



NAUTILUS	JET 250 HT	BEAM DYEING	198 HT	BID	MINI JET	MINI LAB	OVER FLOW	POSEIDON	T4c	WEXY HEAT RECOVERY SYSTEM	HANKS DYEING
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NAUTILUS
TWO BELT FABRIC DYEING MACHINE

JET 250 HT
FABRIC DYEING MACHINE

BEAM
DYEING
MACHINE FOR OPEN
WIDTH DYEING

198 HT
YARN-TOW-FIBER
DYEING MACHINE

BID
BOBBINS INJECTION
DYEING SYSTEM

MINI JET

MINI LAB

OVER FLOW

POSEIDON

ADVANTAGES OVER
TRADITIONAL OVERFLOW

T4c
TOPS FOUR COLOURS

WEXY
HEAT RECOVERY

HANKS
DYEING

NAUTILUS

BETTER CIRCULATION FOR EXCEPTIONAL DYEING:

The only dyeing machine with a **double belt** to reduce traction on the fabric preventing knots, folds and lengthening

Flexible load capacity with **constant liquor ratio** up to 40% of fabric load

Possibility to work with ropes of **different lengths**

TANDEM

Possibility to combine two machines in tandem to increase the **load capacity**

INDUSTRY 4.0

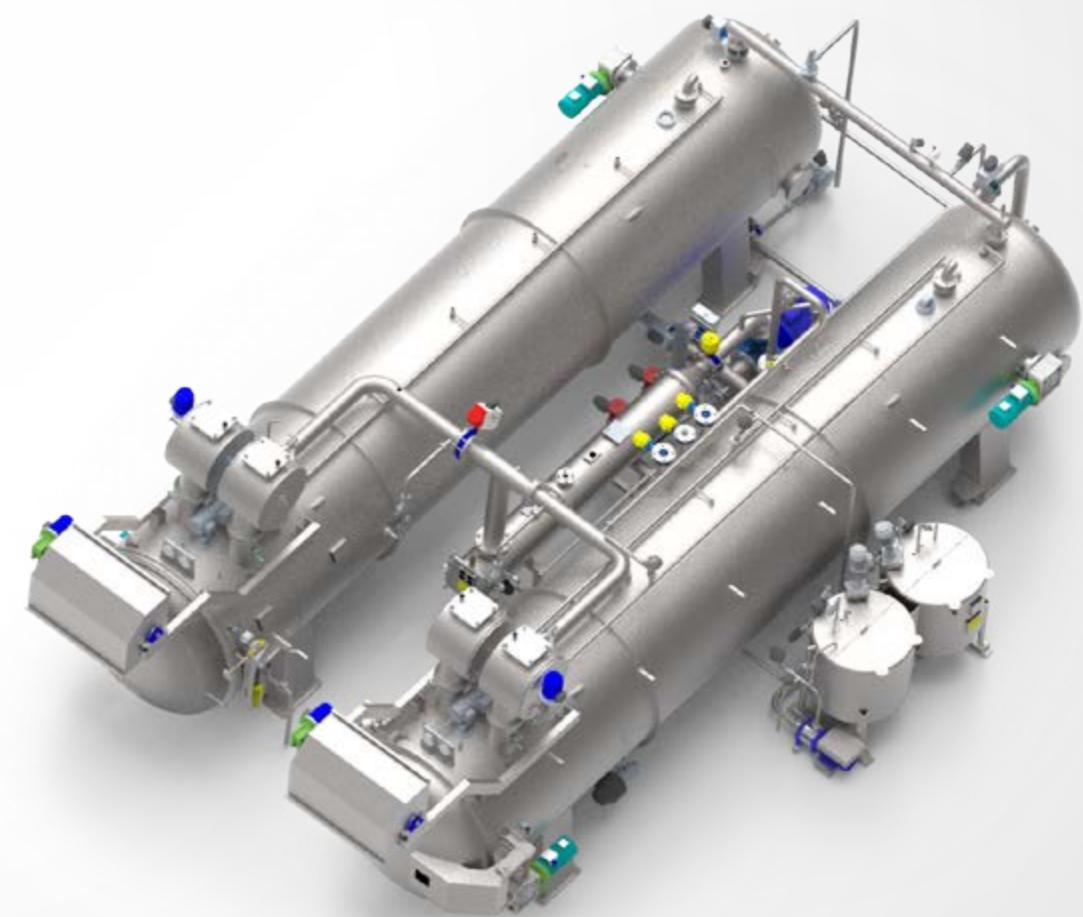
Monitor consumption during the dyeing cycle, and **remote assistance** to meet the requirements of the industry 4.0

LESS ENVIRONMENTAL IMPACT:

