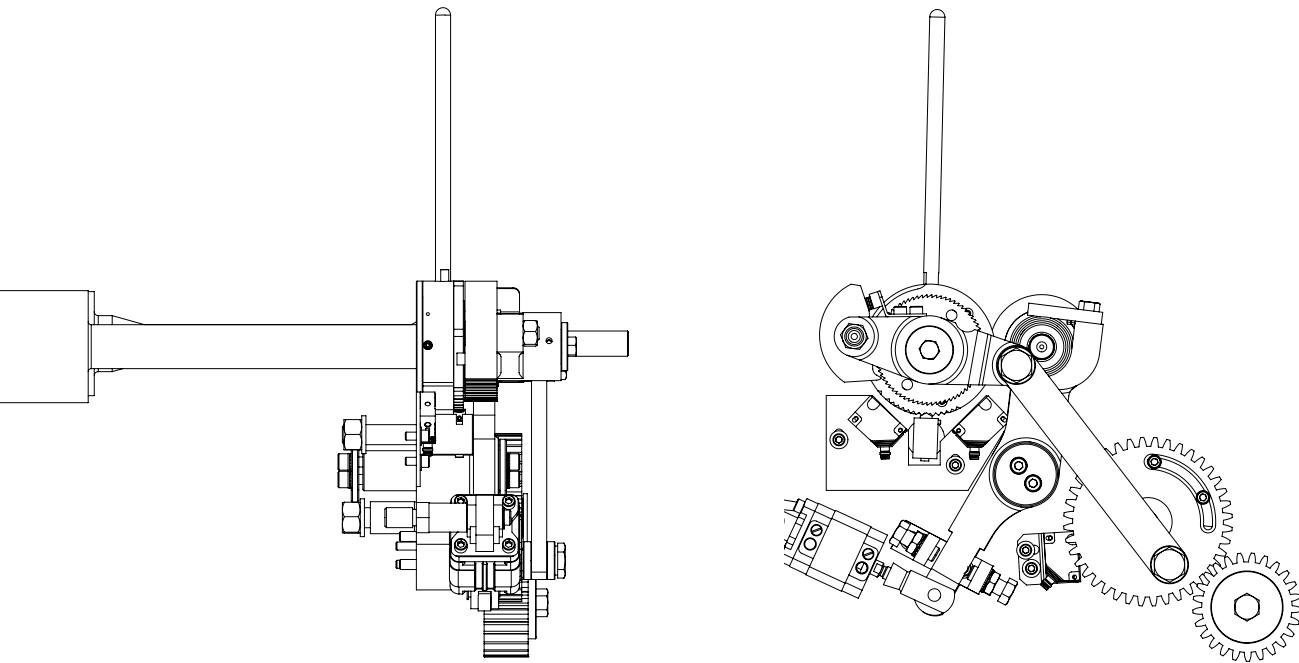


# MARQUESS UPGRADES

ENGINEERED PRODUCT SOLUTIONS



# Upgrades & Spares

## Upgrades

**Crabtree applies decades of expertise to help your business grow through innovative upgrades and tailored solutions.**

As the OEM, we have a wide range of bespoke upgrade paths for all of our machinery designed to enhance your production capabilities.

We are always open to developing new solutions, with support from our Technical and R&D department, please contact us to discuss how we can support you.



## Spares

We manufacture all of our precision OEM components from our expansive site in Gateshead, UK.

With over 30,000 specialist components in stock, we have quick turnaround for urgent spares, ensuring minimal downtime and uninterrupted operations.

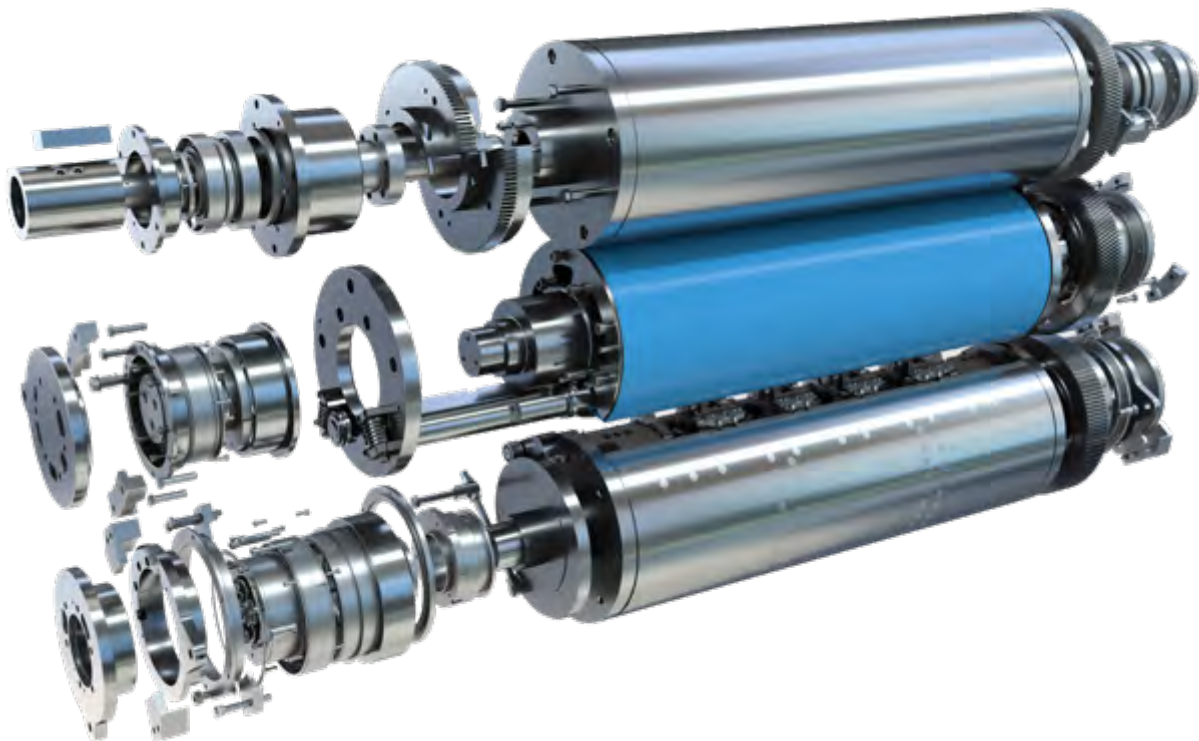
- ~ OEM spare parts for all Crabtree products
- ~ Extensive stock for quick despatch
- ~ Full warranty on all parts



## Printing Cylinder Service

We supply replacement OEM printing cylinders across the full range of our printing presses. Produced to the highest quality, we use precision manufacturing and inspection techniques to ensure the best print quality for your machine.

~ All new cylinders include a full 12 month warranty



## Quality Cylinders

Advances in manufacturing and inspection mean newly produced Crabtree cylinders have improved stiffness and extremely fine tolerances (sub 10µm), all of our cylinders are multi-stage inspected to ensure the highest quality.



# Service Maintenance Contract

## Contract Levels

**LEVEL 1** Online support

**LEVEL 2** 1 visits per year

**LEVEL 3** 2 visits per year



## Included

- ~ Free online support for the duration of the contract. Including online fault finding via modem where applicable.
- ~ Training for operators and maintenance personnel.
- ~ Audit of Crabtree equipment to highlight essential areas of concern.
- ~ Set Machine back to factory settings.
- ~ Planned preventive maintenance.
- ~ Advice on printing procedures.

## Service Support

Backed by a global network of highly experienced service engineers, we make sure all of our Crabtree equipment runs smoothly.

