

Yawei-Nisshinbo L/UL System

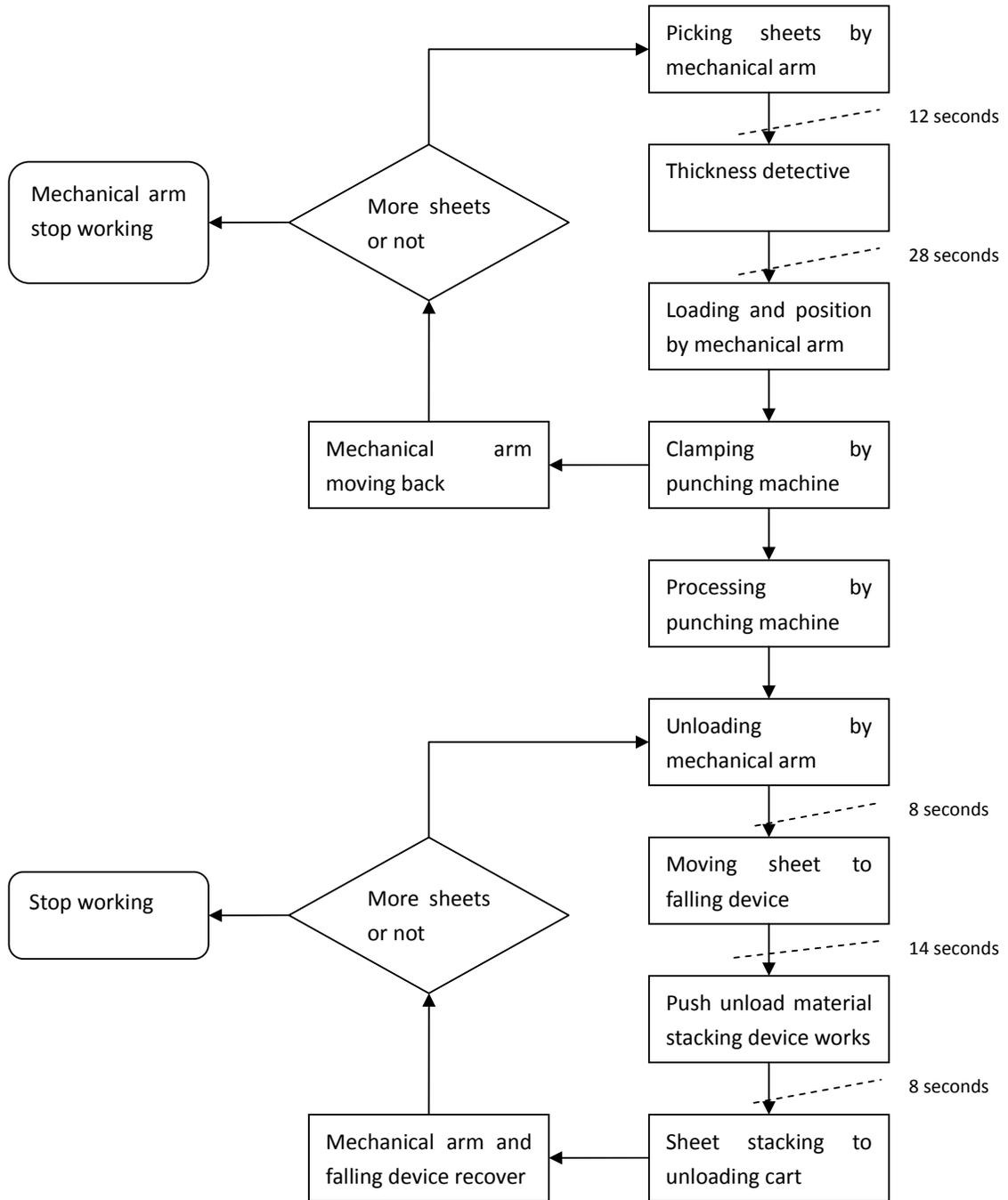
Pass – Thru L/UL

CNC punching machine is integrated with Loading worktable, Loading system, Turret punching machine and Unloading system. The L/UL function consist of moving a work piece onto work table of punching machine, auto gaging , punching part, removal of work piece and part stacking . Fastest cycling time – 40 sec, both machine and L/UL works simultaneously, does not add to punching time.



