MR130 Metal-Decoration-Printing-Press
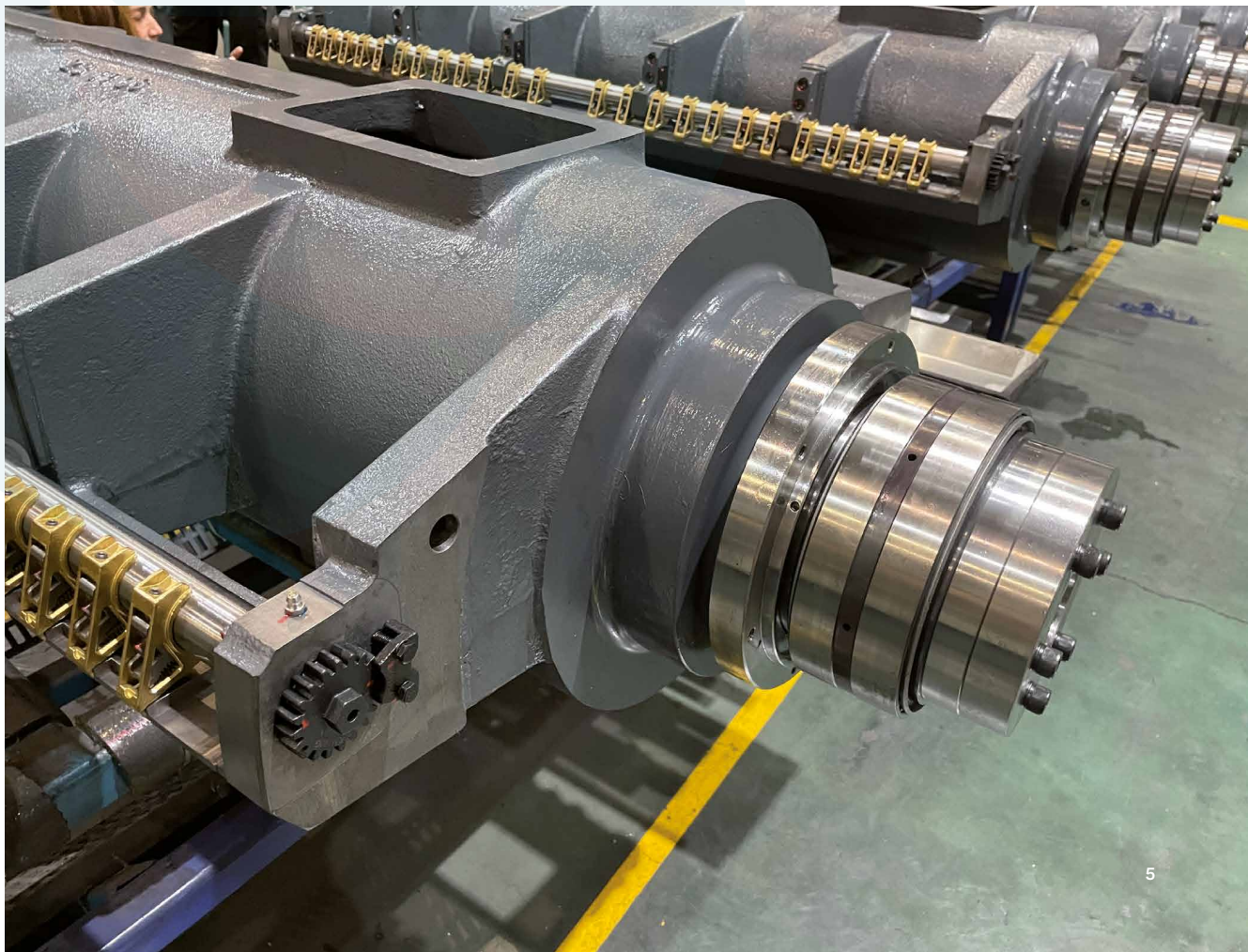
Table of contents

Half-shell grippers are always in contact with the shaft. This design results in reliably stable printing results while allowing the gripper to be changed with one screw. The 35 mm shaft was chosen for its high stability and demonstrates the robust design.

Introduction

Welcome to the ROXCEL Metal Decoration product catalog – your source for innovative metal decoration printing solutions of the highest quality!
As a global company, we pride ourselves on not only offering top-of-the-line machines. We also provide comprehensive service that goes beyond just sales.

At ROXCEL Metal Decoration, everything revolves around the needs of our customers. Our global network enables us to meet your requirements world-wide. We understand that the success of your business depends on efficient and reliable packaging solutions. Therefore, we go beyond traditional sales to give you not only the best machines but also comprehensive support throughout the entire lifecycle of your investment.

From meticulous project planning to precise installation and regular servicing – customer satisfaction is paramount at ROXCEL Metal Decoration. Our dedicated team of professionals works hand in hand with you to develop tailor-made solutions that perfectly meet your individual needs.

History of ROXCEL Metal Decoration presses

1947 Establishment of the predecessor firm

1968 Development and production of quarto printing presses

1992 Development and production of folio printing presses

1993 Development and production of high-speed folio printing presses

2003 Development and production of Ginathrone® 1142 large-format single-color sheet-fed offset printing press

2005 Development and production of Ginathrone® 2142 large-format two-color sheet-fed offset printing press

2006 Beginning of leadership position within Germany for large-format printing presses Development and production of Ginathrone® 4142 large-format 4-color sheet-fed offset printing presses and Mathrone® 2103 two-color large-format sheet-fed offset printing presses

2007 Development and production of Ginathrone® 2162 super large-format double-color sheet-fed offset printing presses and Ginathrone® 5142D large-format 5-color sheet-fed offset printing presses and Mathrone® 4103 large folio format 4-color sheet-fed offset printing presses

