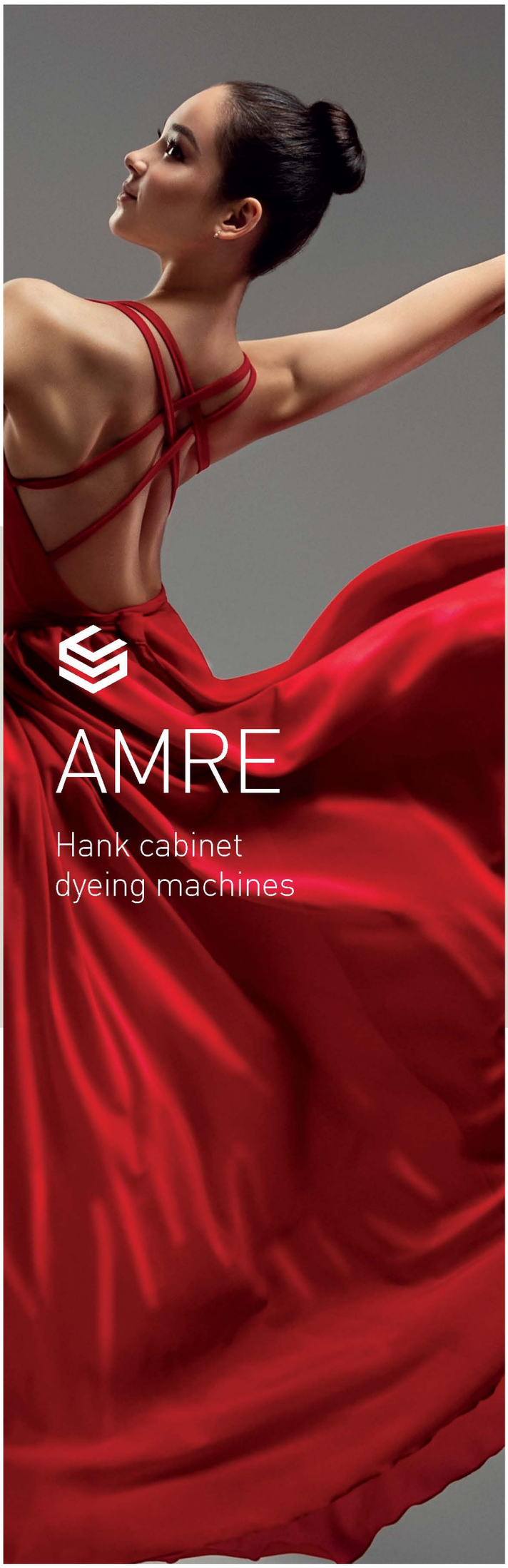


AMRE

Hank cabinet dyeing machines

Main Features

Our cabinet dyeing machines are entirely realized in AISI 316 stainless steel, including the outer reinforcements and are suitable to dye yarn in hank form up to a temperature of 110°C. The high-thickness realization, along with continuous welding on reinforcements, ensures the longest life without leakages or structural problems which are typical on other cabinet machines on the market.

For general information on AMRE machines and options available, please refer to the pages from 4 to 7 of the present catalogue. In addition to the above, here below some information related to this product line:

Short liquor ratio: The geometry of the machine is engineered to reduce liquor ratio at the minimum. Air pad technology, compared to fully flooded one, also contributes in important water savings.

Circulation pump: Thanks to a bigger impeller diameter, it is possible to achieve the optimal flow keeping a low rotation speed with consequent less turbulence. In hank dyeing, the most common cause of problems is turbulence in circulation.

AMRE

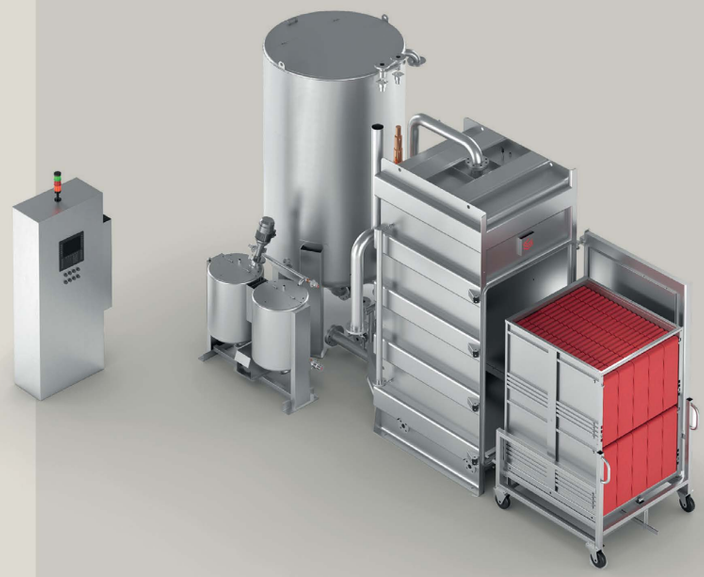
Cubotex has been among the first companies in the world to start manufacturing high-thickness cabinet machines. From the late 80s, structure of machines has been studied and re-engineered with 2 main purposes: **increase its strength and durability and grant the most delicate treatment for the yarns.**
To preserve the crossing angle of the hanks means to increase **efficiency and productivity in hank-to-cone** department and this is a very important aspect for our customers.