- ✓ **WATER SAVING**
- ✓ **REDUCE STEAM CONSUMPTION**
- ✓ **UP TO -30% KW**



TWO BELT FABRIC DYEING MACHINE



Natural and **synthetic fiber knit**
Tubolar and **warp knit** for sportwear

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NAUTILUS



HT DRAIN WASHING

for the elimination of the oligomers

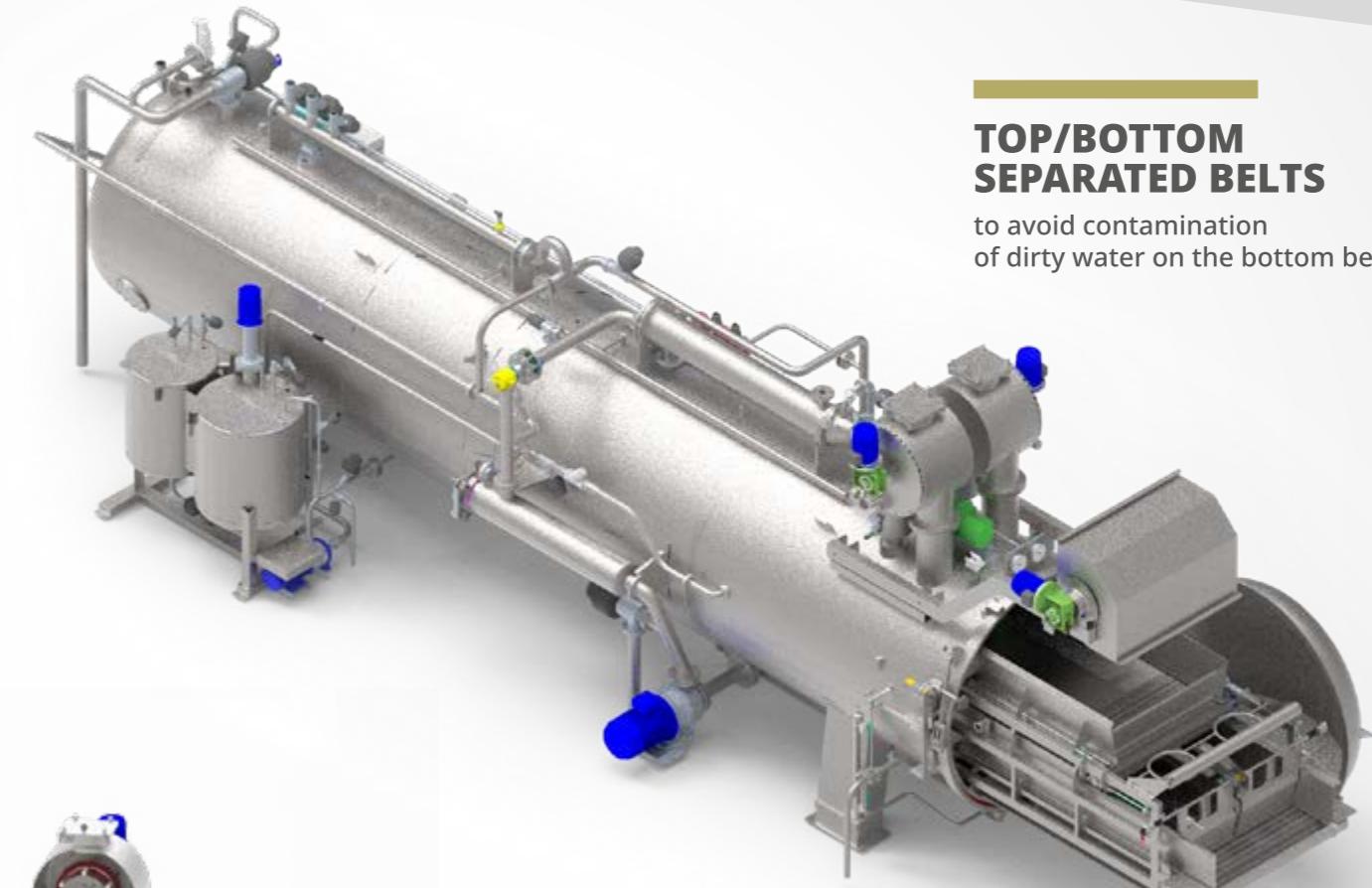
WASHING SPRAY DEVICE

for the whole length of the machine



PH METER DEVICE

for control and auto adjustment



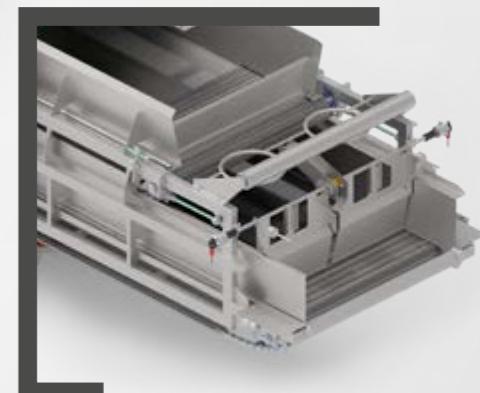
TOP/BOTTOM SEPARATED BELTS

to avoid contamination of dirty water on the bottom belt



FABRIC PROGRESS DETECTION

to avoid knot formation



PLAITER SYSTEM

for a perfect folding of the fabric on the 2 belts



Section showing the two stainless steel belts to avoid fabric stress when dyeing

TECHNICAL DATA

Pressure	3,5 bar
Temperature	147 °C
Liquor ratio	1:3 - 1:4

Capacity	100 - 800 kg
Number of ropes	1 - 2 - 4 ropes in 1 or 2 tubes

OPTIONAL

- Tubes sectioning for constant low ratio
- ARC auto rinse control
- HT washing system
- Fabric automatic speed control

JET 250 HT

FLAWLESS DYEING:

The sole dyeing machine that **prevents product downgrading** for **perfect** results even on difficult tones.

The **LOW LIQUOR RATIO** results in the **saving** of around 20% of water, with a significant environmental and economic impact, for a healthier end product and more eco-compatible process

TANDEM

Possibility to combine two machines in tandem to increase the **load capacity**

INDUSTRY 4.0

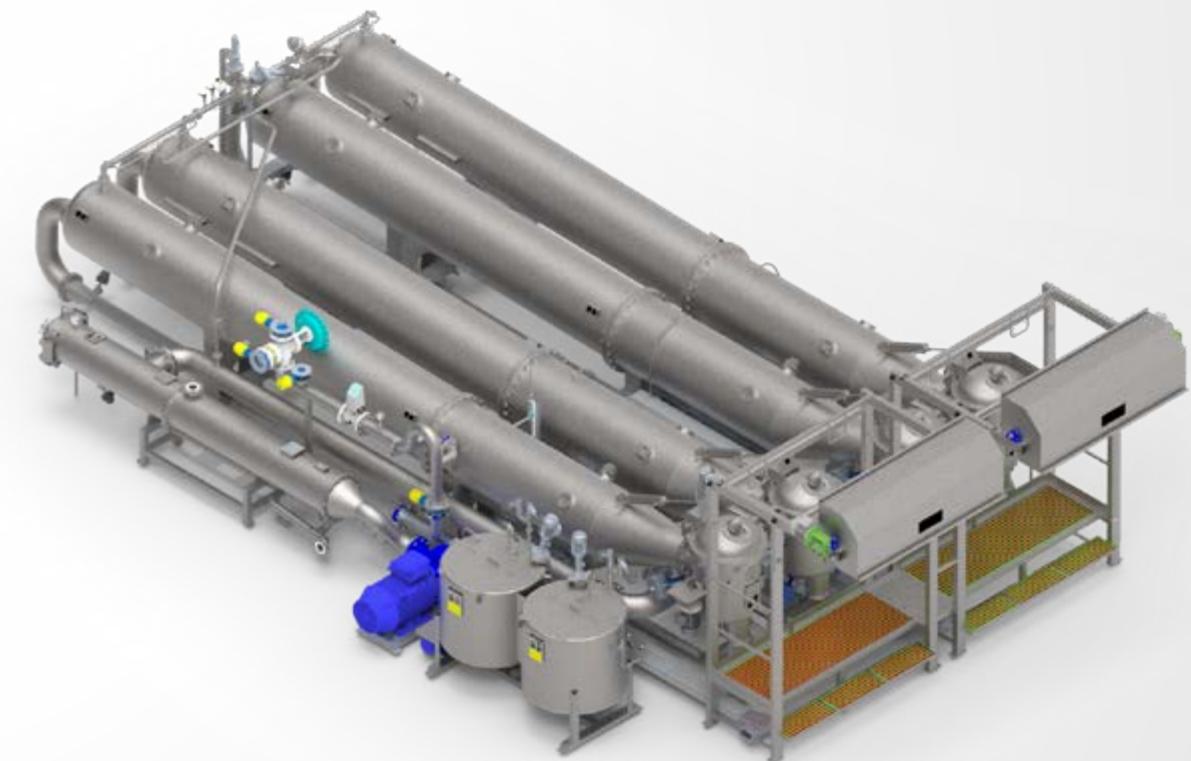
Monitor consumption during the dyeing cycle, and **remote assistance** to meet the requirements of the industry 4.0

CERTAINTY of the DYEING:

- NO **CREASES DURING the DYEING PROCESS**
- NO **ABRASIONS of the FABRICS**
- NO **MACHINE DOWNTIME**

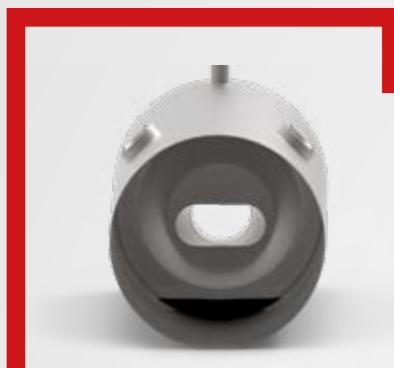


FABRIC DYEING MACHINE



Woven cotton and **blended** for casual wear
High end silk and **technical woven**
Natural and synthetic **sensitive knit**
Tubular and warp knit for **sportwear**
Velvet

