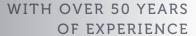
# BOOSTIN'G YOUR FABRIC PERFORMAN'CE



BONDING / LAMINATION

POWDER SCATTERING / LAMINATION / COATING

HOTMELT LAMINATION / COATING

MULTI-ROLLER HOTMELT LAMINATION

**EMBOSSING** 

SUBLIMATION CALENDER

SINGLE HEAD ROTARY SCREEN PRINTING

DISPERSE & PIGMENT DYE FIXATION

FLOCK & GLITTER PRINTING

UNWINDING & REWINDING

ANTI-SLIP CARPET MACHINE LINE

**EMBOSSING DESIGN CYLINDERS** 



#### BOOSTING YOUR FABRIC PERFORMANCE

#### WITH OVER 50 YEARS OF EXPERIENCE



Doğan Çetin 1942-2020

In the fond memory of our beloved founding partner and past CEO - a visionary innovator and inventor and one of the earliest pioneers in Turkish Textile Machinery Sector Muratex is a family business founded in 1970, dedicated to the design, manufacture, and construction of bespoke technical textile machinery.

We are one of the few technology companies to provide a key role in the technological development of many leading textile companies.

With our innovative systems combined with a practical vision, we produce bespoke and traditional textile machinery for the tech textile, home textile, automotive, aerospace, and marine industries.

Our bespoke machines benefit our collaboration with existing and new customers tailoring them to their exact needs, and opening up new markets and applications.

More than 50 years of experience, combined with extensive knowledge of the applications required, enable Muratex to supply machines to develop customers' businesses, often at a very attractive price, without compromising on quality or speed.

Our experience and knowledge combined with first-class mechanical engineering are what we pass on to you - our customer and partner. We welcome the challenges our customers pose to us by developing customized machines to meet their needs.

We hope Muratex can be your partner of choice and look forward to discussing your new ideas and projects.

Murat Çetin CEO



Participating to ITMA since 1987

### INSTALLATIONS IN 50 COUNTRIES WORLDWIDE



#### EUROPE

Belarus Belgium Bulgaria Denmark

> Finland France

Greece

Italy Lithuania

Moldova Netherland Norway

Portugal Poland

Romania

Spain Sweden

Türkiye Ukraine

United Kingdom

#### ASIA

China Israel India Indonesia Iran Japan Lebanon Pakistan

South Korea Srilanka Syria

Thailand UAE Uzbekistan Vietnam

#### **AMERICA**

Argentina Brazil Canada Ecuador Mexico Peru USA

AUSTRALIA

Australia

#### **AFRICA**

Algeria Egypt Libya Morocco South Africa Sudan Tunisia

More than

4 Million Meters

fabric processed in our machines every day in the world More than

1750 Machines

Muratex Machines sold in 5 continents



#### BONDING & SUBLIMATION CALENDER MACHINE

#### Standards

- Web and film lamination
- Sublimation paper printing
- Thermal adjustment
- Reactivation of disperse and pigment ink

#### Wide Range

This extensive range of calenders has been developed for continuous printing of fashion and home furnishing fabrics, nonwoven fabrics, nonwoven, and films.

#### **Uniform End Result**

An exclusive method of heating the Muratex special cylinders allows for close and constant temperature control, thereby guaranteeing excellent bonding/lamination and print quality in terms of uniformity and ink penetration.

#### Wide Range of operating temperatures

The wide range of temperatures that can be achieved with our custom-built cylinders (ambient temperature up to 225 °C) means that substrates with different properties and requirements can be processed easily.

### Management of Substrates During Heat Transfer Printing Process

With our extensive experience, we can advise on the best devices for managing and handling materials to be treated (woven fabrics, mono and bi-stretch fabrics, etc.)

#### **Machine Configuration**

- Different working speeds are possible with heated cylinders from 215 to 1000 mm in diameter
- Cylinder widths from 1600 up to 3600 mm
- Selection of machines ranging from particularly compact versions to configurations for high-volume production
- Wide range of options available, depending on the chosen application and substrate

#### Other Functionalities

- Eco-friendly process (no solvents and no water used for process)
- Easy and versatile use
- Quick and easy change of pattern/image
- Wide range of use

#### Wide Range of Applications

Multifunctional machines are also suitable for: Fixing and curing disperse and pigment inks, heat-setting fabrics, bonding/laminating blackout films, thermoplastic, and pressure-sensitive films/webs.

