

Kidd + Zigrino



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STEAMER/POLYMERIZER

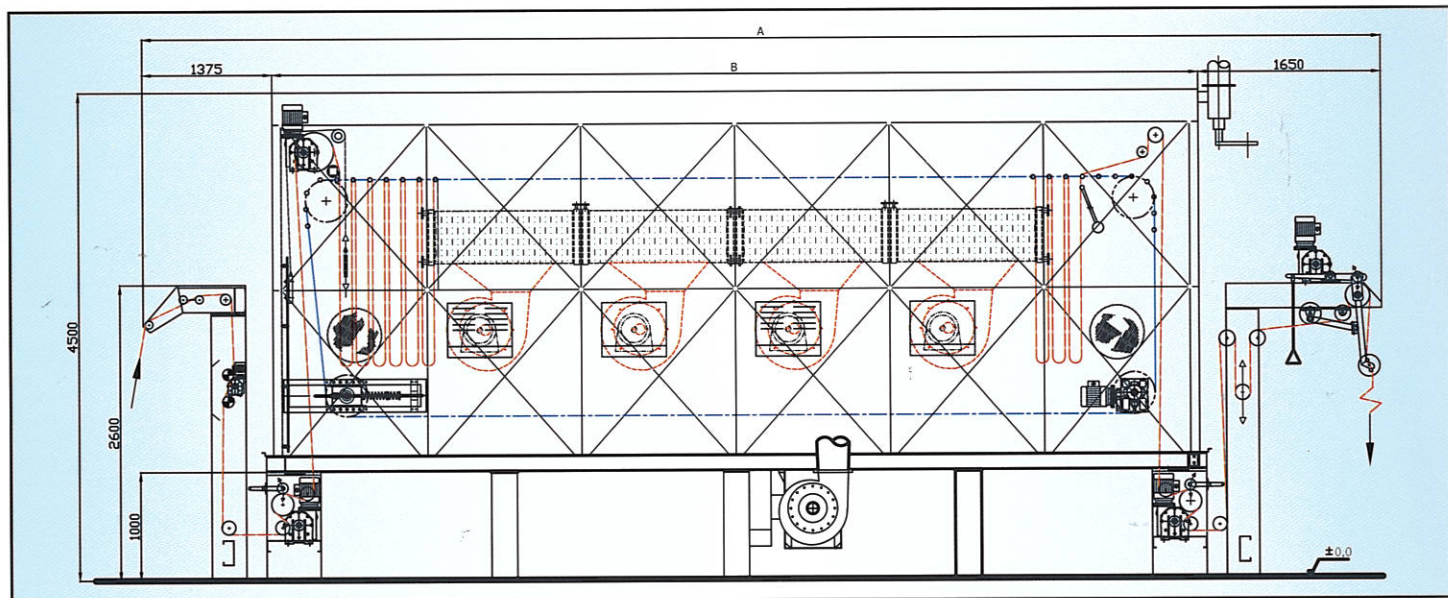


STEAMER/POLYMERIZER



STEAMER / POLYMERIZER

For the continuous fixation
Saturated Steam at 102°



all classes of Dyes on all known Fabrics, by passing the Fabric in Loop Form through ent., or through Thermal Oil Heated Air/Steam Re-circulating system up to 190° Cent.



MACHINE SPECIFICATIONS

FABRIC CAPACITY AVAILABLE	Mts.	120 – 400
FABRIC WIDTHS AVAILABLE	cm.	180 – 400
CONTROLLED DWELL / SPEED RANGE	Mts./Min.	4 – 45
AVERAGE STEAM CONSUMPTION (Low / Temp. 102° Cent.)	Kg./Hr.	450 – 850
TEMP. WHEN WORKING IN “SATURATED STEAM” CONDITIONS	° Cent.	102 – 104
TEMP. WITH “OPTIONAL EXTRA” AIR / STEAM RECIRCULATING SYSTEM	° Cent.	Up to 190
LENGTH “A” FOR STANDARD 200 Mts. FABRIC CAPACITY	mm.	11,785
LENGTH “B” FOR STANDARD 200 Mts. FABRIC CAPACITY	mm.	8,760
LENGTH “A” & “B” INCREASES / DECREASES BY 143 cm. FOR EACH 40 Mts. CAPACITY		