Upper and lower grids with special perforations: Hanks are positioned between two perforated grids that further reduce turbulence and uniformise the flow in the entire dyeing compartment.

Flow conveyors: The pump housing and the machine dyeing chamber are equipped with flow conveyors to reduce turbulence and keep liquor flow parallel with the yarn.

Carriers and door configuration: The construction shape of carriers allows to preserve the hanks loaded on the sides of the sticks, which is the most critical position for the possibility of entanglement.

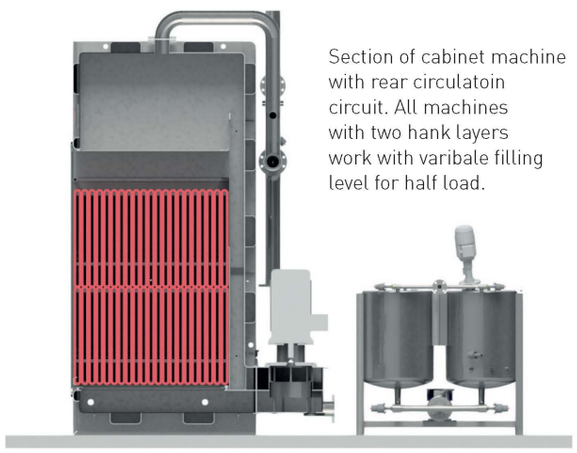
Air pad: Cabinet machines working with 2 layers of hanks, can work with variable filling level. Simply using a standard carrier with a single layer, it is possible to perform half load in the machine **without the use of any dummy.** The filling level will be automatically adjusted at 10-15 cm above hanks. The air pad technology also allows to use the **same machine with different types of hanks having different circumference.**
According to hank reeling, material holder height will change and filling level will change accordingly.
Double compartment machines: To perform bigger lots, cabinet machines are realized with double compartment (two loading doors). In such machines,
for further liquor ratio reduction, the rear circulation chamber has been removed with important volume saving compared to other products on the market.



Partial loading: In combination with air pad, it is also possible to partialize more the load capacity of any cabinet machine with customized dummy loaders.
A duly strengthened stainless steel box is welded in the rear portion of the carrier so that it is possible to load the required number of sticks without effecting the liquor ratio.

Heat exchanger: Realized with annealed tubes, it is placed inside the machine in the lower portion of the dyeing compartment. This is a technical solution which on the geometry of cabinet machines, helps to decrease the liquor ratio.
Upon request, heat exchanger can be realized in **duplex stainless steel type SAF 2205 (1.4462).**

Coupling option: All cabinet machines with same capacity can be coupled to achieve higher lot dimensions. It is possible to connect up to four machines and include additional mixing pumps for perfect uniformity.



Section of cabinet machine with rear circulatoin circuit. All machines with two hank layers work with varibale filling level for half load.

Standard dye poles lengths:
200-300-500-600-1000 mm.

If required, different dimensions can be supplied especially for small capacity machines or for integration in exsisting plants.

The dye poles head is closed on 4 sides to avoid possibility of yarn entanglement and the pitch between the poles can be realized with any dimension upon customer request.

Easy installation: Machines are engineered to be **installed at floor level**, without any requirement of foundation.

Machines capacity: The range of capacities varies from 2 to 420 kg. The load of a cabinet machine, may vary significantly depending upon the type of yarn and the hank configuration. The dimension of stick head (pitch among the sticks) can be realized with any different size and in case of bulky material, it is possible to load up to 8 kg per each stick.

Sampling device: Our hank dyeing machines are equipped with internal sampling device which allows the positioning of the sample directly inside the dyeing compartment. With machine in running condition, the sample can be extracted in total safety and it will perfectly reflect the shade of all the rest of the material.