2008 Development and production of Mathrone® 1180 super large folio 4-color, 5-color sheet-fed offset printing presses

2009 Development and production of Mathrone® 6118 super large folio 6-color sheet-fed offset printing presses

2010 Development and production of Ginathrone® 4142G large-format 4-color sheet-fed offset printing presses

2011 Development and production of Ginathrone® 1300 series 4-color, 5-color sheet-fed offset printing presses

2012 Development and production of Ginathrone® K series large-format multicolor sheet-fed offset printing presses and Sginathrone® multicolor offset printing presses

2013 Development and production of Ginathrone® and Mathrone® multicolor offset printing press + coating unit, for example, 5128 + coating large-format 5-color sheet-fed offset printing presses

2014 Introduction of production concept for German printing industry, SOS (Sorgfalt Ordnung, Sauberkeit) Development of 145 commercial modal printing presses

2016 Launch of RP145 large-format multicolor offset printing press developed through Sino–German cooperation

2020 Development single grip Metal Decoration Press

2024 We are installing our prototype in the Karlstein Demo Center 2025 – First MR130-6 customer machine goes into production

Manufacturing

Main products

130, 145, 165 high-end business series
Large-format, high-efficiency, flawless printing

- Pressure preset
- Preset format adjustments
- Semi-automatic plate mounting
- Automatic blanket washing device
- Automatic impressing cylinder washing device

- TRESU varnish group with chamber blades and anilox
- UV systems (LED UV / traditional UV) made by IST Metz
- Measuring system – made in Germany

Technical Design

- Double-size impression cylinders and transfer system, optimized seven o'clock position

- Strengthened frame and shaft end with a stable structure

- Double-size cylinders with high-precision, zero-play special roller bearings provide a solid back pressure

- Our company's patented reinforced cast-iron transfer cylinder elminates scraping

- Wear-resistant alloy cast iron impression cylinders with Triplex chrome finish (Ultra option)

- High-frequency hardened gears on cylinders, cams, ink fountain rollers, etc. ensure a long service life

Sight without covers for clear view

In accordance with the optimized design of the inking and dampening units, large-format inking and dampening rollers are used to rearrange the ink flow, allowing the ink-water ratio to be adjusted quickly. Ink is metered quickly, sufficiently and evenly to greatly reduce start-up and control waste.

ULTRA-TEC CONSOLE

- Graphic display panel
- Flat storage drawer underneath the sheet inspection desk

OPERATION AND CONTROL

The operator has access to the following control console menus and programs:

- menu "Job"

- menu "Ultra-Color"

- menu "Register"

- menu "Print unit configuration"

- menu "Sheet guiding configuration"

- menu "Auxiliaries' configuration"

- Job change press program

- Production run press program

- Washing press program

- Sheet travel press program

- Press run press program

Ink unit data is transferred to the control console via CIP3/USB stick (or online in case of extended equipment). The ink profile setting is made in the Ultra-Color menu using the Ultra-Color keyboard which is equipped with light LED lines for each ink zone. The register can be adjusted via the monitor using register mark icons.

The operating status of the press as well as error messages during the production process appear in plain language on the screen as well as on displays at the delivery and infeed operating panel.

TOUCHSCREENS

- Electronic controls can be swiftly and flexibly configured via touch-screens, resulting in significant time savings

- The sizable monitor showcases a user-friendly and intuitive presentation of the production status while also storing job database and printing ink information

