

PRODUCT CATALOGUE

Dyeing, centrifuge, fixage and pressing machines

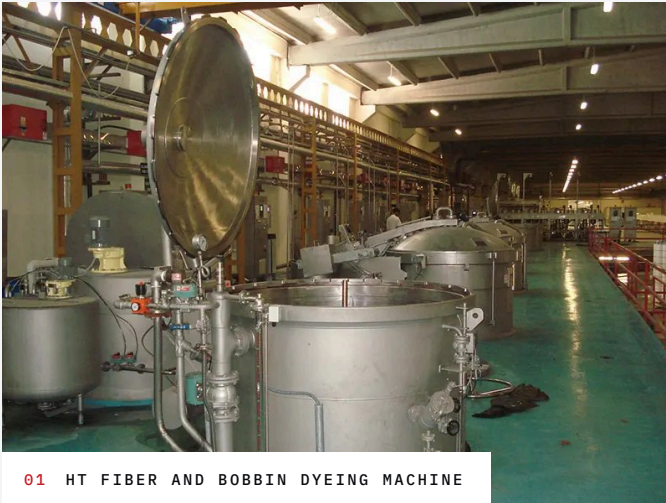
ABOUT US

ABOUT FOR-MAK

FORMAK TEKSTİL MAKİNA SAN. VE TİC. A.Ş.

VISION AND MISSION

According to world's expanding and developing technologies our company's main aim is to create and present high technological products with competitive prices and after sales service facilities.



01 HT FIBER AND BOBBIN DYEING MACHINE



02 FIXAGE AND CONDITIONING AUTOCLAVE



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HANK DYEING MACHINE

Hank dyeing machine with 3 to 600 kg capacities per charge, AISI 316L surfaces, couplable structure and electrical safety system.

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HIGH CAPACITY BOBBIN CENTRIFUGE

High capacity bobbin centrifuge for 24 and 36 bobbins: 1500 rpm squeeze cycle, 3–6 minute squeezing time, stainless steel basket.

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FIBER PRESS

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Beam dyeing machine for woven and knit fabrics: horizontal cylindrical HT type, 4.5 bar, 140°C, air bag system, AISI 316L.

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CONTINUOUS MULTICOLOR DYEING MACHINE

Continuous multicolor dyeing machine: 6 color printing, 1000 mm band, 100–125 kg/hour capacity and 72 dye nozzles for hank gradient printing.

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PRODUCT 01 / 10

HT FIBER AND BOBBIN DYEING MACHINE

HT fiber and bobbin dyeing machine for 4.5 bar and 140°C: AISI 316L stainless tank, air bag system and fully automatic dyeing computer.



4.5 BAR

Operation pressure

140 °C

Operation temperature

316L AISI

Bath-contact surfaces

FEATURES

- | | |
|---|---|
| <p>01 Operation pressure: 4.5 bar</p> <p>02 Operation temperature: 140°C</p> <p>03 Cylindrical HT type tank. All surfaces in contact with bath are manufactured as AISI 316L quality stainless material. Safety hermetic cover system. It decreases water usage in air bag systems and provides ideal solutions for partial charges.</p> <p>04 Heating and cooling exchanger with AISI 316L quality seamless pipe. Rapid heating with the outside exchanger. Liquor ratio is decreased with cooling.</p> <p>05 Stainless centrifuge pump with high capacity inverter speed control is mounted near the boiler. Pump axle is bedded with two bearings and has mechanical gasket that can adjust itself by a spring which doesn't need any care. It has IP 54 protected coupling connection.</p> | <p>06 Pneumatic direction changer for inside-outside, outside-inside circulation.</p> <p>07 Pneumatic cover opening and closing</p> <p>08 PT100 to observe machine heat adjustment and to control heat.</p> <p>09 Pressure discharge valve to have the excessive pressure inside the machine out.</p> <p>10 Overflow washing valve to canal the excess liquor during the overflow wash.</p> <p>11 There is one reserve and one dye tank. There is bidirectional pump that provides water transfer in two direction between reserve and main tank and injection pump that provides chemicals from dye tank to main tank.</p> <p>12 Full automatic textile dyeing computer with easy usage in different brands upon request.</p> |
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PRODUCT 01 / 10 · CONTINUED

