



## CEDIT CONE DYEING MACHINE



### Technical Specifications:

- Types of yarns : Cotton, viscon, wool, acrylic, polyester, Kashmir, angora  
Working pressure : 3.8 Bar  
Test pressure : 6 Bar  
Working temperature: 130 °C at sea level  
Capacity : 1-6000 kg/charge  
Construction of machine: Full of machine is stainless steel  
Heating type : Indirect  
Control system : Full automatic PLC controlled





### 1. Circulation Pump:

High capacitated pump made by completely AISI 316 L stainless steel cast construction. The pump is very easy to handle and maintain. It was equipped with suitable mechanical seal for prevent leaking.



## 2. Direction of the circulation:

The chemical fluid which is sent to the main tank (boiler- dyeing tank) is done by means of circulation pump. The diversion of the water from in to outside (discharge)

and out to inside (charge) is effected through a pneumatic driven liquor reversal (flap) which works both directions.

## 3. Heating and Cooling:

AISI 316 L quality stainless steel rolled pipes which heats out of the boiler (dyeing tank - Main Tank) resist up to 16 Bar steam pressure.

## 4. Chemical / Dye Tank:

The main purpose of chemical tank is mixing and heating your chemicals (caustic, peroxide etc.), dyes and water. Chemicals, dyeing materials and water will be heated with saturated vapor by

AISI 316 L quality stainless steel pipes which work indirectly. Chemical tank will be produced 1/7 ratio of main kier.



## 5. Heating Time:

Under 6 Bar steam pressure; „in 20 minutes“, the temperature of the liquid in the dyeing tank reaches 100 C° from 20 C° and also it reaches 130 C° from 100 C° „in 20 minutes“. Heating gradient is equal to 4 C° /min ( $\Delta t$ )

## 6. Cooling Time:

On condition that; 3 Bar pressure and 10 C°; „in 15 minutes“, the liquid temperature in the boiler (Main tank) reduces 85 C° from 100 C° with cooling water.

## 7. Valves:

All the valves are controlled by pneumatically and all the surfaces which contact with chemical liquid are made by AISI 316 L quality stainless steel material.





### 8. Injection Pump:

It's made by centrifugal pump which has AISI 316 L quality stainless steel chassis. It supplies chemical (supplementary) liquid from chemical (additional) tank to main tank (Machine) under pressure. At the same time, it makes linear or bend dispensing (dosing) on condition that receiving data from the programmer.

### 9. Material Carriers:

For using in the machine totally 2 pcs cone (yarn) carrier which is made by AISI 316 L qualities stainless steel will be given. Carriers could be manufacture in two forms from stainless steel; tubes which have holes on their bodies (perforated) or bars shaped like sword.

### 10. Machine Controller:

ELIAR or ENMOS programmers are used in full-automatic machines.

### 11. Air - Pad System:

Air-pad system is standard in the machine which gives flexibility in dyeing. By air-pad system up to %50 from total capacity can be dyed. (Ex. For 100 kg machine you can dye 50 kg. in the same machine) Our main tank (Dyeing Tank) is manufactured according to "Air Pad System" *You need an extra half carrier for this operation. (option)*

### 12. Electrical Equipment:

Well known marks will be used in electrical control panel and on the machine

### 13. Electrical Panel Plates:

Panels are manufactured with 304 qualities stainless 1.5 mm. plate materials.

## TECHNICAL SPECIFICATIONS OF THE ELECTRICAL PANEL

1. The panels are isolated with static varnish in order to save the life-time of electronically devices and all the other products, against the rust, moisture, water and chemical materials in the dye house conditions.
2. A cooling fan is mounted on the electrical panel in order to cool the electrical devices (programmer and frequency drivers)
3. The pump motor is controlled via frequency drivers and speed (rpm.) could be followed from a digital tachometer.
4. Machine temperature and safety drainage temperature could be followed and controlled from digital thermostats on electrical panel.

