



GAZİANTEP MAKİNA İMALAT SAN. TİC. A.Ş.

MI-U/SD SPACE-DYE LINES

PRODUCT CATALOGUE

2026



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**1949**

MİTAŞ Machine Inc. was founded in 1949 through the initiatives of İhsan UNCU.

By providing services in many branches of the manufacturing sector, like defense industry, automotive industry, textile industry, etc. It has increased experience and knowledge.

MİTAŞ Machine Inc., by giving continuous importance to research and development , has evolved into a modern, technologically advanced business suited to our times.

Now We are proud to serve the textile machinery manufacturing sector with our high technology workshop and expert staff.

2026

MI-U/SD SERIES SPACE-DYE LINES

Space-dyeing Solutions For Multicolor Yarns



Space dyeing is a yarn dyeing process that creates multi-colored effects along the length of a single yarn.

Space dyeing is a technique used to give yarn a unique, multi-colored effect. While a typical skein of yarn is the same color throughout, a skein of space dyed yarn is two or more different colors that typically repeat themselves throughout the length of the yarn.

The essential process sequence begins with dye liquor application, followed by saturated steam fixation, washing-off and drying.

Saturated steam heat-setting after space-dyeing is a vital textile process that uses pressurized steam to permanently set the shape, elasticity, and dimensional stability of synthetic fibers like nylon and polyester.



MI-U/SD Series Space-Dye Heat-set lines have a modular structure. This structure allows for the creation of the best possible machine configuration to meet customer needs.

MI-C CREEL

It features an ergonomic design for easy and quick coil changes. The housing is robust enough to support coils weighing up to 8kg.

- Up to 72 ends
- Active and rezerve tubes adaptors
- Singel or dobbel line configuration
- Yarn detection sensors for each end
- Yarn tension device for each end



MI-SD SPACE-DYE UNIT

It is a special design that ensures homogeneous paint application and complete penetration into the fibers using a spray painting method.

- Can run Space-Dye, Solid Dye and tone-on-tone
- Up to 8 color (6 colors standart)
- Wide range of computer controled dye desings and spot range
- Low Operation and spare part cost



MI-L LAYING UNIT

It is designed to lay continus, cut and micro filaments. The tension-regulating Godets enables high-speed production without loss of quality.

- Pre-feeding Godet for tension control
- Easy maintance and cleaning desing
- Up to 650 m/min laying speed



MI-PS PRE-STEAMER

It is a general machine unit. Here, it moistens the yarn before the heat-set process, relieving stress on the yarn. It also serves to protect the product from shock that may occur due to high heat in the next step.

- Inverter controlled circulation fans
- Controlled steam feeding
- Easy cleaning and maintenance



MI-PB PRE-BULKER

It is a heated and steam-supplied unit. This process bulked the yarn before the final heat-set, while also allowing the dye to penetrate the yarn more effectively.

- Inverter controlled circulation fans
- Controlled steam feeding
- Electrical heater
- Easy cleaning and maintenance.



MI-U HEAT-SET TUNNEL

It is a steaming tunnel that performs the Heat-set process of the product in a pressurized environment. Thanks to the pressurized environment, the entire product undergoes homogeneous heat treatment.

Tunnel lengths vary depending on product types and production objectives.

- Saturated Steam heat-Set Tunnel
- Tunnel length up to 15m
- Stainless steel belt (w 300mm)



Tunnel closure cylinders are our special design.

The unit, which operates smoothly with the pneumatic system, is a long-lasting and low-maintenance system.

MI-Y WASHING STATION

Washing is an important part of the space-dye process. It cleans excess dye pigments from dyed yarns with minimum water consumption using a water spraying mechanism.

Optionally, softeners or similar chemicals can be sprayed onto the yarns here as well.



The station also features a high-efficiency vacuuming section for removing excess liquid that accumulates on the wet yarns. This completes the preparation for the subsequent drying process.

MI-D DRYER

After the washing process, the product passes through the drying section to dry. These dryers have a modular design, and their number is determined according to customer needs.

- Inverter controlled circulation fans
- Exhaust fans
- Proportional steam feeding control
- Additional Electrical Heating



MI-CL COOLING FAN

After heat treatment, products need to be cooled to maintain their new form.

To achieve this in the best and most efficient way, these machines use high-efficiency radial fans.



MI-A ACCUMULATOR

The accumulator is a crucial machine component for production. It is possible to obtain the highest production efficiency from the machine thanks to the accumulator. It also ensures minimal downtime in the tunnel section, guaranteeing a homogeneous production output.



- To obtain different machine sizes, the accumulator can be placed along the line, alongside the line, or on top of the heat-set chamber.
- Storage Length up to 15 meters, depending on production requirements.

MI-W TAKE-UP WINDER

MİTAŞ Machine Inc. Winders are specifically designed to wind heat-treated yarns into bobbins.

Because it can wind bobbins with the desired stiffness, it works flawlessly on all types of weaving and tufting looms.

Thanks to its fully automatic doffing feature, it enables high production with a low number of operators.



- winding 10-inch standard or conical bobbins.
- Up to 96 ends per section
- Left or right side configuration
- Fully automatic doffing
- Electrical yarn cutting
- Adjustable Winding stiffness setting
- Pre-feeding godets
- Yarn detectors for each end

INSTALLED POWER

	Electric	Steam	Pressured air	Water (Chilled)	Water (Soft)	Water
MI-L Laying Unit	2 kva					
MI-SD Space-dye unit	37 kva	1-8 kg/h	0.1 Nm ³ /h		6.5 m ³ /h	0.2 m ³ /h
MI-PS Pre-Steamer	7.5 kva	30 kg/h				
MI-U Heat-Set Tunnel	25 kva	100 kg/h	100 Nm ³ /h	2.7 Nm ³ /h		
MI-Y Washing	17 kva					1.5 m ³ /h
MI-D Dryer	4.5 kva	70 kg/h				
MI-CL Cooling Fan	0.5 kva					
MI-A Accumulator	5.5 kva					
MI-W Take-Up Winder	34 kva		8 Nm ³ /h			

Note; The values given in this table are the **installed power**. The power consumption of the machine varies depending on the product being manufactured and the actual parameters of the machine.

PRODUCTION

The MI- SD Space-dye line has up to 72 ends and a 15m saturated steam heat-set tunnel, enabling high production and high quality production.

Production quantities vary depending on the type of yarn, yarn count, and color tone. Average production can be up to 250 kg/h.

For more information about production capacity, please contact MİTAŞ Machine Inc.

DIMENSIONS;

MI-U/SD lines have a modular structure. This feature allows for the creation of the most efficient machine configuration according to customer requirements and production needs.

It is also possible to use different mounting orientations depending on the location's capabilities.

Two basic machine configurations are shown on the next page. Different machine configurations can be created by MİTAŞ Machine Inc. expert team according to customer needs.



