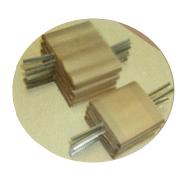
## **CVT CAPACITOR WINDING MACHINE MODEL - CVT822A**





#### **Features**

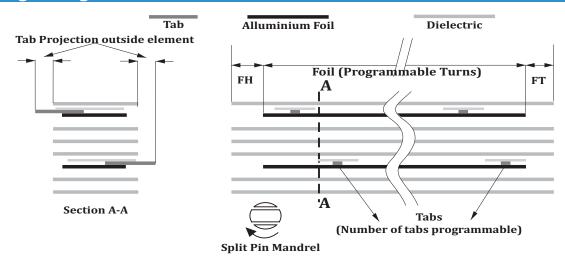
- The machine is developed for the automatic winding of CVT elements having buried foil configuration with Tabs insertions at pre determined positions.
- Machine handles material width ranging from 60mm to 200 mm and diameter upto 120mm.
- complete winding operations are automatically performed through PLC (Programmable Logic Controller) which is interfaced to large screen 10" color touch HMI (Human Machine Interface) which helps in continuous monitoring and external operation control.
- □ Comfortably mounted HMI on to the sliding door to make it easy for operating the HMI both in door open and closed condition.
- **HMI** with Pre-loaded customized operational batches, along with simplified, informative operational screens helps in quick selection of parameter and operation start up.
- customized and programmable parameter settings such as total foil turns, total winding turns, tab positions and head/tail dielectric turns etc.. in HMI to achieve required product output.
- Pneumatically operated simplified spools, ease fast loading of materials and unloading of bobbin.
- Closed loop servo tension controls for each unwinding spools to maintain consistent tension throughout the winding cycle.
- Servo controlled main winding mandrel to yield controlled acceleration, deceleration and winding surface speed.
- Dual mandrel with two position indexing arrangement (winding & ejection) for simultaneous operations and reduced machine cycle time.
- No operator intervention, as the machine complete operation such as film/paper insertion, winding, left/right tab insertion element sealing, ejection online testing for DC voltage withstanding and stacking are performed continuously and automatically. The operator has to remove the stacked element from the machine stacker unit, when it is filled up.
- Facility to test the element by applying upto 6000V DC through a precision Breakdown Tester and quick discharge facility through the meter as well as external circuit to ensure safety of operator while handling the elements.
- The test result of the elements such as PASS or FAIL, will be displayed on the instrument as well as on the HMI and only PASS elements will be automatically stacked, while the for FAIL element, alarm will be generated for manual removing out of the machine.
- Elements stacked onto electrically interlocked motorized stacker, which receives the elements one by one till its storage limitation.
- Minimum and quick change over settings in HMI as well as mechanical assemblies.

# **Technical Specification**

Winding Element Dimension			
Number of component per cycle	Single Element		
* Mandrel Diameter (d)	45mm Base Mandrel (Compound Collapsible type)		
* Winding Diameter (D)	Upto 120mm		
* Winding Width (L)	Min. 60mm to Max. 200mm		
Material Dimension	Aluminium Foil	Dielectric Film	Tab
* Number of spools	2	6	2
Width	60 to 200 mm	60 to 200 mm	12.7 to 26mm
Thickness	5 to 8micron	6 to 18 micron	150 micron
ID of the spool	75±1mm	75±1mm	75±1mm
OD of the spool	250 mm	300 mm	110 mm
	1.5 to 2 m/sec (Subject to winding quality).		
Winding Speed Setting	Programmable on Human Machine Interface.		
*Tab Projection	30mm to 50mm. Outside the element (both side)		
* No. of Tab Insertion	Upto 2 pairs of tabs on each foil.		
Dry Tester			
*Testing Voltage	0 to 6.0 kV DC (Programmable).		
Testing time	2 to 60 sec. (with Programmable voltage rise time, Voltage apply time & voltage fall time)		

## **Winding Configuration**

**Test cycle** 



Automatic through PLC control.

# **General Specification**

Power supply : 220 V AC , 60 Hz, 3 phase, 7kW .

Air supply : 6 bar, Consumption - 6cfm

Floor space : 2020 x 1700 x 2000 mm. (W x L x H)

Machine weight : 2400 Kgs. (Approximately)

NOTE: We reserve the right to modify above specifications at any time. please confirm your specification before ordering.