

*Deliver a perfect roll every time*



# Roll Damage: An all too familiar problem



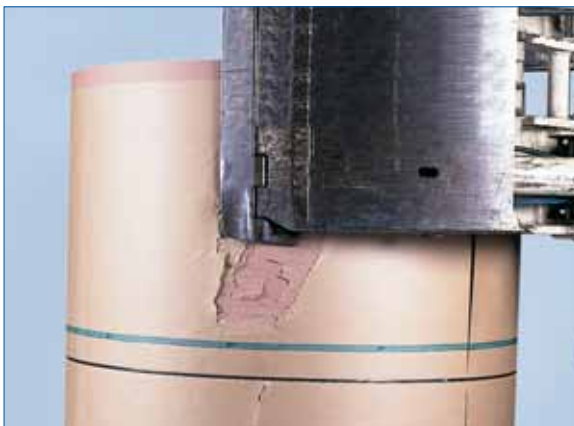
## SOLVE EDGE DAMAGE WITH:

- Rotational Control
- Tilt Control



## SOLVE TORN LAYERS AND SCUFFING WITH:

- Rotational Control
- Tilt Control
- Adjustable Bumper
- Application-Specific Pads
- Drop-Stop Valve
- Split Arm
- Digital Display
- Swing Frame



## SOLVE ROLL DROPPING WITH:

- AFC (Adaptive Force Control)
- HFC (Hydraulic Force Control)
- Clamp Force Indicator
- Adjustable Bumper
- Tilt Control
- Rotational Control
- Digital Display



## SOLVE OUT-OF-ROUNDNESS & CORE CRUSHING WITH:

- Multi-Setting Relief Valve
- AFC (Adaptive Force Control)
- HFC (Hydraulic Force Control)
- Load Cushion™
- Clamp Force Indicator
- Light Tower Kit
- Digital Display

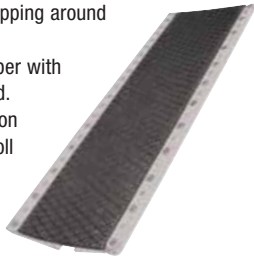
# Contact Pads for Damage Free Handling of Printing Papers

## FLEXIPAD

**Paper types:** Designed primarily for newsprint industry.

**Design features:**

- Provides full pad contact on various diameter rolls by wrapping around the roll.
- Diamond pattern rubber with replaceable flexi band.
- Spring style backing on rubber conforms to roll diameter.



## TISSUE, SINGLE DIAMETER

**Paper types:** Dense tissue such as industrial toweling.

**Design features:**

- Herringbone surface provides excellent friction surface without grabbing tissue.
- Large corner radius prevents cutting of tissue.
- Large surface area to minimize roll deformation.
- Optional round bar around perimeter prevents tearing.



## BOLT-ON RUBBER & URETHANE

**Paper types:** Milk carton and waxed stock, slick coated/magazine paper LWC, kraft linerboard, kraft medium, preprint, newsprint, supercalendered SC, carbonless, plastic/polywrapped, lithographic/fine, white printing or any paper requiring increased friction to reduce necessary clamp force.

**Design features:**

- Rubber or UDP is bonded to a durable steel backing plate.
- Bolt-on pads are easy to replace.
- Rubber and Urethane available in various durometers.
- Black rubber is standard and is recommended because it is more durable than white rubber.
- White rubber is available as an option.



## HERRINGBONE

**Paper types:** Excellent general purpose pad for most paper types including newsprint, kraft, tissue (see tissue section), gypsum board facing, dry-lap (rolled pulp), white printing and lithographic/fine paper.

**Design features:**

- Diamond pattern provides a multi-purpose gripping surface.
- Orientation of diamond pattern provides excellent friction in horizontal and vertical directions.



## BONDED NON-MARKING BLACK RUBBER RXH-SERIES (Rubber Cross Hatched)

**Paper types:** Used with newsprint, supercalendered SC, coated/magazine papers LWC, milk carton and waxed stock, glassine/greaseproof and white printing.

**Design features:**

- Cross hatched surface to prevent suction cup effect and increase friction.
- Large chamfered edge to improve knifing between rolls.
- Non-marking rubber compound.
- Protective metal edge guard helps prevent rubber from peeling.