### We provide the following:

- ~ Installation of new Crabtree equipment
- ~ Onsite support and repairs, available worldwide
- ~ Full mechanical and electrical surveys
- ~ Upgrades and refurbishment for print optimisation
- ~ Targeted training for operators and maintenance personnel
- ~ Remote support and diagnostics



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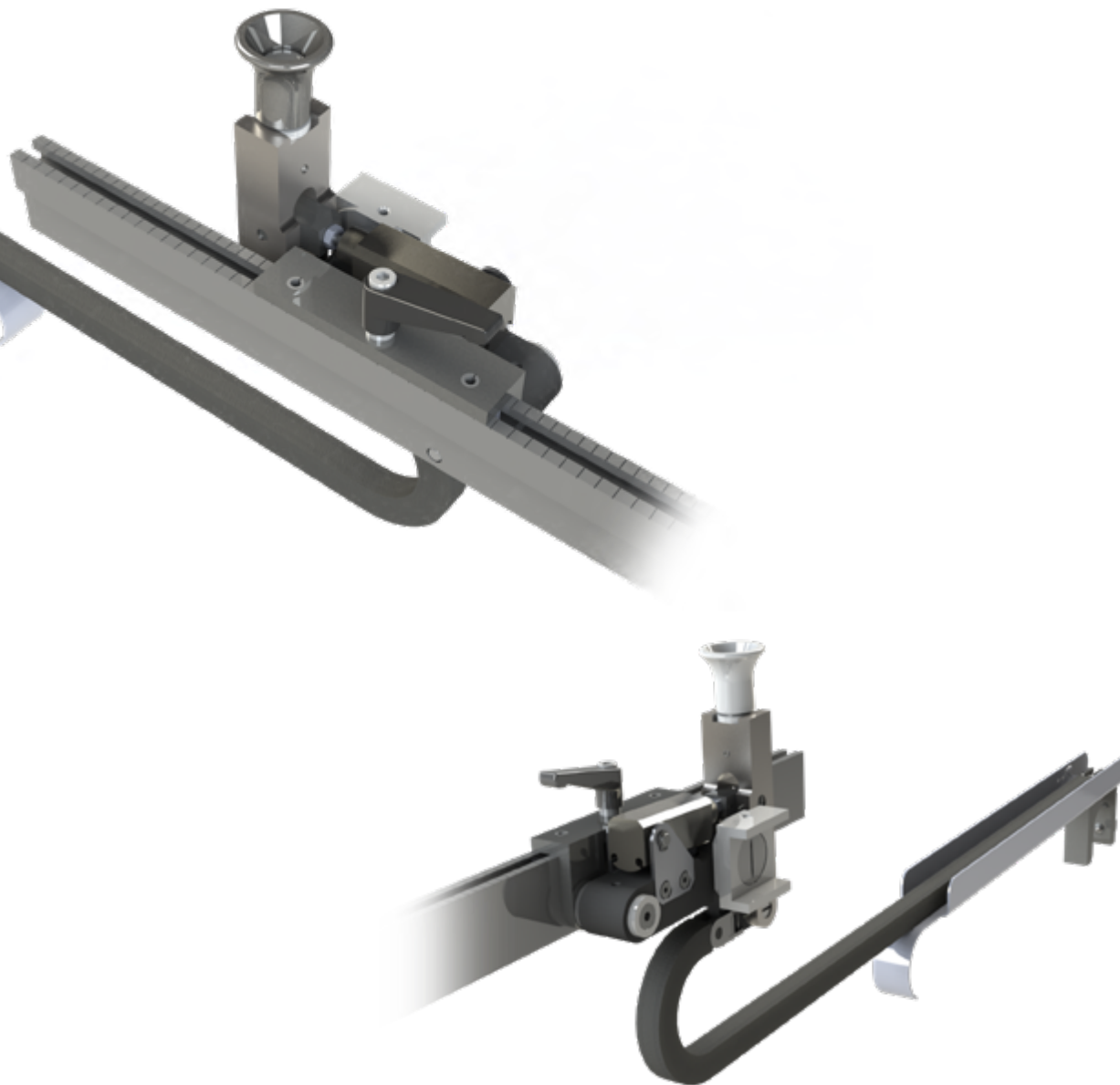
# Quick Release Pneumatic Pusher

## Features

- ~ Pneumatic backpush adjustment
- ~ Quick adjustment that takes seconds, no need to replace mechanical springs
- ~ Quick release clamps for sheet size setting
- ~ Precise setting using precision regulator

## Benefits

- ~ Saves setup time
- ~ Very fine adjustment to suit any material substrate



## Features

- ~ Accuracy adjustment of 0.01mm per 'click'
- ~ On the run adjustment to achieve fit quicker
- ~ Full adjustment of +/-3mm in either direction (from central position)
- ~ Screen for viewing adjustment
- ~ No electrical changes required

## Benefits

- ~ Precise and repeatable adjustment
- ~ Ease of adjustment on the run
- ~ Faster make ready time



## Features

- ~ Sidelay and sideguides replaced to suit scroll sheet patterns
- ~ Hardened anodised aluminium guides for reduced weight and precise movement
- ~ Suitable for both scroll and straight edge sheets
- ~ Articulated sidelays head to accept any misalignment
- ~ Pneumatically controlled sprung sidelay

## Benefits

- ~ Flexibility to print both scroll and straight edge sheets
- ~ Accepts out of square tin plate
- ~ Quick pneumatic adjustment of sidelay pressure
- ~ Reduced make-ready time

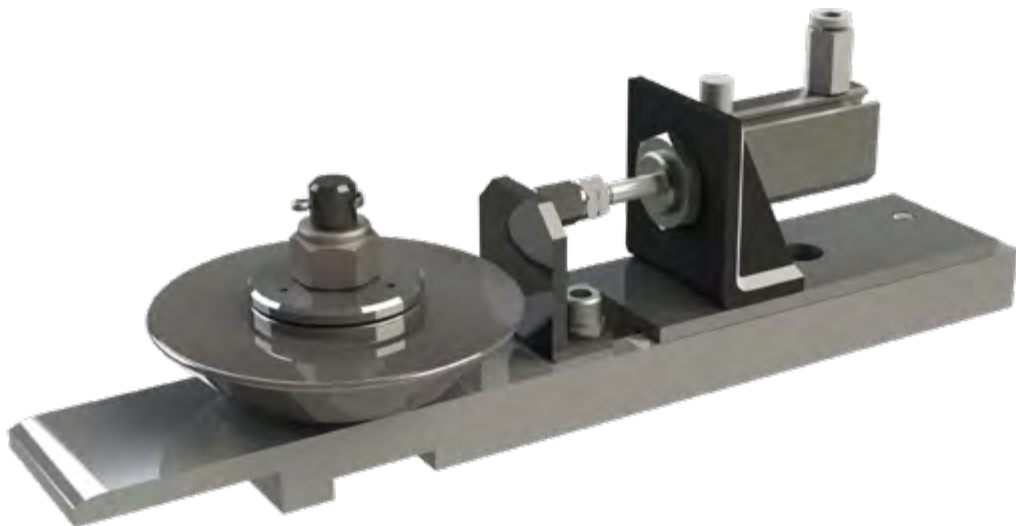


## Features

- ~ Replaces mechanical spring adjustment with a pneumatic cylinder
- ~ Precision regulator
- ~ On the run adjustment of sidelay pressure

