



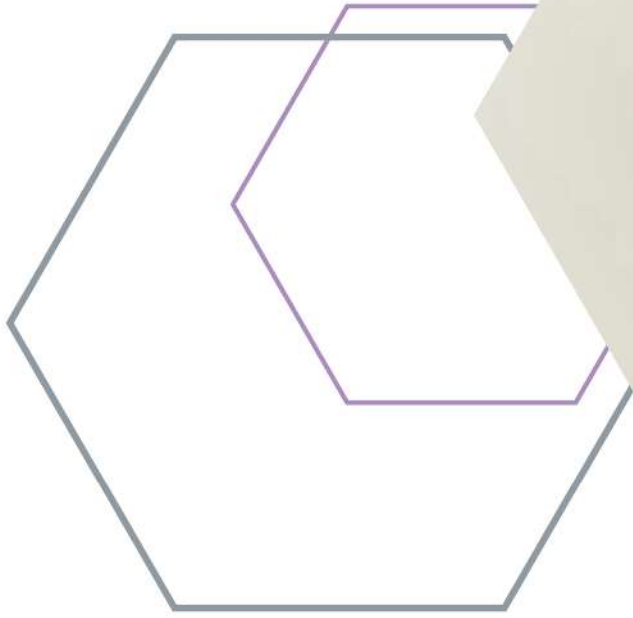
PIONNERING INNOVATIONS
150 YEARS

COLARIS *narrow fabrics*



Highlights

- ◆ digital workflow from design through production
- ◆ open ink system allows free selection of certified ink suppliers
- ◆ permanent ink circulation system for efficient production
- ◆ printhead re-condition center for extended printhead service life
- ◆ modular concept for standalone or all inline print production



4

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14

16

Technology center 18



Decision D

1874
QUALITY SINCE 1874 -
Factory Franz Zimmer's Erben KG Warndorf





1951
- machine

1955
RSD rotary screen printer




1976
carpet printer

2001
CHROMOTEX digital inkjet printer
for special applications



2008
file

2012
COLARIS-NIF
single-pass printer for webbings



1. What is the target market and final application?
military webbings, automotive seat belts, medical bandages, technical decoration ribbons, promotion lanyards
2. What maximum print width and what production capacity are required? Are webbings to be printed on one side or on front- and backside in a single pass?
3. What is the fiber base and construction of the substrate?
polyamide, polyester nonwoven etc.
4. Any specific fastness requirement to be matched?
The fiber base defines which ink is to be used. Inks are widely required for fastness properties such as rub-, light- and wash-fastness.
5. Is there existing equipment that can be used?
6. Which design and RIP software is best for my business?
7. Do I have the right people to operate print line and software?
8. Last but not least: Are the overall costs within an economic range?



connect

The narrow fabrics market is used to deal with big volumes, since ever. The global trend of individualization is a challenge for conventional printing - not so with the COLARIS-NF printing technology.

The digital workflow guarantees fastest market response, irrespective of order quantity.

Depending on the required printing process the printing line can be configured to the customers' needs.

Besides the printer, ZIMMER AUSTRIA is also offering machinery for pre-treatment, drying, heat fixation, steam fixation and washing of the fabric – either as integrated units in a complete production line (inline) or as separate process units (standalone).

It is also possible to use existing equipment and synchronize it with the COLARIS-NF printer.



APPLICATIONS

- automotive
- technical
- military
- promotion
- decoration
- apparel
- elastics
- wash labels



ADVANTAGES

- a fully digital workflow ensures accurate re-production of any design or color shade
- efficient production of short runs and samples
- change of color and design on the fly
- different colors or patterns on front and back
- any pattern/color combination in one process

SELECTION DEPENDS ON FIBER AND FINAL APPLICATION.



