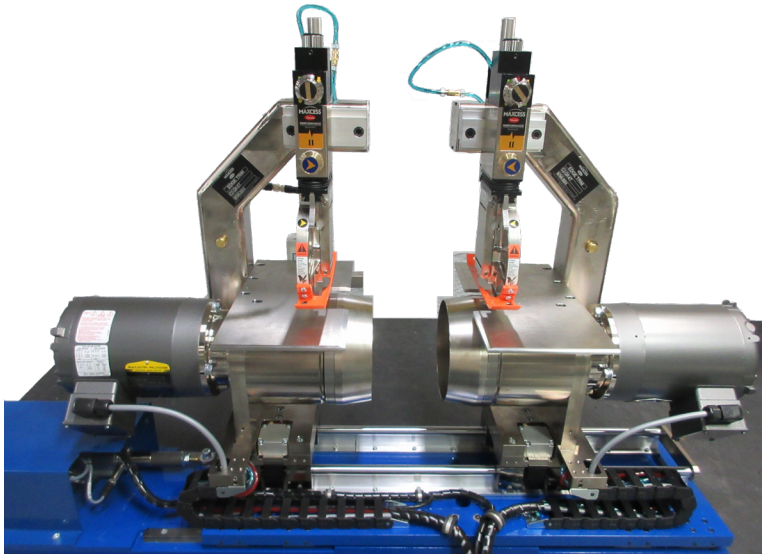
MAXCESS®

TIDLAND EDGE-TRIM

TIDLAND

Self-Contained Shear Slitting System



The Tidland Edge-Trim is a self-contained shear slitting system specifically designed for trimming the edges of a continuously moving flexible web. Instead of expensive cross-web hardware, this unique system has both upper slitter and driven anvil ring mounted on a common C-Frame on linear rails. Setup time is virtually eliminated because the blade-to-anvil geometric relationship is never disturbed during slitting repositioning.

Manual controlled systems are ideal for applications with infrequent setup changes or average accuracy requirements. Optional automated controls are available for applications where trim width accuracy is critical, where access to the trim slitters is difficult, or where 'on the fly' trim changes or adjustments to the position of the knives are required.

OPTIONAL AUTOMATED CONTROLS

User-friendly, intuitive operations and touch-screen controls

Highly accurate absolute web width patterns

Absolute incremental positioning

Position accuracy of ± 0.2 mm (0.008 inch)

Optional automatic edge following with Fife guiding

KEY FEATURES

- Advanced design allows for trim changes and blade replacements 'on the fly,' reducing downtime and waste
- Built tough for reliable operations in rugged environments
- Automatically maintains critical blade-to-anvil relationship, greatly reducing setup time while ensuring trimming accuracy
- C-Frame supports standard trim width of 142.2 mm (5.6 in), with maximum of 381 mm (15 in)
- Modular and flexible for a wide range of operations
- Compact and rugged control console enables many mounting options
- Can be configured to run from PC via stand-alone program or existing PLC

BUYING GUIDE

Customize your system with 5 easy steps!

1. How do you want to set slit width and save patterns?

Manual options
Positioned by hand inputs

- ○ **Pushbutton Brake Release (standard)**
  Brake release on slitting carriage for manual moving by hand
- ○ **Remote Brake Release**
  Off-carriage mounted brake release with hand wheel
- ○ **Remote Brake Release & Position Feedback**
  Added Siko dial position indicator

Automatic options
Positioned via control input & servo motor(s)

- ○ **Tidland Industrial PC Control (standard)**
  Cabinet with touchscreen interface and PC with Tidland control software
- ○ **External PLC Control**
  Cabinet with touchscreen interface, control inputs from external customer PLC

2. Should the system follow the web's edge automatically while running?

- ○ **Guided**
  Built-in Fife guided system with position feedback, automatically moves slitter if web location changes
- ○ **Unguided (standard)**
  No edge following - best for fixed edge

3. Should the bottom knife motor drive be included?

- ○ **Motor without Variable Speed Drive (standard)**
  Customer provides own drive/speed control for slitter motor

Motor with Variable Speed Drive, control options
Slitter overspeed automatically adjusts to web speed in real time by Tidland controls

- ○ **Winder Input**
  VFD wired to receive speed input signal of 0-10V or 4-20mA
- ○ **Encoder**
  Stand-alone speed reference from encoder with remote roto pulsar

4. What trim support or removal is needed?

- ○ **Without Platen (standard)**
  Trim guided away from web by drum
- ○ **With Platen**
  Support surface for guiding trim away from web
- ○ **With Platen & Trim Chute**
  Support surface and chute for trim removal
- ○ **With Platen & Trim Chute & Cut-Off**
  Support surface and trim breaker to cut and force into chute

5. What knifeholder type is required?

- ○ **Performance Series Class I, II, or III (standard)**
- ○ **Control Series**

* support beam optional for manual systems

SPECIFICATIONS

Electrical

Anvil Motors (manual and automatic versions)
Ziehl-Abegg external-rotor dust sealed motors enable a wide range of operating speeds and torque values
Gear reducers are available for slow speed applications
Input power: 3-phase, 230 - 460 V AC +/- 10%

Actuator Control (automatic only)
Stepper motors with integrated drive controller and encoder

Touch Screen (automatic only)
Industrial touch screen controller with NEMA 4 / IP 65 enclosure

Simplified Connections (automatic only)
Requires only 110 or 220 V AC single-phase power and two easy-to-wire interconnect lines between the touchscreen control and edge trim units
Quick release input air connections for knife control and pneumatic brakes
Ethernet communication and 24 V DC servo power cables

Mechanical

Construction
Heavy duty steel construction with corrosion resistant nickel plated finish