JET 250 HT



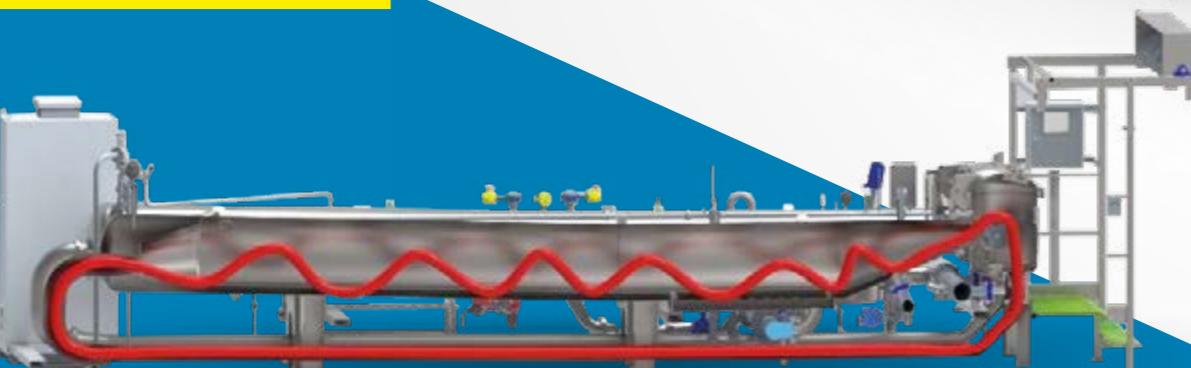
ELLIPTICAL OUTPUT

to widen the fabric entering into the containment chamber



HT DRAIN WASHING

for the elimination of the oligomers



Four variants tube diameters for smooth move of the fabric

TECHNICAL DATA

Pressure	3,5 bar
Temperature	143 °C
Liquor ratio	1:5

Capacity
Number of ropes

20 - 1500 kg
1 - 6 tubes
in various lengths

DELTA P

device for water pressure control and speed of circulation adjustments

NOZZLE

easy and fast changeable



SINGLE PUMP

suction on the front



PH METER DEVICE

for control and auto adjustment

100% STAINLESS STEEL REEL

no abrasion and minimum distance to the containing chamber



OPTIONAL

- Tubes sectioning for constant low ratio
- Torque control on internal reel
- Internal spray washing system
- Automatic opening/closing of main port
- ALC System: Automatic water level adjustment inside tubes (4T)
- ARC auto rinse control

BEAM DYEING

FULLY AUTOMATED MACHINE:

No need of any manual mechanical adjustment

Automatic pump speed for the correct bath circulation

TANDEM

Possibility to combine two machines in tandem to increase the **load capacity**

INDUSTRY 4.0

Monitor **consumption** during the dyeing cycle, and **remote assistance** to meet the requirements of the industry 4.0

IDEAL TO DYE:

- ✓ **SYNTHETIC, NATURAL** and **TECHNICAL FABRICS**
- ✓ **WOVEN, KNITTED** and **WARP KNITTED FABRICS**
- ✓ **SPORTWEAR** and **WORKWEAR**



MACHINE FOR OPEN WIDTH DYEING



Delicate knitted or woven fabrics
High end silk and technical
Tubular and warp knit for **sportwear**
Fine Wool

NAUTILUS	JET 250 HT	BEAM DYEING	198 HT	BID	MINI JET	MINI LAB	OVER FLOW	POSEIDON	T4c	WEXY HEAT RECOVERY SYSTEM	HANKS DYEING
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BEAM DYEING

INTERNAL DEVICE

for adjusting the width of the dyeing beam according to fabric shrinking

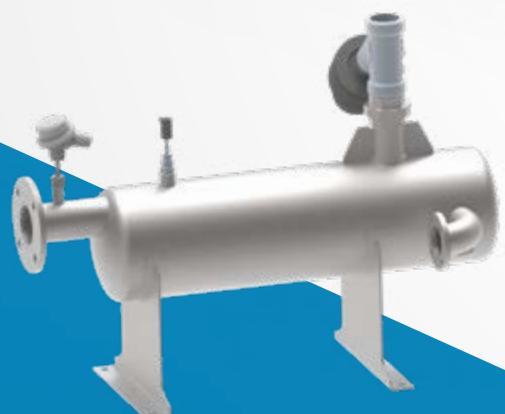
DELTA P

device for water pressure control and speed of circulation adjustments



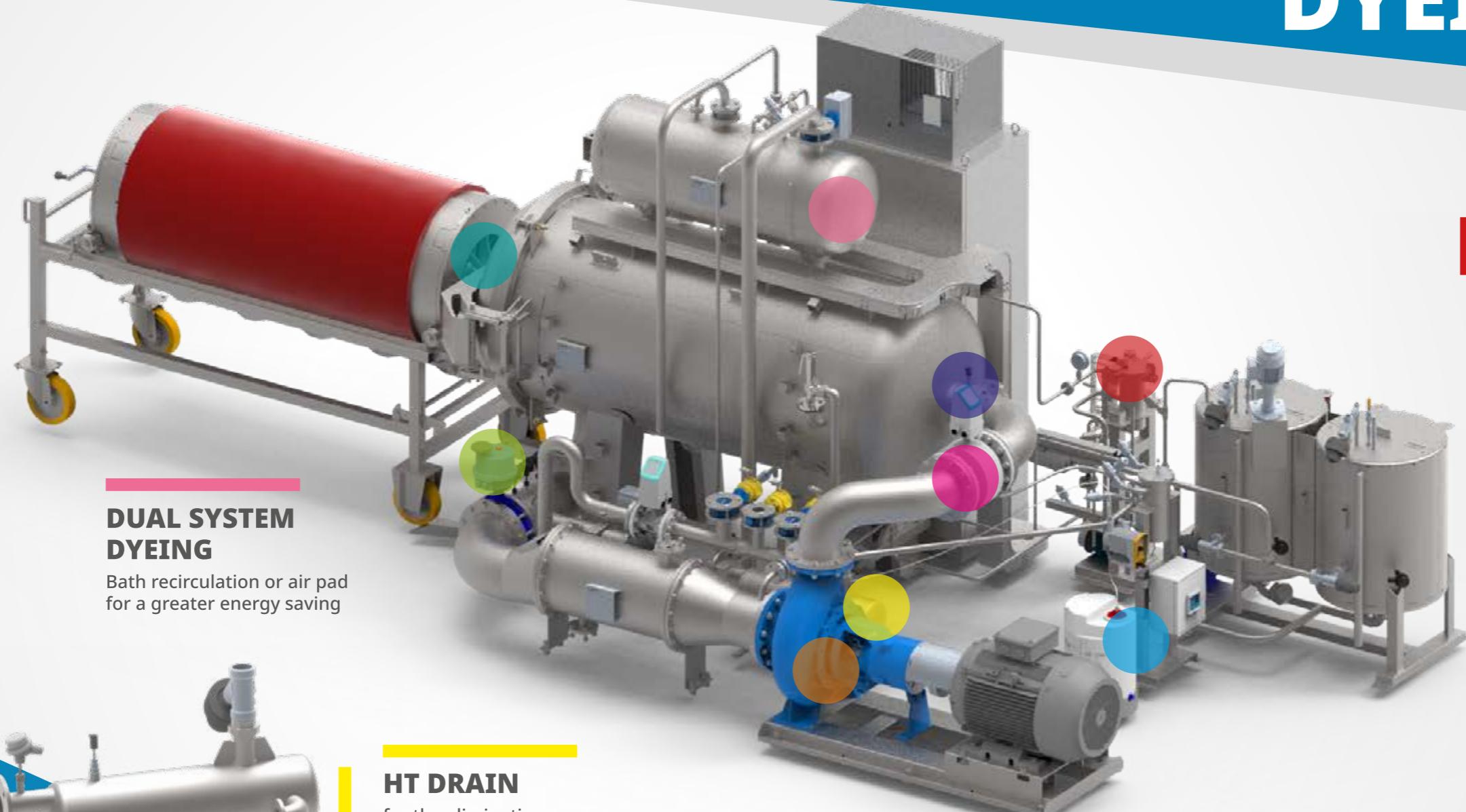
SPECIAL ELECTRIC INTERCEPTION VALVE

to increase pressure reducing the flow capacity on the fabric



DUAL SYSTEM DYEING

Bath recirculation or air pad for a greater energy saving



HT DRAIN

for the elimination of the oligomers

CIRCULATION PUMP

centrifugal type with reversal bath or high efficiency unidirectional

TECHNICAL DATA

Pressure 4,5 bar
Temperature 156 °C
Winding Diameter up to 1600 mm

Working Width up to 4500 mm
Load capacity Depends on fabric thickness and characteristics