REACTIVE

cotton/cellulosic fibers,
wool/protein fibers

light fastness	+
wash fastness	+++
croak fastness	++
chlorine fastness	+
brilliance	++

PROCESS REQUIREMENTS

- inkjet pre-treatment
- printing, (drying)
- steam fixation
- washing

END PRODUCTS



DISPERSE

polyester

light fastness	++
wash fastness	++
croak fastness	++
chlorine fastness	+
brilliance	++

PROCESS REQUIREMENTS

- inkjet pre-treatment
- printing (drying)
- heat fixation
- washing

END PRODUCTS



SUBLIMATION

polyester

light fastness	+
wash fastness	+
croak fastness	++
chlorine fastness	+
brilliance	+++

PROCESS REQUIREMENTS

- inkjet pre-treatment
- printing
- heat fixation

END PRODUCTS



PIGMENT

all types of fibers

light fastness	+++
wash fastness	+
croak fastness	+
chlorine fastness	++
brilliance	++

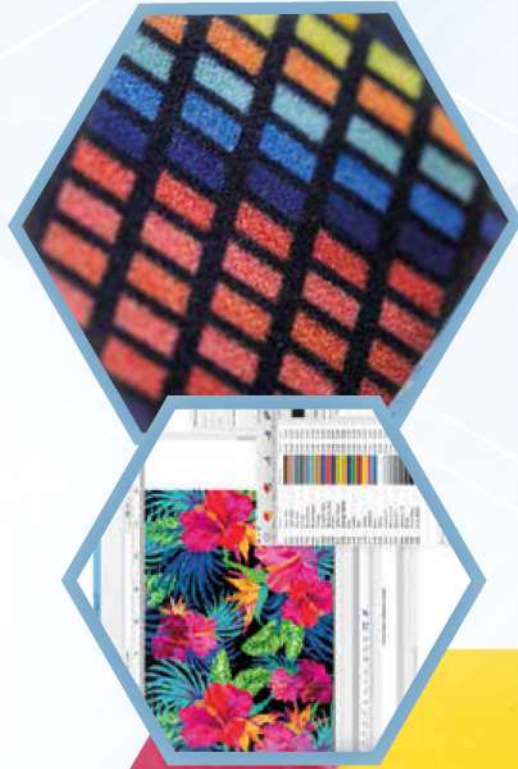
PROCESS REQUIREMENTS

- inkjet pre-treatment
- printing
- heat fixation

END PRODUCTS

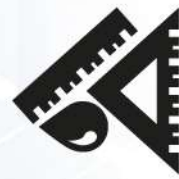
Digital printing is a complex task for which the entire workflow has to match. From design, color management and communication up to printer calibration - all must be perfect for a superb result.

Essential tools are fast computers with fast networks, a lot of memory space and well trained operators.