Production Flow Pass-Thru L/UL

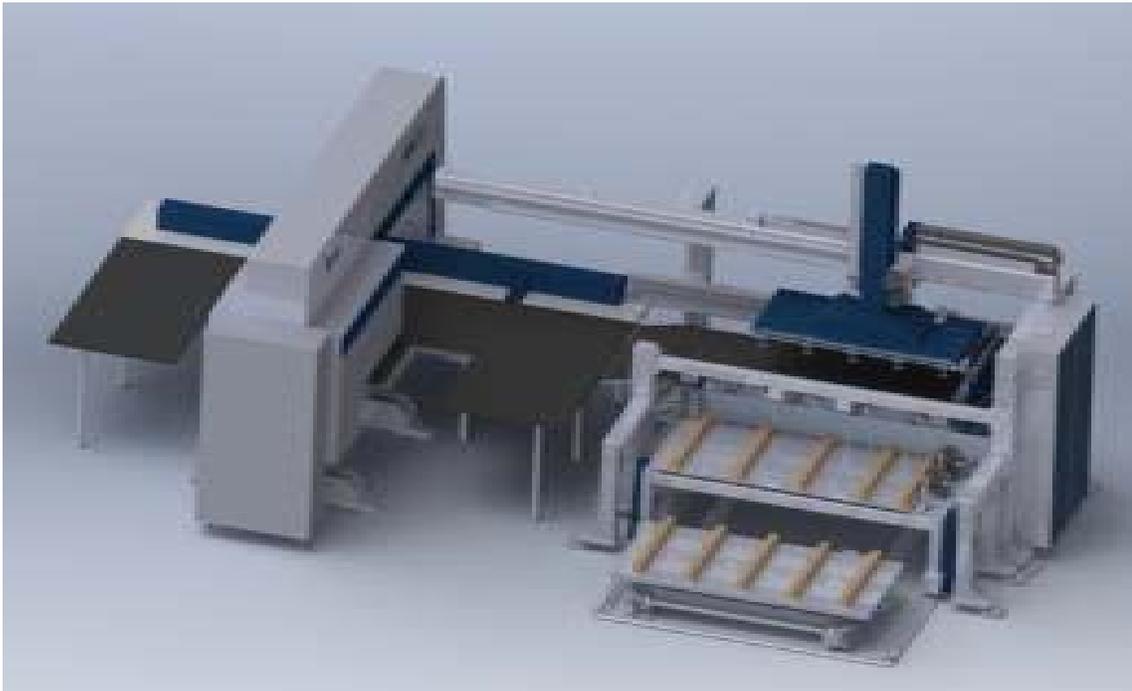
Start Load Cycle



Note: During the duty-cycle operation, L/UL system and punching machine work simultaneously, L/UL processing will not increase the working time. For example, loading system will start processing next work piece while the punching process is finished. When the first work piece is moved to Unload system, the next work piece has been loaded and gaged, ready for punching.

