

Swiss Industrial Company
 Neuhausen Rhine Falls
 Switzerland



Selfloading rifle Neuhausen SK 46



Selfloading rifle Neuhausen SK 46 with telescope sight

1. Technical data

Calibre	7,5 and 7,9 mm
	Other calibers on request
Muzzle velocity V_0	780 820 m/sec.
	2570 2700 ft/sec.

Dimensions:

Overall length	44 ² / ₈ " 1125 mm
Barrel length	23 ⁵ / ₈ " 600 mm

Weights:

Weapon, without telescop sight, with empty magazine for 5 cartridges	4,5 kg 10 lbs.
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Sights:

Open sight: leaf rear sight

Length of line of sight	20 ¹ / ₂ " 520 mm
Graduation	110—1650 yds 100 to 1500 m
	in steps of 100 m 110 yds.

Telescope sight:

Power	2,2 x
Weight	385 g 13 ¹ / ₂ ozs.

2. Generalities

The selfloading rifle Neuhausen SK 46 is a gas-operated weapon with a new, patented gas extracting device adapted to fire single shots only. The weapon is fired with closed breech, i. e. when the rifle is ready to fire, the breech is closed. After the last shot has been fired, the breech is retained in its rear position.

To fire anti-tank grenades, the semi-automatic function of the rifle can be interrupted by turning the operating handle. The rifle works then like an ordinary repeating rifle.

3. Components

The selfloading rifle is composed of the following main parts:

barrel with gas extracting device and open sight. The barrel is screwed to the breech casing.

breech casing with replaceable gas chamber, bearings for the trigger and safety parts. The breech casing guides and locks the breech and supports the telescope sight.

breech composed of the breech block with firing pin, firing pin spring and extractor.

bolt (working mass) combined with gas piston, operating handle—which can be coupled with the bolt—and with pres-stressed closing spring. Follower and locking lug are fixed on the bolt. The latter is enclosed in the bolt sleeve.

trigger mechanism composed of trigger, sear, trigger rod and retaining pawl.

stock with barrel guard.

magazine for 5—6 or 10—12 cartridges.



Dismantled selfloading rifle Neuhausen SK 46

4. Function of the selfloading rifle

When the cartridge has been fired, there is a delay action as the gases are diverted into the gas chamber which is placed on the side of the breech casing. The gas chamber contains the gas piston which forms one single part with the bolt. The gas pressure drives the latter backwards. During this motion, the firing pin is cocked. After that the bolt unlocks the breech and opens it. At the same time, it compresses the closing spring. The case is extracted from the chamber and ejected. The operating handle does not move when the rifle is fired. When the breech is again thrust forward, it strips a new cartridge from the magazine and pushes it into the chamber. At the end of its forward motion, the breech swings upwards and leans against the breech casing.

The breech stays open when the last cartridge has been fired. To make the weapon ready to fire again, a new clip of cartridges must be pressed into the magazine and the trigger squeezed to close the breech.

5. Safeties

- a) **Safety lever.** It blocks the sear.
- b) **Safety when the breech is not fully locked**
The firing pin is not released as long as the breech has not completely swung upwards, i. e. as long as the breech is not fully locked.



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6. Particularities

a) Accuracy

- The barrel is firmly screwed to the breech casing.
- The firing pin is the sole moving part when a cartridge is fired and it moves only in the firing axis.
- Fitting the gas extracting device at the rear of the barrel diminishes the vibrations provoked by the transmission of the gas pressure.

The accuracy of the selfloading rifle is equal to that of a first class repeating rifle.

b) Reliability

- Owing to the great reserve of power of the gas-operated system, a good function is ensured even under unfavourable conditions.
- The gas extracting device being fitted at the rear of the barrel, the system works with high gas pressure. The bore of the nozzle can be smaller whereby the danger of soiling is diminished.
- All openings are carefully closed. No dirt can therefore penetrate into the mechanism.
- The gas piston being coupled with the bolt and the gas chamber being fitted at the rear of the barrel, these two parts can be easily cleaned.

- Should stoppages occur, the breech can be coupled with and moved by the operating handle in any position.
- For normal cleaning, the main parts of the weapon can be dismantled without any tool.

c) Interrupting the automatic function

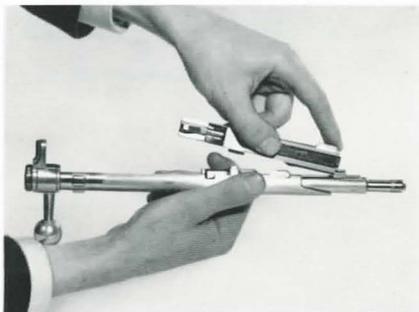
By turning the operating handle upwards, the automatic function of the rifle is interrupted. As it has already been mentioned, this fact is important when firing anti-tank grenades. The weapon then works like a repeating rifle.

d) Sighting

The SK 46 can be aimed with the open sight or with the telescope sight. The telescope sight does not hinder aiming with the open sight since it is fitted to the right of the line of sight. This arrangement allows a good firing position with comfortable cheek rest.

e) Safety

The weapon can be dismantled, assembled, loaded and unloaded with safety lever on safe.



7. Stripping of the selfloading rifle Neuhausen SK 46

1. Extract the magazine
2. Open the breech
3. Remove the breech
4. Separate the breech from the bolt
5. Separate the bolt from the bolt sleeve
6. Dismantle the breech