- The pre-ink metering function can be extended with a CTP interface to improve workflow efficiency
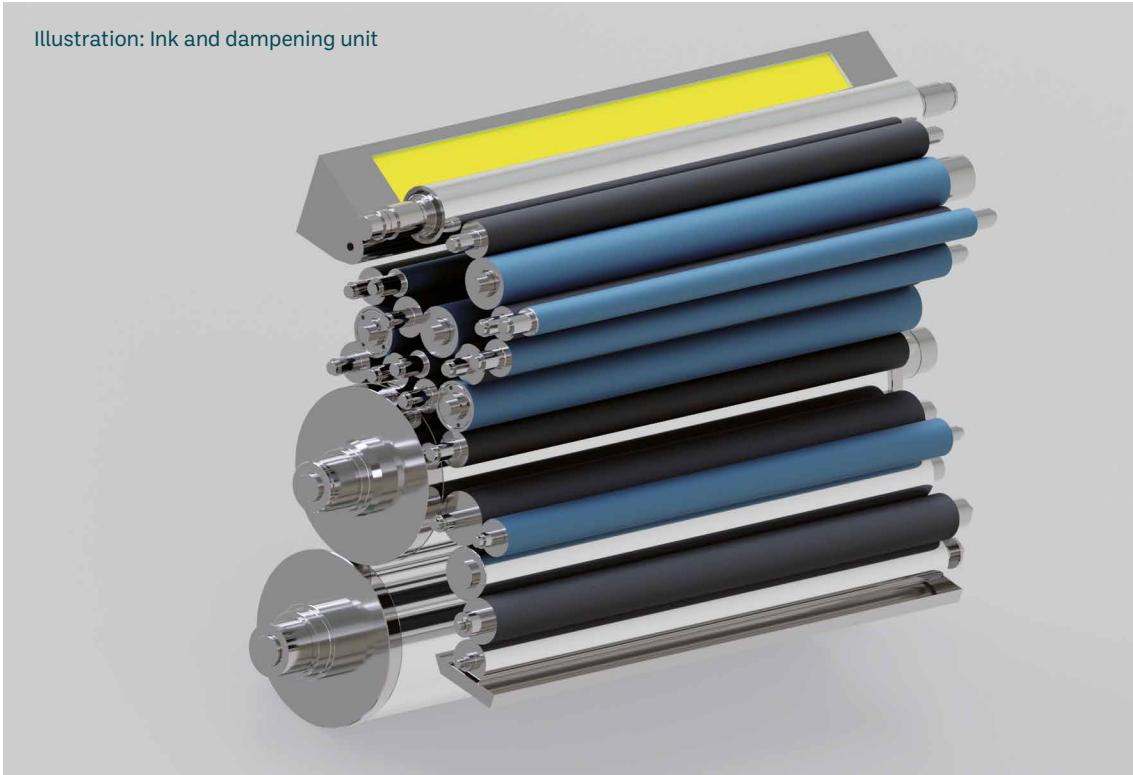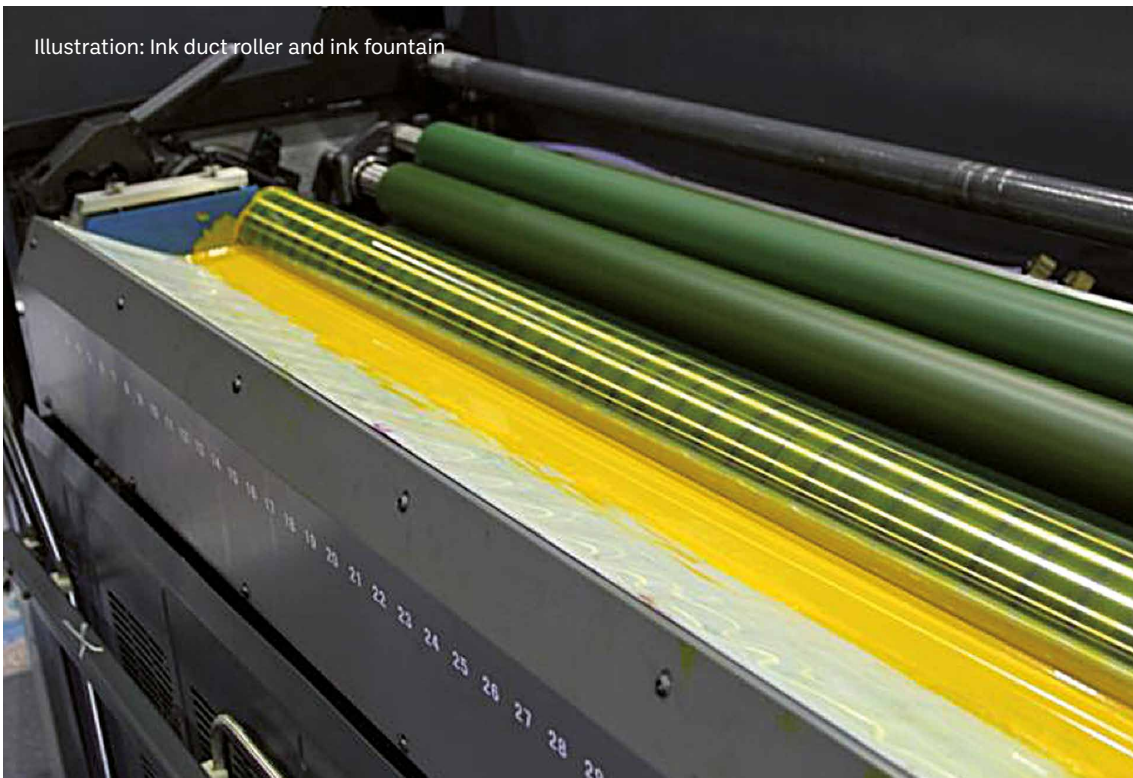
Illustration: Ink and dampening unit

Illustration: Ink duct roller and ink fountain

FEEDER — MADE IN GERMANY

- High-speed sheet feeder with variable feed speed and adjustable arrival time at the front layers
- Suction feeder table and sheet hold-down rollers used in parallel for extremely smooth sheet transport
- Equipped with the format setting function, the sheet size can be automatically adjusted for improved efficiency during job changes