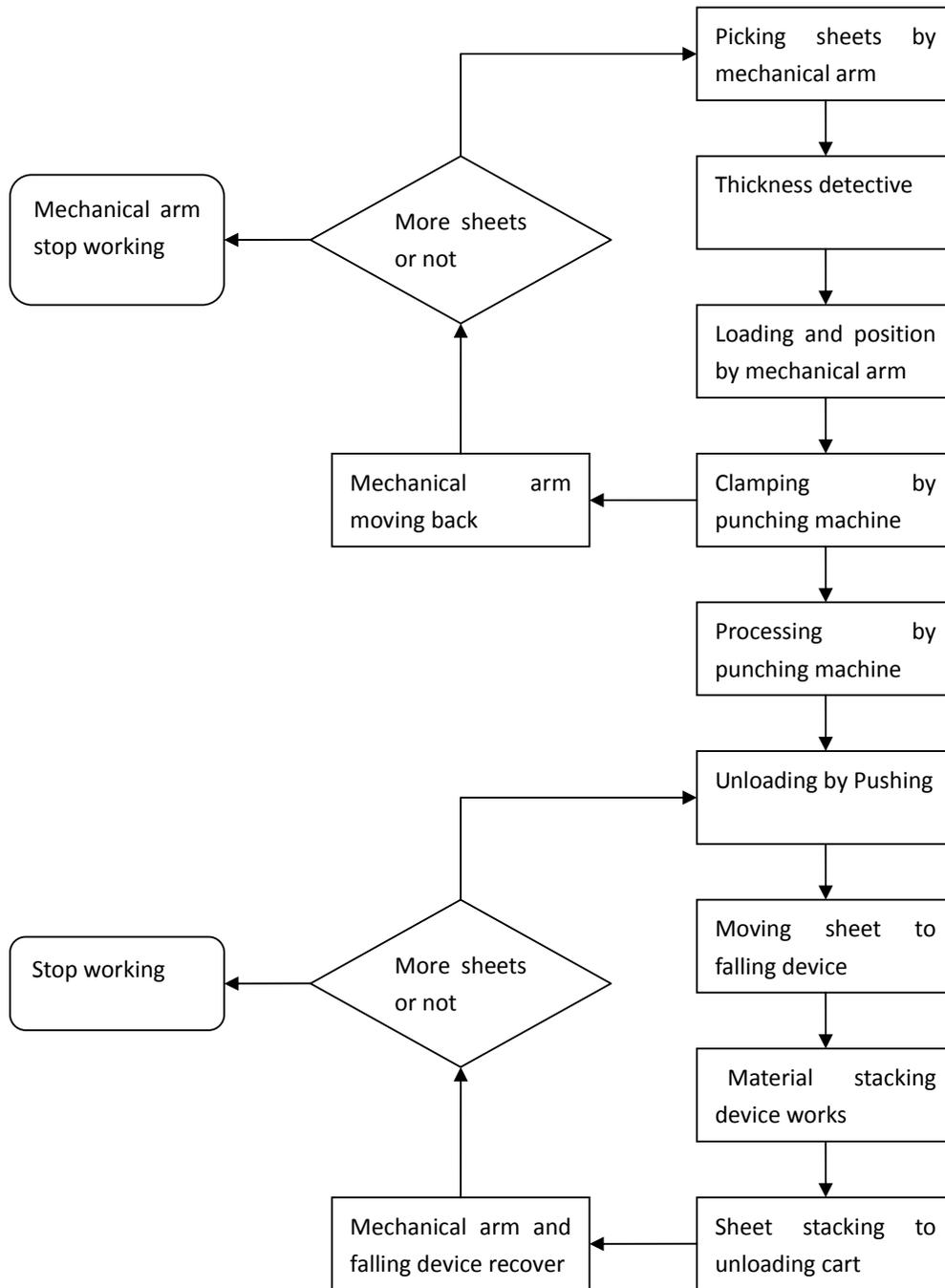
Same Side L/UL

CNC punching machine is integrated with loading worktable, Loading system, Turret punching machine and Same-side Unloading system. The L/UL function consist of loading a work piece onto work table of punching machine, auto gaging , punching part, removal by pushing of work piece and part stacking. Sequential operation of machine and L/UL with cycle time of 76 sec provides reduced work space and allows for manual operation of machine.



Same Side L/UL

Start Cycle Load

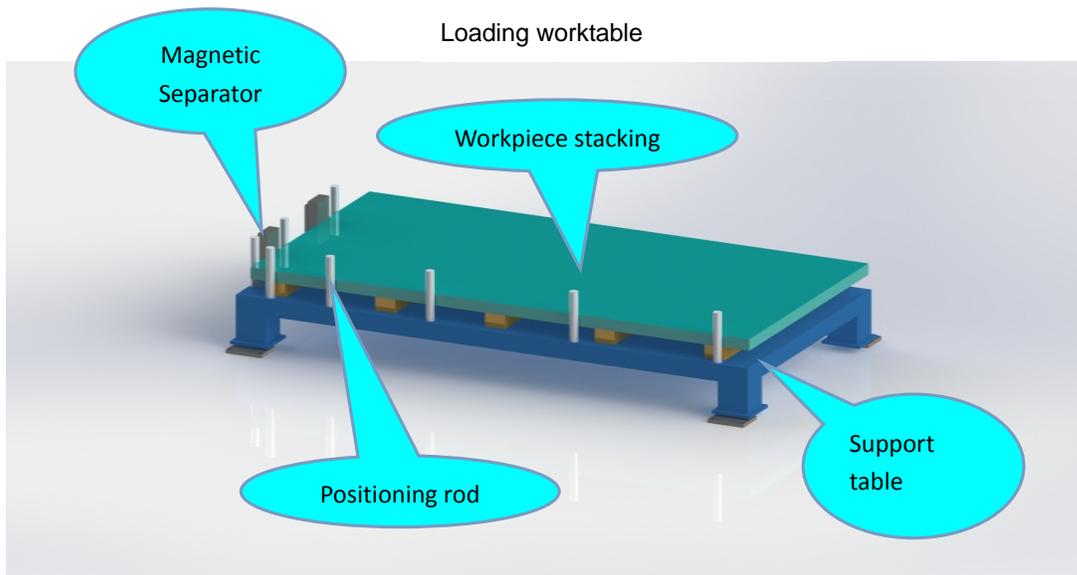


Note: During the duty-cycle operation, L/UL Same Side system and punching machine works sequentially, LUL process does increase the working time because each step must be completed before next. For example, loading system will start processing next work piece while the punching process is finished but cannot start loading till first work piece is moved to unload system and stacking is completed, and then next work piece is loaded and gauged, ready for punching.