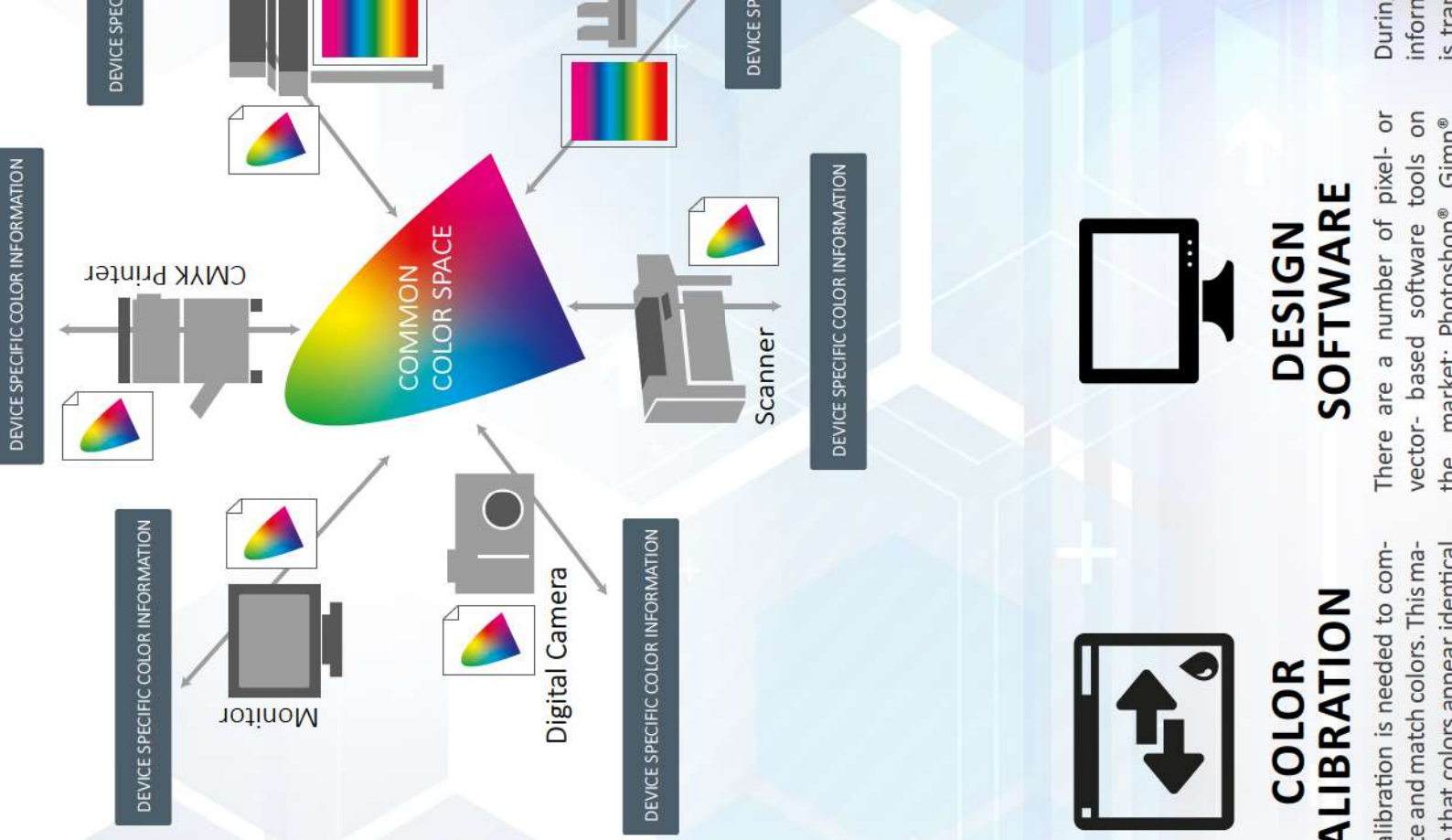
PRINTER CALIBRATION

Basic process setup and print resolution must be defined and stable before a calibration is made.



COLOR MEASUREMENT

Digital printing needs digital information to communicate. Color measurement is essential. Differences



COLOR CALIBRATION

Color calibration is needed to communicate and match colors. This makes sure that colors appear identical



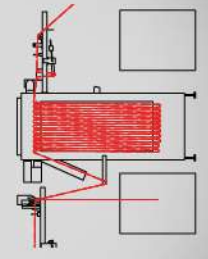
DESIGN SOFTWARE

There are a number of pixel- or vector-based software tools on the market. Photoshop® Gimp®