STREAM FEEDER

- Optimized high-speed infeed system with front layers

- Made-in-Germany optical control elements for crooked sheets and late sheets

- Ultrasonic double-sheet detector near front layers

- Automatic adjustment of sheet size (preset function) through pneumatic side guides for improved efficiency
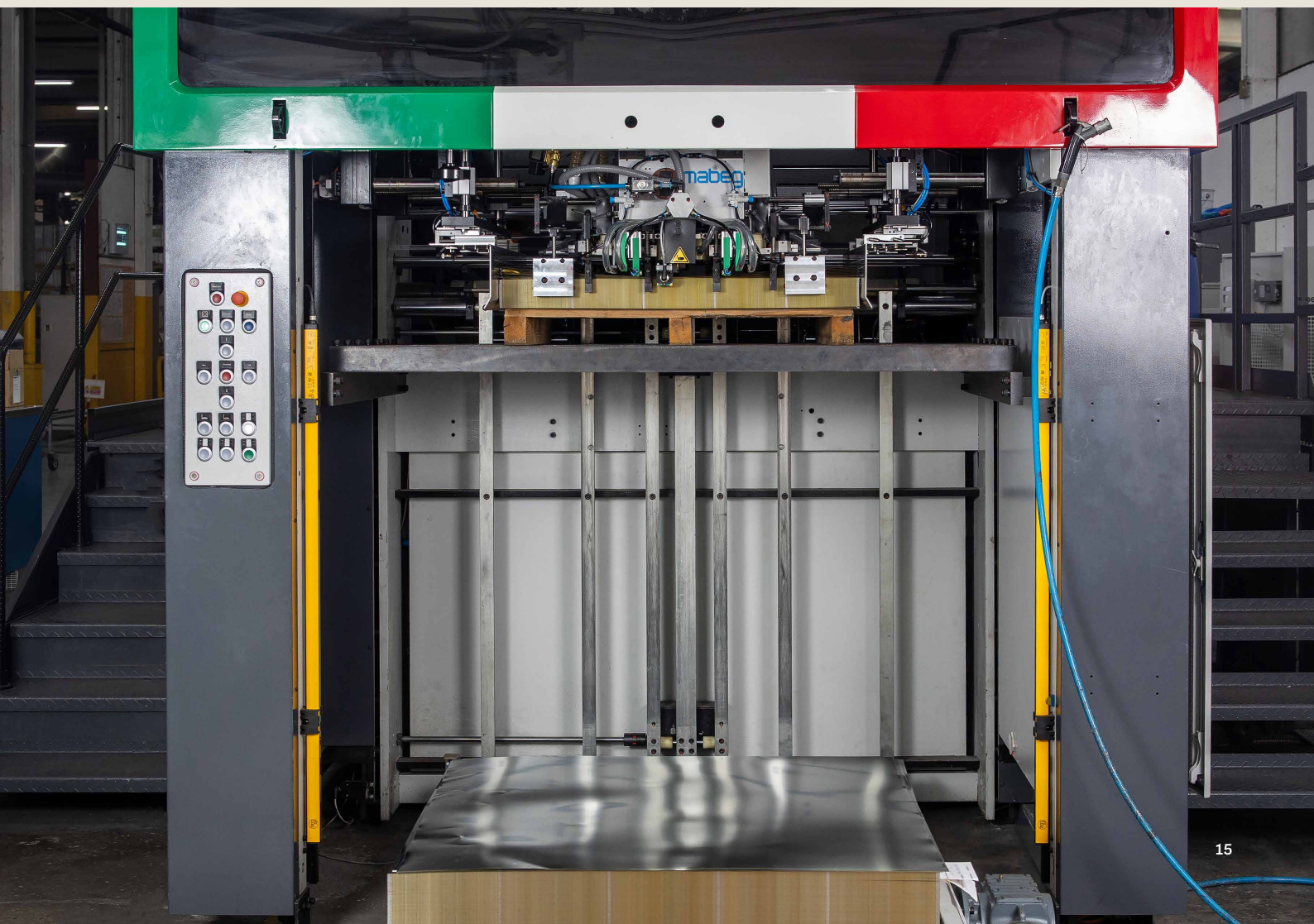
- Pneumatic control of plate clamping bars for reliable and semi-automatic plate changes

- Remote adjustment of lateral, circumferential, and diagonal register via Ultra-Tec console

- With the preset function the sheet thickness can be adjusted quickly

- Equipped with an automatic washing system for ink rollers,
  blanket and impression cylinders

- Automatic lubrication

- Dampening cooling system with automatic temperature control,
  automatic alcohol ratio, and water return

DELIVERY

- Loading belt path with vacuum support and automatic format adjustment
- Transport path to UV drying with vacuum support and automatic format adjustment
- Protective covers
- Control cabinet
- Control system (integration with higher-level control system)
- Operating elements (operation is integrated into sheet handling system)

MORE PRECISE THAN A SWISS WATCH

Highest precision: Exact gear transmission for guaranteed high-quality printing products.

Made in Germany: High-precision special bearings designed for printing machines and smooth, reliable operation.

The best printing machine fulfills your wishes

- Offset-printing, coating and drying complement each other and meet the high requirements for inline processing of printed surfaces

- The combination of chamber blade systems and screen rollers makes for uniform varnishing, ensuring exquisite coating effects, whether matte or glossy, full-surface or partial

- Drying systems from IST Metz

- The drying system can be installed at the end of the machine or between printing units/Interdeck or EoP

- Optional LED UV or traditional UV systems available

- All machines can be equipped with an anilox coating unit

- System TRESU with chamber blades and anilox roller

- Equipped with the coating unit, the MR performs printing, inline dispersion or UV coating (full or partial), effect varnishing, metallic and pearlescent printing and a wide range of finishing operations, all in one; it meets the requirements of metal decoration at various levels

- Finally, drying systems from IST Metz Germany complete the line

Technical Parameters

FOR STANDARD EQUIPMENT
ROXCEL METAL DECORATION MR130

- **Maximum sheet size:** 1,200 × 1,040 mm
- **Maximum print area:** 1,200 × 1,000 mm
- **Minimum sheet size:** 720 × 1.040 mm
- **Substrate thickness:** 0.38 mm
- **Maximum printing speed:** up to 7,000 sheets/hour

DRIVE TECHNOLOGY

- Continuously adjustable AC main drive made by BAUMÜLLER
- Main drive stopped by electrical braking resistor
- Digital drive
- Optional motor current display

SHEET FEEDER

Remote-controlled high-performance stream feeder

- Feeder head for exact sheet transport with 4 separating and 6 forwarding suckers
- Stainless steel suction feed table for paper and board made of structured sheet metal, suction air adjustable, table lifting supported by gas springs
- Pile front edge sensor with feeder head height adjustment, switchable to pile tail edge sensor
- Non-contact pile centering device(balancing out +/- 25mm)
- Central size setting for feeder, infeed, suction feeder table and delivery via Ultra-Tec console

- Motorized feeder head height adjustment (automatic feeder head height adjustment in case of pile front edge sensoring)
- Crooked sheet correction during press run (remote controlled via infeed operating panel)
- Sheet slow-down with speed control for optimization of the sheet arrival at the front layers (can be switched on/off at the infeed operating panel)
- Lateral blowers at pile front edge
- Light barrier as foot protection
- Continuous pile lift with automatic lift adjustment

INFEED

Swing arm gripper system operating under the sheet:

- Pneumatic side guides (operating side and drive side)

- Ultrasonic double-sheet detector directly in front of the infeed

- Optical side guide control

- Optical control at the front layers

- Optical control of sheet arrival

- Electropneumatic overshoot protection

PRINTING UNIT

- Seven o'clock position of the cylinders ensures that the maximum sheet format is fully printed before grippers releases the sheets