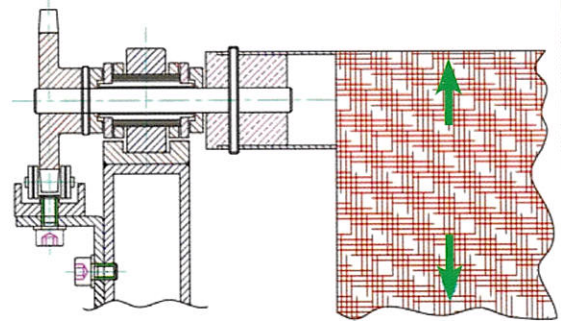
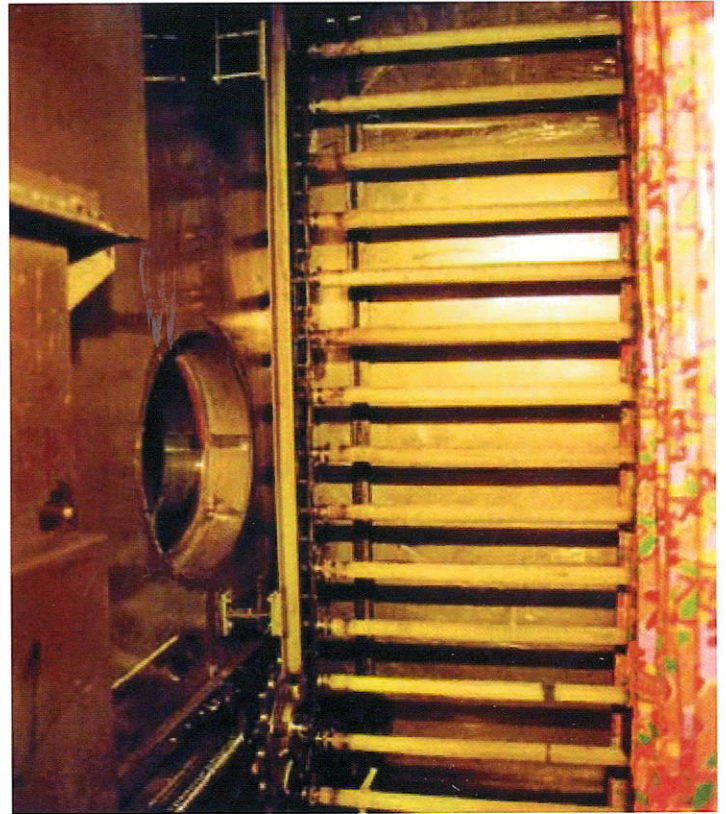
FUNCTION OF THE STEAM AGER/POLYMERIZER

Printed Fabric is guided with minimum Tension through the Machine Entry System and into the Steam Chamber, thereafter formed into Hanging Loops of Programmed Lengths over purposely Designed Stainless Steel Loop Carrier Rollers which are covered with Fiberglass material to prevent Moisture Formation and Slippage of the Fabric.