## TISSUE, DOUBLE DIAMETER

**Paper types:** Medium density tissue such as common facial and toweling grades.

**Design features:**

- Herringbone surface provides excellent surface friction.
- Available with or without flared end.
- Flared end recommended to reduce cutting of tissue at pad ends.
- Full radius edge allows paper to transition around pad without tearing.



## IRATHANE COATED (Check for regional availability)

**Paper types:** Kraft and polywrapped paper rolls, linerboard-coated, white printing.

**Design features:**

- A dense pad coating that is durable and non-marking.
- Allows paper to be clamped with lower clamp force than metal pads.
- Irathane is applied with an average 5 mm (.20") thickness to maintain the thin pad profile.



## BAR-N-POCKET

**Paper types:**

Kraft papers (linerboard and medium/fluting), preprint, gypsum board facing, linerboard-coated and glassine/greaseproof.

**Design features:**

- Ribs provide increased friction compared to standard cast pad.
- Reduce risk of telescoping layers.



## CARBONLESS

**Paper types:** Carbonless.

**Design features:**

- Extra thick cross hatched surface to provide a cushioned clamping surface and excellent friction.
- Large chamfered edge to improve knifing between rolls.
- Non-marking rubber compound.
- Protective metal edge guard helps prevent rubber from peeling.

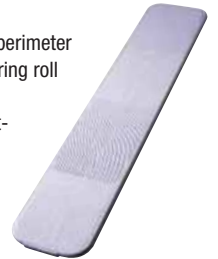


## TISSUE, CONVEX

**Paper types:** Low-density, soft tissue such as facial, toilet tissue and soft toweling.

**Design features:**

- Herringbone surface provides excellent surface friction.
- Convex surface with round bar perimeter provides a smooth transition during roll deflection to prevent tearing.
- Optional flared ends prevent cutting of tissue.
- Hardened wear surface prevents pad wear caused by floor contact.



## BONDED URETHANE UDP Series (Urethane Domed Profile)

**Paper types:** Supercalendered SC, milk carton and waxed stock, coated/magazine LWC, kraft linerboard, kraft medium/fluting, preprint, fine papers, glassine/greaseproof, white printing and newsprint.

**Design features:**

- Durable urethane bonded to a special pad casting with a perimeter edge to protect the urethane when wedging between loads.
- Urethane is excellent pad material for use on difficult-to-handle papers.
- Domed oval surface helps prevent suction cup action in humid climates, increases friction and resiliency of pad surface.
- UDP pad profile has slightly less tendency to grab paper when moving past the roll.





# Cascade Damage Reduction Options: Designed to deliver perfect rolls



## Electronic Pressure Regulator

Allows operator to select proper clamp force with control switch that can be mounted for maximum operator convenience. A small in-cab light bar shows the driver which setting is active. Available with or without light tower. See options and accessories.



## Manual 3-Position Pressure Regulator

(Three pressure relief settings plus truck relief). Allows clamping force to vary from load to load using the minimum required hydraulic pressure settings. See options and accessories

## AFC (Field or Factory Installed)

AFC (Adaptive Force Control) is a computer-controlled system that prevents the driver from overclamping the load by controlling the clamp force in proportion to the load weight without driver intervention. System includes Load Cushion™ and has an optional Electronic Drop Stop Valve.



## HFC (Hydraulic Force Control)

HFC is a hydraulically controlled automatic clamp force system that changes the clamp force proportional to the load weight. It works by continually sensing the hydraulic force necessary to lift the load and adjusts clamping pressure as the weight of the load increases or decreases.

## Clamp Open Guard

Recommended for use on all F and G-Series Paper Roll Clamps and D-Series Sliding Arm Clamps to provide an added level of security to prevent accidental load dropping. Clamp Open Guard requires a definitive action by the driver to help prevent accidental unclamping. Kits are available with or without a timer. A timer allows the driver to press the button once and will allow the system to remain active for approximately 10 seconds. Kits without a timer will require the driver to hold the button down while opening the arms.

## Load Cushion™

Hoist System Accumulator that absorbs shocks and reduces the clamp force required to handle the load. See options and accessories.

