



# GEFIT Livernois Engineering

## EC950 Electrocam Tube Cut-off System

The EC-950 Electrocam cut-off system is a high speed, stand alone cut-off device that has been developed specifically for tube manufacturing, such as that used in the heat exchange industry. This EC-950 cut-off features a servomotor driven and controlled "flying-cut" action system.



The EC-950 Electrocam cut-off system features an extremely smooth cutting action, producing highly reliable cut-off accuracy. The EC-950 automatically synchronizes the cut-off speed with the mill line speed without any controls or drives connected to the machine. The EC-950 tube speed encoder meters the speed of the incoming tube and instantly synchronizes the proper cut-off speed to suit.

### GENERAL CAPABILITIES OF THE EC950 CUT-OFF

Tube Height:	0.375" to 1.500" (12.70 mm to 38.10 mm)
Tube Width:	0.060" to 0.500" (1.50 mm to 12.70 mm)
Tube Length:	One part/cycle: 2" to 37.5" (50.8 mm to 952.5 mm) Continuous - unlimited (if we dwell between cuts over 952.5mm)
Input Fin Feed Rate:	150 cycles/min Max up to 450 ft/min (137m/min)
Material Flow:	Left to Right OR Right to Left

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**Note:** Mill/cut-off speed may have to be reduced when cutting short parts.

The EC-950 also assures the most accurate cut-off length possible by cutting both ends of each tube allowing accuracy of  $\pm 0.5\text{mm}$  on cut tube length with SPC Cpk of 1.33. The cut quality will be square with a minimum end deformation and maximum burr of 0.08mm.

The EC-950 tube cut-off machine will handle tubes in either vertical or horizontal orientation. Each unit is fitted with a large main drive servomotor to compensate for the higher accelerations required by the high-speed operation. The servomotor, coupled through an oscillator, mechanically synchronizes the carriage shuttle position to the cutter position. There is no internal tube drive; therefore, the tube conveyance must rely upon external machinery.

Tube length changeovers are accomplished by simply entering new length parameters into the CRT. A servomotor adjusts the oscillator. The length dimensions in both millimeters and inches are displayed on the CRT monitor. The EC-950 includes one cutter head, consisting cut-off tool with holder; cut-off die set and cut-off die holder.

**Note:** *The maximum input speed is dictated by part length and is reduced for shorter parts.*

The EC-950 stand-alone tube cut-off machine will be specifically tooled for processing one size of aluminum extruded, welded, or folded tube. Additional tube profile sizes will require changeover details. The standard EC-950 Tube Cut-Off machine utilizes a PLC and Servo Control component manufactured by Giddings & Lewis and selected by GEFIT Livernois Engineering for reliable and efficient operation. Circuit breakers and relays manufactured by Allen Bradley will be to IEC Standards.

The EC-950 is metric and conforms to the EC specifications. Power requirements are: 440  $\pm 10\%$  VAC, 50/60Hz 3 $\emptyset$  (others available).

*\*Tolerance is based on mill speed variation no greater than 0.04m/second during the cut.*



*EC950 Shown with Guards open*

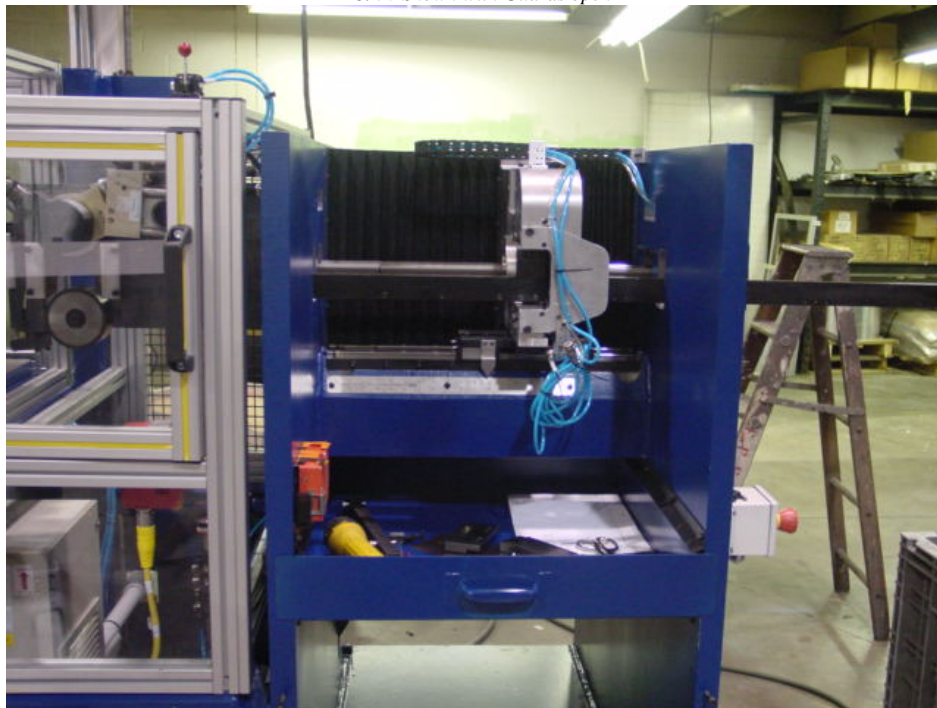
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*EC950 Shown with Guards open*



*EC950 Shown with flow Left to Right*

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