

Features KYOTO MACHINERY

UP Padder is designed primarily for uniform padding of dye solution or chemical liquid onto the woven, knitted, nonwoven fabrics and so on, nevertheless it is serviceable for uneven padding such as stronger or weaker squeezing to central portion of the fabrics than that to both selvage sides or even for a taper squeezing, if necessary, freely change the pressure setting.

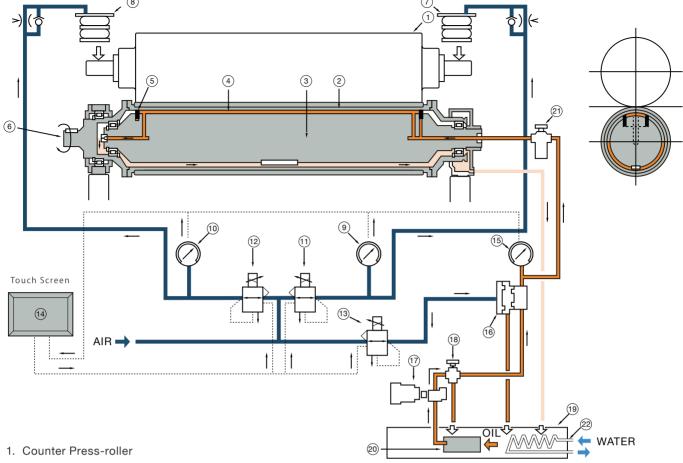
An ordinary padder may produce a uniform pressure with crown-rollers but this is only applicable under invariable and limited load. Besides a roller whose diameter is greater in the middle part and smaller at the ends creates uneven friction, be difficult in maintaining its correct crown degree and shortens durability of rubber layer.

UP Padder, on the contrary, has realized a uniform pressure under any load. As both counter press-roller and oil pressure roller do not require any crown surface. They have longer durability and the grinding is easy accordingly.

On an ordinary padder in motion, the surface temperature of rubber roller rises as time goes on and then due to uneven pressure and friction the temperature comes to differ with each other in the middle and both ends, and hardness of rubber becomes uneven. On UP Padder, however, oil circulating system serves well to keep the temperature even through the whole width of the roller and also has a cooling effect.

Our UP Padder has a simple construction. An involved oil pressure chamber is sealed with patented seal packing with perfectly prevent oil leakage. Therefore, oil pressure gauge always indicates correct working pressure.





- 2. Outer Shell
- 3. Fixed Shaft
- 4. Oil Pressure Chamber
- 5. Seal Packing
- 6. Driveng Shaft
- 7. Pneumatic Cylinder (Right)
- 8. Pneumatic Cylinder (Left)
- 9. Pneumatic Pressure Gauge (Right)
- 10. Pneumatic Pressure Gauge (Left)
- 11. Pneumatic Reducing Valve (Right)
- 12. Pneumatic Reducing Valve (Left)
- 13. Oil Pressure Reducing Valve
- 14. Connected Pneumatic Pressure Change-over Valve
- 15. Oil Pressure Gauge
- 16. Booster

- 17. Hydraulic Pump
- 18. Relief Valve
- 19. Oil Tank
- 20. Filter
- 21. Rotary Filter
- 22. Cooler

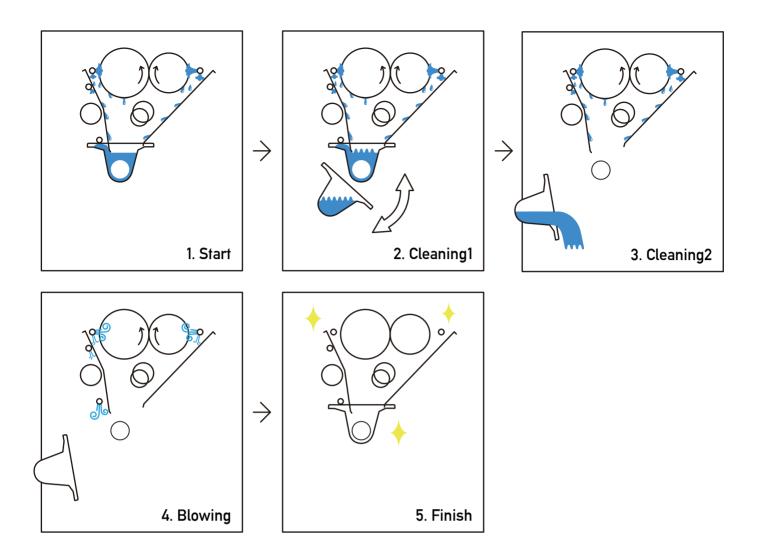
Option



Automatic Cleaning System

This is an automatic control system for cleaning from trough to rubber rollers after use. Inside trough and immersion guide roller are cleaned by repeated inversion motion of the trough and showering. And also, inner surface of trough and surface of immersion guide roller has Teflon coating to improve clean performance.