During information transfer

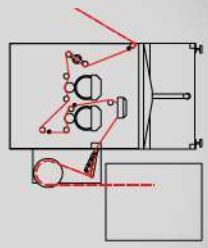
4a

**INLINE
STEAM FIXATION**



optional

**INLINE
PRE-TREATMENT**

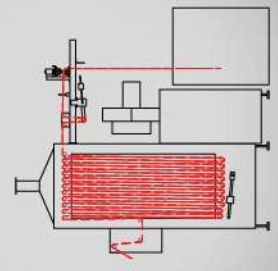


1

optional

2

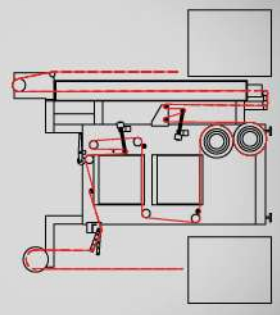
**INLINE
DRYING**



optional

3

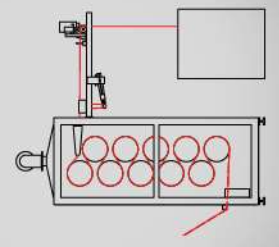
**COLARIS
PRINTER**



**4a
INLINE
STEAM FIXATION**

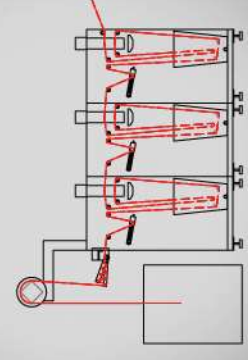
optional

**4b
INLINE
HEAT FIXATION**

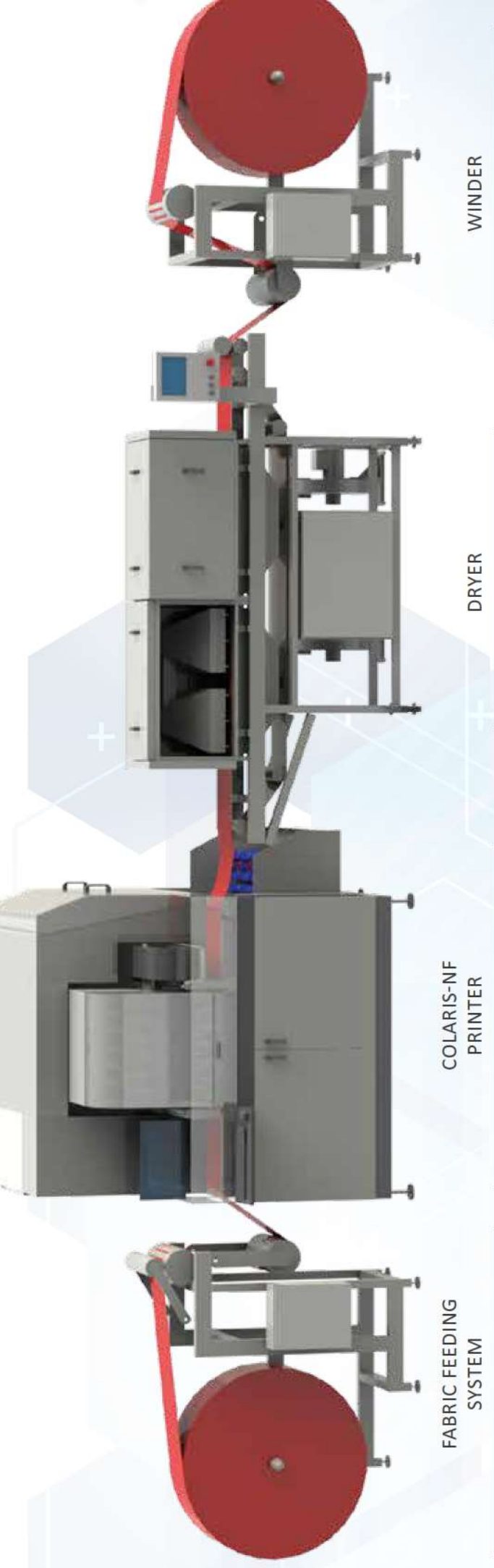


5

**POST-PRINT
WASHING**



6



FABRIC FEEDING SYSTEM

COLARIS-NF PRINTER

DRYER

WINDER

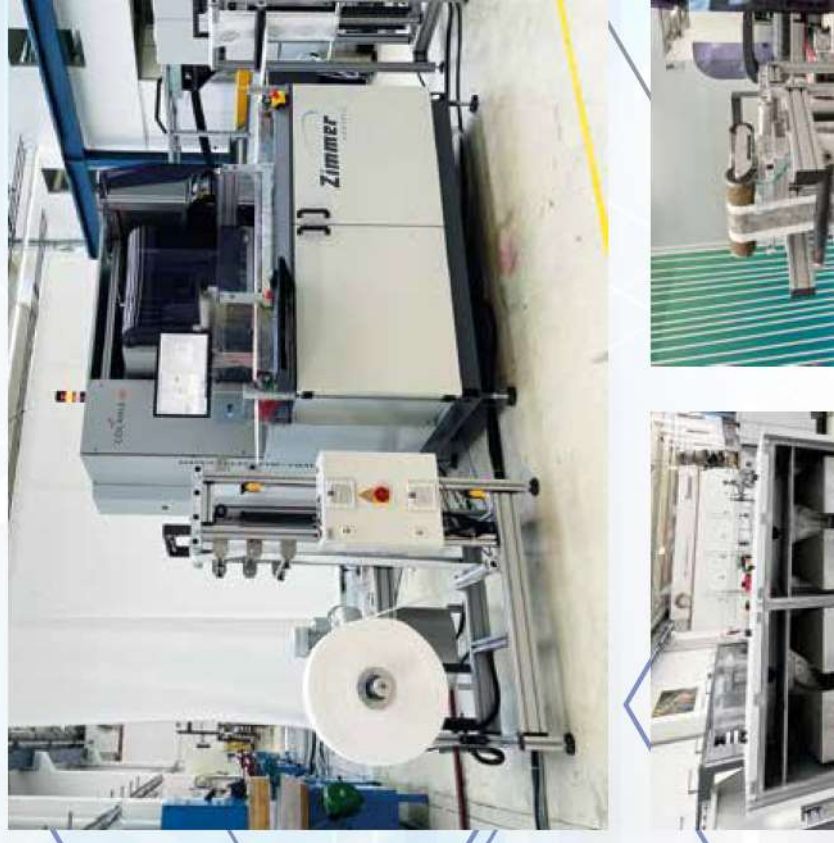
SINGLE

single-pass digital printer for one sided printing. It is also used for printing of hook & loop, bandages or wash labels.



