

Nakhrang
Dyeing, Printing & Finishing



Company History

Nakhrang Company was founded by the private sector in 1984, and it was debut in 30000 m² with production and facility hall in 12000 m² area in 1995. The factory is located at 25 km from Hamedan. The capital of this company is six billion Rials.

Nakhrang is a belong to the industrial group of Seyed Mohammad Emami Meybodi and other companies in this group are:

- **Shadris Co., (cotton spinning system)**
- **Yazdfastoon Co., (Weaving)**
- **Pashmtab Iran Co., (worsted yarn spinning)**
- **Kashikavir Co., (manufacturing ceramic and tile)**
- **Behseram Co., (manufacturing ceramic and tile)**
- **Risbaf Co., (Tile mold making)**

Products

- Various military uniform cloths, overcoat especially camouflaged fabric
- Types of cotton pants and jacket fabrics.
- Various scarf and woman wear fabrics.
- Types of Men's shirt fabrics.
- Special types of bed sheet fabric; sewn bed sheet and pillowcase.

Production Capacity

Nakhrang production capacity is currently 10 million meters of dyeing fabric and 10 million meters of printing fabric per year.

Total capacity is 20 million meters of finishing fabric per year.

It mentioned that some machines such as printing range have been purchased since 1999 until 2001.



Utilities

Nakh Rang has advanced technical knowledge; professional and experienced employees and the best dyeing, printing and finishing machines. We use the best dyes and raw materials with Europe certificate. Therefore we can satisfy our customers with high quality production. The company motto is producing goods with the best quality. Most of employees are professional in their majors, and it improves the Nakh Rang performance.

Recent Projects

Projects such as the printing military with disperse-Vat dyes, Anti IR printing (invisible for Infrared camera at night), Double print fabrics, printing and dyeing Cordura (Fire-Proof and Water-repellence fabric for military personnel equipment).

Current Activity

Nakhrang currently produce all Military fabrics consuming in the Islamic Republic of Iran army directly or indirectly, furthermore we produce fabrics for Iraq police and army.

In addition, other types of products such as cotton fabrics and sheets (especially sheets required in passenger trains) are produced.

Pretreatment Unit

This unit includes following parts:

1. Rolling

The rolls of raw fabrics are 50-600 meters; in this stage, they are sewed together and are become 500-3000 meters and make batch rolls.



2. Platting

The function of this machine is similar to rolling, but it puts raw fabric at the form of plates in transport baskets. Platter is often used for light fabrics, Fabric consists of high percent polyester, and also crease resistant fabrics.

3. Shearing Machine

This machine used to remove released yarns, raised piles and knot on the surface of textile fabric are used on shearing machine. This machine is made by MENSCHNER Company and equipped with brushes and blades for cleaning and shearing and creating smooth surface after dyeing.



4. Singeing & Desizing

Singeing:

Singeing: surface pile is burn from both sides of fabrics with two direct flames

Desizing:

In this process fabric pass through a bath, it has enzyme and auxiliari that absorb and then padding to fabric. After making a big batch, it rotating for 12 until 24 hours (depend on fabric weight) and then deliver to bleaching machine to remove the sizing. This machine is made by OSTHOFF



5. Scouring & Bleaching

This machine is made by KUSTERS (Germany) company that is one of the best kind of washing and bleaching machine in the world, having Flex nip system for safer, more protective, more stable, more uniform fabric, seven seven wash bathes and steam chamber with a capacity of 40 - 2200 meters of fabric. It is enable to washing, scouring and bleaching and drying with speed 40-50 m/min with the best quality.



6. Mercerizing Machine

The machine is made by KUSTERS (Germany) Company, one of the best mercerizing machines, in order to mercerizing cotton fabrics or cotton compound with different weights. This machine is equipped to heavy rollers to pressure and drawing with injecting warm caustic soda full automatically as well as rinsing system with suction and pressure of padded leads to mercerizing operation .With this device (change yarn section from bean form to circle form) mercerizing operation is performed desirability. As a result, lustrous appearance, water and dye absorption increase.



Dyeing Unit

1-Thermosol:

This machine dyes Polyester fabric and other synthetic fibers (for example Acetate, nylon, etc). It is made by BRUCKNER Company and equipped with swimming rolls and heat chambers with hot oil system so that is suitable for mass production in high quality with speed 20-30 m/min.



2-Pad-Steam:

This machine is made by MENZEL Company and used for dyeing of cellulose division and complete dyeing operation. It has special dosing pumps, steam chamber, wash bathes and dryer cylinders for the best dyeing performance. The production speed is 10-30 m/min.