Standard Device Structure and Technical Features

Loading Cart/Worktable

- Storage of work pieces ready for punching-Maximum weight 3000KG
- Sheet positioning rods in X,Y direction, ensure work piece stacking – Maximum stack height 200mm
- fine adjustment device for reposition of work piece stacking
- magnetic separating device to ensure separation of work piece



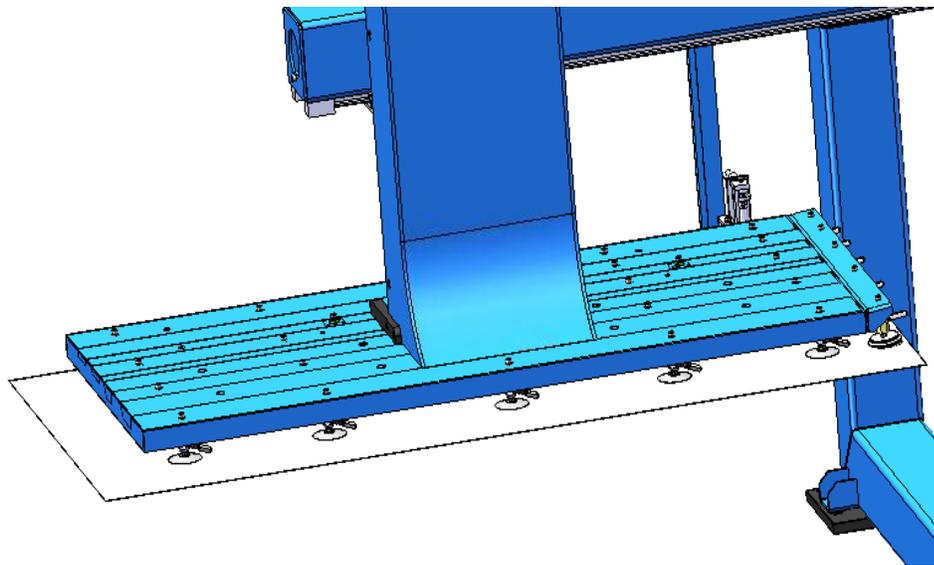
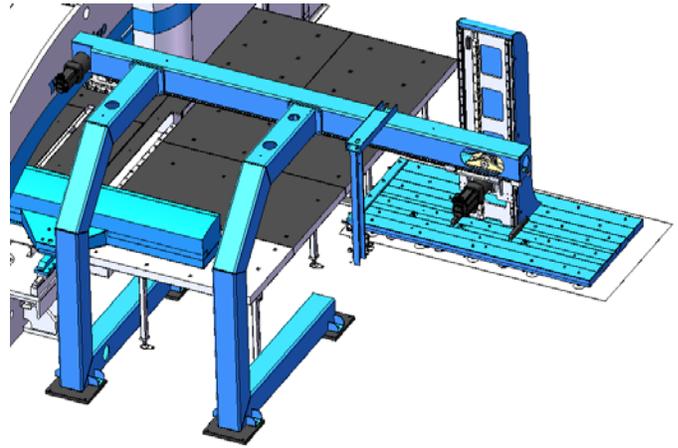
a) The maximum measurement of work piece is 1250 x 2500mm, 1500 x2500 or 1500x 3000mm. The worktable can bear the weight of 3000kg.

b) Magnetic separating device can separate mild steel, stainless steel with, plastic film, Clad or Galvanized sheet material.

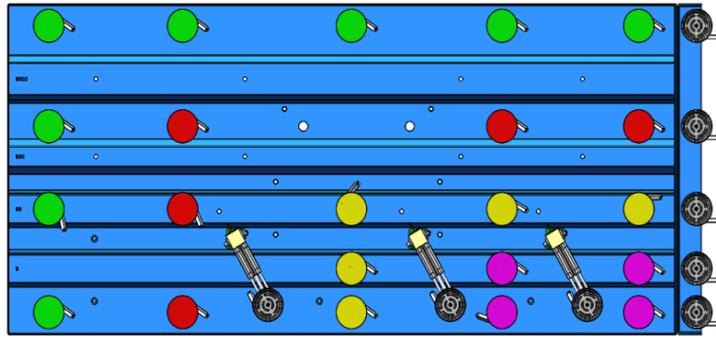
*Invalid for those nonmetallic materials that can not be affected by magnetic force, such as aluminum.