- Double-sized impression cylinders and transfer systems

- Blanket and plate cylinders with bearers

- Plate cylinders for MR plate size

- Surface treatment for all cylinders (plate and blanket cylinders are stainless steel covered, impression cylinder is Triplex chrome-plated)

- Automatic washing system for blanket and impression cylinders and rollers (program selection via Ultra-Tec console)

- Transfer systems with universal gripper bar spacing (no adjustment required)

- Side edge and rear edge support, fully automatic

- Half shell grippers with coated gripper tips and pads in the impression cylinder; gripper with one screw, individually exchangeable

- Cam-controlled gripper opening of the impression cylinders and transfer systems

- Remotely adjustable pressure between blanket and impression cylinder (via Ultra-Tec console)

- Sheet guiding underneath the transfer systems with chromed steelguides

- Smoothing air-blast for paper in front of printing zone above impression cylinders (air setting via Ultra-Tec console)

- Semi-automatic plate changes

- Plate clamping bar register pins compatible with GRAPHO-METRONIC and BACHER

- Splitted rear plate clamping bars, consisting of 3 parts

- Plate cylinder with 0.7 mm packing

- Blanket cylinder with 2.50 mm packing

- Pre-railed blankets

- Remotely adjustable lateral (+/- 2 mm), circumferential (+/- 1 mm) and diagonal (+/- 0.2 mm) register via Ultra-Tec console

- Pneumatically opening plate cylinder guard

INKING UNIT

- Ink metering via Ultra-Color ink fountain

- Rider roller on the 4th application roller

- Intermediate roller between the 2nd and 3rd application rollers

- Ink feed timing for minimum metering (adjustable via Ultra-Tec console in 100%, 50%, 25% increments)

- Automatic roller washing system (program selection via Ultra-Tec console)

- Ink distribution device manually adjustable via printing unit (0 … 35 mm)

- Ink duct roller speed compensation dependent on press speed (automatic, functioncan be set via Ultra-Tec console)

- Rilsan-coated oscillating rollers

- Non-contact metering levers in the ink fountain, carbide-tipped, wear-free

- Wear-free ink duct roller

- Roller covering made by BOETTCHER, SAUER or WESTLAND

DAMPENING UNIT

- Alcohol dampening unit

- Application roller 22° Shore, pan roller 22° Shore, chrome-plated transfer roller

- Automatic separation of pan roller, transfer and dampening form rollers for separation of the dampening unit (standby position)

- Speed adjustment via Ultra-Tec console or via printing unit

- Dampening duct roller speed compensation dependent on press speed (automatic, function can be activated via Ultra-Tec console)

- Automatic pre-dampening program when press is at standstill and with dampening rollers turned off)

- Pre-dampening with operating speed (manually via printing unit before print start)

- Over-dampening (manually via delivery)

- Dampening solution circulation and BC713 basic liner cooling unit with alcohol metering (operation via machine)

- Level sensor above the dampening fountain

- No tools required for removing dampening fountain
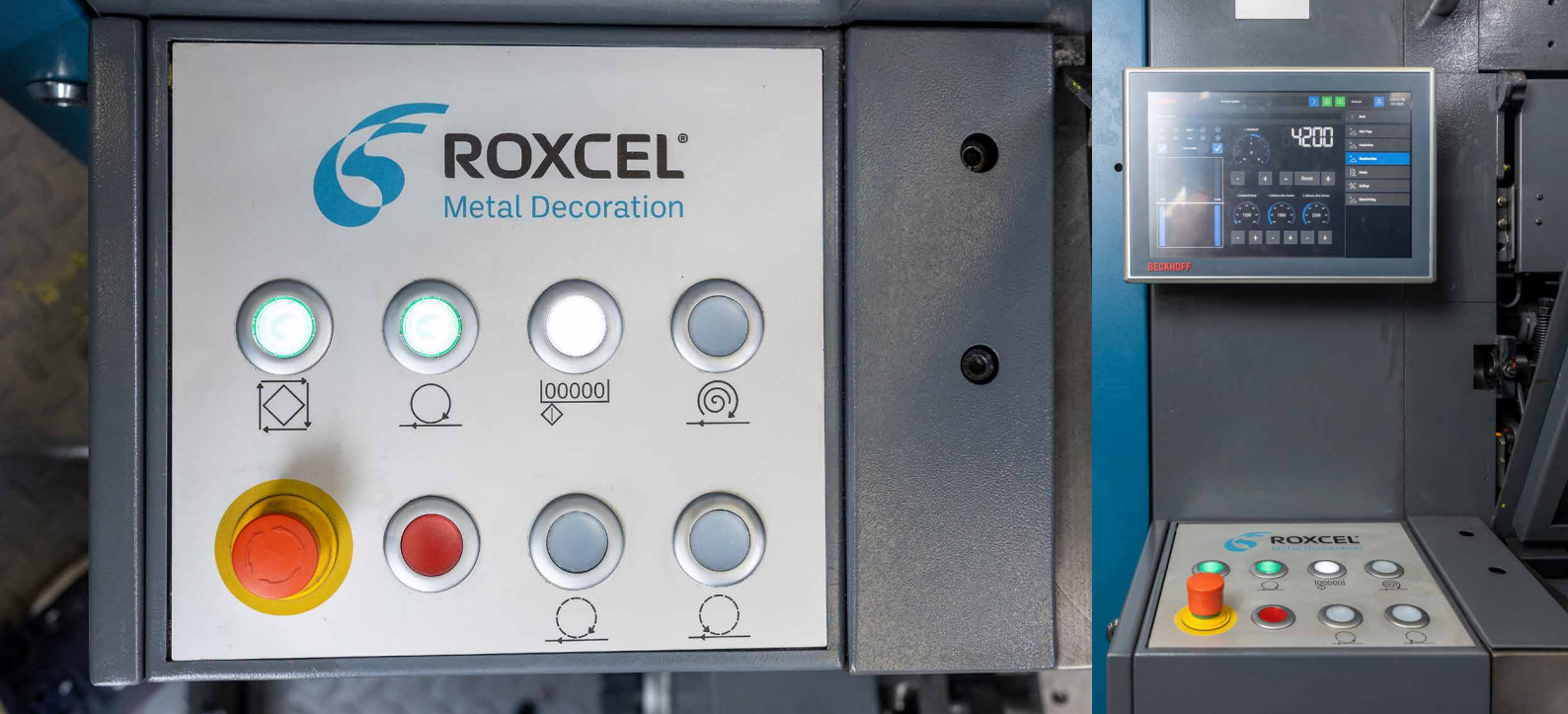
Made in Germany

