



## THE VERTICAL DYEING MACHINES

The machines are suitable for the dyeing of yarn packages, loose fibres, tops and tows, yarn beams with suitable material carriers.

The characteristics of the vertical dyeing machines are :

- a) Vertical axis of the machine with the necessity of installation on two floors. (Ground and Platform)
- b) Bath ration from 1:5 to 1:10
- c) Automatic locking of material carriers.
- d) Automation possibilities with bridge-cranes for the handling of material carriers in dyeing houses.
- e) External heater exchanger.

f) Construction in stainless steel with a working temperature of 145°C at 4 Bar.

g) Complete automatic running of the dyeing cycle through microprocessor with Dual - Directional dye liquor flow i.e. Outside-in and In-side out

1) System for rapid loading / unloading of bath

2) Electric / electronic control panel

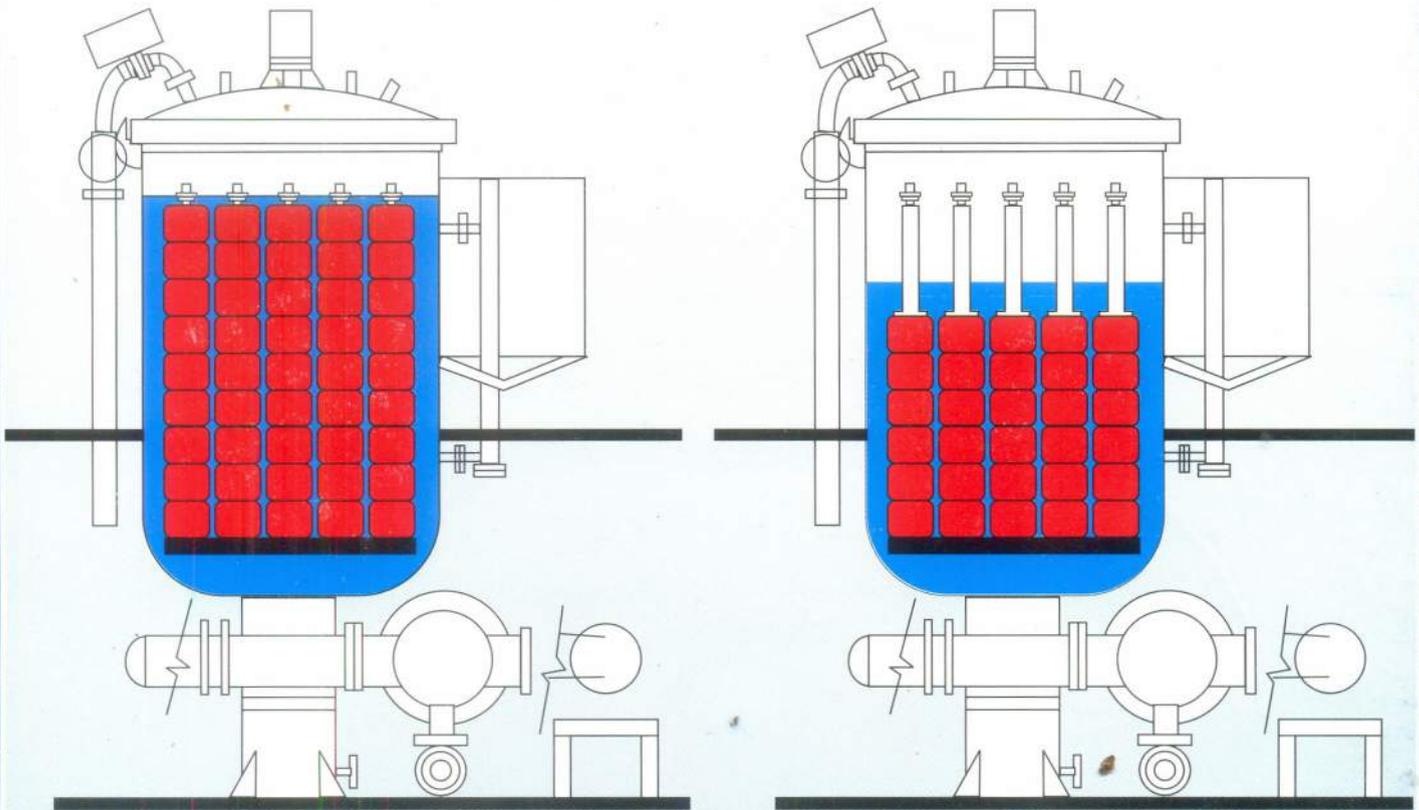
### DIFFERENTIAL PRESSURE DEVICE FOR CONTROL OF LIQUOR FLOW/PRESSURE THROUGH INVERTER DRIVE (OPTIONAL)

The device monitors and controls differential pressure Inside-Out and automatically the pump speed to maintain the set value of

differential pressure.