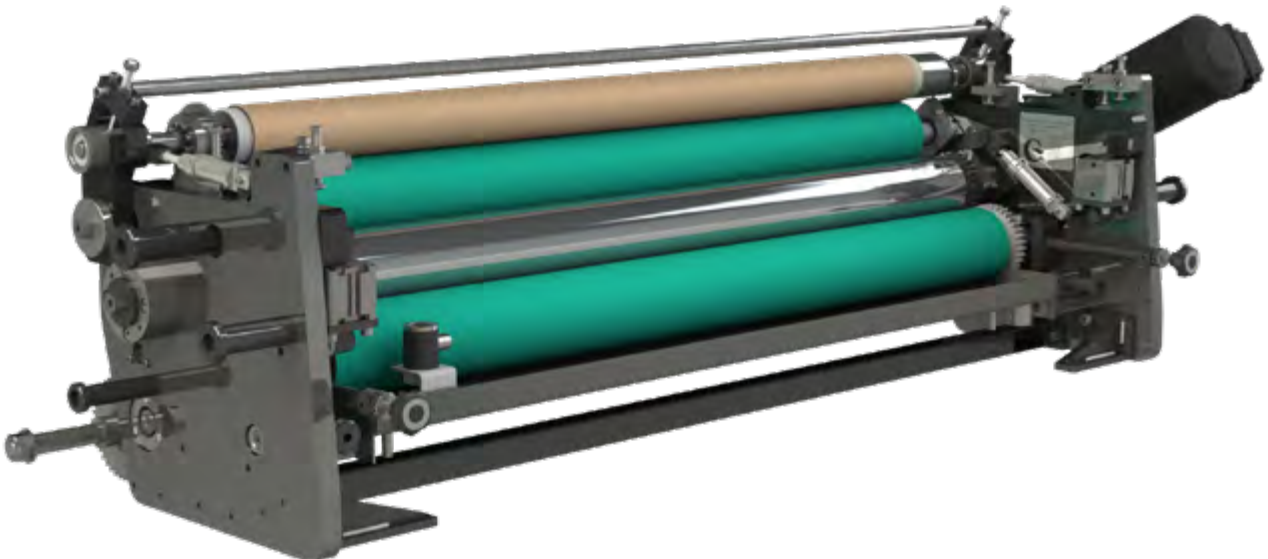
## Benefits

- ~ Quicker setup times (no need to remove or change mechanical springs)
- ~ Improved registration compared to the mechanical springs
- ~ Improved sidelay control over bigger range of sheet materials
- ~ Better sheet handling on thinner sheets
- ~ No Manual Interaction required to change sidelay pressure



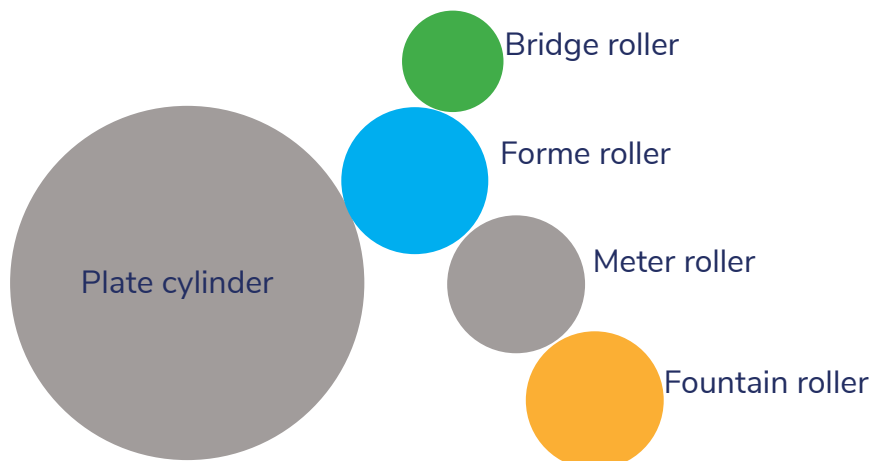
## Features

- ~ Two operating modes switchable during production:
  - Normal: The dampener follows press speed
  - Delta: Differential power transmission path reducing the speed of the Dampener Forme roller relative to the printing plate
- ~ Hickeys are removed from the printing plate
- ~ Printing plate is cleaned, sharpening dot formation and flattening the ink
- ~ Precisely controlled damp feed reduces emulsification and loss of colour brilliance
- ~ External cloth covering or paper roller sleeves no longer needed
- ~ Cambered fountain roller to reduce water build up
- ~ Reciprocating, hard rubber covered bridge roller to reduce ghosting
- ~ Fountain roller can be skewed to ensure accurate water control across the sheet
- ~ Temperature controlled chiller unit with alcohol monitoring and adjustment system



## Benefits

- ~ Printed images sharper with better gloss
- ~ Hickeys are removed for better print quality
- ~ Eliminates time wasted by hickey removal
- ~ Minimal wash-up time
- ~ Less sheet wastage
- ~ Improved process control through stability in damping flow
- ~ Less ink and water used



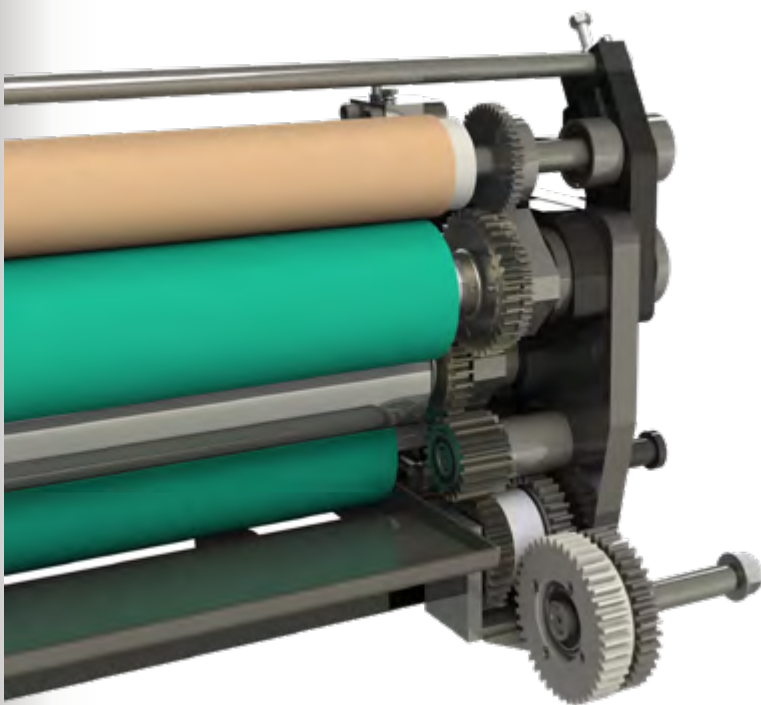
Chiller Unit



Available for conventional, and UV inks, this must be specified when ordering

For existing Delta Dampener systems, we offer full drive upgrade paths to current standard

Please enquire.



