

#### GUILLOTINE CUTTING MACHINE FOR HIGH PRECISION SHORT CUT (FLOCKING FIBERS, REINFORCEMENT FIBERS,

FIBER FILLERS, PULP, ...)

# UNIQUE CUTTING SYSTEM

- The PIERRET guillotine cutting system is characterised by a to-and-fro movement of the mobile knife, generated by a rotary movement coupled with an oscillating movement. This results in a rectilinear movement while cutting with the knife lifting off on the return travel.
- This system is designed without slide rails and provides a smooth operation at high speeds. It avoids the danger of jamming, the presence of

play and unwanted friction of the mobile knife against either the fixed knife or the material on the return travel.

In addition, the angle formed between the mobile knife and the fixed knife produces a scissor effect.



## FEEDING SYSTEM

- The inching fiber infeed is controlled by an hydraulically operated dual grip mechanism and has a reciprocal motion.
- A very high pressure (max. 3 tons/6,600 Lbs) on the fibers adjacent to the knives ensures the material is held perfectly still throughout the cutting process, irrespective of its thickness (from 2 mm (± 0.08") to 40 mm (± 1.6")).
- The steady beating of the clamps on the material ensures a perfect distribution over the entire cutting width (260 mm - ± 10").
- Moreover, the clamps provide considerable slipfree traction, tightening the cables by means of a tensioning device that reduces ripples.

## CONTINUOUS ELECTRONIC MONITORING

- > An electronic device continuously controls, displays and adjusts the length of cut fibers while the machine is in operation.
- > Any cuts outside the cutting length tolerance will immediately be indicated by an audible signal which can be combined with an automatic shutoff of the cutting machine.
- The electronic device also provides other information, such as: safety switch status, machine speed, knife life, etc.
- The cutting machine developed by PIERRET ensures a high degree of precision whatever the cutting length and nature of the material.

## **USE AND OPERATION**

- > The machine is designed to cut continuous form material, such as :
- Artificial and synthetic fibers (polyamide, acrylic, polyester, polypropylene, teflon, viscose, aramid, ...);
- Animal and vegetable fibers (flax, ramie, jute, cotton, wool, ...);
- $\cdot$  Mineral and other fibers (glass, carbon, ...).
- The P26 cutting machine works with dry materials including carded cables. All components in contact with or near cables are treated or made of stainless steel to allow for wet or damp materials.

# Pierret

- A large hydraulically controlled inlet gate of 260 x 70 mm (± 10" x 3") facilitates the entry of cables when loading the cutting machine.
- > While working, the opening of the clamps remains steady whatever the thickness of the material to be cut. The hydraulic system which drives the clamps provides for flexible adjusting of pressures and travel.
- > Quick mobile knife replacement thanks to positioning blocks located on the blade holder. The mobile knife can be accurately adjusted while the cutting machine is in operation without any danger of breaking. These detachable knobs are conveniently located on the front of the machine.
- The machine is fitted with appropriate protection and safety locking devices.
- PIERRET can also offer a range of accessories such as feeding, tensioning, packaging, and cable preparation systems, blade grinding machine, lapping machine, ...

## PRODUCTION

- Production varies according to the material, loading title, cutting length and cutting speed. It may reach over 220 kg/hour (480 Lbs/hour) for a 1 mm (± 0.04") cutting length.
- The machine has a nominal capacity of 5 Mio.dtex and a maximum capacity of 90 Mio.dtex.

## MAIN TECHNICAL DATA

- > Guillotine cutting system without slide rail.
- > Alternate feeding with hydraulically controlled dual grip system.
- > Cutting width : 260 mm (± 10").
- > Acceptable compressed material thickness: from 2 mm (± 0.08") to 40 mm (± 1.6") according to the type of material.
- > Range of cutting lengths from 0.1 mm  $(\pm 0.004'')$ to  $8 \text{ mm} (\pm 0.3'')$  in a continuous scale adjustable at 1/100 mm (± 0.0004") without intervals.
- > Electronic control with cutting length automatic correction which guarantees a very high precision.
- > Range of cutting speeds from 85 to 400 cuts/min. (continuous adjustment without intervals).

- > Cable title from 5 Mio.dtex to 90 Mio.dtex.
- > The cutting machine is equipped with a hydraulic oil cooling unit in its standard version.
- > Reversible mobile knife.
- > Micrometric adjustment of knives during operation.
- > Allows tungsten carbide knives.
- > The cutting machine is equipped with retractable wheels.

#### Total installed power

• 16 Kw/50 Hz

#### Dimensions/Weight

 3,900 x 1,050 x height 2,050 mm/2,600 Kg 12'-9" x 3'-5" x height 6'-8"/5,730 Lbs



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