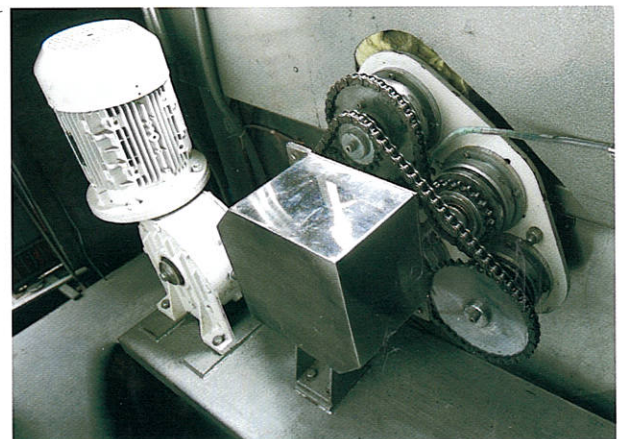
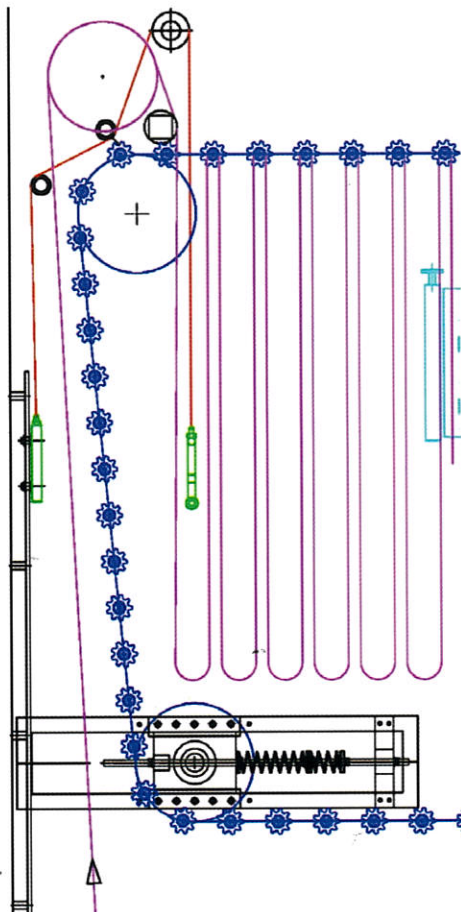
The Loop Carrier Rollers, are retained within a pair of Heavy Duty Stainless Steel Endless Transport Chains which move the Fabric Loops through the Steam Chamber.

At every step of the Endless Transport Chain movement, the Loop Carrier Rollers automatically Rotate via a Rack & Pinion System, thus allowing the Fabric to continually Advance on the Loop Carrier Rollers, ensuring that the Total Fabric Conditioning Uniformity is achieved by allowing all of the Fabric to pass through all the same Steaming Conditions within the Steam Chamber.

The Operator Pre-set Running Speed of the Machine, will automatically Control the intended Duration Time of the Fabric within the Steam Chamber, which is then being continuously Delivered to the Plaiter Exit Section.



Loop Carrier Rollers "Rack & Pinion System"



Fabric Loop Formation System

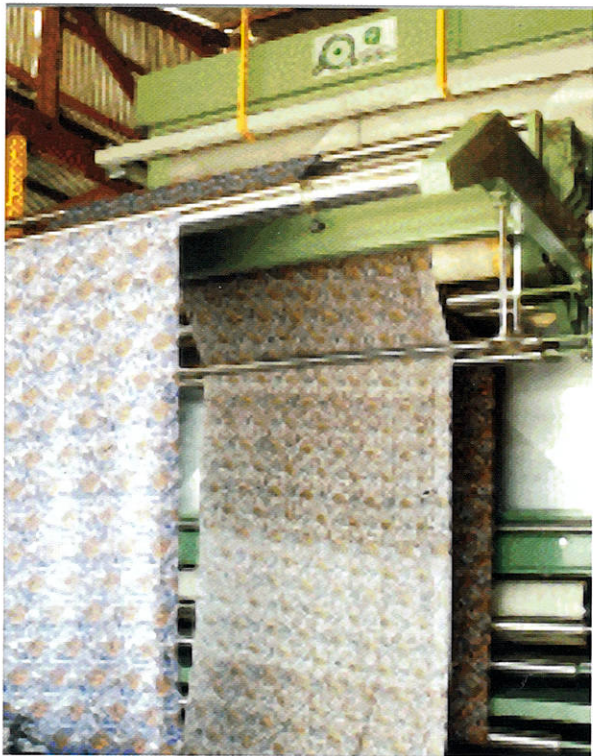
The System comprises of a Series of Electro-magnetic Clutches which Operate the Raising and Lowering Action of a Fabric Loop Formation Frame, which is intended to follow the Fabric Loops whilst being formed into Programmed Loop Lengths onto the Loop Carrier Rollers, thus preventing Electro-Static Contact and Adhesion of the Fabric Loops (especially required when Processing Polyester Fabrics).

