



1095535

**Société Industrielle Suisse Neuhausen Chute du Rhin (Suisse)**

Automatic carbine Neuhausen AK 52

5535 - 1

## Automatic carbine Neuhausen AK 52

The automatic carbine AK 52 is a semi-automatic as well as a full automatic weapon, i.e. it is possible to fire aimed single shots from a closed breech - as with the selfloading rifle - as well as full automatic fire - as with the submachine gun (machine pistol) or light machine gun.

The AK 52 has the same characteristics as an assault rifle (Sturmgewehr) but it fires normal rifle ammunition which has a much bigger muzzle energy and a corresponding flatter trajectory as the assault rifle ammunition (short cartridges) by same ammunition quality. New principles in the design made it possible to overcome the difficulties raised by the characteristics that such a weapon must have, i.e. stability while firing full automatic, low rate of fire, sufficient heat absorption capacity, but nevertheless low weight and small dimensions, simple design for handling and also manufacture, sturdiness and accuracy.

The weapon is composed of a barrel casing with straight bore from end to end. The barrel casing is firmly fixed to the stock which is provided with a pistol grip. A breech - which does not move - is fixed by means of a bayonet catch (for dismantling and cleaning) in the rear part of the barrel casing. The breech is composed of a breech block with firing pin, firing pin spring and extractor. The barrel is guided by cylindrical bearings in the barrel casing and is locked with the latter when the shot is fired. The barrel is surrounded by the actuator prolonged by the actuator tube on which end is fixed the muzzle gland. The closing spring, which is supported at one end by the barrel casing and at the other end by the actuator, presses the latter against a protruding shoulder of the barrel. In its turn, the barrel is pressed against the breech and thus the weapon is closed. The actuator controls also the locking between barrel and barrel casing.

The magazine is fixed just in front of the barrel. If a shot is fired, no part moves until the bullet has left the barrel. As soon as the bullet has left the barrel, the gases press on the muzzle gland which draws the actuator and the actuator forward in the direction of the barrel. In its forward motion, the actuator first unlocks the barrel from the barrel casing, then draws along the barrel. The empty cartridge case is extracted at the same time. At the end of the forward motion, the case is ejected and a new cartridge is pushed at the rear of the chamber. The rearward motion of the barrel is driven by the closing spring. The barrel is pushed over the cartridge and locked with the barrel casing by the actuator at the end of the rearward motion. The firing pin is cocked during the same motion. The following shot can be only fired when the barrel is locked with the barrel casing. The type of fire - single shot or full automatic - is selected by regulating the trigger mechanism.

The advantages of the non-moving breech and of the forward motion of the barrel after the bullet has left it are the following:

1. Shorter length of the weapon in closed position, the length of the barrel being normal.
2. Good accuracy because no part moves as long as the bullet travels in the barrel.
3. Low rate of fire because the unlocking motion begins late and because the moving parts are heavy.
4. The displacement of the center of gravity of the weapons immediately after firing - owing to the parts moving forward - gives the weapon a better stability because the increasing gravitation moment compensates the recoil moment which makes the weapon "climb".
5. Point 3 and 4 give the weapon a better stability when firing full automatic.

6. Good and regular repartition of the heat of the barrel to the barrel casing and actuator. The heat absorption capacity of the weapon is therefore considerable and it is possible to fire a greater amount of rounds within a short time without damaging the barrel.
7. Simple and sturdy construction, composed of few parts. The manufacture is inexpensive since there is not much milling work to be done.
8. Easy handling.

8.9.1952  
Wf-fh/sb

95535 - 4