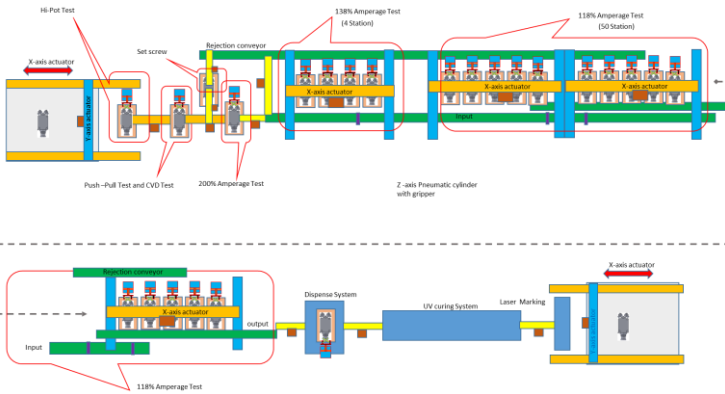


Design to Build Automation - Test System for Circuit Breaker Assembly

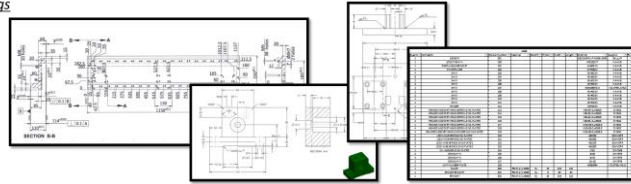
- Objective- To study the product testing line & **Automate their manual process** to improve quality, productivity and reduce labor cost.
- Scope – Design and development of “**Automated Test System for Circuit Breaker**”.

Outline concept



Manufacturing drawings

- Selection of Material
- Apply of GD&T
- BOM
- Part number creation



Standard Parts



❖THK LM Guides

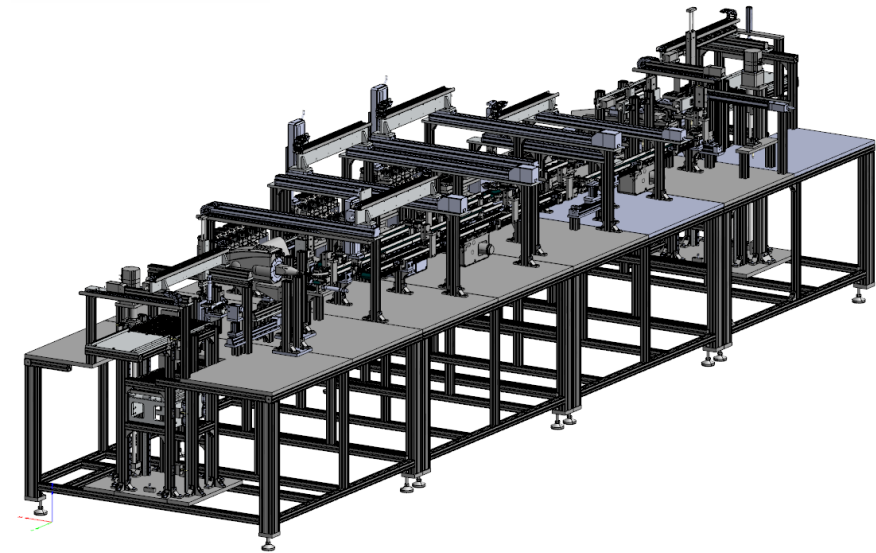


❖SMC Standard part



❖Electrical controls & Drive unit

Actual Concept



S.No	Test Description	Testing Time	No of stations	Output /Hr.	Required testing time to 100 parts /Hr. (Testing time)	Idle time can be used for component loading /unloading	Balanced cycle time for each station
1	Hi-pot test	15	01	240	25 min	35 min	36 sec
2	Push/Pull and CVD	7	01	514	11.6 min	48.4 min	36 sec
3	200 % Amperage Test	10	01	360	16.6 min	43.4 min	36 sec
4	Cooling	600	01				
5	138% Amperage Test	100	04	144	41.66 min	18.34 min	36 sec
6	Cooling	600					
7	118% Amperage Test	1800	50	100	1 Hr.	0	36 sec
8	Set Screw Adjustment		01				
9	UV Cure Epoxy Curing	15	01	240	25 min	35 min	36 sec
10	Laser Mark Product	10	01	360	16.6 min	48.4 min	36 sec

40% up



Productivity

6>1



Operator

12



Variants

100%



Safety

100%



Poka-Yoke

Part Handling



Automation