APPLICATIONS

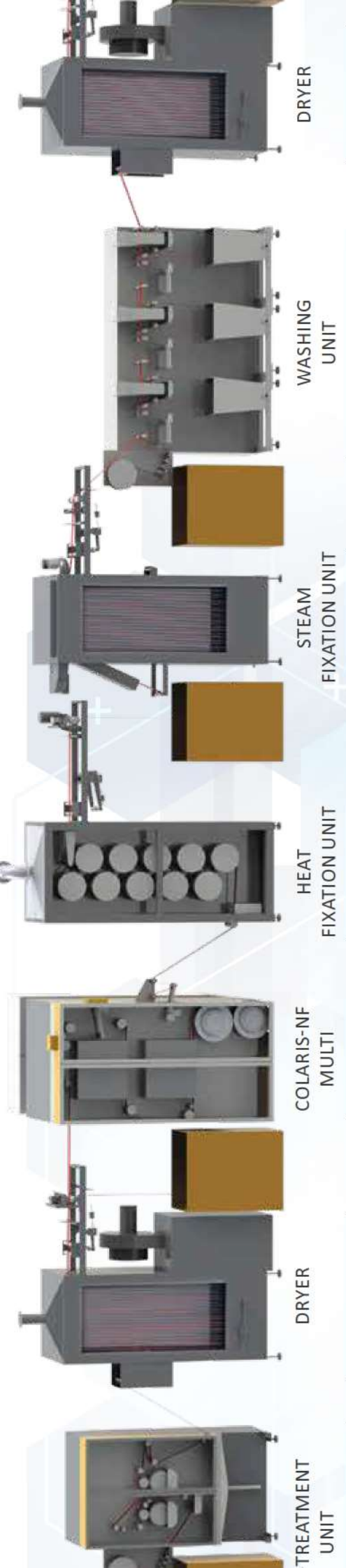
- hook & loop
- face masks
- cleaning wipes



TECHNICAL DATA

print width:
available at 100 mm (4")
or 300 mm (11,8")

print speed:
up to 30 m/min



MULTI

Single-pass digital printer for narrow fabrics. Printer in the market which can print front- and rear side simultaneously in a single pass.

Both sides may be identical, mirrored or even of a different color. It is possible to print on one side and apply a single, double or triple (weaving) on the other side.



APPLICATIONS

- military webbings
- safety belts
- technical tapes
- decoration ribbons



TECHNICAL DATA

configurations:
 working width 65 mm (2,5")
 at up to 8 colors



ZIMMER AUSTRIA Digital Printing Systems is known for flexibility and for building tailor-made machines and systems. This is the reason why we remain one of few textile machine manufacturers with a deep, vertical inhouse manufacturing capability.

Starting from engineering to mechanical manufacturing, electronic and software development, machine and control cabinet assembly, programming, internal testing, we also provide shipping, on-site installation, start-up and training of customer personnel and most important: after sales service through our own team.

Additionally, we can offer on-site process development and optimization for a wide range of digital printing and coating applications.

technology center

Our technology center is the heart and source of all our developments and innovations. New technologies and processes are developed and tested on individual textiles, carpets, narrow fabrics and other materials.

Our facilities are fitted with all technologies including CHROMOJET, COLARIS Printing and Coating Systems, as well as with a comprehensive set-up of laboratory equipment. But most important is the staff working in the Technology Center: Each of them is a specialist in his field.

The technology and application center supports machinery and technology development. Furthermore, it gives proof



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COLARIS



**MACHINERY
MANUFACTURER**



chromoJET



**DIGITAL PRINTING
SYSTEMS**




INNOVATION | QUALITY | SERVICE

Zimmer
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DIGITAL PRINTING SYSTEMS

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