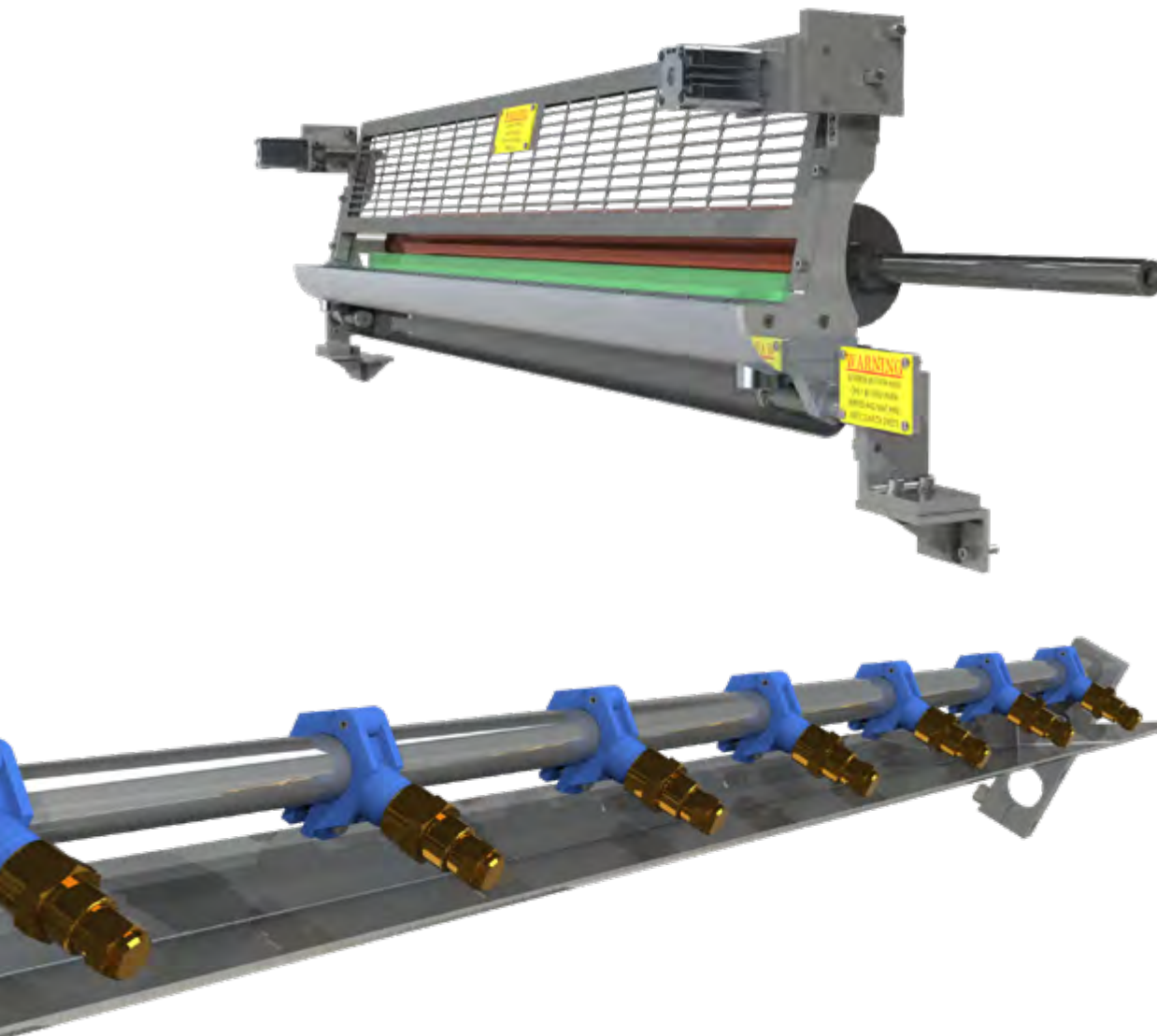
# Inker Roller Wash-Up System

## Features

- ~ Inker roller spray bar
- ~ Pneumatically operated wash up blade
- ~ Solvent tank and pump
- ~ Available for conventional and UV inks
- ~ Fully programmable from local touchscreen

## Benefits

- ~ Reduced setup time
- ~ Simple and intuitive operation
- ~ Fully adjustable wash up time



### Features

- ~ Plate inking rollers have different diameters, optimizing print thickness
- ~ Advanced rubber roller covering

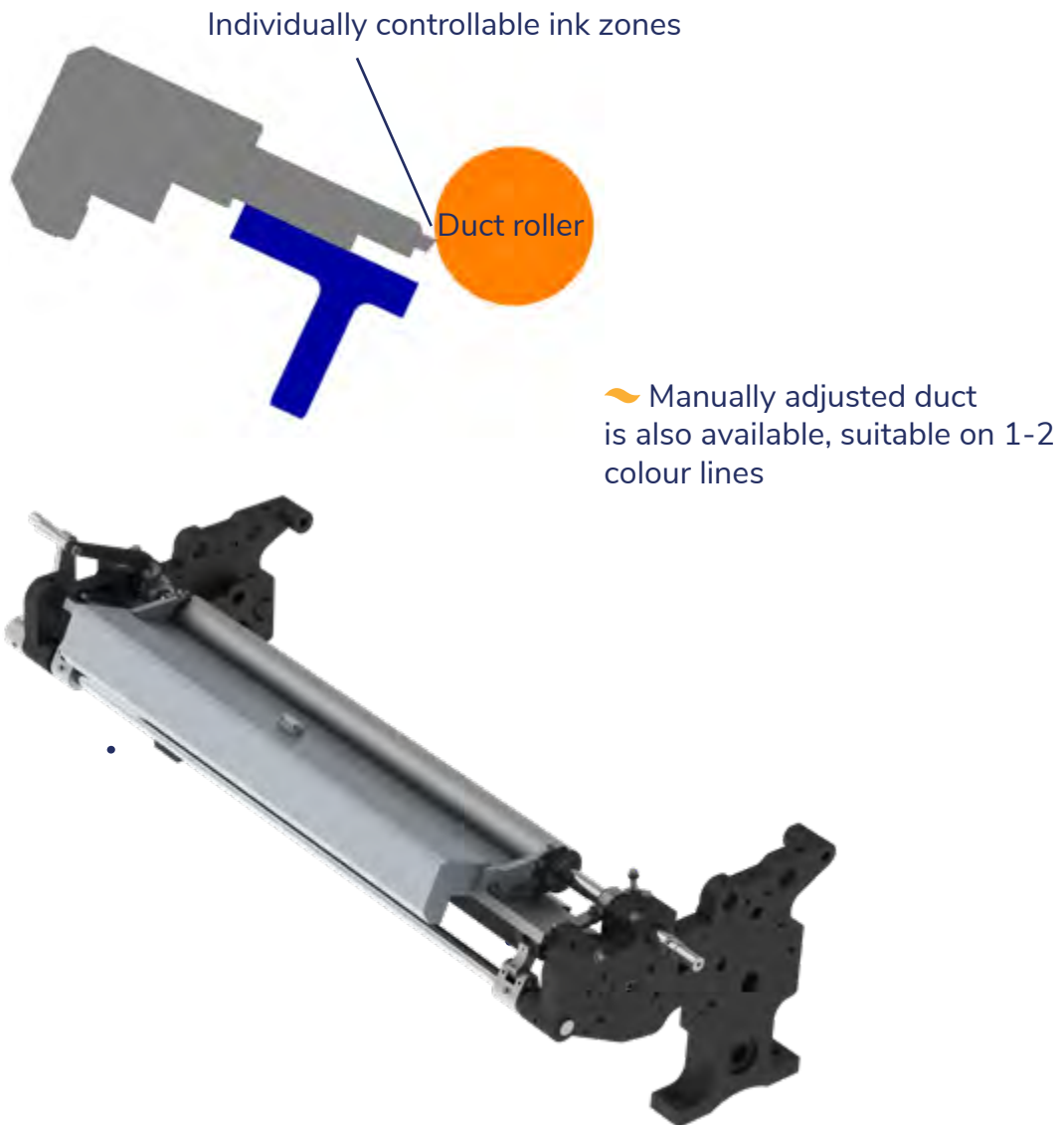
### Benefits

- ~ Improved print quality
- ~ Durable and diametrically stable rollers
- ~ Roller contact lines in print eliminated



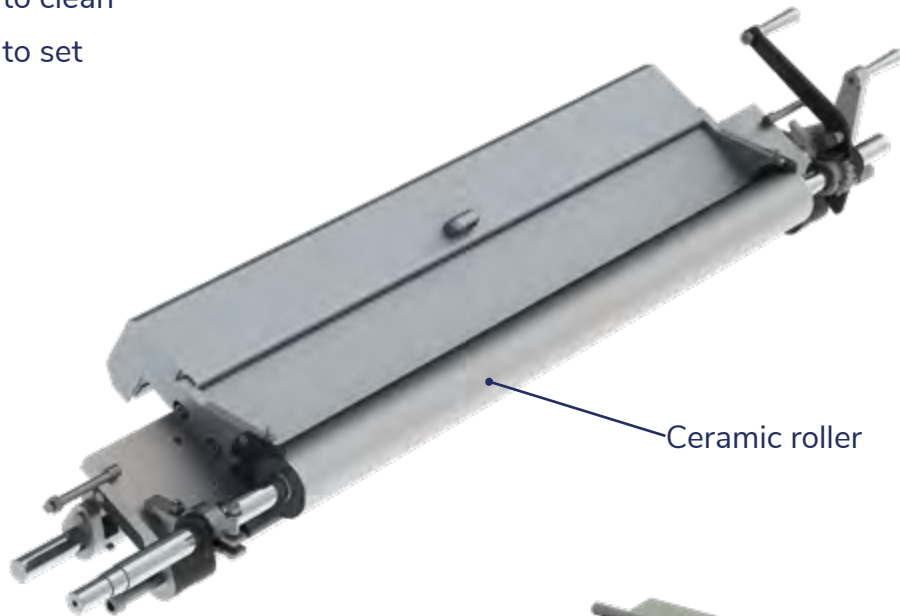
## Features

- ~ Individually controlled duct blade sections, available as either fully motorised or manual
- ~ Separate inspection control desk with full control over the ink distribution
- ~ Ceramic duct roller to reduce scratching
- ~ Suitable for both 40" and 45" Marquess machines
- ~ CIP3 compatible