System operates as analogical control:

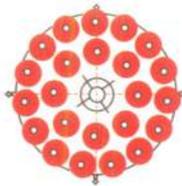
- Constant liquor flow rate (litters/kg. of textile material/minute) with machine in operation ration at variable loading.
- Optimization of liquor flow rate for processing materials of different densities (i.e. low density delicate worsted tops and high-density cellulose yarn packages)
- Flow rate control based on dyestuff exhaustion curve (i.e. high liquor flow rate at critical dye exhaust temperature, low flow rate during pre-bleaching)
- Signalization and alarm of circulation pump stopped.



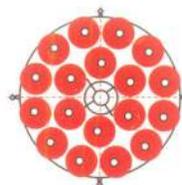
### **PRESSURIZATION**

WEAVETEX dyeing machines work with a pressurised system that is obtained thanks to a compressed air pad which is going to take its own space over the maximum level of the dyeing bath. The static pressure produced is automatically adjusted from the apposite regulation valves and from the air inlet mounted in the machine. Such devices allow the pressurization of the machine even at the beginning of the cycle and the drain speed is moreover increased from the incoming power deriving from the pressure of the air pad. This is also a way to reduce working times and reduce to minimum the quantity of water to dye, obtaining batches at variable loading capacity with the same liquor ration. The liquor flow through the material is bi-directional for perfect dyeing and uniformity quality. This working pad system allows moreover:

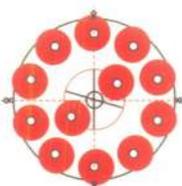
1. Low water, steam and power consumption.
2. Allow the machine to be partially loaded.
3. Low rinsing off times.
4. Reduce cost of chemical.
5. Bath liquor ration very low and steady.
6. Reduced heat emissions inside the dye house.

**WT 75/125**

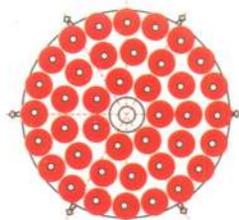
Ø 170 mm



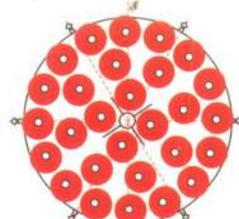
Ø 210 mm



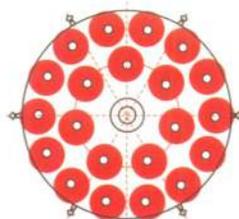
Ø 240 mm

**WT 150/300**

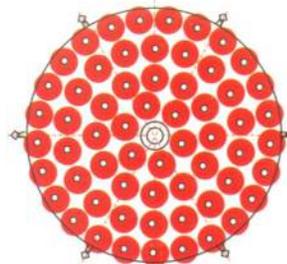
Ø 170 mm



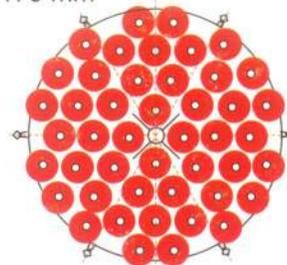
Ø 210 mm



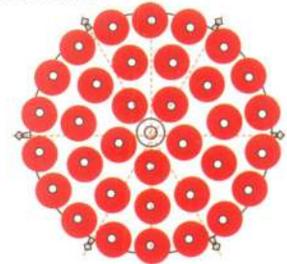
Ø 240 mm

**WT 400/600-600/1000**

Ø 170 mm



Ø 210 mm



Ø 240 mm

**THE MATERIAL CARRIERS**

WEAVETEX material carriers meet all the increasing needs of the modern dye-bouses. Our material carriers are very flexible because they are modular, they maintain the same width and height and they have a symmetrical spindle. This flexibility allows the dyeing of packages of different diameters (from Ø 130 for silk, up to Ø 240) with different tubes diameters, so to permit the dyeing of packages of different diameters in the same autoclave and interchange material carriers between machines of different sizes. The symmetrical spindle allows the easy loading/unloading of packages either manually or through robots. Moreover thanks to special material carriers, it is possible to dye yarn, tops, tows, loose fibres and beams.