#### **Optional Solutions**

- Bonding
- Lamination
- Foil Effects



#### TECHNICAL SPECIFICATIONS

#### Standards

- 100% Nomex felt
- Grinded main cylinder
- Aluminium free running rolls
- Pneumatic felt edge control with photocell proximity sensor
- 7" touch screen operator panel with PLC control
- Programmable heating and cooling
- Quick change heavy duty air shaft
- Manual fabric tension control
- Adjustable felt air pressure
- Air shaft to fix the bonding material (both for rewinding and unwinding)
- Air disc brake system for unwinding bonding material roll
- Air disc brake system for unwinding protection paper roll
- Clutch system with airshaft for rewinding protection paper roll

#### Optionals

- Silicon coated felt
- Teflon coated drum
- Internal pneumatic pressure roll
- Motorized unwinding units
- A-frame to A-frame working system
- Extraction hood
- Cooling unit
- Fabric tensioning unit
- Slitting system (crush, shear, edge trimming)
- Web guiding system
- Cross cutter system and other special requirements

Drum Diameter (mm)	Working Width (mm)	Drum Diameter (mm)	Working Width (mm)
Ø 215	1600	Ø 600	1600
	1800		1800
	2000		2000
	2200		2200
			2600
Ø 350	1600		3200
	1800		
	2000	Ø 800	1600
	2200		1800
	2600		2000
	3200		2200
			2600
Ø 500	1600		3200
	1800		
	2000	Ø 1000	1600
	2200		1800
	2600		2000
	3200		2200
			2600
			3200

For special width and drum size, please contact us



### POWDER SCATTERING UNIT & POWDER LAMINATION LINE

#### POWDER SCATTERING UNIT

A scattering roller coated with a special needle covering in combination with a precisely adjustable brush belt ensures a highly precise and very even application of the spreading material. This scattering system allows an adjustable working width between 50 mm and 5000 mm depending on the machine's working width as well as the possibility to choose application weights between 3.0g/m2 upwards according to customer requirements.

Our user-friendly scattering systems offer a short cleaning time for scattering roller or brush belts of less than 5 minutes in case of maintenance or process changeover. The scattering is very accurate and can be easily controlled by the operator via the control panel. Our control panel allows the exact processing conditions to be stored for each job being processed. This ensures repeatability and consistency, forthwith.

We offer scattering units for dry powder materials such as;

- Thermoplastic adhesives
- Epoxy powders
- Recyclers
- Activated carbon
- Filling material
- Sand
- Grains etc.....



#### POWDER LAMINATION LINE

The touch of expert hands ensures perfection. Attention to detail, state-of-the-art technology, and the exact fulfillment of your needs. These are the qualities that distinguish our unique production.

Our powder Lamination Line is specially designed for your production to achieve your final product.

#### TECHNICAL SPECIFICATIONS

#### Optionals

- Fabric tension control unit
- Slitting System (crush, shear, edge trimming)
- Cross cutter system
- Motorized unwind and rewinding
- IR pre-heater unit
- Hoist system for lifting the fabric
- Crane system for lifting the fabric
- A-frame to A-frame working system Trolley to trolley Trolley to A-frame

Drum Diameter (mm)	Working Width (mm)	Drum Diameter (mm)	Working Width (mm)
Ø 350	1600 1800 2000 2200 2600 3200	Ø 800	1600 1800 2000 2200 2600 3200
Ø 500	1600 1800 2000 2200 2600 3200	Ø 1000	1600 1800 2000 2200 2600 3200
Ø 600	1600 1800 2000 2200 2600 3200 3400* 3600*		

The sizes above are for Powder Lamination Line For special width and drum size, please contact us



Sheer Cutting System



Tensioning System



Infrared Pre-heater System



Motorized Rewinding & Unwinding Unit



#### HOTMELT LAMINATION MACHINE

Muratex has developed an advanced and compact Hotmelt Lamination Machine, which is specifically designed for lamination. Hotmelt adhesives are widely used in the textile industry, and they come in two forms: one-component solvent-free thermoplastic polymers (non-reactive) and thermoset pre-polymers (reactive).