THE STEAM AGER/POLYMERIZERS ENTRY & DELIVERY SYSTEMS



The Standard Entry and Delivery System supplied with the K+Z Steam Ager/Polymerizers, are prepared with a Frontal Entry and a Rear Exit System, whereby the Fabric Inlet and Outlet of the Steam Chamber is from the Underside of the Steam Chamber, thus reducing the possibility of Air entering into the Steam Chamber which causes Oxidization of the Dye stuff.

A Combined Frontal Entry & Delivery System can also be supplied on request, however it is advisable to note that Combined Frontal Entry & Delivery are more suitable for Woven Fabrics, due to the increase in the Fabric Tension.



The Base-Frames of the K+Z Steamer/Polymerizers Supporting the Steam Chamber sections, are purposely raised 100 cm., to enable the Fabric to pass Underneath the Steam Chamber, especially required when Combined Frontal Entry & Delivery Systems are supplied, and also whenever the Rollers in the Steam Chamber need to be Cleaned, which is simply achieved by allowing the Lead-Fabric (or an alternative Length of Fabric) to be connected (sewn) together and letting the said Fabric to Run in a Endless Format whilst Cleaning all the Rollers.



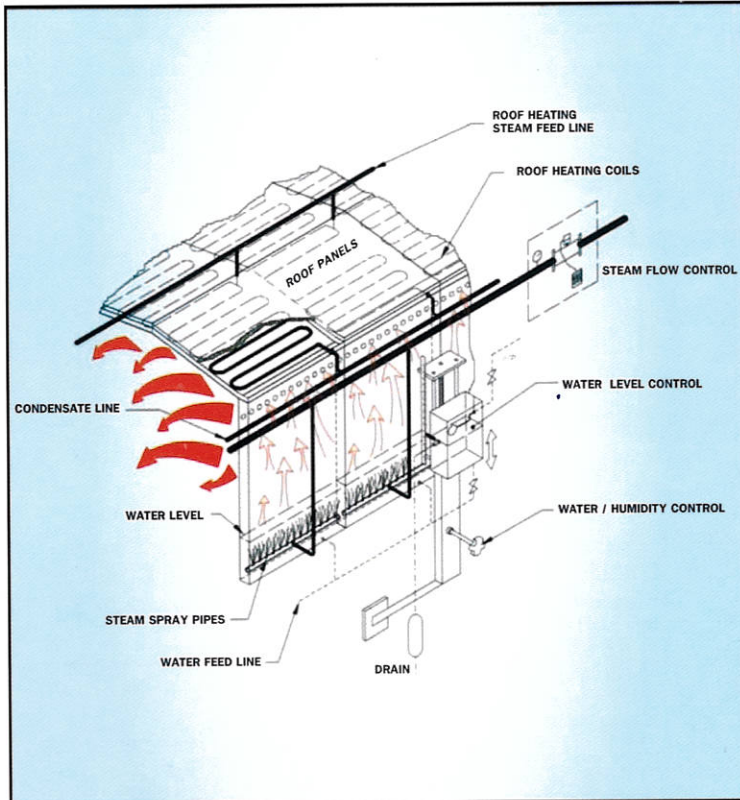
With the exception of the Fabric Inlet and Outlet sections of the Steam Chambers, the Underside of the K+Z Steamer/Polymerizers are totally Enclosed with Stainless Steel Sliding Insulation Panels, thus enabling easier and safer Access into the Steam Chamber for the occasional (when required) Servicing Purpose.



