

MACHINERY MANUFACTURER

Zimmer
AUSTRIA



PIONNERING INNOVATIONS
150 YEARS



COLARIS & CHROMOJET

blanket printing

DIGITAL PRINTING SYSTEMS

 04/2024



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highlights

- reduced space requirement
- no screens required
- digital workflow from design through output
- open ink system allows free selection from certified ink suppliers
- digital printing systems for light and heavy weight blanket constructions
- environmentally-friendly, sustainable print process



COLARIS

blanket printer

ideal for printing on polar and coral fleece, on low and medium weight raschel blankets

CHROMOJET

blanket printer

the best solution for printing of high pile, heavy weight raschel blankets

printing widths:

2200 | 2600 | 3200 | 4200 mm

COLARIS

up to 12 color groups
up to 1.000 m²/h
at 400/800 dpi
and 6 colors

CHROMOJET

10, 12 or 16 colors
up to 800 m²/h
at 50/76 dpi

concept

- CLUB blankets
- LICENSE blankets
- PROMOTION blankets
- BABY mink blankets
- DECORATIVE blankets

All of the above blanket types have different requirements due to their construction and their different make and designs. To cover all the requirements, ZIMMER AUSTRIA offers two different printing technologies for optimized print results.

From light weight polar and coral fleece to medium weight raschel blankets, best results and maximum flexibility in designs can be achieved with COLARIS digital inkjet printing systems.

In case of heavy weight raschel blankets the CHROMOJET technology has its advantages over the COLARIS digital inkjet printing system.



BLANKET CONSTRUCTIONS

Polar or coral Fleece blankets are of relatively light weight constructions with low pile height.

Raschel technology is a kind of knitting process which produces high quality medium to heavy weight blankets with a very soft touch. Such blankets are known as mink blankets.



FIBERS FOR BLANKETS

Fleece blankets are mostly PES based but fleece blankets made of wool or cotton are also available.

Raschel blankets were originally produced from acrylic (PAN) yarn. Increasing quality of PES and cationic dyeable PES have substituted the high price PAN fiber in the recent years.



DYES AND PROCESSING

PAN fibers as well as cationic dyeable PES require cationic dyes or inks. PES fiber is dyed with disperse or direct sublimation inks.

Cationic inks are fixed with saturated steam, disperse and direct sublimation inks are fixed with superheated steam or hot air.



two different technologies

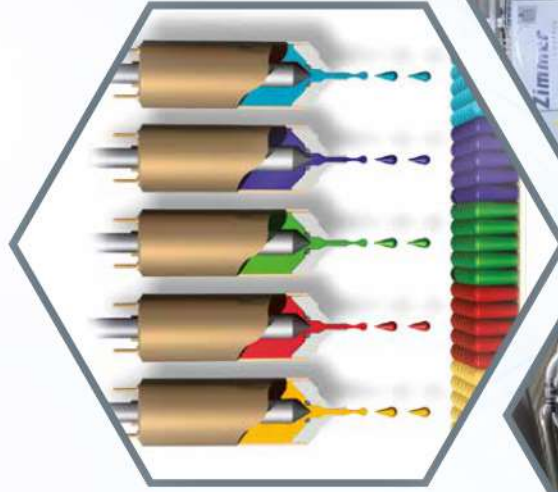
FOR HIGH QUALITY BLANKETS



chromojet

is a digital printing system based on valve technology. High speed electro-magnetic valves inject pressurized print paste into the high pile of blanket substrates. CHROMOJET is the technology which achieves maximum penetration especially for production of medium to heavy weight raschel blankets. CHROMOJET is a spot color printer but can also work as a process color printer using pre-mixed print pastes. The maximum resolution is 76 dpi which gives limitation in terms of grey scale printing.

CHROMOJET uses a print paste made with conventional dyes. Consequently, a color kitchen for paste preparation is required.



COLARIS

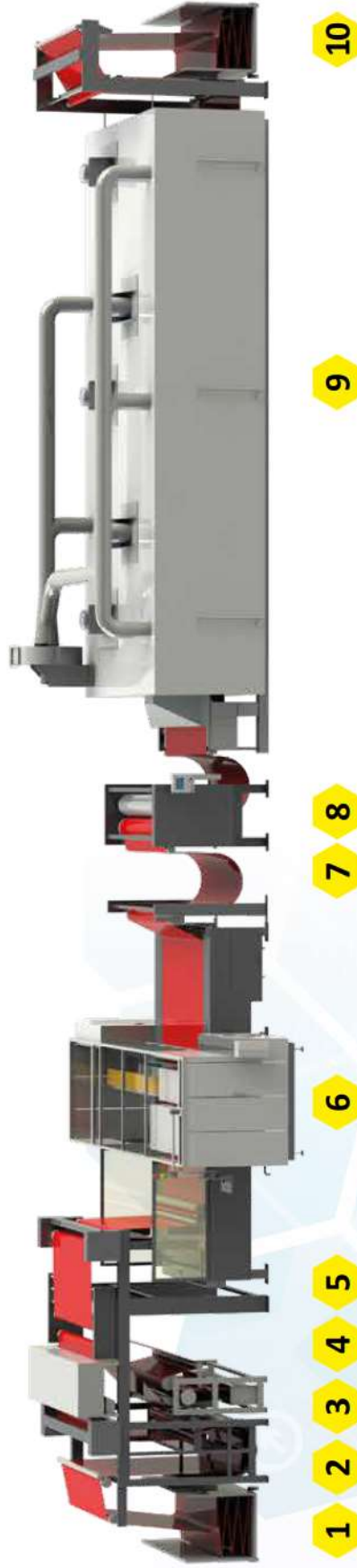
is a digital inkjet printing system using piezo printheads and 4 to 6 process colors. A great range of color shades can be produced from CMYK colors only. For an enhanced color space additional process colors can be added. For improved penetration additional color booster inks are installed.

