

ETUNIFORM™ BLADE HOLDERS  
GIVE PAPERMAKERS AN EDGE



# THE BIG STORY ON DOCTORING EXCELLENCE

## Essco ETUniform™ holds the answer

Efficient, trouble-free doctoring is one key to profitable papermaking – and that requires more than simply the right blade. It also calls for the right blade holder. For every application, there is an Essco ETUniform blade holder.

Unlike rigid and conventional conforming blade holders, ETUniform holders accommodate the range of surface irregularities by providing firm, uniform blade pressure across the roll. Doctoring quality becomes more reliable and consistent roll-to-roll.

Because lower loading pressures are needed, blade and roll life are extended, further keeping costs down and profitability up.

Constructed of durable grade 316L stainless steel, ETUniform holders last longer to save money. Finally, each is designed to facilitate faster blade changing, reducing downtime, lowering labor costs and maximizing productivity.

No matter which solution you require, smooth, trouble-free ETUniform holds the answer.

## There's an ETUniform blade holder for every need



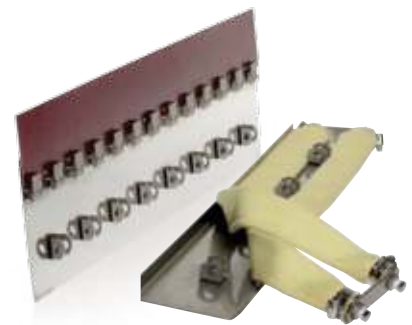
### ETUniform Blade Holder

Improving blade wear and extending roll life, Essco's ETUniform Blade Holder features blade support fingers outside of the holder body for better conforming, cleaner operation, and easier tube changes. Precision-machined base plate and heavy-duty pressure plate assembly enhances durability, while pivot blocks remain securely aligned in machined grooves.



### ETUniform-S

Featuring a single-top pressure plate assembly, ETUniform-S holders provide especially good sheet peeling and roll cleaning characteristics in moderate-to heavy-duty situations. Like standard ETUniform holders, the S features outside support fingers, extruded mounting plate, machined pivot block holding grooves and more. A great source of reliable, high-quality doctoring at moderate maintenance and operating costs.



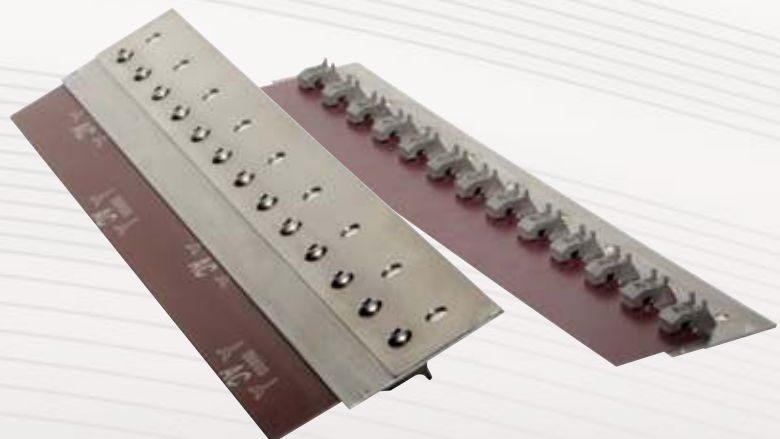
### ETUniform-ST

ETUniform-ST holders have a lighter duty tray-style mounting plate, making them the ideal solution for less demanding applications. Available with adapter bar for easy retrofitting to existing doctors or with a tube tray mounted directly to the doctor back for better support and durability. Rugged construction provides a holder suitable for a wide range of drum locations.

## Flexform for more flexibility

Essco's Flexform blade holder provides better conformability than rigid holders and conforms nearly as well as tube-style blade holders. This economical, top-plate holder is adapted to mount directly to the doctor back, and requires air cylinder loading to the doctor back. Two models—KF blades and ETU/DST blades—have been proven reliable in thousands of installations.