SAMPLING DEVICE

for perfect repeatability between sample and the fabric into the machine



PH METER DEVICE

for control and auto adjustment

FLOW METER

for automatic adjustment of centrifugal pump in liter x minute

OPTIMAL DYEING:

Reliable and guaranteed thanks to the **homogeneous flow** distribution and optimisation of operating phases for **shorter process** times

Attention to consumption and respect for the environment with **low liquor ratio** and **low kw** consumption

Flexible load capacity with **constant liquor ratio**

TANDEM

Possibility to combine two machines in tandem to increase the **load capacity**

INDUSTRY 4.0

Monitor consumption during the dyeing cycle, and **remote assistance** to meet the requirements of the industry 4.0

- ✓ **HIGH DENSITY TOW/FIBER CAKES**
- ✓ **EASY MAINTENANCE**
- ✓ **COMPLETELY AUTOMATED FULL LINE PLANTS**



YARN-TOW-FIBER DYEING MACHINE



MATERIAL CARRIERS



TOW/FIBER

Centrifugal basket version

TOPS

BOBBINS

SAMPLING DEVICE

for perfect repeatability between sample and yarn into the machine



PH METER DEVICE

for control and auto adjustment

TECHNICAL DATA

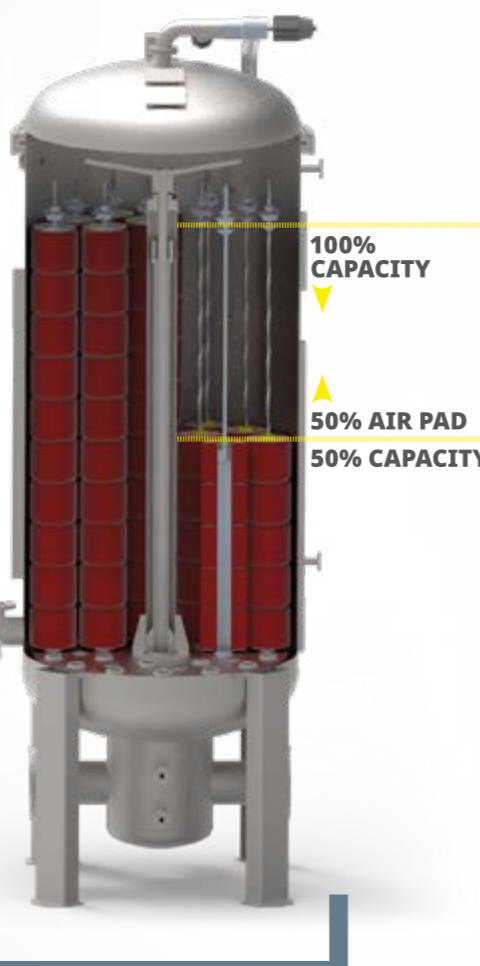
Pressure 4,5 bar
Temperature 156 °C

Liquor ratio 1:4 - 1:6
Total capacity from 10 to 2500 Kg

FLOW METER

for automatic adjustment of centrifugal pump in liter x minute

AIR PAD



AUTOMATIC LOCKING SYSTEM



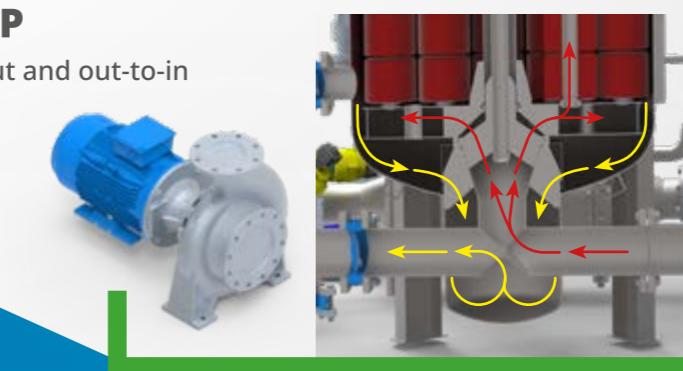
HT DRAIN

for the elimination of the oligomers

DELTA P

device for water pressure control and speed of circulation adjustments

PUMP DEPENDING ON APPLICATION



ONE WAY CENTRIFUGAL PUMP

in-to-out and out-to-in



TWO WAY CENTRIFUGAL PUMP

with internal inversion in-to-out and out-to-in

COMPLETE WORKING CYCLE:

1. Packages are winded on conical or cylindrical perforated dyeing tubes
2. Chemicals and dye-stuff are mixed and heated to about 40/50°C in the color kitchen
3. **Dyeing process:** definition of the amount of dyes and chemicals to be injected for the complete distribution and uniformity inside the package
4. Uniformity of printed package is guaranteed both by the **high boost pressure of the hydraulic pump** and by the **suction of the vacuum pump**
5. Placement of packages on special trolleys in a **vacuum steamer** to be **fixed**
6. **Washing** process (soaping)
7. **Drying**

INDUSTRY 4.0

Monitor consumption during the dyeing cycle, and remote assistance to meet the requirements of the industry 4.0

IDEAL TO DYE LARGE BATCHES:

automatic setting guarantees the same effect, from the first to the last bobbin

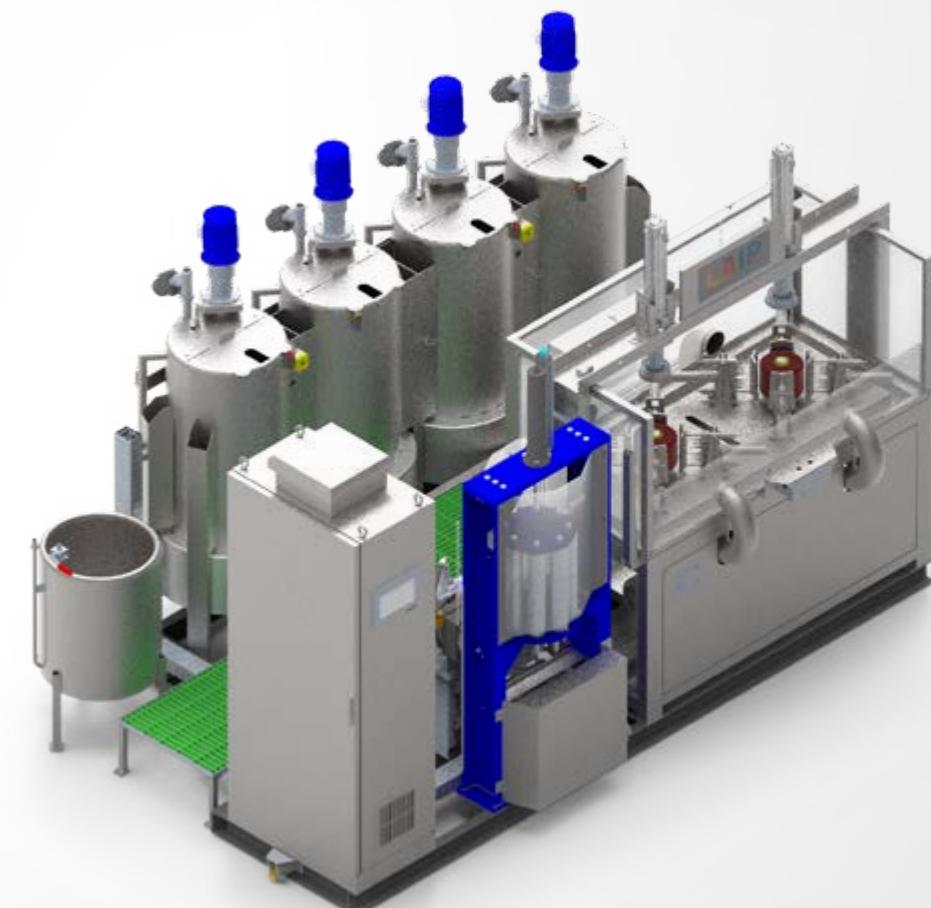
 **PRODUCTIVITY**

 **RELIABILITY**

 **REPEATABILITY**



BOBBINS INJECTION DYEING SYSTEM



Multicoloured printing of yarn in bobbins

NAUTILUS	JET 250 HT	BEAM DYEING	198 HT	BID	MINI JET	MINI LAB	OVER FLOW	POSEIDON	T4c	WEXY HEAT RECOVERY SYSTEM	HANKS DYEING
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BID