## Electronic Drop-Stop Valve

Prevents clamp pads from sliding down roll and tearing paper after unclamping roll in slack-chain condition, and prevents pad jump when used with an accumulator. Available only with AFC. For mechanical stand-alone, see options and accessories.



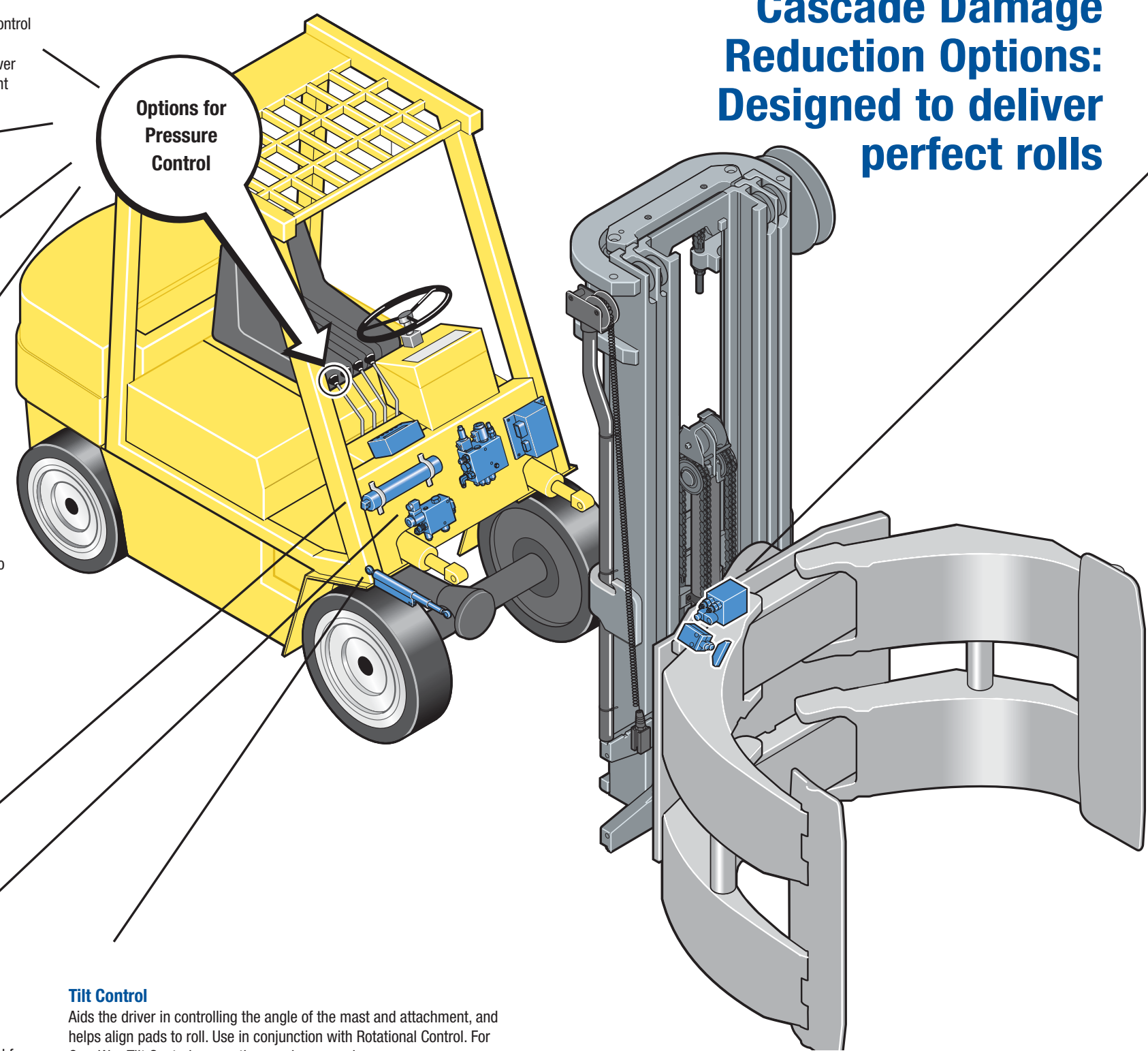
## Hydraulic Flow Control Valve

For delivered flows up to 190 L/Min. Reduces the flow to the attachment. Bi-directional for one hydraulic circuit. Valves without pressure relief are also recommended for use with a separate three-position pressure regulator or other relief system. Use in conjunction with the Low Pressure Tank Line Kit.