Knifeholders
Performance Series Class I, II, and III, or Control Series

Carriage Design
Modular (bottom or back mount) with linear bearings and linked upper and lower blades
Maintains critical blade geometry as the unit is positioned

Trim Widths
Standard trim support - 142.2 mm (5.6 in) wide, custom sizes available on request
Custom trim widths available up to 381 mm (15 in) maximum

Acutator
On-carriage brake release for basic manual operation
Self-contained lead screw and hand wheel (manual) or stepper motor (automatic) for positioning

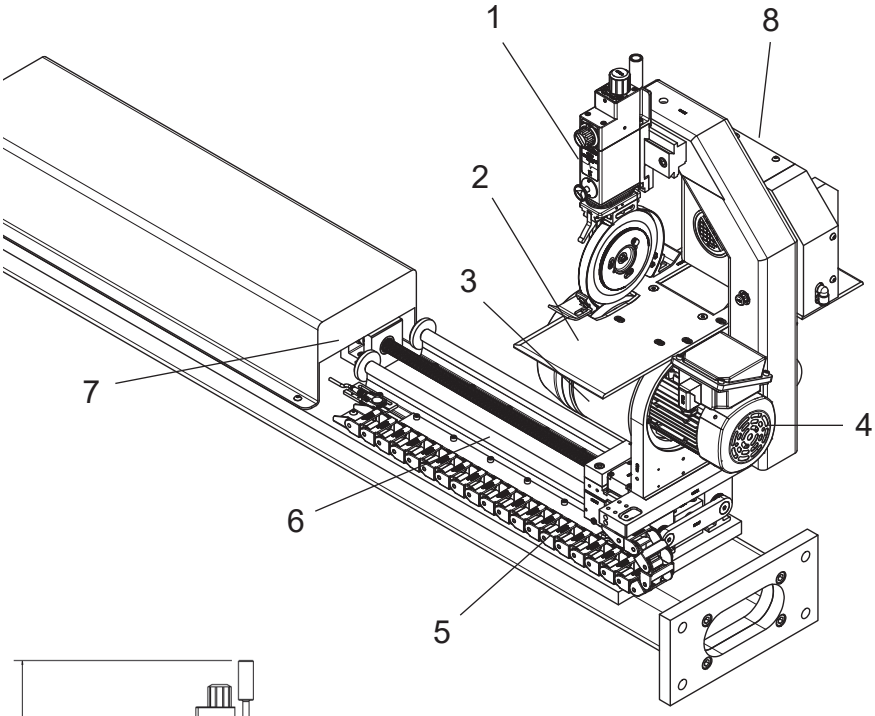
Web Path
Horizontal or vertical

Web Speed
Based on knifeholder class selected: max. 3,500 fpm (1000 mpm) for Class I; 5,500 fpm (1,700 mpm) for Class II; and 10,000 fpm (3,000 mpm) for Class III
Gear reducers are added for low speed applications

DESIGN FEATURES

Edge-Trim with horizontal web path

1. Performance or Control Series Knifeholder
2. Optional platen trim support
3. Edge trim unit
4. AC bottom knife motor
5. Cable management
6. Linear bearing rail
7. Servo motor and cover (automatic version)
8. Optional trim cut-off



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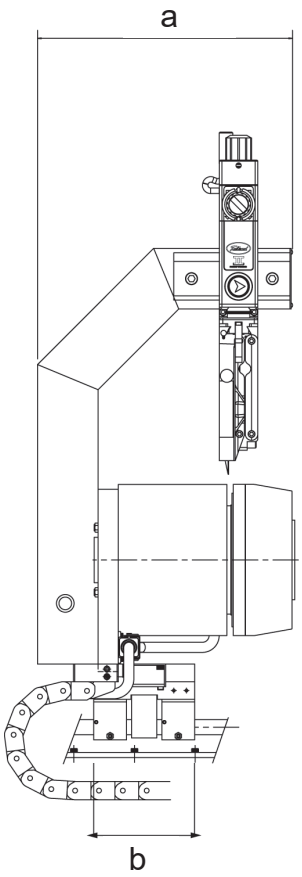

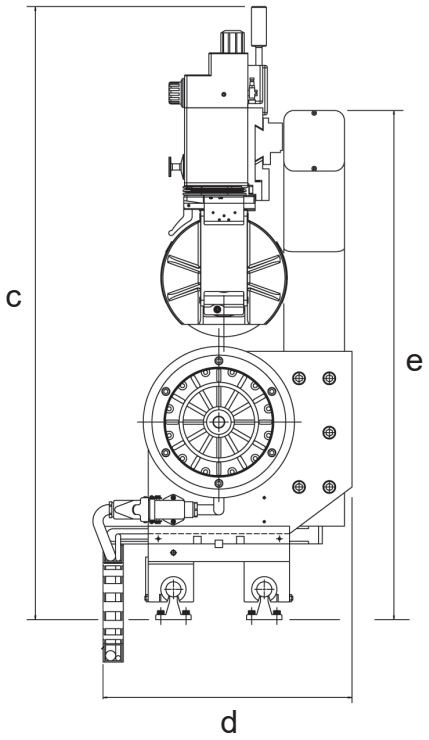

Typical Edge-Trim Assembly

Class II Knifeholders
a. 320.6 mm (12.625 in)
b. 127.0 mm (5.0 in)
c. 778.2 mm (30.639 in)
d. 313.2 mm (12.331 in)
e. 639.7 mm (25.187 in)

Class III Knifeholders
a. 399.0 mm (15.707 in)
b. 146.0 mm (5.75 in)
c. 894.8 mm (35.230 in)
d. 366.0 mm (14.408 in)
e. 757.3 mm (29.813 in)

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