All electronic components are developed and manufactured in Germany. Assembly takes place in Germany at our factory in Karlstein.

$C\,E$
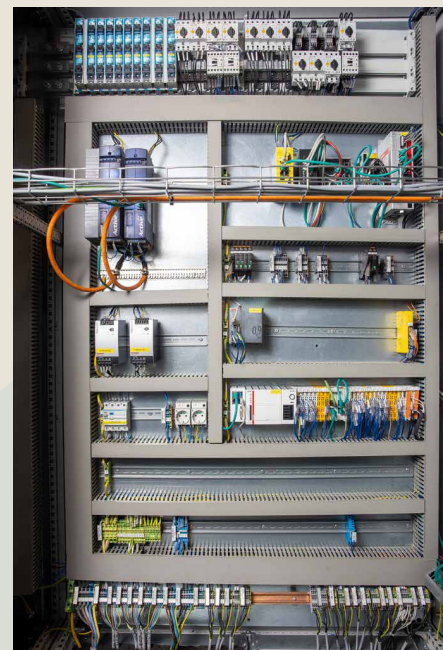
AIR SUPPLY, GALLERY

- Blowers and compressors for feeder, delivery, sheet guiding
  (installed in special cabinet with noise cancellation, placed on drive side)
- Compressor including cold air dryer for pneumatics supply
- Gallery with operating platform in front of the delivery
- Installation of Ultra-Tec console opposite of delivery belt
- Pile exit towards the drive side
- Oil pans

SAFETY EQUIPMENT

- The press safety equipment complies with the currently applicable European safety standards.

MISCELLANEOUS

- Starter kit with consumables, set of lubricants for the first year of production (without machine oil)
- 1 set of tools and setting gauges
- 1 proof sheet
- 1 set of blankets (mounted on cylinder)

- 1 set of self-adhesive foils (mounted on cylinder) Please note: All of our consumables have been tested on the MR machines
- Voltage 380 ... 420 V / frequency 50 Hz

COATING TOWER TRESU DENMARK SYSTEM

- Chamber blade metering system at delivery
- Varnish supply and cleaning system for water-based varnish
- 1 anilox roller

- Anilox roller exchange fixture
- Manual clamping rails
- Remote adjusted lateral, diagonal and circumferential register

CONTENT OF MENUS AND PRESS PROGRAMS FOR PRESS CONTROL

- The menu "Job" for retrieval, description and filing of a job (job no., title, comment, customer, text information, deadlines, ...)
- The menu "Ultra-Color" for setting the ink and dampening solution metering parameters (single, groupwise and overall adjustment of the ink zones, ink zone on/off, ink feed timing for minimum metering, ink feed roller blocking, speeds of ink and dampening duct rollers, copying, changing, mirroring and shifting of the ink profile)

- The menu "Register" for setting the plate register during make-ready (lateral, circumferential and diagonal register)
- The menu "Printing unit configuration" to determine which systems and functional groups of each printing unit to activate for printing (printing with ink and dampening unit, waterless offset, dampening only, varnishing, operating modes for varnishing, ...)

- The menu "Sheet guiding configuration" for setting all parameters that significantly impact the sheet path through the press (sheet size, head stop height, printing pressure, guiding device)

- The menu "Auxiliaries' configuration" for setting auxiliary operating parameters, provided these devices are in place and suitable for control console (individual parameter setting of washing systems, dryers, powder sprayer, dampening solution conditioning system, …)

- The press program "Job change" for transferring all settings prepared for a new job from the background memory to the press (format, ink profile, configured parameters for printing units, sheet guiding and auxiliaries)

- Production run press program executes all switching and monitoring functions

necessary for the production run in exactly the technologically correct order, which is based on the configurations for printing units, sheet travel and auxiliaries preset in the control console menus (see above)

- Washing press program comprises automatic washing of plate, cylinders and/or rollers in one or several printing units; based on the presettings and washing programs selected in special menus

- Sheet travel press program for the setting of all automatic sheet travel functions and their parameter settings without connecting a inking/dampening/varnishing unit

- Press run press program without substrate, ink and dampening solution for checking all automatic press run functions after commissioning, service and maintenance