HYDRAULIC PUMPING UNIT

used for dosing the same amount of solution for an excellent repeatability

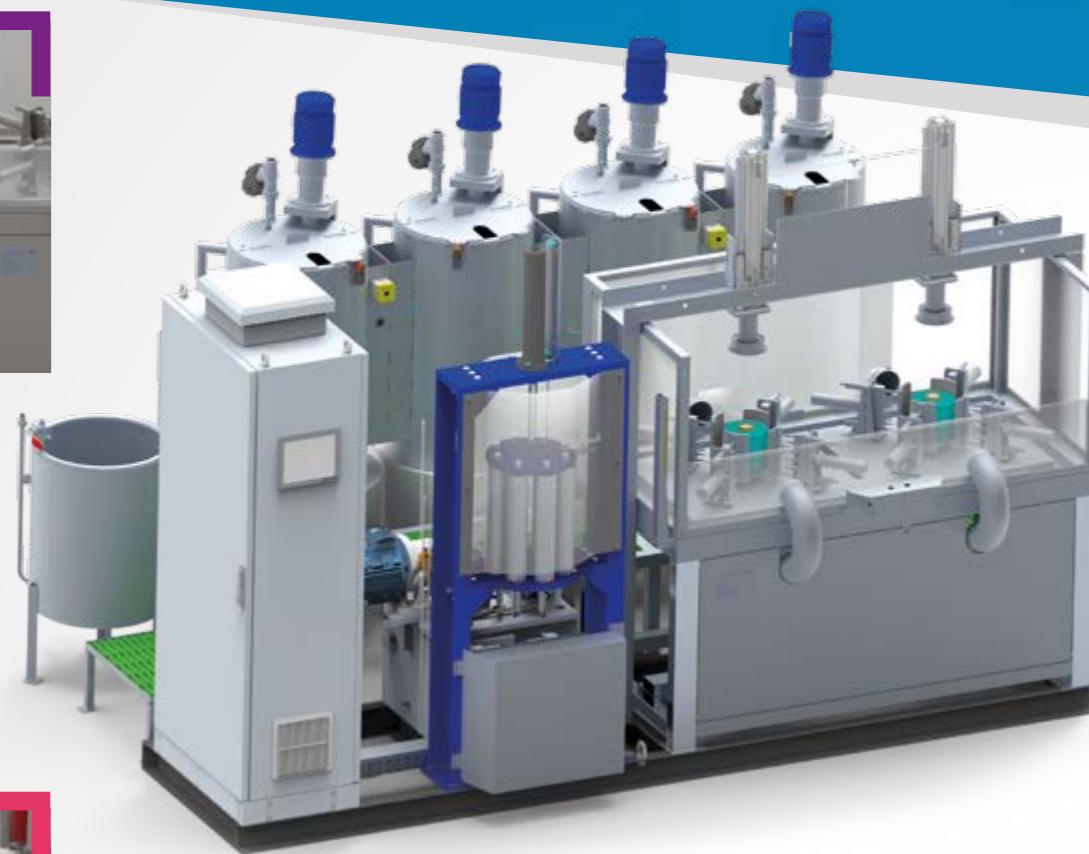


VACUUM PUMP

used to move solution from out to in

COLOUR KITCHEN

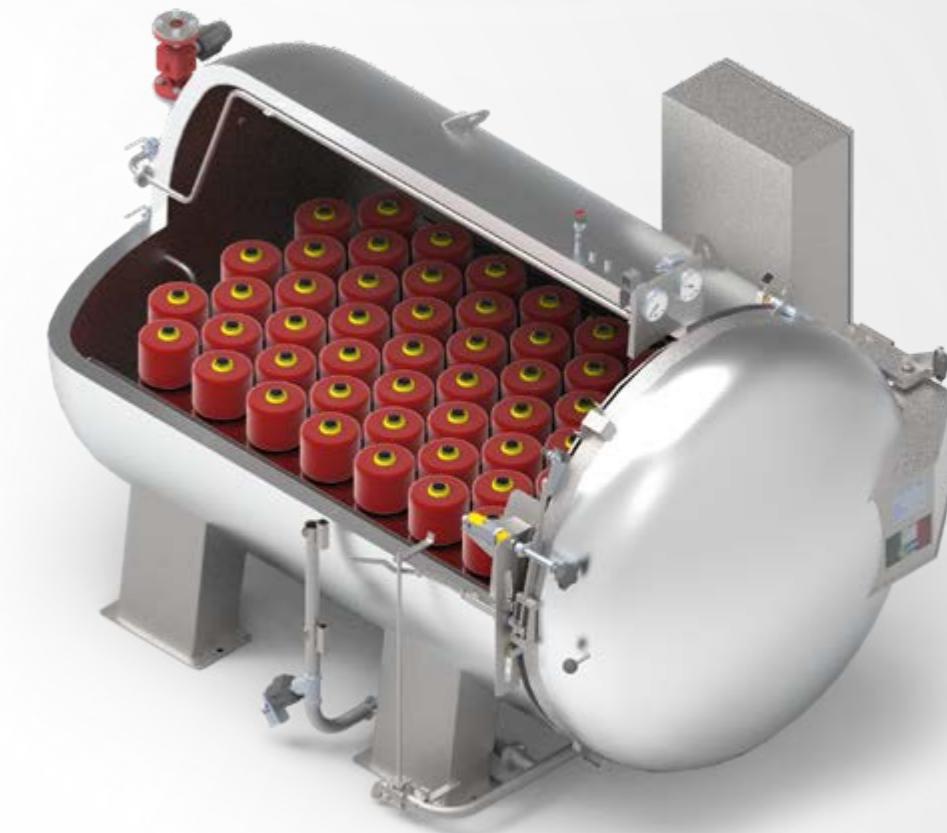
automatic control on every tank to prepare solution



BID MACHINE

PRINTING UNIT

4/6 colours injection by 16/24 needles



STEAMER

Autoclave made in AISI 304 with indirect steam coil to avoid the effect of yellowing on the yarn.

Vacuum pump fed with water.

The machine is designed to work at high temperature and under vacuum.

Safety valve tested to CE PED.