STEAM AGEING AT “SATURATED STEAM” TEMPERATURE

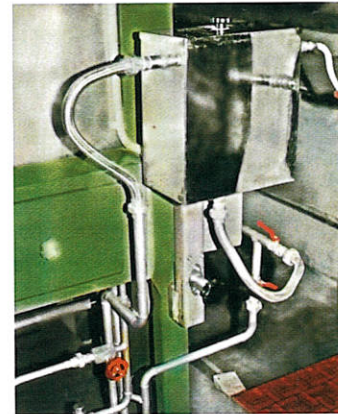
The Temperature and Humidity Factors on the K+Z Steam Ager/Polymerizer are achieved via a Steam Flow Input Control System, which equally delivers a selected Set amount of Steam to Pass through a Pre-set level of Water contained within the Panel Sections forming the Steam Chamber Walls.

The use of this Method creates a controllable uniform Steam Vapor at 102° Cent., which maintains the Steam Chamber Temperature Uniformity Factor.



The Humidity Factor in the Steam Chamber, is simply controlled by the ability of minutely varying the amount of Water contained within the Steam Chamber Walls to suit the required Humidity Level, after which the Water Level can then be Re-set again for Repeatability.

A Humidity Metering System, suitably located on the Main Control Panel constantly monitors the Steam Chamber Humidity.



The method used for Cooling the Input Steam, also enables the Input Steam to Condense back into Water, thus making use of the said Input Steam to Generate the required Treated Water necessary for maintaining the constant Humidity Level factor without the need of External contaminated Water.

STEAM FEED CONTROL SYSTEM

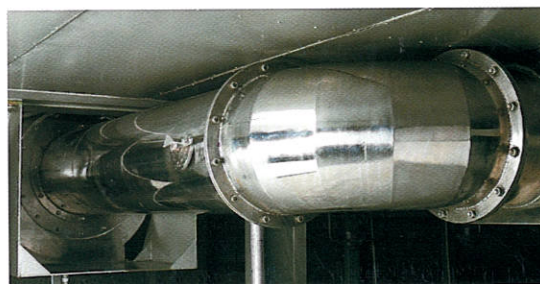


For Operating in “Saturated Steam” Condition (at 102° Cent.).

The Machine Steam Flow Input Control System is suitably arranged to equally Deliver the Selected Pre-Set amount of Steam to each Panel Section forming the Steam Chamber Walls.

The Steam Flow Control System is also arranged to Deliver a Pre-Set Selected amount of Steam to the Roof Panel “Closed Coils” Heating System, to prevent Formation of Condensation (Water Drops) on the Steam Chamber Roof Panels.

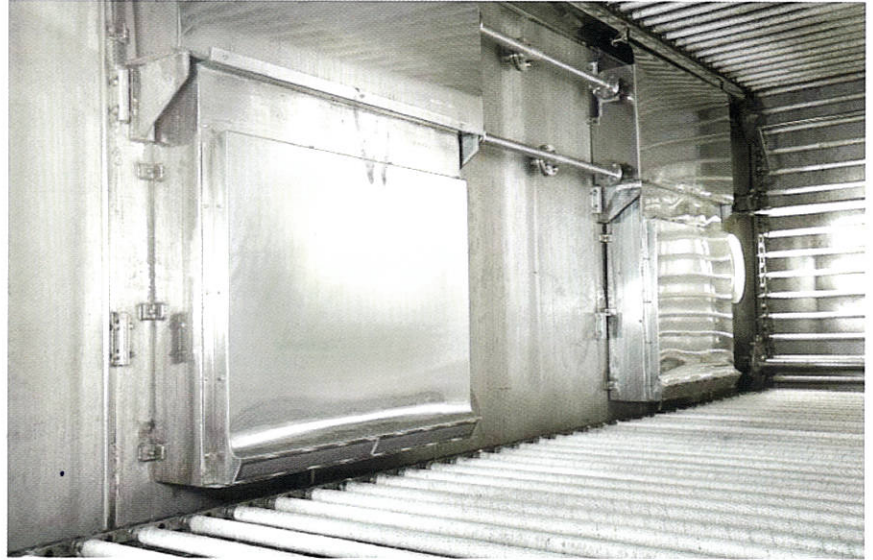
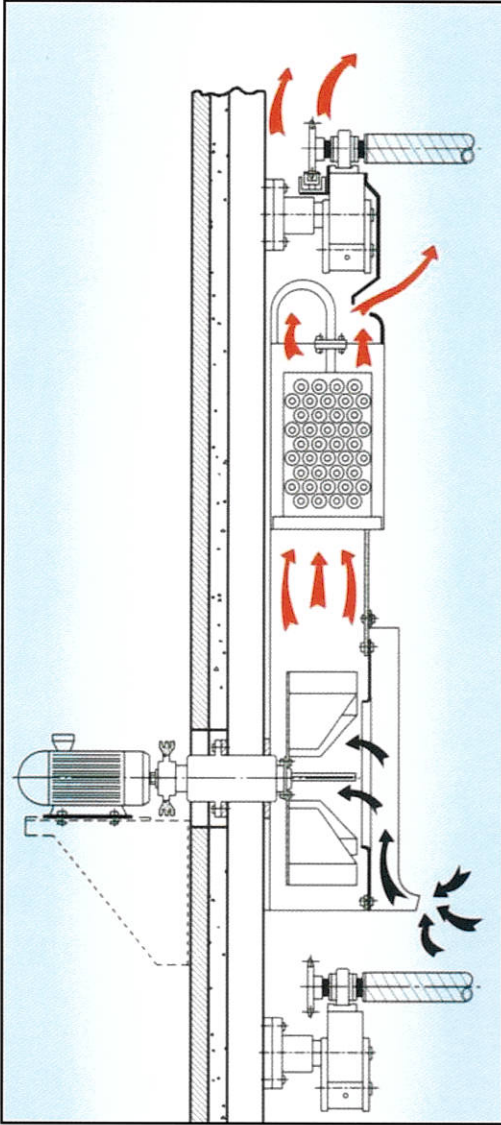
STEAM EXHAUST SYSTEM