Optional configuration for ROXCEL MR130

- Raised 670 mm for 2.150 mm pile

- Made-in-Germany drying system from IST Metz

- Impression cylinder washer

- Made-in-Germany inline measurement system

- Made-in-Germany 2D scanner for density
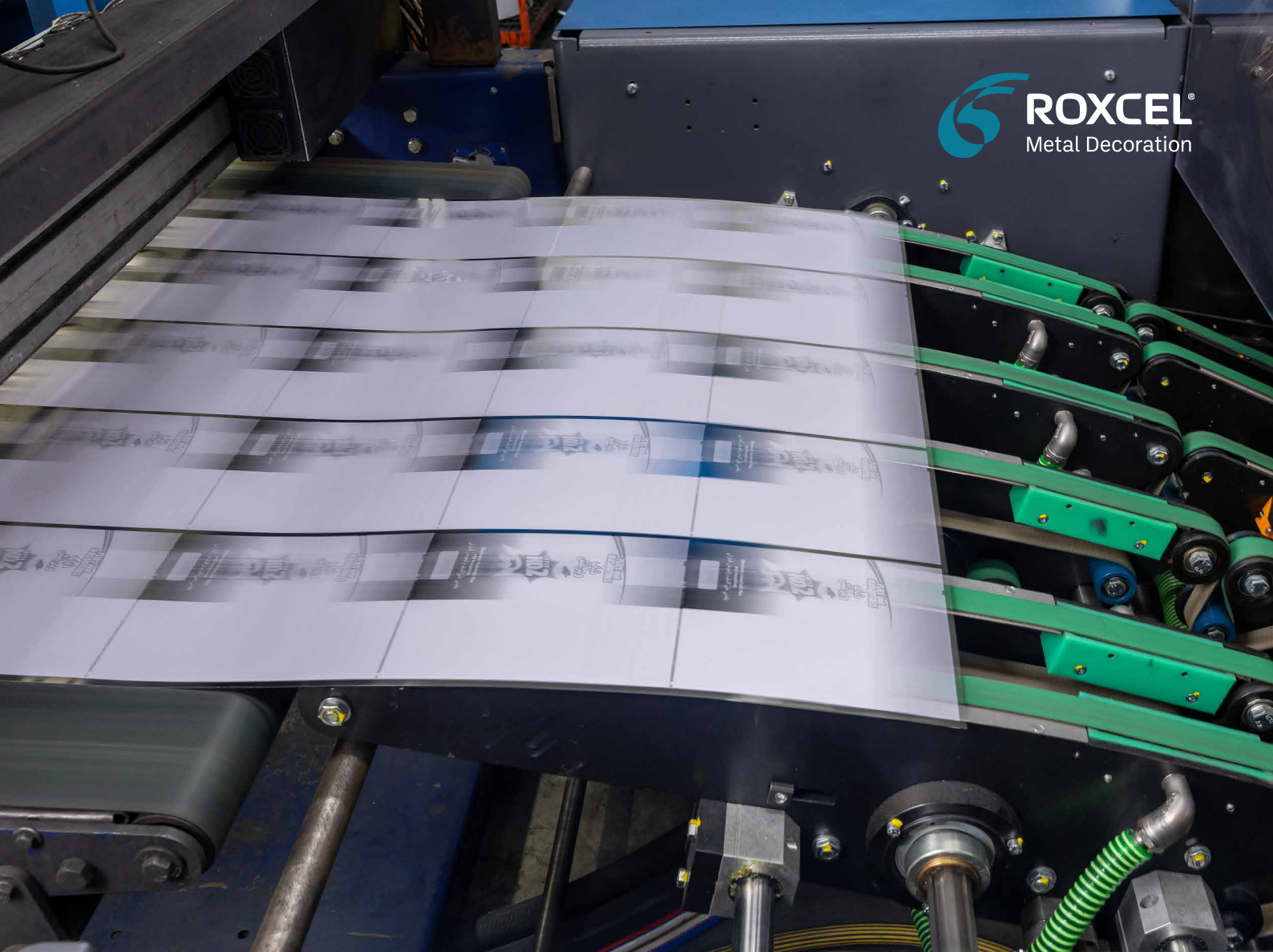
Higher, faster, further?

That was never our goal. From the outset, we faced the current market situation and listened to our customers.

In a world where complexity is often mistaken for quality, we're setting a new standard with a machine that focuses on the essentials.

We believe that the most effective solution is not necessarily the most complex one. Our machine is proof of this belief – it is efficient, reliable, easy to use and offers the necessary features for daily use without distracting with unnecessary extras. Carrying this philosophy to its conclusion, our machine cannot contain encrypted computers and inaccessible electronic components. We also reject the industry practice of using product discontinuation as a means of driving sales.

Service you can count on

Our factory technicians are available worldwide. Together with our partner R&W Printing Machinery Service, we offer a comprehensive service program and extremely fast response times. When you buy a printing system from us, you also get peace of mind from day one.

- ULTRA Pit Stop: A tailored service program for your new printing system
- ULTRA Quality Test: An annual print test with SID analysis

- ULTRA Glasses: Immediate assistance via smart glasses
- ULTRA Training: Comprehensive training for your printing personnel by our instructors

Our ULTRA Glasses align with our philosophy!

We want to keep your printing system as profitable as possible.
So in addition to a range of spare parts, every MR130 metal decoration machine comes with ULTRA Glasses. These smart glasses enable us to immediately address minor issues from Germany and even determine which replacement parts are needed in the case of major damages. This not only saves valuable time but also expensive service calls.

Only the finest parts for your MR130 Metal-Decoration printing Press

– THE ROYALS –

♛ CROWN CONSUMABLE RANGE

Offset printing must be seen as a process, and therefore, selected products are necessary to ensure stable production. We have taken the time to test, adapt, and extensively determine the best matches for our Crown series on our printing materials.