Automatic Loading System

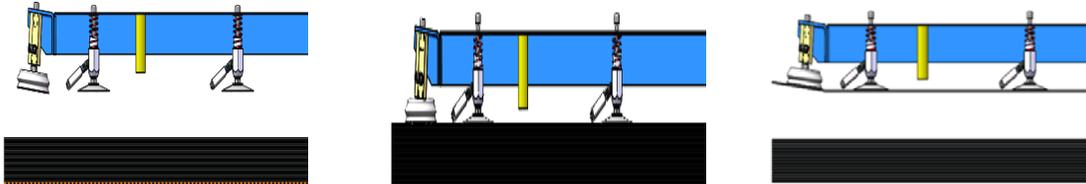
- Simulating flexing- grasp motion
- C-structure, more flexible,
- Reducing noise
- Edge lifting device ensures sheet separation
- Thickness proofing device
- Servo drive device



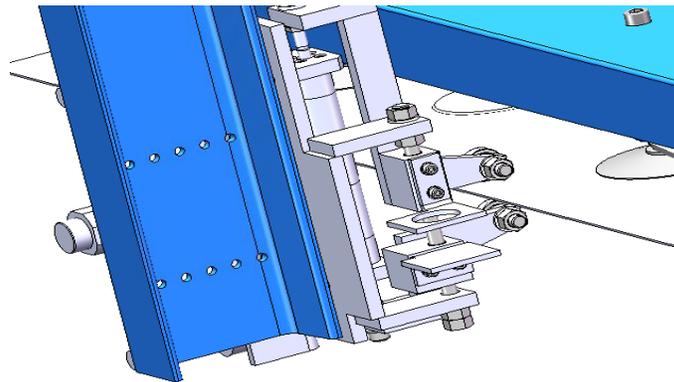
Mechanical arm (with vacuum lift)



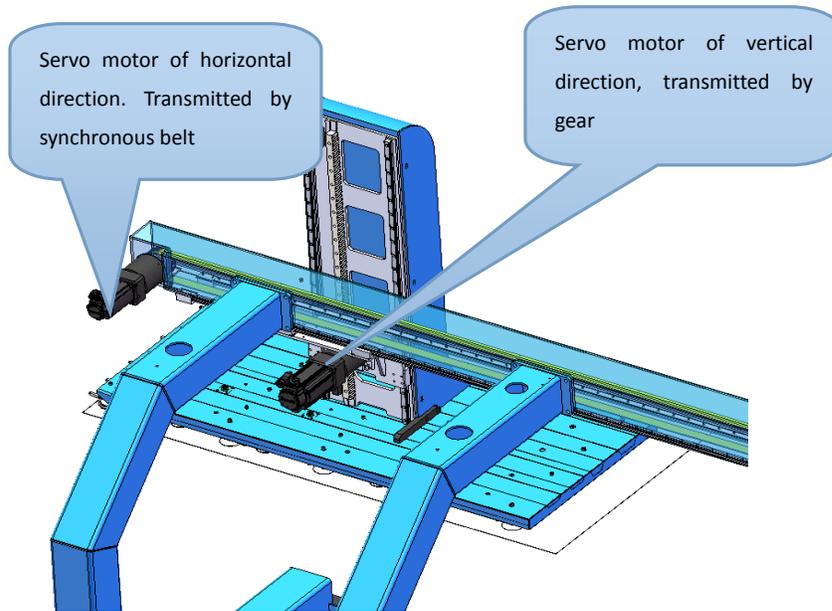
Selection of Vacuum cups based on part size



Edge lifting device to help separate sheets



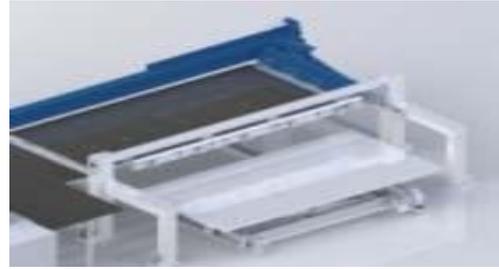
Thickness proofing device to verify single sheets