HT FIBER AND BOBBIN DYEING MACHINE

MODEL TABLE

MODEL	FRM-500	FRM-600	FRM-750	FRM-1000	FRM-1200	FRM-1300	FRM-1400	FRM-1600	FRM-1900
MAX. TEMP. °C	140	140	140	140	140	140	140	140	140
MAX. PRESSURE KG/CM ²	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
CAPACITY (kg)	25	50	100	150	200	300	500	600	1000
LIQUOR RATIO	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8	1/5 – 1/8
MAIN PUMP (kW)	5.5	7.5	15	22	37	45	55	75	110

PHOTOS



PRODUCT 02 / 10

SAMPLE BOBBIN DYEING MACHINE

Sample bobbin dyeing machine for yarn, zipper and ribbon: 140°C, 4.5 kg/cm², 1 to 25 kg dyeing capacity and low liquor ratio 1/4–1/6.



1-25 ^{KG}

Dyeing capacity

1/4-1/6

Low liquor ratio

140 ^{°C}

High pressure, high temperature (4.5 kg/cm²)

FEATURES

- 01 Opportunity to dye fiber, zipper and ribbon.
- 02 High pressure, high temperature (140°C 4.5 kg/cm²)
- 03 Opportunity to dye cotton, acrylic, polyester, wool, viscose.
- 04 Low liquor ratio 1/4 -1/6
- 05 Opportunity to dye from 1 kg to 25 kg.
- 06 1+1+1+1 / 2+1+1 / 2+2 / 4 working principle

- 07 Invertor speed controlled AISI 316 quality stainless steel centrifuge circulation pump for each tube. Analog, hydrostatic and flow meter liquor control
- 08 Inside-outside, outside-inside direction changer
- 09 100% stock tank heating and mixing
- 10 Control panel with fully automatic dyeing programmer
- 11 AISI 316 quality stainless steel injection pumps for each tube.

PRODUCT 03 / 10

HANK DYEING MACHINE

Hank dyeing machine with 3 to 600 kg capacities per charge, AISI 316L surfaces, couplable structure and electrical safety system.



3-600 KG

Capacity per charge

316L AISI

6 mm, liquor-contact surfaces

FEATURES

- 01 All of the surfaces in contact with processing liquor will be manufactured from 6 mm AISI 316L stainless steel.
- 02 Circulation pump located behind of the machine provides the main circulation. It is inverter controlled and can run two-ways. It has silicon carbide mechanical seals.
- 03 Cover locking system is performed pneumatically.
- 04 One dye tank and injection pump that gives chemicals from dye tank to main tank.
- 05 Heating and cooling inside the machine is performed with separate serpentine.
- 06 Liquor movement can be seen from the sight glasses, which are put to front covers.
- 07 Its most important advantage is that liquor volume and feeding ratio can be controlled. Low liquor ratio provides saving in operation water, steam and chemical amounts. Better dyeing by low liquor speed.
- 08 There are both visual and electrical systems to control the water level inside the machine.
- 09 There are electrical safety system that prevents the opening of the covers, when there is water and pressure inside the machine, even this is attempted from outside of the machine.
- 10 Machine's safety system is controlled with electrical safety pressure switches and mechanical safety valves for sudden pressure increase inside the machine.
- 11 It increases the penetration of dye in high circulation speeds and provides saving in dye usage.
- 12 Operation time is shortened by having high heat.
- 13 Reserve tanks provides important amount of energy and water saving.
- 14 Opportunity of dyeing twice capacity in one charge with the same colour as it has coupling feature.
- 15 It decreases water usage without changing bath ratio in air bag systems and provides ideal solutions for partial charges.
- 16 Full automatic textile dyeing computer with easy usage in different brands upon request.

PRODUCT 03 / 10 · CONTINUED

HANK DYEING MACHINE

CAPACITIES

3 KG / BATCH

5 KG / BATCH

30 KG / BATCH

75 KG / BATCH

150 KG / BATCH

300 KG / BATCH

600 KG / BATCH

PHOTOS



PRODUCT 04 / 10

HIGH CAPACITY BOBBIN CENTRIFUGE

High capacity bobbin centrifuge for 24 and 36 bobbins: 1500 rpm squeeze cycle, 3–6 minute squeezing time, stainless steel basket.