For our users, it means uninterrupted production – guaranteed:

Blanket

♛ Crown-Dot Series

♛ Crown-Solid Series

Varnish plates

♛ Crown-Varnish Series

Printing plates

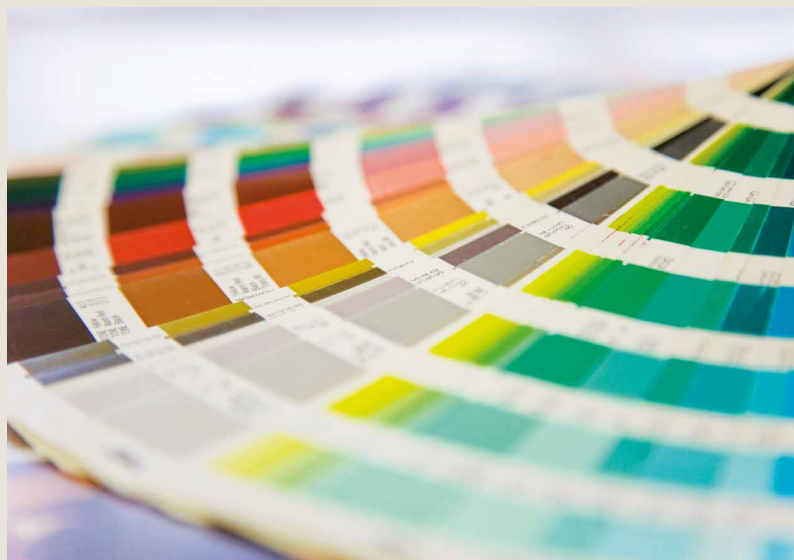♛ Process-free plates 0.3 mm

Crown ink series

♛ Crown Gold – Food packaging series

♛ Crown Silver – Pantone series

♛ Crown Bronze – 4C color series

THE LEADING EXPERT FOR
UV, LED UV, W/IR AND EXCIMER

UV SYSTEMS
IN-HOUSE UV LAMP MANUFACTURING

„The reliability of a UV unit depends considerably on the quality of the installed UV lamps." Developed for diverse applications with adapted emission spectra, the UV lamps are manufactured for the industrial application of UV units for the efficient curing of UV inks, varnishes and adhesives on substrates including wood, paper, plastic, metal and glass.

The product range comprises UV lamps with lengths of 100 to 2300 mm and with outputs of 40 W/cm to 300 W/cm depending upon length. For full flexibility we offer you standard lamp without doping, Gallium-indium-doped lamp, Iron-doped lamp and Lead-doped lamp.
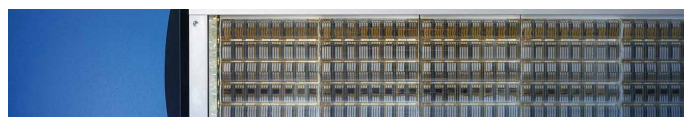

LED UV SYSTEMS
FOR A WHOLE HOST OF APPLICATION AREAS

This technology is used to cure inks, coatings, silicones and adhesives with UV light, offering significant potential for the printing and coating industry. Since the turn of the millennium, UV curing has not only been performed using arc lamps – LED modules have also been deployed for this purpose. IST METZ provides a range of LED UV curing systems for a variety of different requirements.

In addition to conventional UV systems, the IST METZ product range also includes a selection of LED UV curing systems for a number of industrial solutions. What makes IST METZ stand out is the delivery and integration of complete systems that are ready for operation.

W/IR DRYING SYSTEMS
WARM AIR AND INFRARED RADIATION

A combination of radiation in the infrared area and warm air aims to bring energy into the wet water film that needs to be cured. The energy input causes the acceleration of the evaporation process, while a defined air circulation and extraction provide for the secure removal of the released water.

Depending on the machine speed, the solvent content and the film thickness, a particular drying line and hence amount of energy is needed. The required energy can be pulled from different combinations of IR radiators, carbon radiators and warm air.

BENEFITS OF IST METZ
YOU'RE IN THE BEST HANDS

Our UV, LED and IR systems are highly productive – to keep it that way in the long term, we provide a variety of services to help to maintain your productivity. A professional installation and regular inspections and servicing guarantee consistent high production quality.

Your benefits:
- More than 45 years of expertise
- A state-of-the-art research laboratory for internal test series and customers and partners for individual trials.
- Worldwide service
- Customised systems for your application

Experience. Quality. Service.
Made in Germany

Since 1999, we've been more than technicians – we're your trusted partners in the printing industry. With roots in a two-person team, we've grown into a leading provider for Manroland offset printing machines and other German manufacturers. As proud service partners of ROXCEL Metal Decoration and ROXCEL Printtec, our commitment to quality and growth speaks for itself. We value a hands-on, solution-oriented approach – "impossible" is not in our vocabulary.

OUR OFFER

Our 2,500 m² warehouse holds over 80% of wear parts for the R700/R900 series, plus dedicated stock for ROXCEL MR and RP machines. In our large workshop, machines are revitalized, and ideas take shape through our design capabilities.

TECHNICAL CONSULTATION

We offer expert advice in mechanics, electrical engineering, and printing technology. From machine selection to performance analysis, our in-house print test form and SID evaluations ensure top quality. We identify root causes and implement effective solutions – fast.

SERVICE CATALOGUE

We go beyond repairs – we envision your machine's optimal state. Our services include:

- OEM-quality spare parts and donor units from discontinued series
- Overhaul of components (e.g., plate clamping devices, ink fountains, motors)
- Maintenance contracts with optional dry ice cleaning
- Evaluation, refurbishment, and purchase/sale of used machines
- Full-service machine sales: dismantling, reassembly, test printing, SID-certified acceptance

After damage analysis, we provide a prioritized action plan. From minor fixes to complex bearing changes – our experts are among the few worldwide who master it.

INK FOUNTAIN OVERHAUL

Sustainable Innovation for Peak Performance – we redefine sustainability with our ink fountain overhaul concept. Highlights include:

- Special grinding for slider tips
- New side jaws for improved precision
- Shatterproof motor holders
- Expert slider adjustment and performance testing
- Teflon-coated tops for durability
- Ready-to-install exchange units to minimize downtime

ROXCEL
Metal Decoration

Print Village

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WELCOME
TO YOUR PRIVATE
PRINTING
DEMONSTRATION

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straight to Google Maps.