This machine has the capability to perform thermo-adhesive hotmelt and reactive polyurethane lamination on various materials such as fabric, jersey, elastic fabric, film, breathable membranes, foams, and abrasive sponges. Additionally, different engraved lamination rollers can be provided for this machine.

The control system with load cells ensures that the tension is maintained according to setpoints. Additionally, web guiding systems ensure that the web layers are correctly aligned for the process.

#### Solution for Textile & non-Textile Lamination

- Membranes
- Foams
- Films
- Woven fabrics
- Nonwoven fabrics
- Knitted fabrics



Chemical Working Width Adjustment



Blade Stopper



Web Guiding System



Fabric Unwinding Frame

#### TECHNICAL SPECIFICATIONS

#### Standards

- Engraved cylinder
- Load cell for fabric feeding synchronization
- Free running brush spreading roll for membrane/fabric
- Silicon-covered pneumatic pressure rolls
- Stainless steel tank for automatic cleaning of engraving cylinder
- Heatable Teflon-coated blade system with pneumatic pressure
- Teflon-coated metal bottom cylinder for squeezing system
- Distance adjustment system (electronically)
- 7" touch screen operator panel with PLC control
- Heating up and cooling down the system
- Web guiding system
- All the cylinders working as a synchronized system

#### Optionals

- Fabric tension control unit
- Slitting system (crush, shear, edge trimming)
- Cross cutter
- Motorized unwinding & rewinding unit
- A-frame to A-frame working system Trolley to A-frame

#### Machine width Options

1800mm, 2000mm, 2200mm, 2600mm



Air Shaft



Engraved Design Cylinder



Engraving Cylinder Cleaning Tank



#### MULTI-ROLLER HOTMELT COATING MACHINE

Muratex designed and developed multi-roller hotmelt machines for coating and lamination processes. This machine can perform thermo-adhesive hot melt and reactive polyurethane lamination on various materials such as fabric, jersey, film, and paper. Additionally, Industries such as composites, shoe manufacturing, airbag fabric production, and upholstery fabric processing can benefit from this multi-roller hotmelt machine.

The machine is versatile and can be customized with a drum melter for reactive polyurethanes stored in 200-liter barrels, or with a tank melter or extruder for handling adhesive. It can be easily integrated into existing production lines or can be supplied with additional components like unwind, rewind, and auxiliary devices for continuous production.

#### Solution for Textile & non-Textile Lamination

- Foams
- Fabrics
- Woven fabrics
- Nonwoven fabrics
- Knitted fabric
- Other technical applications



Safety Cover



Hard Chromium Coated Glue Transfering Cylinders



Servo Controlled Cylinder Movements



Teflon & Silicon Coated Squeege Cylinders



Width Adjustable Feeding

#### TECHNICAL SPECIFICATIONS

#### Standards

- Induction hardened, heatable hard chromium plated metal cylinder.
- Hard Chromium coated cylinders distance adjustment with servo actuators.
- Silicon covered pneumatic pressure bottom cylinder.
- Width adjustable feeding table\*
- Spreading roller
- Fabric manual tension control
- Teflon coated metal top cylinder for squeegee system.
- Silicon covered pneumatic pressure bottom cylinder for squeegee system.
- 7" touch screen operator panel with PLC control
- Heating up and cooling down the system
- A-shafts are included.
  - \*For foam applications

#### Optionals

- Servo actuators to adjust the distance electronically.
- A-frame to A-frame working system.
- Paper/film motorized unwinding & rewinding unit.
- Load cell system.

#### Machine width Options

1800mm, 2000mm, 2200mm, 2600mm



#### **EMBOSSING MACHINE**

#### Standards

**Embossing of Substrates** 

#### Wide Range

Our extensive range of embossing machines is designed for roll to roll applications such as fabric, membranes, films, foils, papers, synthetic leathers, etc.