## Adjustable Bumper (Factory Installed)

Ensures that smaller rolls are correctly positioned between the pads—not trapped in the arms. Adjustable bumper range from maximum roll diameter to maximum roll diameter minus 250 mm.



Options for Pressure Control

## Tilt Control

Aids the driver in controlling the angle of the mast and attachment, and helps align pads to roll. Use in conjunction with Rotational Control. For One-Way Tilt Control, see options and accessories.

## Two-Way Tilt Control

Stops at vertical mast position when moving toward vertical from forward or back tilt positions. Includes override button. Recommended for paper roll clamp applications where operator tilts the mast. For Two-Way Tilt Control, see options and accessories.

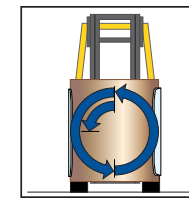
## Light Indicator Kit for Tilt Control

Light turns on when mast is vertical. Provides a visual means for the driver to know when the mast is not properly aligned. Kit is retrofittable to tilt controls already installed. See options and accessories section for details.



## Three-Position Light Kit

Rear overhead mount. The light bar shows the pressure setting in use when installed with the Manual 3 Position Pressure Regulator. See options and accessories.



## Rotational Control (Factory Installed)

Electronic version provides 90° (bilge) & 180° stops during 360° clamp rotation which automatically aligns pad to roll. Power Supply required unless Electronic Rotational Control is installed with AFC. Hydraulic version provides 180° stop. Both may be used in conjunction with Tilt Control.



## Application-Specific Contact Pads

Roll clamp contact pads are an important part of damage reduction. Use of the correct pad allows clamp pressure to be minimized.



## Swing Frame

Swing frame models offer you the optimum in roll handling speed and capability. The lateral 'swing' or sideshifting function adds an extra dimension of flexibility to the clamp's breakout and tight stacking capabilities.



## Clamp Force Indicator

Measuring device that shows the clamp force applied to the load. Periodic checking and adjusting of clamp force is highly recommended to ensure damage-free handling. Includes calibrated gauge.



## Portable Clamp Force Indicator

Portable measuring device that shows the clamp force applied to the load. Allows you to easily determine how much force the clamp applies to the roll on-site.



## Roll Protector

Durable polyethylene sheet used to protect paper stored in warehouses from damage caused by lift trucks.



## Split-Arm

Allows secure handling of two stacked rolls of different diameters.

# Cascade clamps are the total solution

Cascade has a clamp for any size, weight or type of roll you are handling. Combine with our damage reduction options for the total solution.



## **SINGLE, SMALL ROLL**

25F, 18H, 20H — Perfect for handling smaller rolls of newsprint, form and printing stocks.



## **SINGLE, MEDIUM TO LARGE ROLL**

45F, 25H, 30H, 33H, 72G, 77F, 90F, 100F — Designed for mills, warehouses, corrugators and converters handling kraft, linerboard and coated papers.



## **JUMBO, BIG ROLL**

120F, 130F, 70H, 150F, 160F, 120H — High production roll clamp for wide printing paper handling of kraft, linerboard and coated stock.



## **SLIDING ARM**

35D, 50D, 60D, 66D, 70D, 80D, 100D, 110D, 140D — When arm thickness is an issue, Sliding Arm model offers a narrow clamp arm profile.



## **SINGLE & DOUBLE TOWER**

45H, 50H, 60H, 75H, 120H — Designed for mills and stevedores where multiple roll handling is essential. Handle from 2 to 8 rolls of newsprint, coated stock, kraft or linerboard.



## **TISSUE ROLL**

45F, 60G, 66G, 72G, 77F, 90F, 100F — Designed for gentle handling of tissue rolls.



## **PIVOT ARM - MULTI ROLL**

RCQ and RSQ — Designed for mills and stevedores where multiple roll handling improves productivity. For handling newsprint, coated stock, kraft and linerboard.



## **360° ROTATIONAL CONTROL**

Damage can occur when the roll is being moved from a loading dock onto a truck or boxcar. With Cascade's 360° rotation, potentially damaging situations like loading on uneven ground are eliminated.

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