- Less cost than pneumatic holders
- Bolt-on replacement for KF holders
- Better durability than composite holders
- Open design for easy blade changes



## Applications and Loading

Rugged, stainless steel construction makes Essco ETUniform holders suitable for difficult locations including:

- Fourdrinier Rolls
- Press Rolls
- Dryers and Sweat Dryers
- MG Yankees (see ETU-Oracrepe for creping Yankee applications)
- Calenders and Reel Drums

Oscillation is recommended as it will enhance performance of this—or any—doctor. Air cylinder loading is not usually required.

## Parts and Accessories

Doctor operation is dependent upon reliable and trouble-free parts and accessories. Control panels, pressure tubes, and service kits help keep doctor maintenance issues to a minimum. Essco allows you to rebuild or replace components on a planned, preventative timetable.

### Control Panel

Essco's standard control panel is a fiberglass NEMA 4X enclosure (316 stainless steel enclosure is available).

- Manual 4-way valve for load/unload operation
- Electric solenoid operation available
- Pressure gauge
- Pressure regulator
- Display chart converting PSI to PLI loading pressure
- Multi-unit panels available



### Pressure tubes

Essco offers three standard tube types and the ability to provide specialty and food processing-rated tubes

**High-temperature** – EPDM core with Kevlar/Nomex woven jacket impregnated with fungicide

**Standard-duty** – EPDM core with encapsulated polyester

**Wet end service** – Chemical-resistant, fabric reinforced, synthetic rubber



### Service, Tools, and Parts

Essco continues to lead the way in innovative and helpful doctor maintenance tools that will keep you up and running.

All the parts and tools to make maintaining your conforming blade holders easier are included in this complete service kit with carrying case. It contains spare tube fittings and pneumatic couplings, a pressure regulator, instructions, doctor maintenance guide, angle gauges and level, and Essco's ETUniform Tube Puller—an easy-to-use tube clamp to pull new tubes through the holder without removal from the machine.

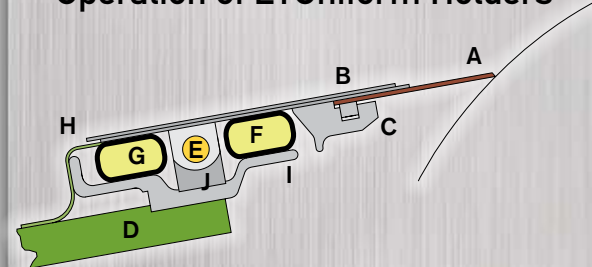


## Why the ETUniform

Essco's ETUniform series provides:

- Uniform blade-to-roll contact pressure
- Minimum possible loading pressure
- Efficient doctoring (good sheet peeling and roll cleaning action)
- Prolonged doctor blade life
- High-quality doctoring at moderate maintenance and operating costs
- Availability on virtually all machine positions
- The ability to be used on new doctors or retrofitted to upgrade existing doctors
- Even loading using the tube loading design (air or fluid)

## Operation of ETUniform Holders



- |                                  |                                 |
|----------------------------------|---------------------------------|
| <b>A</b> - Doctor Blade          | <b>F</b> - Unload and Seal Tube |
| <b>B</b> - Double Pressure Plate | <b>G</b> - Load Tube            |
| <b>C</b> - Blade Retainer Clip   | <b>H</b> - Optional Rear Seal   |
| <b>D</b> - Doctor Back           | <b>I</b> - Mounting Plate       |
| <b>E</b> - Pivot Rod             | <b>J</b> - Pivot Block          |

During operation, the control panel channels compressed air to the load tube (**G**). This pressure is transmitted directly to the pressure plate assembly (**B**), which uniformly loads the blade (**A**). Pressure plate pivots on rod (**E**).

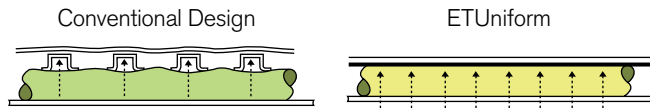
To unload the doctor and lift the blade, the control panel 4-way valve lever is rotated to feed air to the unload tube (**F**) while the load tube (**G**) is depressurized. This allows the blade to freely lift away from the roll surface for easy blade changes, without damaging roll surfaces.