#### **Uniform End Result**

An exclusive process for heating the custom-made Muratex cylinders enables precise and constant temperature control, guaranteeing excellent embossing quality from start to finish.

#### Wide Range of operating temperatures

The wide temperature range that can be achieved with our custom-made cylinders (ambient temperature up to 225°C) means that substrates with different properties and requirements can be processed easily and precisely.

#### Management of Substrates During Heat Transfer Printing Process

Embossing, Cire (Polishing), and Foiling process can be done with the same machine if you equip it with optional extras.

#### **Machine Configuration**

- Different working speeds and pressure obtainable with heated cylinders from 215 up to 350 mm diameter
- Cylinder widths from 1600 up to 3200 mm
- Selection of machines ranging from notably compact versions to configurations for high-volume
- Wide range of options, available, depending on the selected application and substrates

#### Other Functionalities

- Eco-friendly process (no solvents and no water used for process)
- Easy and versatile use
- A quick and easy way to change the design cylinder

#### **Optional Solutions**

- Foil Printing
- Cire (Polishing)

#### TECHNICAL SPECIFICATIONS

#### Standards

- Hard chromium coated design cylinder
- Hard rubber coated bottom cylinder
- Hydraulic squeezing system
- Touch screen operator panel
- Programmable heating and cooling
- Manual fabric tension control
- Adjustable hydraulic pressure
- Surface mounted rewinding

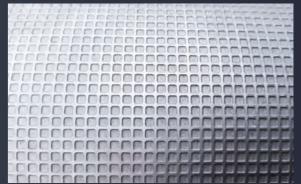
#### Optionals

- Mirror cylinder for Cire
- Hard chromium covered cylinder for foil printing
- Rubber coated cylinder for foil printing
- Fan cooling unit
- Chilled cooling rollers
- A-frame to A-frame for continuous production
- Air shaft to fix the foil (both for unwinding and rewinding)
- Air disc brake system for unwinding foil roll
- Slitting system (crush, shear, edge trimming)
- Cross cutter
- Tensioning Unit
- Center rewinding

Drum Diameter (mm)	Working width (mm)	Drum Diameter (mm)	Drum Diameter (mm)
Ø 215	1600 1800 2000 2200	Ø 270	1600 1800 2000 2200
Ø 240	1600 1800 2000 2200 2600 3200	Ø 350	2600 3200 1600 1800 2000 2200 2600 3200

For special width and drum size, please contact us





#### EMBOSSING CYLINDERS

Muratex also offers a design and manufacturing service for the embossing cylinders with a fast turnaround service and very competitive pricing.



# SINGLE HEAD ROTARY SCREEN PRINTING MACHINE

#### **TECHNICAL SPECIFICATIONS**

#### Standards

- One head rotary screen unit
- Screen report is 640mm
- Stainless steel blade pipe
- 50 kg stainless steel adhesive tank
- Pneumatic chemical pump
- Adjustable blade for right and left, up and down
- Electronic speed control
- Stainless steel waste tank
- Pneumatic cleaning blade for bottom cylinder

#### Optionals

A-frame to A-frame working Trolley to A-frame

#### Machine width options

1800mm, 2000mm, 2200mm, 2400mm, 3200mm

# DISPERSE & PIGMENT DYE FIXATION MACHINE

#### **TECHNICAL SPECIFICATIONS**

#### Standards

- 7" touch screen operator panel with PLC control
- Electronic meter counter
- The speed of the machine from 0,5m/min up to 8m/min
- Manual adjustable fabric tensior for entry and exit side
- Roll to roll working system
- From 4 sides emergency stop buttons

#### Optionals

- A-frame to A-frame working Trolley to A-frame Trolley to trolley
- Motorized center unwind & rewind
- Tensioning Unit
- Silicon coated pneumatic pressure roll

Drum Diameter	Working Width	Drum Diameter	Working Width	
(mm)	(mm)	(mm)	(mm)	ı
Ø 215	1600	Ø 600	1600	ı
	1800		1800	ı
	2000		2000	ı
	2200		2200	ı
			2600	ı
Ø 350	1600		3200	ı
	1800			ı
	2000	Ø 800	1600	ı
	2200		1800	ı
	2600		2000	ı
	3200		2200	ı
			2600	ı
Ø 500	1600		3200	ı
	1800			ı
	2000	Ø 1000	1600	ı
	2200		1800	ı
	2600		2000	
	3200		2200	
			2600	
			3200	