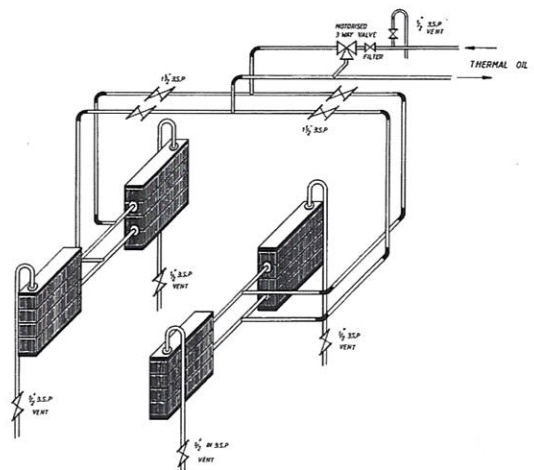
A Stainless Steel Exhaust System, suitably located at the lower section of the enclosed Steam Chamber, automatically removes the Spent/Contaminated Steam from Chamber, preventing any Exothermal reaction of the Printed Dyestuff.

POLYMERIZING AT “HIGH TEMPERATURE” WITH THERMAL-OIL HEATING SYSTEM

For the Polymerization of specific Types of Printed Fabrics, which require High Temperatures of up to 190° Cent.



A Thermal Oil Heating System is supplied as **Optional Extra** with the K+Z Steam Ager/Polymerizers, whereby the Air/Steam medium within the Steam/Polymerizing Chamber is Heated to the required Set Temperature through a series of Thermal Oil Heat Exchangers, and delivered to the Fabric being Processed via a series of purposely designed Circulating Fans, which ensure the even distribution of the Air/Steam medium within the Steam/Polymerizer Chamber, and accurately maintaining the selected Set Temperature required for Processing the specific Types of Fabrics.



THERMAL-OIL HEATING CONTROL SYSTEM

For Operating at High Temperature of up to 190° Cent.

The Thermal-Oil Input System aptly arranged with an applicable Automatic Valve arrangement, Controlled from the Operator Control Panel, to equally deliver the Thermal Oil to the suitably located Heath Exchangers within the K+Z Steam/Polymerizer Chamber, thus allowing the Air/Steam medium to be heated to the required Set Temperature necessary for Processing the various Types of Fabrics/Dyestuffs requiring High Temperatures.