## Benefits

- ~ Complete control over ink profile thickness
- ~ Ink profiles can be saved and loaded for different jobs
- ~ Reduced make-ready time
- ~ Easy to clean
- ~ Easy to set



## Control Desk

- ~ Full control over ink profile for every colour
- ~ Light inspection
- ~ Settable ink zones for each colour
- ~ Sweep motor control

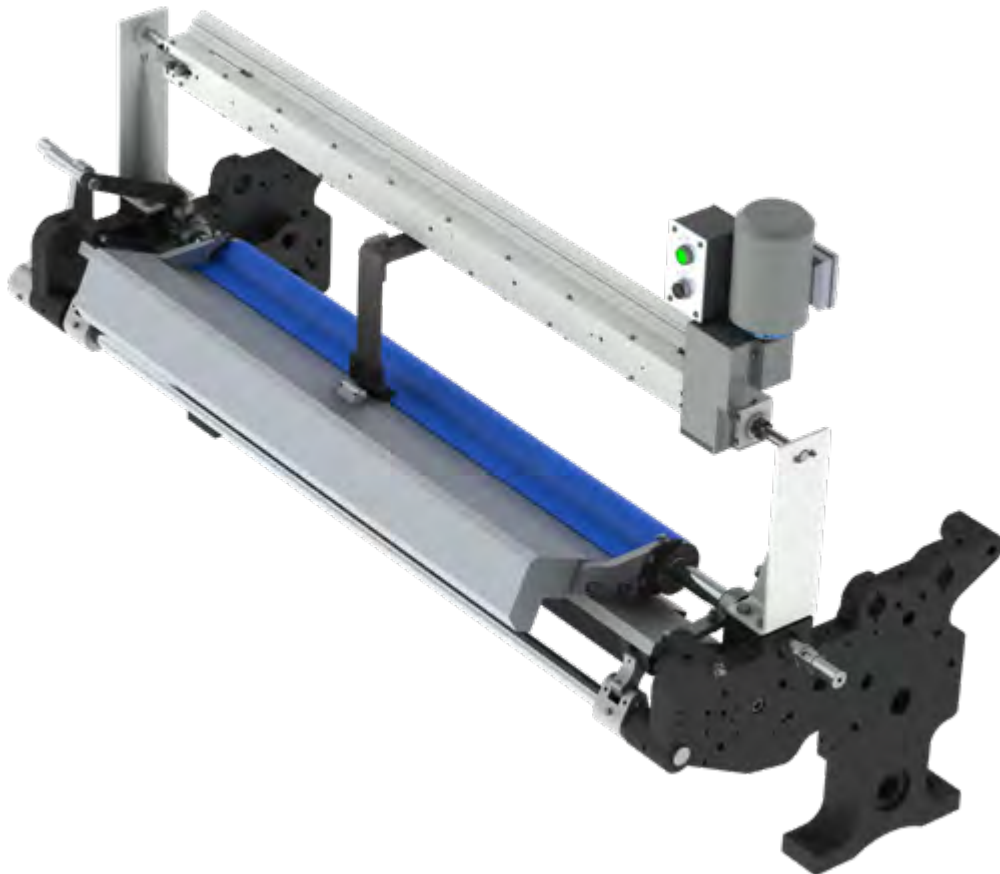


## Features

- ~ For use with UV inks, keeps the ink agitated
- ~ Motorised operation for constant motion
- ~ Paddle pushes ink into the duct roller
- ~ Quick release components for cleaning
- ~ Flexible design with adjustable end stops to change the stroke

## Benefits

- ~ Helps maintain consistent ink viscosity
- ~ Keeps ink pressed against the duct roller across the length
- ~ Easy to clean



## Features

- ~ Pneumatically controlled transfer roller
- ~ Ink transfer frequency controlled from console
- ~ Ink feed rate can be adjusted on 0-13 scale
- ~ Duct roller can be washed with other inking roller
- ~ PLC controlled

## Benefits

- ~ Reliable
- ~ Easily adjustable
- ~ Improved print quality



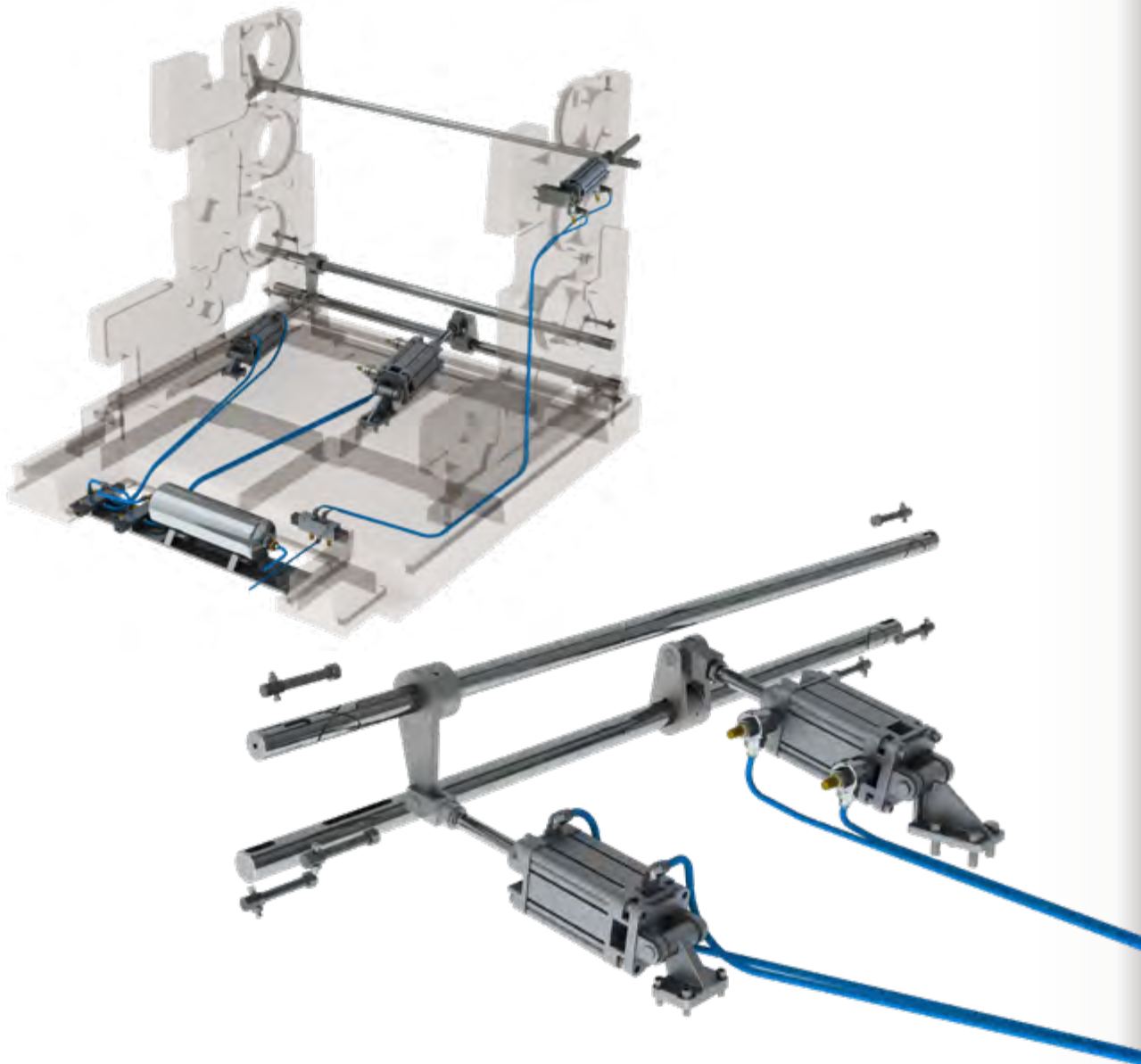
# Pneumatic Trips

## Features

- ~ Inking, damping, blanket and impression cylinder tripping
- ~ Automatic tripping controlled by sensors on infeed
- ~ Centrally controlled from touchscreen
- ~ Flexible arm mount for screen, can be positioned as appropriate for customer requirements