TECHNICAL DATA

Pressure	Atmospheric
Temperature	90 °C
Number heads	from 1 to 2

Number colours	from 4 to 6
Dyeing needles	from 16 to 24

TECHNICAL DATA

Pressure	2,5 bar max
Temperature	135 °C max
Vacuum	-0,7 bar

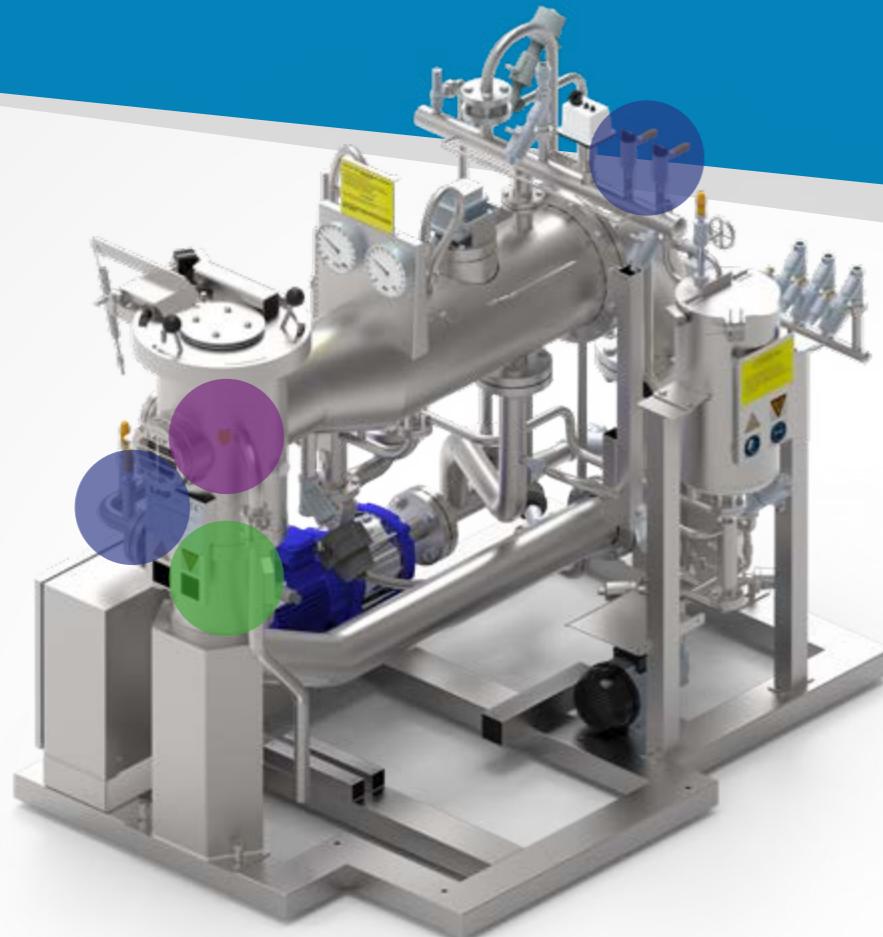
MINI JET

SMALL • FAST • EFFICIENT

The fabric runs **FASTER**, allowing more samples to be dyed per day

Absolute **REPRODUCIBILITY** on bulk machines, same **QUALITY**

Save up to **-50%** dyeing time



100% STAINLESS STEEL FREE REEL

no abrasion and minimum distance to the containing chamber

DELTA P

device for water pressure control and speed of circulation adjustments



NOZZLE

easy and fast changeable



FABRIC SAMPLE DYEING MACHINE



TECHNICAL DATA

Pressure	3,5 bar
Temperature	143 °C
Capacity	5 - 20 mt

Woven cotton and **blended** for casual wear

High end **silk** and **technical woven**

Natural and synthetic **sensitive knit**

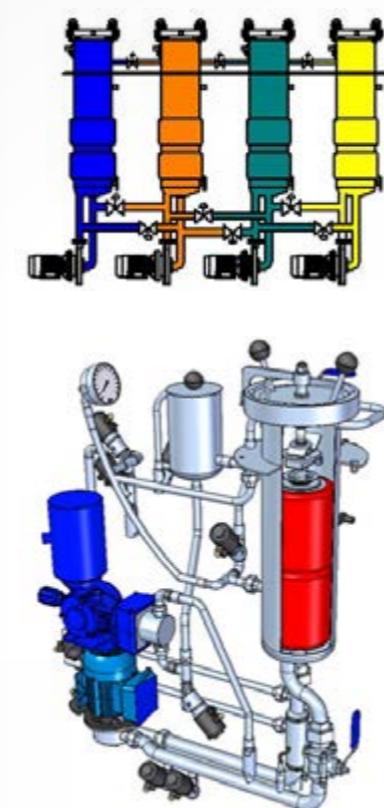
Tubular and warp knit for **sportwear**

Velvet

MINI LAB

MINI LAB 4

1000gr each



MINI LAB 6

150gr each



MINI LAB 2-8

- Lab yarn dyeing m/c capacity 50-1500 g/each
- Independent 2-4-6-8 colours



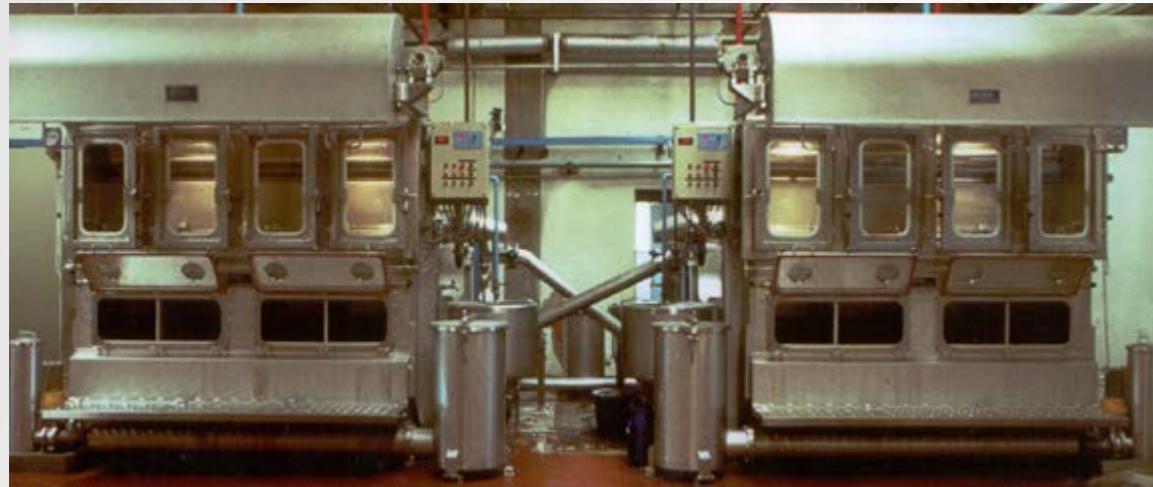
TECHNICAL DATA

Pressure 4,5 bar
Temperature 140 °C

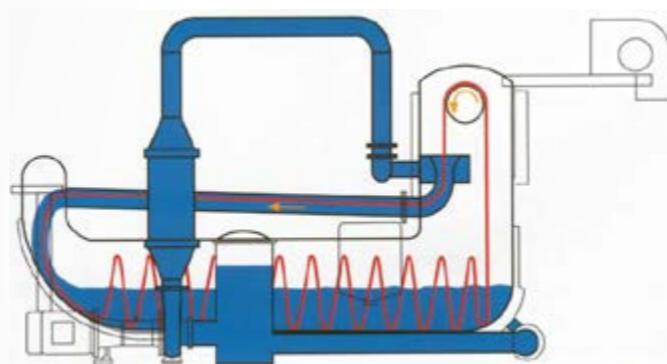
OPTIONAL

dosing tank with pump

OVER FLOW



108 °C VERSION



SCHEMATIC
VIEW



SPECIAL EDITION:
REMOVABLE BASKET

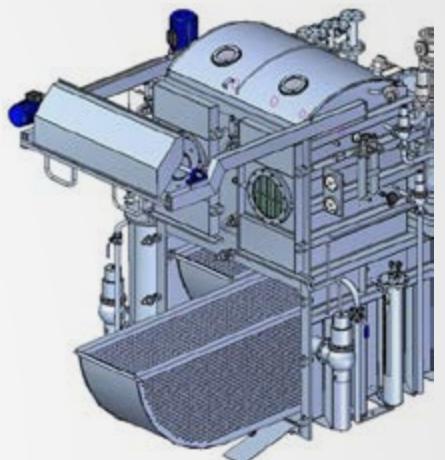
TECHNICAL DATA

Pressure 0,5 bar - Atmospheric
Temperature 98 - 108 °C
Liquor ratio 1:10

Total capacity
