

RBNVI

Vertical machine for the dyeing of packages, tops, bumps, loose fiber and tow



Introduced on the market in the early 80's, the pressurized air-pad system is part of the **RBNVI** as well as of all other machines in our portfolio. The implementation of such technology makes it possible to achieve great advantages by flooding just the pump and the packages alone, thus significantly reducing liquor ratio (1:6) and lowering the global consumptions of water, steam and electric energy.

The use of the air-pad system ensures an unaltered liquor ratio even when the machine is loaded at 50% of its nominal capacity.

The variable loading logic (100-50%), along with the automatic system for the continuous monitoring of the differential pressure between the inner and outer portion of the material, guarantees total flexibility of the machine in regards of the material (cotton, polyester, wool, blends, etc.) and its relative configuration (packages, tops, tow, loose fiber).

By means of the helico-centrifugal pump designed by Loris Bellini, the amplitude of the spectrum of available differential pressure (0.2 to 2.5 bar) gives the opportunity of dyeing very different fibers within the same machine, from acrylic to wool with excellent permeability, to cotton and viscose with reduced permeability, as well as very dense packages of polyester.

The flow reversal device, which is integrated in the pump, does not require to slow down the liquor circulation at each inversion (thus preventing peak absorptions) and avoids the formation of turbulence within the dye bath.

The machine can be configured in different ways depending on the materials that need to be dyed — such as high temperature drain, linear/exponential alkali dosing system, preparation/recovery tank — which are all managed by the *Leonardo* system installed on a industrial PC.

The air-pad system, combined with an extremely compact hydraulic circuit, ensures very low figures for the liquor ratio.

This leads to global savings of water and chemical products, with a consequent reduction of production costs and a faster payback over the initial investment.