Wire is normally fed into the machine by feed rolls driven through either ratchet gear or one way feed clutch. Sakamura has developed feed roll driven system by the servo motor to feed wire precisely and to protect the cutoff blank from the shearing scar.

**Features**

1. Wire is kept fed to wire stopper till knife starts to shear. With this mechanism, feed back prevention device is not needed and short feed is protected.
2. Right after wire is sheared off, wire in the machine is retracted by 1 mm, which protect knife from being scratched in returning to the home position. This system is Effective specially for shearing stainless wire.

![Fig. 1 Feed roll mechanism with servo motor](image1)

![Fig. 2 Wire is retracted by 1 mm right after sheared not to touch the backside of knife when knife returns back to home position and scratching the backside of knife by wire is protected.](image2)

![Fig. 3 Burning surface of cutoff slug generated in shearing.](image3)

The shearing surface of high carbon steel like AISI 1045 the harden status and cracks in forming at next station.