24 / 36 BOBBINS

Bobbin capacity

1500 RPM

Squeeze cycle

3–6 MIN

Squeezing time

FEATURES

- | | |
|--|--|
| <p>01 Machine has capacity of 24 and 36 bobbins</p> | <p>07 Machine stops and brakes automatically at balanced loadings.</p> |
| <p>02 Fast and easy loading/discharging.</p> | <p>08 All static and dynamic loads of the machine's rotary basket are taken with three bearings.</p> |
| <p>03 Squeezing time is between 3 and 6 minutes.</p> | <p>09 Rotary and outer basket are whole made of from stainless steel</p> |
| <p>04 Squeeze cycle 1500 d/d</p> | <p>10 Inverter braking is done with the dynamic braking resistors</p> |
| <p>05 Bobbins move automatically inside and outside the machine by turning 180° with hydraulic system.</p> | <p>11 Machine connected on three legs with stainless steel springs with hydraulic shock absorbers is also supported.</p> |
| <p>06 In the machine there are two inverter speed controlled 7.5 kW power motors.</p> | |

PRODUCT 05 / 10

CENTRIFUGE MACHINE

Centrifuge machine for fabric, fiber, hank, tops and bobbin: AISI 304 basket, inverter speed control, pneumatic cover and balance switch.



304 AISI

Rotary and outer basket

5 TYPES

Fabric, fiber, hank, tops, bobbin

FEATURES

- 01 Fabric, fiber, hank, tops and bobbin.
- 02 Machine's rotary basket and outside basket will be manufactured from AISI 304 quality material.
- 03 Rotary basket is strengthened with stainless steel endurance circles.
- 04 Bearing block and conic on the rotary basket is manufactured as casted steel.
- 05 Motor is taken into operation by speed controlled inverter.
- 06 Braking is done by dynamic resistant braking system upon inverter.
- 07 After the machine is loaded and the start button is pressed, outer cover is closed pneumatically.

- 08 Cover can not be open before the rotary basket stops by the proximity switch on the machine.
- 09 Machine brakes automatically after extrusion and cover is opened pneumatically.
- 10 Balance switch is inserted on the machine to prevent its extremely balanced loading.
- 11 If the machine is extremely balanced loaded, machine stops, lamp signal works and alarm starts.
- 12 Machine's operation time can be adjusted by the equipment which is mounted on the panel.

PRODUCT 06 / 10

FIXAGE AND CONDITIONING AUTOCLAVE

Fixage and conditioning autoclave: homogeneous steaming under vacuum, 150–1500 kg capacity, AISI 304 stainless body and automatic water control.



150–1500 KG

Capacity

304 AISI

Stainless material

FEATURES

- 01 Machine is manufactured from AISI 304 quality stainless material.
- 02 There are stainless steel rings on the machine to increase the endurance
- 03 There is water ringed vacuum pump behind the machine.
- 04 Cover opening and closing is performed by hydraulic unit and hydraulic piston automatically.
- 05 Machine safety is achieved completely by the help of pressure prostate and mechanic safety valves.
- 06 To prevent dripping that can occur because of the condensation inside the machine, there is dripping sheet.
- 07 Saturated steam that is obtained under vacuum in the below part, is sent to the bobbins inside the machine homogeneously.
- 08 Efficiency is increased during knitting and weaving by homogeneous steaming.
- 09 Quality and efficiency loss because of the folding and rupture of the yarn is prevented. By this homogeneous steaming of the bobbins and standard quality of the fixage is achieved.
- 10 Penetration of the vapor is increased as the cold saturated vapor inside the bobbins is discharged by the vacuum.
- 11 Dye diffuses to the yarn homogeneously as the vapor penetrates to it homogeneously. By this color bands do not occur during knitting and weaving.
- 12 Fixage and conditioning of the yarn, on any kind of plastic and paper bobbins can be performed.
- 13 Water is taken inside the machine automatically. By the help of the level control probes decreasing water is regained. There is also observation glass to see the water level.
- 14 Machine temperature can be adjusted to requested levels. By this, conditioning and fixage of the 100% cotton, polyester, viscose, acrylic, wool and its mixtures can be performed.
- 15 Visual follow-up of pressure and vacuum with vacuummeters.
- 16 Full automatic textile dyeing computer with easy usage in different brands upon request.
- 17 There are stainless steel carriers in different designs.
- 18 Capacity: 150 kg – 1500 kg
- 19 Heating system: Electrical – indirect steamed
- 20 Machine is manufactured as manual load or automatic load upon request.

PRODUCT 06 / 10 · CONTINUED

FIXAGE AND CONDITIONING AUTOCLAVE

PHOTOS



PRODUCT 07 / 10

FIBER PRESS

Fiber press: hydraulic press for homogeneous pressing and proper dyeing, single or double pan goat-feet models, AISI 304 stainless steel.