# UNWINDING & REWINDING UNIT

#### TECHNICAL SPECIFICATIONS

#### Standards

- Electronic speed control
- Electronic meter counter
- The speed of the machine from 0,5mt/min up to 15mt/min
- Manual adjustable fabric tension for entry and exit side
- From 5 sides emergency stop buttons

#### Optionals

- Center unwind and rewind system with airshaft
- Tensioning unit
- Spreading roll
- Cross cutter

#### **Machine Width Options**

1800mm, 2000mm, 2200mm, 2400mm, 2600mm, 3200mm

# FLOCK & GLITTER PRINTING MACHINE

#### **TECHNICAL SPECIFICATIONS**

#### Standards

- One head Rotary screen unit on the blanket system
- 640mm screen report is
- Stainless steel blade pipe
- Pneumatic chemical pump
- Adjustable blade for right and left, up and down
- Complete polyamide and plexiglas brush cabin
- 2 brush inside the flock cabin
- Under the brush has sieves
- The sieves covered with chromium
- The flock cabin covered by plexiglas for security
- 50 kg stainless steel adhesive tank

#### Machine width options

1800mm, 2000mm, 2200mm, 2400mm

- The flock cabin adjustable up and down by manual
- The machine has 4 emergency stop from all corner
- Under the blanket table is covered with copper
- All the brush electronic speed control
- Blanket speed control
- The machine for roll to roll printing
- The fabric entry with pneumatic squeezing cylinder
- The fabric enrty tension control by manual
- After printing Vacuum Unit
- Vacuum unit is working with nonwoven filters
- Adjustable static voltage unit 100.000 mV
- Dry system static generator





#### ANTI-SLIP CARPET MACHINE LINE

#### 3 in 1 Production Line LAMINATION, ROTATION AND DRYER

- User-friendly anti-slip back surface
- Maximum speed
- Low-cost investment and production
- Unlimited creativity and design

Imagine a machine line that creates a new carpet trend worldwide. Wouldn't it be nice if the production for that was easy, fast and the cost surprisingly low? Where the end products are user-friendly with its anti-slip function and the machine gives you the freedom of unlimited designs?

We have developed that machine for you!

With Muratex's unique Anti-slip machine line, you can produce amazing carpets that add great value to your business.

Muratex's anti-slip carpet line comprises 3 production units: Bonding/Lamination Machine, Rotary Screen-printing Machine, and Dryer Unit.

In the laminating unit, the desired fabric is glued to the felt using the film. In the rotation unit, an anti-slip PVC chemical is printed on the surface of the felt. And the final product is fixed in the drying unit to ensure the durability of the anti-slip function.

The products you can make with our machine are user-friendly thanks to their anti-slip function, lightness, and washability.

### Unlimited Combination and Freedom of Design User-friendly

The products you can make with our machine are user-friendly thanks to their anti-slip function, lightness, and washability. From velvet, blanket, and suede to shag, you may use all kinds of fabrics. And you may create unlimited carpet designs.

#### Single Head Rotary Screen Printing Unit



#### Dryer Unit



#### Low Cost Investment and Production

The production costs achieved with our machine are much lower than with conventional carpet weaving machines. The production speed of our machine is also much higher. Thanks to our Anti-Slip Carpet Line, you may sell your carpets much cheaper than your competitors and thus increase your competitiveness.

#### User-friendly

The products that you can produce with our machine are user-friendly thanks to their anti-slip function, lightness, and washability.

#### Working width according to your needs

We manufacture machines with a working width of 1600 mm to 3600 mm, which we adapt entirely according to your requirements.

#### Anti-Slip Gel Back

Thanks to special PVC chemicals, we achieve permanent anti-slip functionality. The design stencil rolls are also easy to replace.



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Please go to <u>www.muratex.net/our-agents</u> or scan the QR code on the left to view our authorized representatives in countries