Number of ropes

from 5 to 900 Kg
from 1 to 6

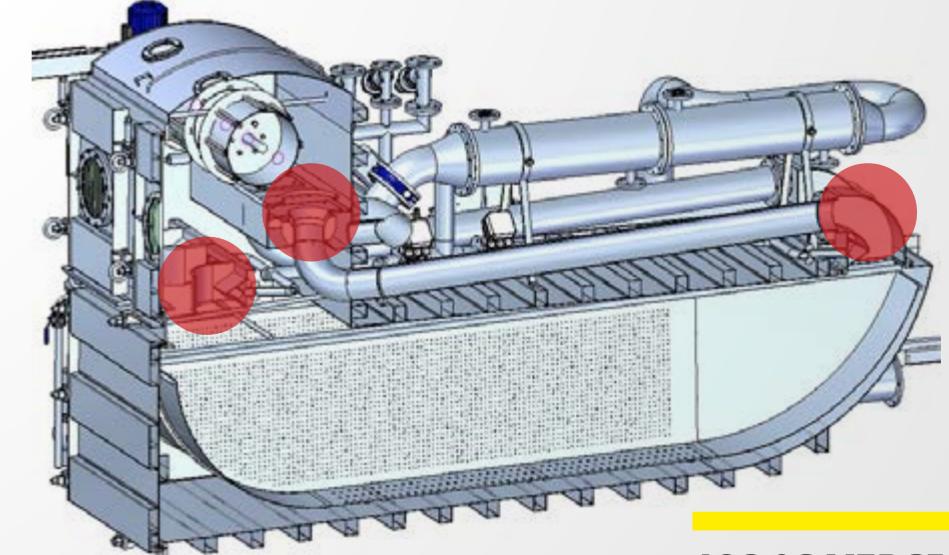
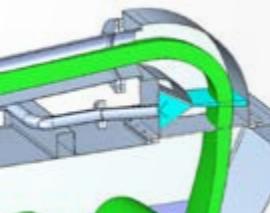
LIGHT FLOW 3 DYEING CONTACT



- Special design for heavy woolen fabric – up to 1 kg/mt
- Up to 150 kg per tube
- Easy cleaning by front port
- Double suction for pump feeding
- Coupling in tandem
- M/c per tessuti cardati 1 kg/mt
- Capacità fino a 150 kg per canale
- Sportello frontale di pulizia
- Doppia aspirazione
- Accoppiamento in tandem



POINT OF
CONTACT



108 °C VERSION

POSEIDON



EXPECIALLY
DESIGNED
for HEAVY and
UPHOLSTERY
FABRIC
LIKE NATURAL
VELVET



NO ABRASION
and CREASE MARKS
on SENSITIVE
NATURAL
WOVEN FABRIC



TECHNICAL DATA

Pressure Atmospheric
Temperature 98 °C
Low liquor ratio 1:4

Total capacity 200 Kg
Number of ropes 1

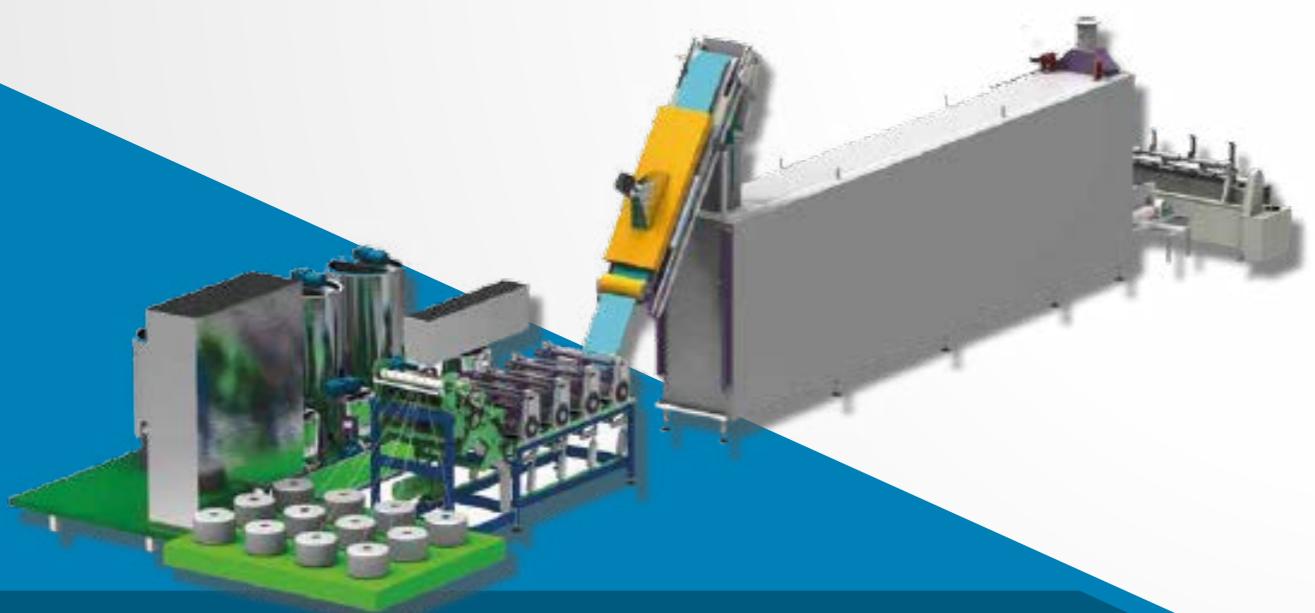
NO FELTING
EFFECT on WOOL
FABRIC



1 VIGOUREUX
+ 3/4 DIFFERENT
COLOURS



PRINTING LINE



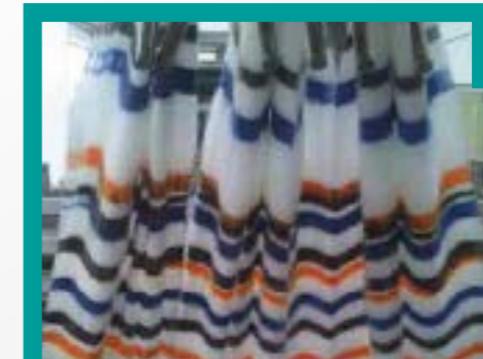
TECHNICAL DATA

Pressure Atmospheric

Temperature 90 °C



COLOUR
KITCHEN



PRINTING
and VIGOREUX
MULTICOLOR EFFECT
for FANCY YARN

WeXY

RECOVER & REUSE
WASTEWATER

APPLICATION:

- on continuous on washing range
- on discontinuous as recovery of hot water drains from dyehouse
- for water purification system at controlled temperature
- on bacterical ETP

TUBE BUNDLE HEAT EXCHANGERS

Set made from stainless steel 316 for generated by preparatory, after-print and dyeing phases. The dirty hot water flows inside the tube bundle; clean cold water, to be heated, flows counter-current in the jacket.

