

# Damage Reduction Systems for Carton Clamps

**Solutions to control clamp force, preventing product damage.**



### **HFC™ (Hydraulic Force Control)**

Automatic clamp force system that changes the clamp force proportional to the load weight by continuously sensing the hydraulic pressure necessary to lift the load.



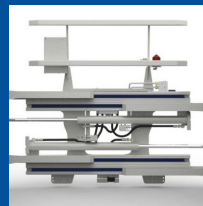
### **VFC™ (Volumetric Force Control)**

Automatically adjusts clamping pressure based on volume of the load. Calculates the size of load and will clamp with the least amount of force.



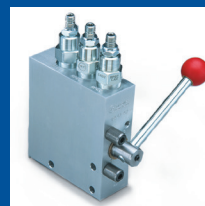
### **TFC™ (Touch Force Control System)**

TFC™ is an interactive and easy-to-use touch screen system that works in applications where regulating clamp force and pressure control is required.



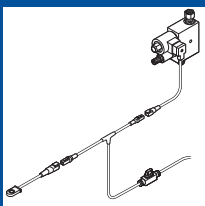
### **APC™ (Automatic Pressure Control)**

Automatically adjusts clamping pressure based on load width only. This option detects the size of load and will clamp with the 2 or 3 pre-set amounts of force.



### **MANUAL 3-POSITION PRESSURE REGULATOR**

Basic method for controlling the amount of pressure applied to the paper roll.



### **HFC™ OPTIMAL ARM SPEED OVERDRIVE SYSTEM**

System drives the arms to close at full speed used in applications where very low clamping pressure is required, resulting in lower arm speed.



### **WPM (Wireless Pressure Monitor)**

A system to monitor the hydraulic pressure in the clamping cylinders of an attachment on a real time basis. Perfect for allowing drivers to see the actual pressure during the clamp cycle.



### **DTI™ (Digital Tilt Indicator)**

An LED tilt indicator that visually informs the driver whether or not the mast is tilted properly to provide level forks or vertical pads on a paper roll or carton clamp.



### **TILT CONTROL**

Automatically controls the angle of the mast and attachment, which aligns the pad to the roll, and the roll to the floor.



### **ELECTRONIC PRESSURE REGULATOR**

Allows operator to select proper clamp force with a control switch.



### **DIGITAL CLAMP FORCE INDICATOR**

Measuring device that shows the pressure the clamp applies to the load.



### **4-POINT FORCE DISTRIBUTION TESTER**

Portable design measures clamp force in 4 quadrants of the contact pad for a reliable measurement.



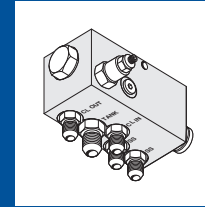
### **LOAD CUSHION™**

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



### **3-POSITION LIGHT TOWER KIT**

The light bar shows the pressure setting in use when installed with the 3-Position Pressure Regulator.



### **ANTI-SPIKING VALVE**

Prevents the auxiliary control lever from being used to "spike" or "milk" the clamp hydraulic circuit to increase clamp force.

Damage is the biggest variable in a product's journey. From creation to final destination, Cascade Corporation is dedicated to ensuring that each step of the journey is precise, practiced and controlled.

**Control clamp force, reduce damage.**



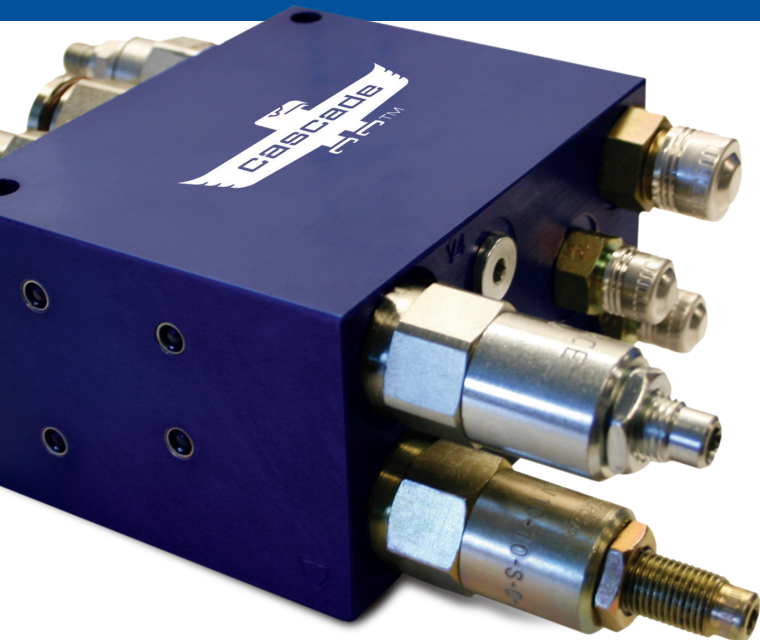
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**HFC™ for Carton Clamps**  
Make all your drivers experts.

Hands free clamp force adjustment  
to reduce product damage.