With high resolution from 400 to 3200 dpi, finest color gradations can be achieved and sufficient ink amount for low to medium weight substrates can be applied.

High concentration process color inks does not require a color kitchen.

blanket print line

LAYOUT EXAMPLE



10

9

7 8

6

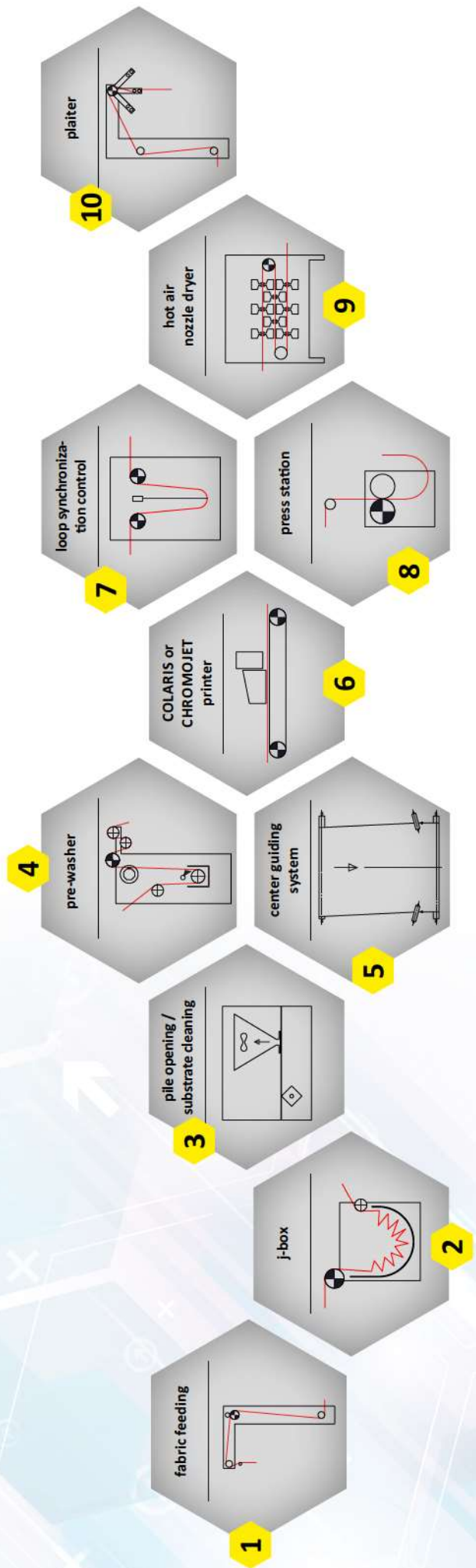
5

4

3

2

1



4

2

1

1

10

7

4

3

5

1

hot air
nozzle dryer

loop synchroniza-
tion control

COLARIS or
CHROMOJET
printer

pre-washer

pile opening /
substrate cleaning

j-box

fabric feeding

press station

center guiding
system

plaiter

9

8

6

5

2

1

blanket print line

COMPONENTS



1
PILE OPENING AND SUBSTRATE CLEANING
is performed by a beater roller followed by a vacuum extraction.



2
COLARIS PRINTER
applies the digital image onto the blanket substrate and provides the ink amount required for a good penetration. Ideal for printing on polar and coral fleece fabrics as well as on light to medium weight raschel fabrics.



5
PRESS STATION
is used to ensure maximum penetration, to bring inks and dyes into the depth of yarn and to ensure penetration for good color strength on the backside of the blanket.



4
COLOR KITCHEN
Together with CHROMOJET printers, a color kitchen is required to prepare the stock paste and to mix the print paste according to the required recipe for the perfect color shade.



7
MODUS LOOP STEAMER
is a multi-purpose dye fixation system which can be operated in different modes. Saturated steam is used for fixation of cationic dyes, whereas superheated steam or hot air curing are used for fixation of disperse and direct sublimation dyes.



6
HOT AIR NOZZLE DRYER
with conveyor belt can be heated with electricity, steam or hot air.



8
SUPRAWASH
is a high performance post print washer, dedicated to the needs of a reductive washing process required for PES fabrics to achieve best rub and wash fastness.



3
CHROMOJET PRINTER
is recommended for printing on heavy weight raschel blankets. The printer injects pressurized paste into the pile substrate and provides a high quantity of print paste as needed for voluminous substrates.

COLARIS



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chromoJET



**DIGITAL PRINTING
SYSTEMS**




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