner will not light in spite of the gas shutoff valve being open and no gas is heard escaping.	• Central gas supply has not been turned on / gas bottle is empty.	• Operational error.
	• Jets are blocked or dirty.	• Screw off burner tubes and carefully clean the jets with a soft cloth. **Do not screw out the jets !**
If the burner will not light even though there is a loud noise of escaping gas.	• Strong draught in the area of the burner.	• Eliminate the draught, reposition the burner.
	• Incorrect type of gas or supply pressure.	• Check supply pressure and type of gas.
If there is a smell of gas when the burner is alight.	• Connections are leaking.	• Check the connections.
	• Burner is leaking.	• If the burner leaks do not carry out repairs yourself, send burner for inspection.

6. Cleaning / Maintenance

The *Bijou Burner* requires no maintenance. From time to time the burner should be cleaned. Please observe the following cleaning instructions:

1. Never clean the burner with boiling water! The burner cone is sealed with grease which may be washed away causing the burner to leak.
2. The maximum temperature for cleaning is 50°C (122°F).
3. Do not use cleaning agents because of the risk of chemical reaction.
4. To clean the valve only use a duster or moist leather (must not be dripping wet)!
5. To clean the burner close the shutoff valve, pull the hose off the burner and wipe the burner clean with a cloth or leather. The burner tubes can be screwed off and cleaned separately.
6. Do not dismantle the burner!
7. Never drill out the burner jets.
8. Do not blow out the burner's inlet nozzle with compressed air. This could blow away the sealing grease and cause the burner to leak.
9. The burner jets must not be screwed out for cleaning. The burner could start to leak and safe use is no longer guaranteed.

If the burner nozzle becomes plugged, disassemble the tubes than hold the burner with the nozzle facing down. Use a hair dryer or other device genera-ting hot air, melt the wax plug and allow the molten wax to completely run out.

If this method fails to clean the nozzle, it must be either cleaned or replaced by an authorized technician.

7. Switching to a different type of gas

The *Bijou 90* conforms with the regulations set out in DIN 30665 Part 1 and enables a switch to another type of gas by changing the set of burner nozzles.

Type of gas and power:

Type of gas	Rated power					
	Small nozzle	**Large nozzle**	**Load**	**Load large tube**	**Load small tube**	**Product ref. mark**
Liquid gas G 30 / 50 mbar	D 0.18 mm	D 0.34 mm	0.66 kW	0.5 kW	0.16 kW	960 F
Natural gas H (E) G 20 / 20 mbar	D 0.32 mm	D 0.55 mm	0.66 kW	0.49 kW	0.16 kW	961 N
Natural gas L (LL) G 25 / 20 mbar	D 0.35 mm	D 0.61 mm	0.66 kW	0.48 kW	0.16 kW	961 N

The installed nozzles are not marked.

- The natural gas H version is distinguished with the sticker "Erdgas H" (Erdgas E).
- The natural gas L version is distinguished with the sticker "Erdgas L" (Erdgas LL).
- The liquid gas version is distinguished with the sticker "Flüssiggas".

The predetermined lab burner can be switched over to natural gas H (E), natural gas L (LL) and liquid gas by changing the set of nozzles and its respective sticker. The relevant conversion sets are given in the table above. Each set consists of a small nozzle, a large nozzle and a sticker naming the respective type of gas. The conversion sets are featured in the spare parts list.

The changeover of the nozzles must only be carried out by qualified specialists in accordance with DVGW regulations (German legislation - check local regulations).

8. Spare Parts

You will find the order numbers in the attached list.

9. Guarantee

All burners are examined carefully by us before dispatch. Should any malfunctions occur please send in your burner for repair with a description of the problem. Do not try and repair the unit yourself!

The burner's nozzle and pipe are harmonised and should not be changed as they will then no longer comply with regulations. When used properly Renfert guarantees all parts of the *Bijou 90* for 3 years. Parts given to natural wear and tear are excluded from this guarantee.

The guarantee is void for damage caused by mis-use, disregard of the instructions for use, cleaning, maintenance and connection, for self-repaired units or repair by untrained personnel, for use of spare parts from other manufacturers and on influences outside the normal practice or unauthorised in the instruction manual. Services under guarantee do not extend the guarantee.

10. Technical Specifications

	Type		
	960-0000 F	**961-0000 N (H) / (E)**	**961-0001 N (L) / (LL)**
Height	100 to 107 mm (depending on the angle)		
Weight	530 g (with burner base)		
Connection hose	As per DIN 30664		
Supply pressure	50 mbar	20 mbar	20 mbar
Consumption	48 g / h	63 l / h	72 l / h
Output	660 W		
Mode of operation	Continous operation		
Ambient temperature	max. 40ºC (104ºF)		

11. Parts supplied

1 burner
1 gas lever set
1 burner base
1 manual
1 spare parts list

Subject to modification.