Recover and reuse
thermal wastewater
to improve
energy efficiency

ADVANTAGES:

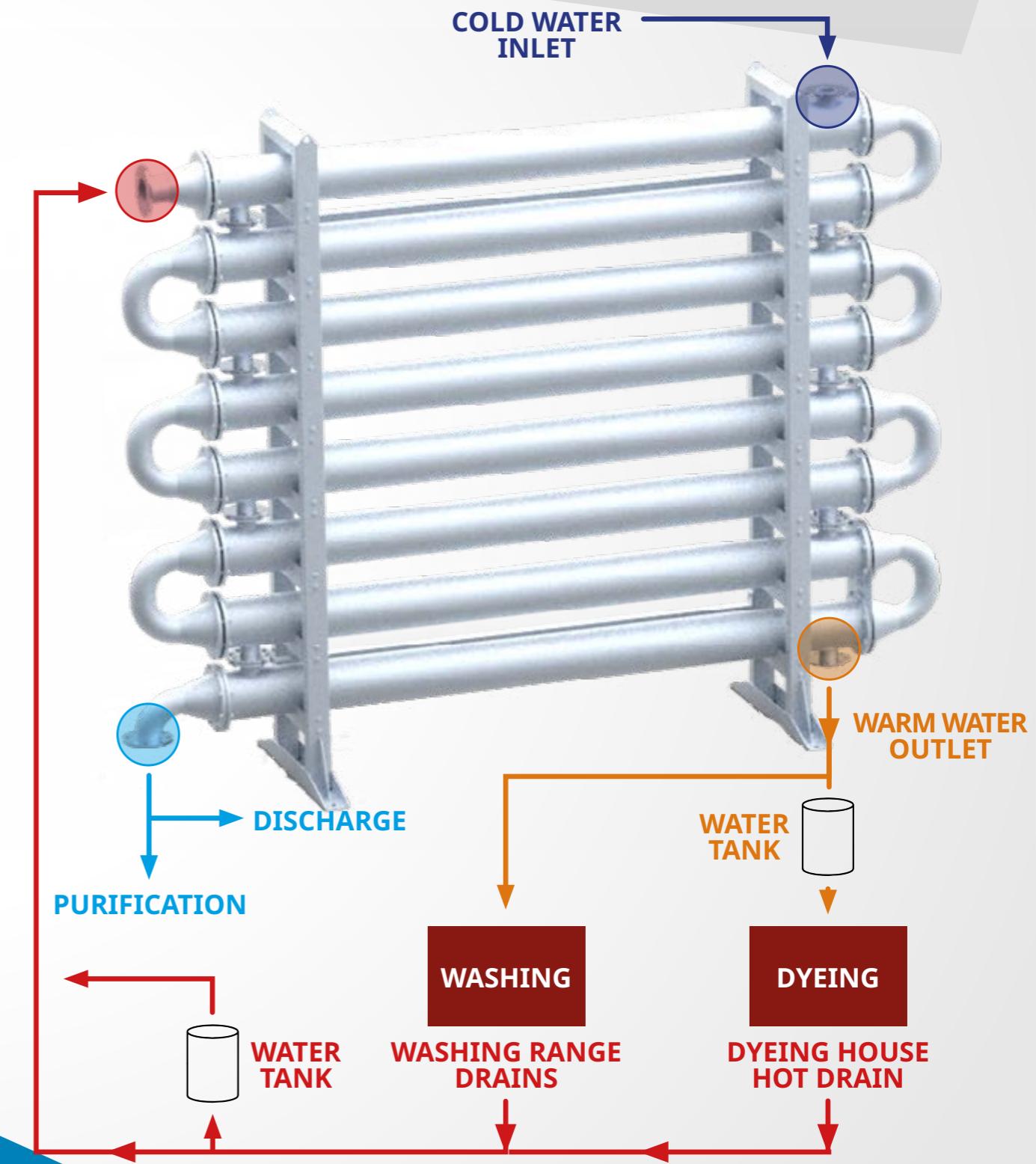
- no maintenance required
- sizes according to space needs
- easy installation
- compliant with CE/PED safety regulations

INSTALLATION:

Thermal exchangers are installed on a stainless steel structure fitted with supports for ground mounting. Assembled in series in various numbers, based on the amount of hot water to be treated and the amount of heat to be recovered.

WATER OUTPUT:

- can be fed back into the production cycle
- is distilled/purified, has no limescale, can be used in the boiler



HANKS DYEING

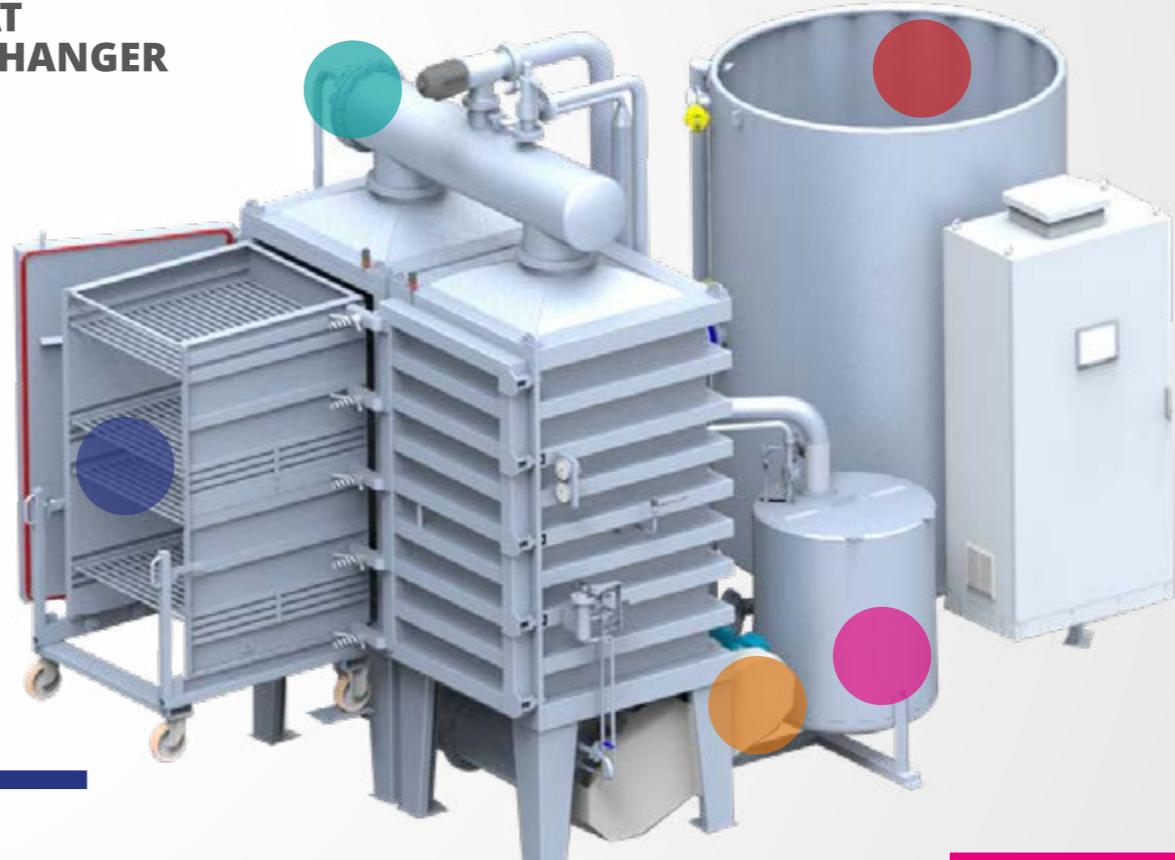


SAMPLE
DEVICE



MACHINES
IN TANDEM

HEAT
EXCHANGER



HANKS
CARRIER

REVERSIBLE
CIRCULATION PUMP

TECHNICAL DATA

Pressure	0,5 bar
Temperature	108 °C
Capacity	1 - 350 kg



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