3-Jet Dyeing Machine:

This machine used to dyeing less meters and various color shading. Nakhrang Company purchased and installed five jet machines that capacities are 50-450 kg capacity. In order to reply to market's demand for dyeing light fabric. Jet Machine is made by THIES Company and equipped to advanced PLC systems for dye mixing and injecting to machine with programming in all stage of dyeing process.



Printing Unit

1-Rotary Screen Printing Machine:

It is made by ZIMMER Company and equipped to eight head screens and PLC control system, so it being able to produce varied and subtle patterns with speed 30-50m/min. The other equipments are: magnet system, automatic control system of dye level and rate of fabric through the screens, gas dryer system according to various types of fabrics. This features, make possible to print on different fabric with disperse, vat, reactive, pigment, etc dyes. Nakhrang Company enables to print military textile and another according to international development standards.



2-Loop Steamer Machine:

This machine is made by STORK Company and supply product line in dye fixation (dye fixation is required for printed fabric). Loop-steam is equipped to saturated steam, superheat steam or hot air systems.



3-Washing after Printing:

Washing machine used to wash over dye after printing.
This machine is made by GOLLER Company and consists of seven wash and dewatering bath with speed 15-30 m/min . fabric is washed, dried, and then, warped on rollers to delivering to the finishing unit.



Finishing Unit

1-Stenter Machine:

This machine is made by BRUCKNER Company and consist of six heat zone that work by oil circulation system and also MAHLO system and PIV gear boxes. It works finishing processes with high quality.

The general abilities of this machine are: Water Repellency, Anti Fire, Anti Release, Resin Finish, Anti Bacterial and Softening.



2-Calender machine:

Calendering is worked to create luster or dull surface feel handle and flexible in printed or dyed fabric such as sheeting and shirting fabrics. In addition to, embossed patterns is created by this device .The calendar machine is made by KUSTERS Company and equipped to S-roll and Flex-roll rollers.



3-Sanforizing Machine:

The machine is made by CIBITEX Company and able to remove shrinkage (shrinkage close to zero). Palmer roller system fixes shrinkage and finally jean fabric or cotton fabric will be so soft without any shrinkage.



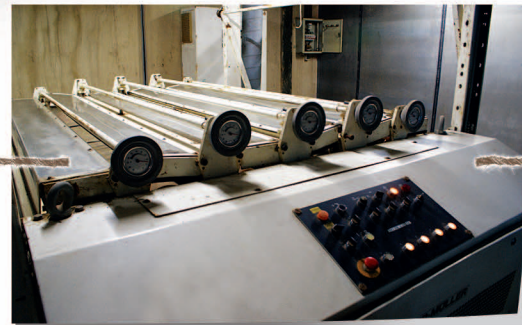
4-Raising Machine:

This machine is made by MENSNER and equipped to 24 pile rollers. Fabric is passed within these rollers and fluffy surface is created. Products are great coat, fluffy fabric for clothes children. In this machine, a central computer, control speed and drawing.



5-Emerizing Machine:

It is made by SUCKER-MULLER Company and has five emery rollers. Rollers have cross and rotational moving simultaneously that creates a uniform pillled surface on fabric, according to the customer`s order.



Packing Unit

Packing and final control of product at Nakhrang is working in two type: roll or piece goods according to the customer`s order. Band roll, label and Nylon cover is added. Eventually, roll or pieces of fabrics are wrapped into jute.



Laboratory

The main duties of employees in a laboratory are listed as follows:

- Fabric dyeing, printing and finishing in the lab scale are applied to determine product line prescription.
- Comparing quality and quantity among various brands of dye and material.
- Quality control tests are done at all stages of production to ensure fabric fastnesses against different chemical and physical agents and ensure quality of fabric for customer`s satisfaction.



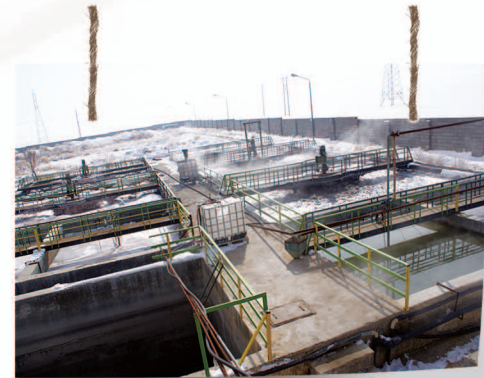
Facility Unit

This unit supply water, heat and compress air for production line. It includes hot oil boiler, steam boiler, water softener and air compressors.



Refinery Unit

Industrial wastewater treatment of Nakhrang factory is based on physical, chemical and biological treatment. Refinery works full time so that can treat 500 m³ and convert to agricultural water. Nakh Rang is a friendly with natural environmental and in this respect, has spent four billion Rials for building facilities and equipment to prevent environment pollution.





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