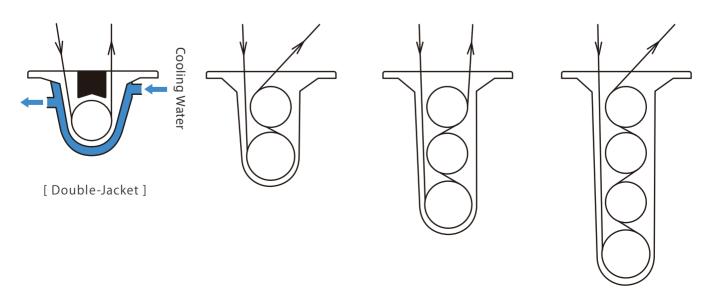
The two rubber rollers are cleaned well by the shower and those rotations.



GAP Controller

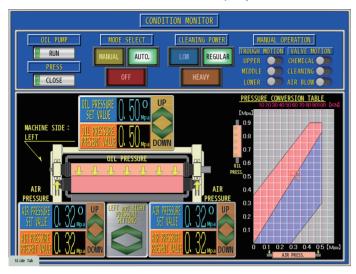
GAP controller is the function which makes perfect timing of contact accurately between two rubber rollers on left and right. GAP controller prevents any excessive squeezing on only one side accordingly.

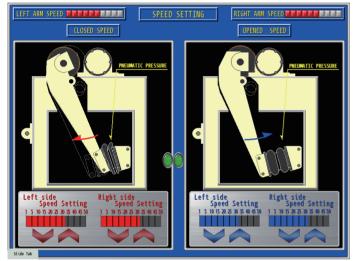
O3 Variety of Trough & immersion rollers

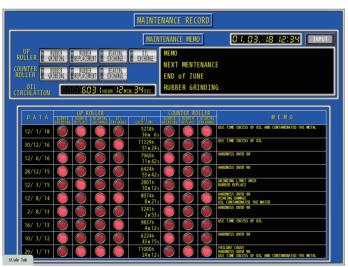


Operation KYOTO MACHINERY

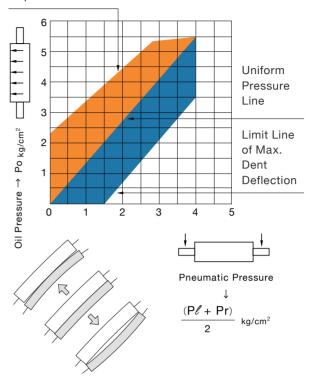
< Touch screen display >







Limit Line of Max. Expansion Deflection



Pressure on the machine is adjusted by means of right and left pneumatic cylinders which are given to the shafts of counter press-roller. Pressure ratio of air v.s. oil is indicated in a graphic manner with three oblique lines as illustrated and the same graphic diagram is fitted to the control panel of the machine. From abscissa and ordinate of the graphic diagram an operator can search for strength of air pressure and oil pressure which ought to be put on respective rollers.

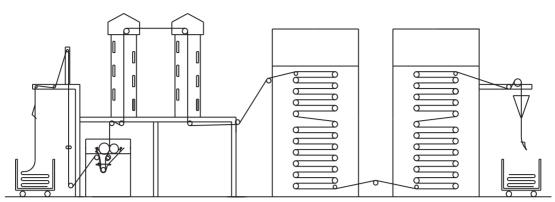
For example, the Uniform Pressure Line tells that air pressure of 4 kg/cm² is is the maximum allowable load (mean value of right-hand side pressure Pr and left-hand side pressure Pl) while oil pressure of 5.5 kg/cm² is maximum.

For uneven squeezing adjust the pressures as following;-

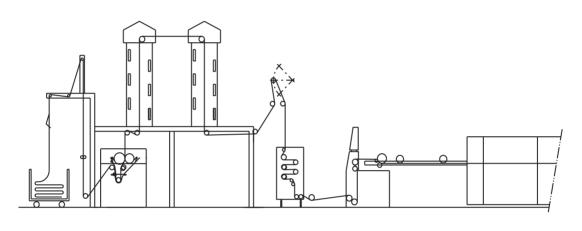
Stronger squeezing is called for	Abscissa and ordinate gained from
Central part than both sides:	ORANGE COLOR ZONE (between Limit Line of Max. Expansion Deflection and Unifrom Pressure Line)
Both sides than central part:	DARK BLUE COLOR ZONE (between Limit Line of Max. Dent Deflection and Unifrom Pressure Line)

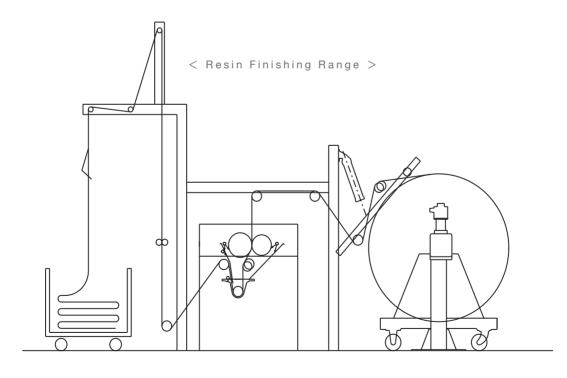
Taper squeezing: To generate unequal nipping pressure, give different air pressure to right and left pneumatic cylinder with a very simple manipulation.

< Pad Dryer Dyeing Range >



< Cold Pad Batch Dyeing Machine >





KYOTO MACHINERY co., Itd.