## Benefits

- ~ Reduction in make-ready time
- ~ Easy setting of cylinders and inker rollers
- ~ Less wastage due to incorrect trip procedures

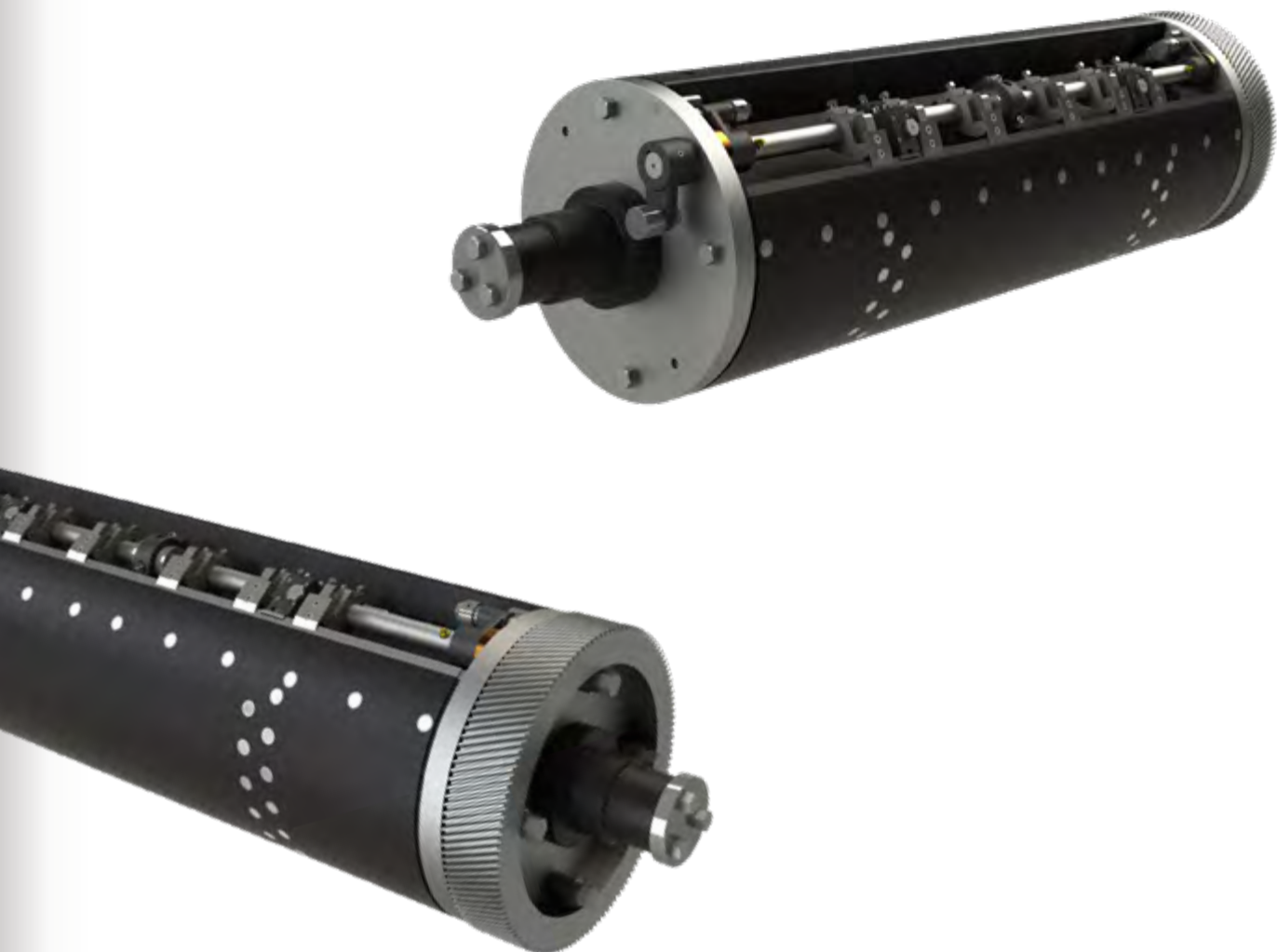


## Features

- ~ Array of magnets inserted into cylinder body
- ~ High precision manufacturing and quality systems for micron level accuracy parallelism and concentricity
- ~ Co-ordinate measuring system for inspection of cylinders
- ~ Micro-adjustable front-lays MP13 included

## Benefits

- ~ Better print quality
- ~ Improved sheet stripping from blanket
- ~ Improved stability of sheet through cylinder nip
- ~ No time wasted removing unstripped sheets
- ~ Reduced make-ready time



# Micro Adjustable Frontlays

## Features

- ~ Simple thumbwheel operation with gentle click detent
- ~ Larger displacements can be achieved using 22mm spanner
- ~ Trouble free maintenance with quick and easy removal
- ~ No need to remove gripper shaft for maintenance
- ~ Each click is exactly 12 micron (0.012 mm)
- ~ Reliable with precision engineered components and anti-backlash design

## Benefits

- ~ Simple operation
- ~ Precise and repeatable adjustment
- ~ Easy maintenance
- ~ Reduced make-ready time

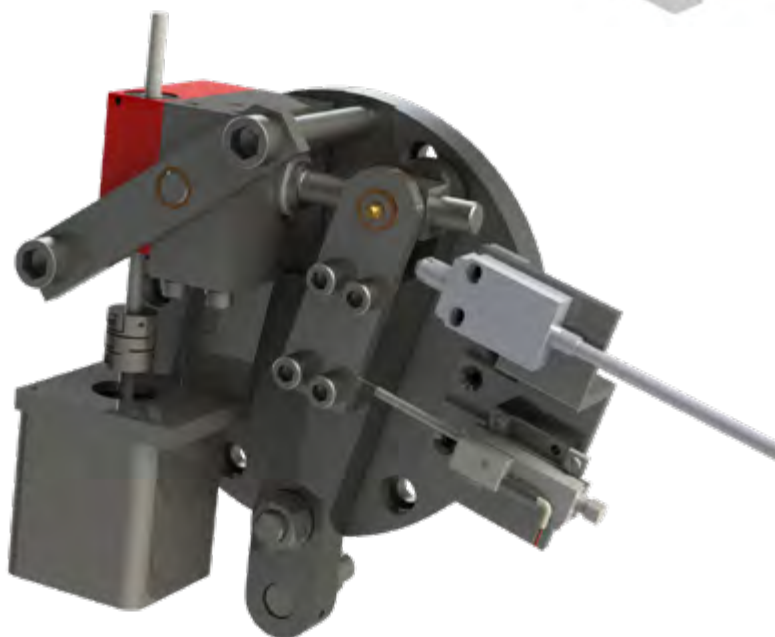
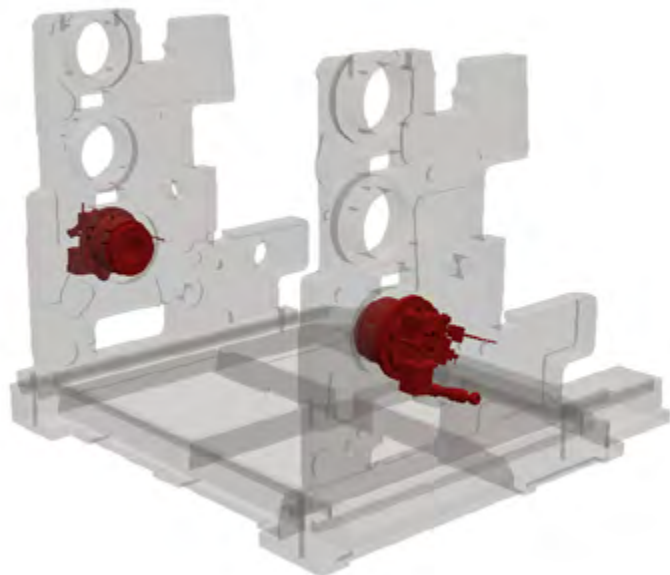