Operation is cleaner when light pressure is used in the unload tube (**F**) permitting the tube to act as a seal along the under-surface of the pressure plate. Also, there are no spaces between fingers for dirt to enter.

Holders can be operated on air or fluid. Fluid acts to dampen potential vibration from external sources.

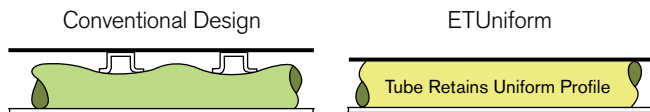
# THE ETUNIFORM™ BLADE LOADING PRESSURE PROFILE

## Uniform, Even Pressure



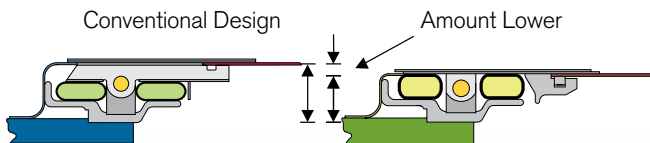
- No loading fingers
- Uniform cross-machine blade loading
- Pressure from tube is applied at all points—not just at finger locations

## Easier Tube Change



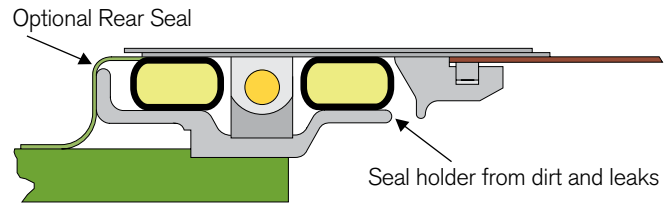
- In conventional designs, tubes permanently deform between fingers, making removal difficult
- In ETUniform holders, tubes are contained between two smooth surfaces, allowing easier tube insertion and removal

## Low Profile Design



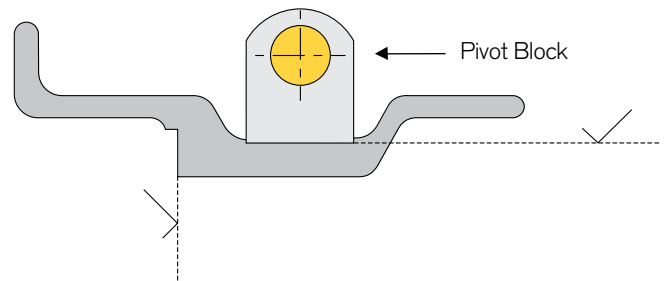
- Compact holder occupies less space on doctor
- Designed to withstand critical operating conditions
- Maintains uniform cross-machine blade pressure

## Cleaner Operation



- Front tube, running with light pressure, acts as a seal to keep foreign material out of holder
- Fewer parts to retain dirt
- Runs cleaner and reduces leak-through
- Optional rear apron seal available

## One-Piece Stainless Steel Mounting Plate



- Heavy-duty, solid 316 extruded stainless steel mounting plate
- Most secure mounting platform available with any conforming type holder
- Machined mounting surfaces (✓) assure the most accurate holder alignment
- Pivot blocks securely and precisely positioned in a machined alignment groove



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Essco manufactures complete paper machine, board machine, and industrial doctor systems including Twinflex™ double doctors and couch and press roll dewatering, twin bladed ETUnifoil™ doctors; doctor blades of metal and plastic including Fiberline™ and AC™ advanced carbon composites; creping blades, coater blades, coiled and specialty blades; conforming, rigid, and creping blade holders, including ETUniform™, ETU™, KF, RJG™, ETUoracrepe™, AquaClean™, and custom holders; oscillators including standard and CRS Essco-Lators™ and gear motors; The Edge™ electronic doctor alignment gauges; manual and pneumatic doctor loading systems; wet end dewatering elements; and provides doctor system rebuilding, doctor and blade surveys, consulting, and service.

**TRUSTED FOR PERFORMANCE**