304 AISI

Fiber-contact surfaces

FEATURES

- 01 All machine surfaces that contacts with the fiber will be manufactured from AISI 304 quality stainless steel.
- 02 Fiber is loaded to the carrier that will be inserted inside the machine. Basket will be rotated in a low speed while fiber is loaded. By this proper loading of the fiber is achieved.
- 03 Hot water is sprayed during the loading of the fiber inside the pres to have it damped. There will be a reserve tank and spraying pump near the machine for hot water.
- 04 Overspilled water during the pres is directed again to reserve tank to minimize the water loss.

2 MODELS

Single or double pan

- 05 Pressing is performed via hydraulic press. By having plate to press all surfaces of the fiber, homogeneous pressing and more proper dyeing are achieved.
- 06 After the press is finished, press plate and system that carry the hydraulic piston can be directed to the left or right (upon decision) to empty the area where the fiber exits.
- 07 Fiber is taken out by lifting the chains of the carrier plate that is inserted to the bottom.
- 08 There are two models available; single pan or double pan goat feet hydraulic press.

PRODUCT 08 / 10

PIECE DYEING MACHINE

Piece dyeing machine in two types: rotary drum (98°C) and product stabile with moving liquor (105°C), AISI 316 surfaces, fully automatic.


98 °C

Rotary drum

105 °C

Product stabile, liquor moving

0.5 KG / CM²

Operation pressure

FEATURES

- 01 Our machines are manufactured in two types; as rotary drum and product stabile but processing liquor moving.
- 02 Processing liquor is injected from the middle part in our machines with rotary drum.
- 03 All surfaces contacting with dye is manufactured from AISI 316 quality material in our machines.
- 04 Operation temperature in our machines with rotary drum is 98°C and 105°C for machines where product is stabile but liquor is moving. Operation pressure is 0.5 kg/cm².
- 05 Both of the machines operates as full automatic.
- 06 Heating and cooling is performed by exchangers and serpentines.
- 07 Driving systems are invertor speed controlled.
- 08 There is filter system that has wide filtration surface and which is easy to be cleaned in our machines with rotary drum.

PRODUCT 09 / 10

BEAM DYEING MACHINE

Beam dyeing machine for woven and knit fabrics: horizontal cylindrical HT type, 4.5 bar, 140°C, air bag system, AISI 316L.