## Features

- ~ Printing pressure is adjusted via motorised linkages
- ~ Stock thickness setting can be changed without stopping production
- ~ Includes new cylinder housings for the impression cylinder
- ~ Local touchscreen optional

## Benefits

- ~ Reduced make-ready time
- ~ No tools required
- ~ Simple adjustment from centralised location



# Quick Release Clamp Bars (Pin Register)

## Features

- ~ Simple lever action mechanism for clamping plate at leading and trailing edge
- ~ Rapid tensioning mechanism
- ~ Pin register system for accurate plate placement
- ~ Pin register configured for specific customer requirements
- ~ Printing plate punch table required if pin register is not currently used

## Benefits

- ~ Quick and easy operation
- ~ Improved print quality
- ~ Repeatability of plate positioning
- ~ Reduced make-ready time

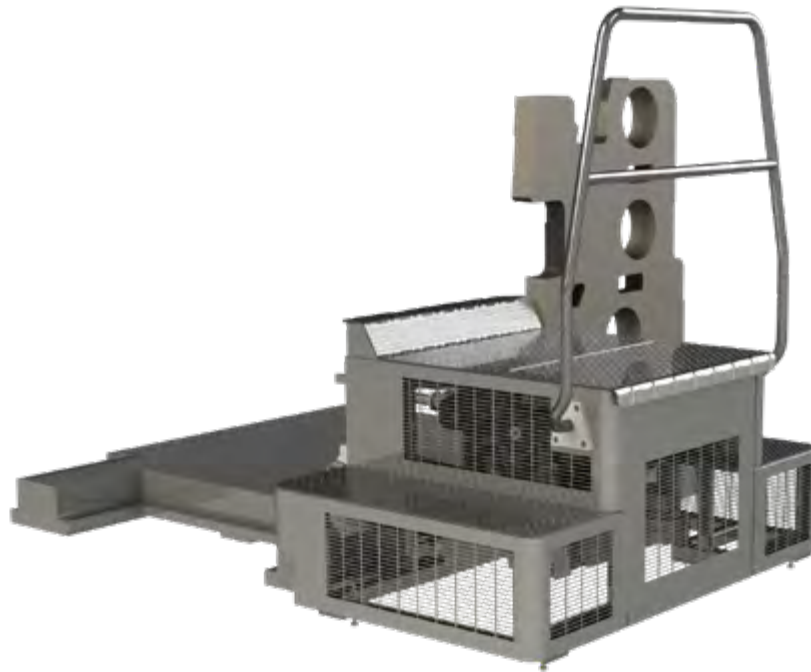


## Features

- ~ Separate motor for each unit
- ~ Removal of line shafts
- ~ Low maintenance AC servomotor
- ~ Electronically synchronised units

## Benefits

- ~ Make-ready time reduced
- ~ Run units separately at slow speed

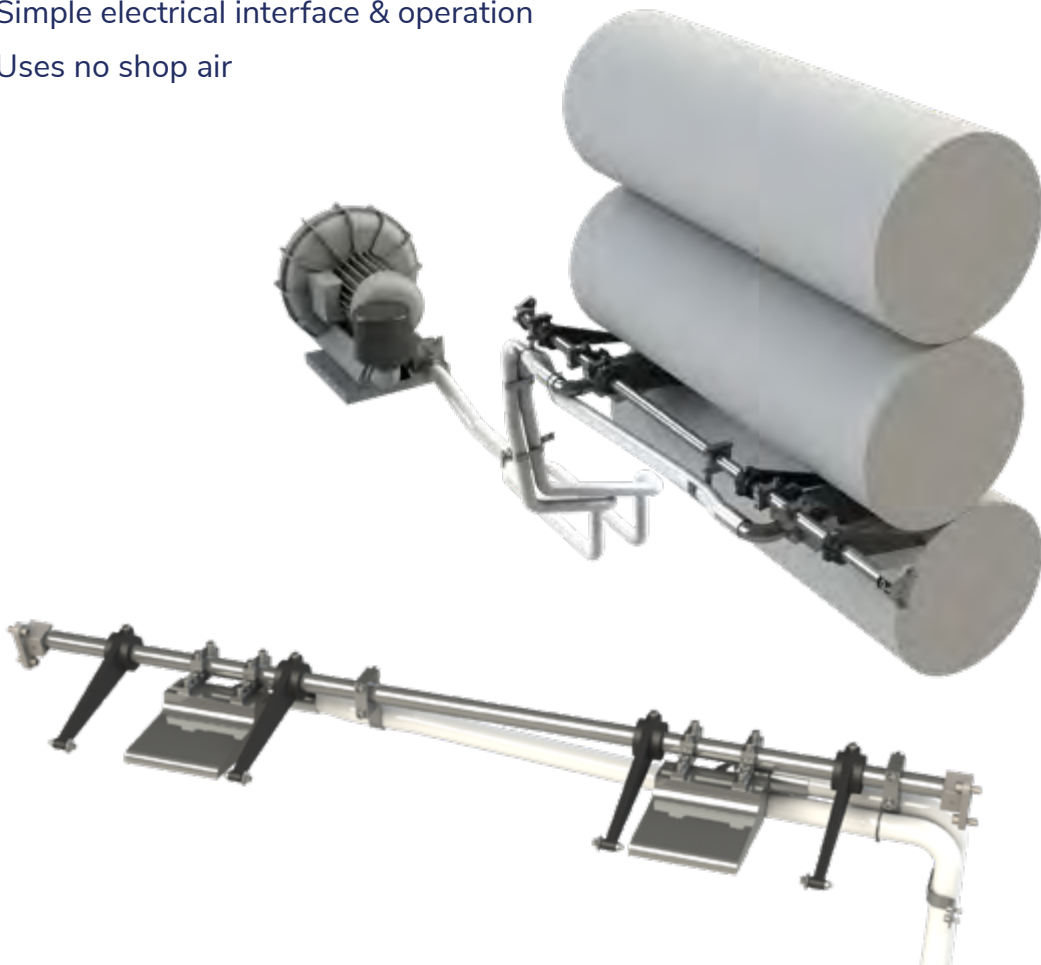


## Features & Benefits

- ~ Essential for UV printing and tacky conventional inks, especially for thin metal sheets.
- ~ No sheet contact eliminating potential sheet damage
- ~ Non-contact sheet stripping from the blanket
- ~ Optional unstripped sheet detector
- ~ Maintains accurate print length
- ~ Available in a Vacuum pump version (**MP17a**) or high powered Air-blade (**MP17b**)

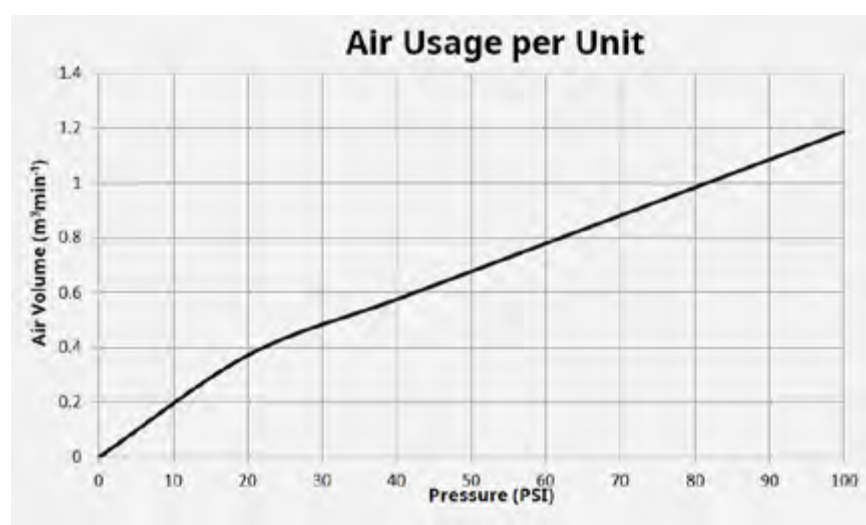
## MP17a - Pump Version

- ~ Targeted air flow with flow control on the pump gate valve
- ~ Individual blower pump for every unit (4kW)
- ~ Easy to remove assembly for maintenance
- ~ Simple electrical interface & operation
- ~ Uses no shop air



## MP17b – Air Blade Version

- ~ Powerful air blade design for directional airflow
- ~ Uses shop compressed air with an inline filter
- ~ High velocity directional airflow
- ~ Inline air regulator for easy and precise adjustment on every unit
- ~ Easy to remove assembly for maintenance
- ~ Optional solenoid for pulsed-operation
- ~ Basic version has no electrical interface



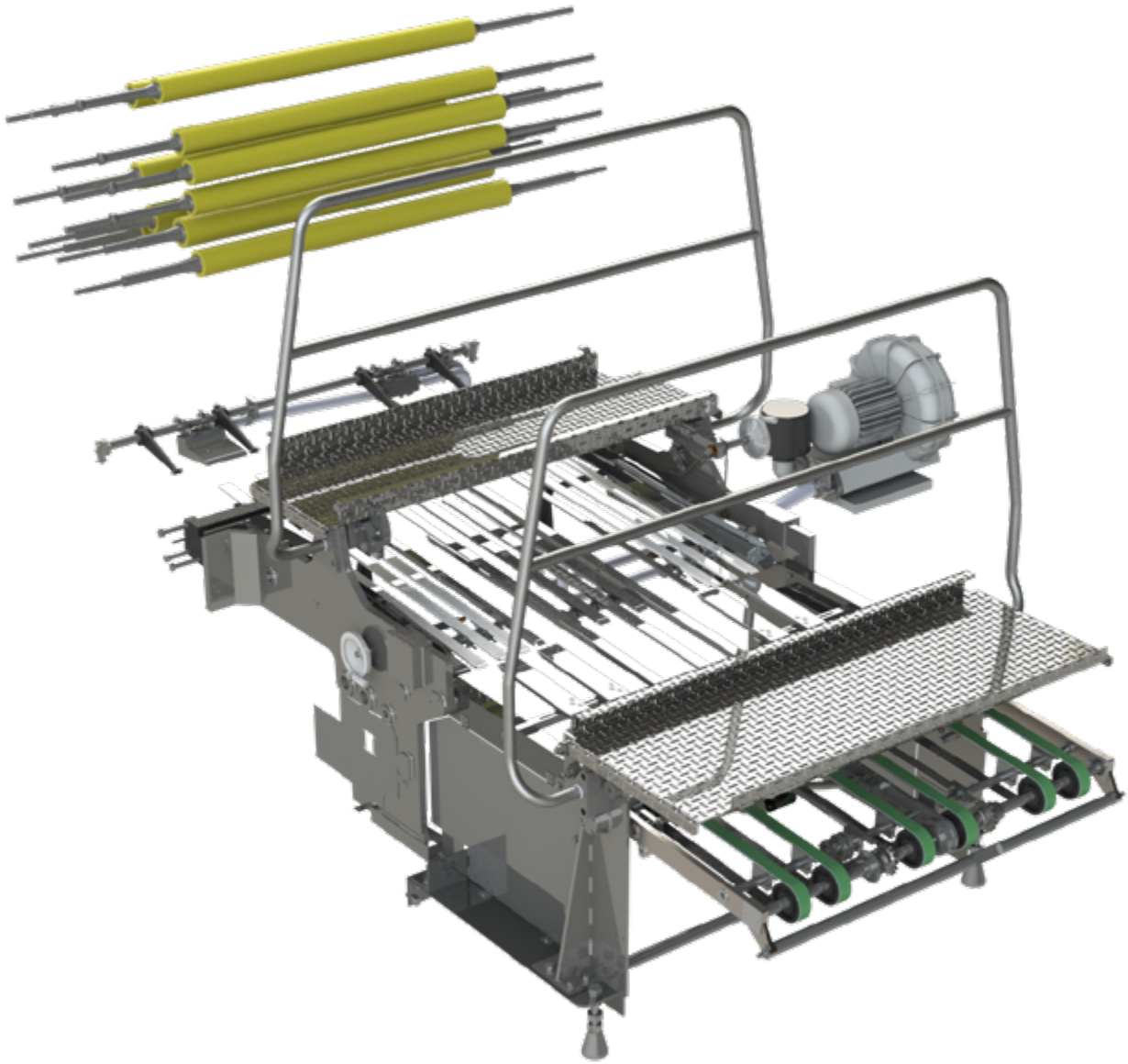
## Features

- ~ Extended infeed to allow UV interdeck curing system to be fitted
- ~ Single lamp interdeck UV curing unit
- ~ Three or four lamp set stack UV system
- ~ Ink agitators
- ~ Air knife strippers
- ~ UV ink compatible inker rollers
- ~ Optional UV ink compatible dampener rollers as per machine specification

## Benefits

- ~ Reduces waste due to quick curing time
- ~ UV curing replaces thermal oven, dramatically reducing print line length
- ~ Energy efficient





We are constantly improving our automation capability by using the latest state of the art control system technology.

We offer full electrical rewires to our equipment and all legacy control systems can be upgraded to enhance operational capability, including

- ~ Drives (DC and AC)
- ~ PLC's
- ~ CNC's
- ~ HMI's
- ~ Full rewires

## Increased Operator Control

- ~ Mainline touch screen HMI operator console on the side of the machine

**Keeping up to date with the latest control system is essential**

- ~ Spares availability
- ~ Future proofing the machine
- ~ OEM support
- ~ Increased performance
- ~ Modem connection for online service support (see maintenance contracts)
- ~ Industry 4 capability with customer specific advanced data capture technology



## Case Study:

### PT Multi Makmur

Crabtree recently completed a major overhaul for its Indonesian customer, Multi Makmur in 2024. The project successfully combined two separate 2-colour Marquess lines into a single 4-colour line while fully rewiring the machine with the latest control system and a mainline touchscreen HMI.

#### Customer statement:

☞ Crabtree has done an excellent job on the line conversion and upgrades. We appreciate and thank them for their continued support. The line is now running full-sheet production at 4,000 SPH.

- Joko Wartiono, Engineering Manager, Multi Makmur Indonesia



The machine during strip-down



Mainline console





## Book Your Free Online Consultation Today

We invite you to schedule a free online consultation to discuss your specific needs in the following areas:

- ~ New Machinery
- ~ Spares & Upgrades
- ~ Service & Maintenance
- ~ Technical & Operational Requirements

To book your consultation, please email: [info@crabpress.co.uk](mailto:info@crabpress.co.uk)

A member of our team will promptly arrange a convenient time for you.



Crabtree are dedicated to continuous improvement and therefore reserve the right to modify design features and technical specifications without notice

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