4.5 BAR

Max. operation pressure

140 °C

Operation temperature

316L AISI

Bath-contact surfaces

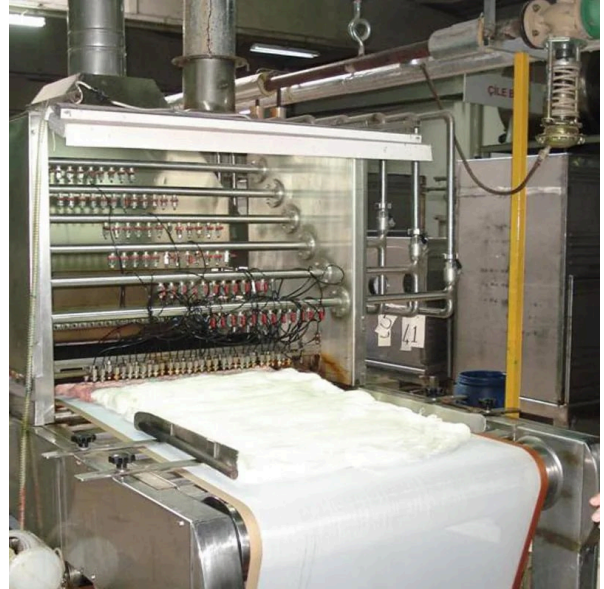
FEATURES

- | | |
|--|---|
| <p>01 Horizontal cylindrical HT type</p> <p>02 Max. operation pressure 4.5 bar, operation temperature 140°C</p> <p>03 Designed for woven and knit fabric</p> <p>04 Easy and break free dyeing opportunity</p> <p>05 Machines are with air bags. Air bags are controlled with minimum and maximum prosestats.</p> <p>06 All surfaces in contact with bath are manufactured from AISI 316L quality material.</p> <p>07 Safe hermetic cover system. Pneumatic system that is taken into operation automatically after the cover lock.</p> <p>08 Mechanic system that prevents the opening of the cover before the machine pressure is decreased.</p> <p>09 Indirect heating and cooling exchanger. For safe usage, it is manufactured from AISI 316L quality seamless pipe.</p> <p>10 Turbo centrifuge pump which is stainless steel, high capacity, mechanical gasket and coupling driven intermediate unit.</p> | <p>11 Manometer and thermometer on the machine for observing machine pressure and temperature.</p> <p>12 PT100 to observe machine heat adjustment and to control heat.</p> <p>13 Magnetic level control to observe dye bath level and to control this level.</p> <p>14 Pressure discharge valve to have the excessive pressure inside the machine out.</p> <p>15 Overflow washing valve to canal the excess liquor during the overflow wash.</p> <p>16 One dye and chemical material tank. Injection pump that pumps chemicals from dye and chemical material tank to main tank.</p> <p>17 Full automatic textile dyeing computer with easy usage in different brands upon request.</p> <p>18 Low liquor rotating type and vacuum system beam dyeing machines are also available.</p> |
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PRODUCT 10 / 10

CONTINUOUS MULTICOLOR DYEING MACHINE

Continuous multicolor dyeing machine: 6 color printing, 1000 mm band, 100–125 kg/hour capacity and 72 dye nozzles for hank gradient printing.


6 COLORS

Designed for color printing

72 NOZZLES

6 pipes × 12 dye nozzles

100–125 KG/H

Capacity

1000 MM

Band width

FEATURES

- 01 It is designed for 6 color printing.
- 02 Complete machine is manufactured from AISI 316 quality stainless steel.
- 03 Machine band width is 1000 mm and machine length is 14,000 mm. Machine band speed can be adjusted upon good type by inverter speed control. Motor power is 1.5 kW.
- 04 98 - 100°C proper heat distribution with direct steam and PID temperature control opportunity.
- 05 Maximum hank length will be 850 mm and machine capacity is 100–125 kg/ hour. Hank weight is 300 or 400 gr.
- 06 Machine is constituted with multicolour, print, spraying (steaming cabin), showering (washing), softener providing and squeezing cylinders.
- 07 Multicolour print can be performed upon spraying for mixture of wool, acrylic, viscose, nylon, polyester as hank.
- 08 There will be 6 pipes and 72 dye nozzles (12 on each pipe) and spherical valve at the entrance of the machine.
- 09 Spraying nozzle pressures are adjusted with spherical valves and can be observed with manometers located on each pipe.
- 10 Processing liquor excess that is pumped is gained again to tanks.
- 11 Spraying nozzles are american product. Washing and showering opportunity at the exit of spraying. Prevention of colour interference with strong vacuum that collects the waste dye on band.
- 12 Absolute result in sensitive products with squeezing cylinders in which pressure can be adjusted.

OUR REFERENCES

REFERENCES

COMPANIES WE WORK WITH

01 AÇIKGÖZ İPLİK

02 ALTIN İPLİK

03 ARMA BLEACHING

04 AKCANLAR TEKSTİL

05 AKÇAY İPLİK

06 AZİM

07 BARAKAT

08 BAYDEMİRLER

09 AKPAMUK

10 BOYARKİMYA

11 BOYNER

12 BOZTEKS

13 COTAM

14 DAMTEKS

15 DIK GÖR ÇORLU

16 ENGİN GROUP

17 ERKAL TEKSTİL

18 FIRAT

19 FLOKSER ÇORLU

20 GÜLLE

21 GÜVEN BOYA

22 HATFIL TEKSTİL

23 İNTEM TRIKO

24 İPEK

25 İPLİKSAN İSPARTA

26 JAKARSAN

27 KADİFE TEKS

28 KAMGARN UŞAK

29 KFS FILAMET

30 KILIM MENSUCAT EDİRNE

31 KOTONTEKS

32 KÜÇÜKÇALIK

33 LİLA

34 MATESA

35 MEMTEKS

36 MERSU TEKSTİL

37 NESSER TEKSTİL

38 NİTTO

39 ORMO

40 ÖZEN İPLİK

41 ÖZİÇEL

42 PİRAMİT İPLİK

43 PENTİ

44 SEDAT

45 SEPA

46 SIMFLEKS

47 SINTEKS

48 SIRKECI

49 SÜLEKLER

50 TANRIVERDİ HOLDİNG

51 TARMAK

52 ULUSOY TEKSTİL

53 UZTEKS

54 YEPSA

55 YÜNTEKS

56 ZENOVA

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