Servo Driving system for speed and accuracy

Automatic unloading system for Pass-Thru system

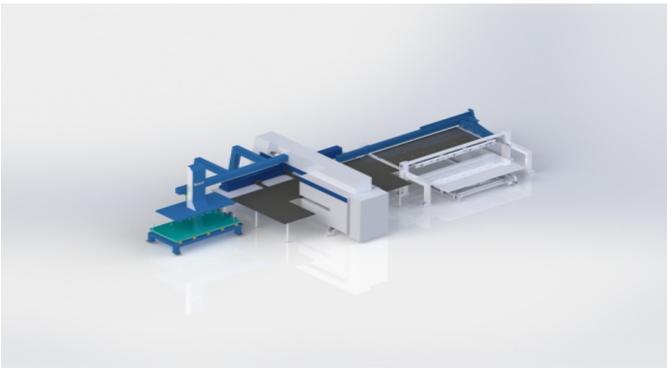
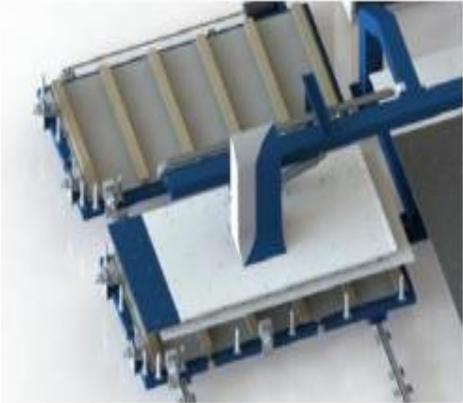
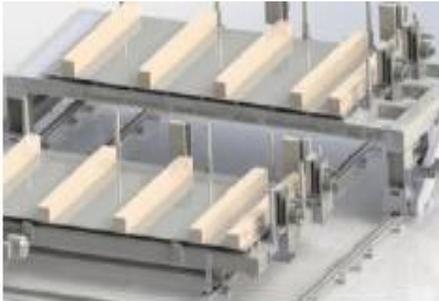
- Automatic pushing of sheet by unloading arm
- Material falling device, avoid scratch of sheets

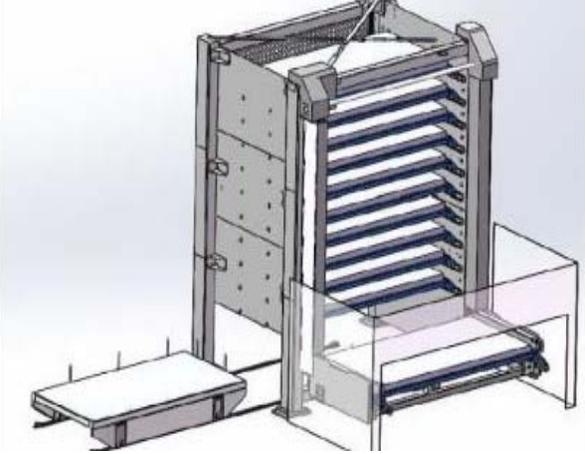
**PLC Operation**

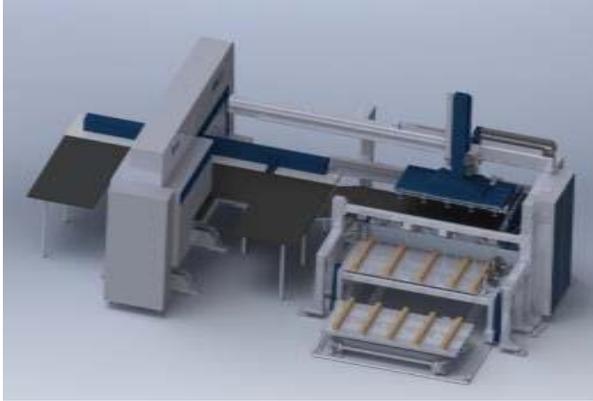
LUL system is controlled by a PLC designed to allow for full operation of the system for easy operation of each Load/unload cycle. Simple G-code in Punch program starts L/UL sequence.



Load/Unload Pricing

<p>Pass thru L/UL</p> <p>HPE-3048-FMC (2500x1250)</p> <p>HPE-3058-FMC (2500x1500)</p> <p>HPE-30510-FMC (3000x1500)</p>	<ol style="list-style-type: none"> 1. One loading cart-fixed 2. Magnet separation device 3. C-type suction loading device; 4. Push type unloading device 5. One unload cart –fixed 6.PLC control 	
<p>Exchangeable side/side double loading-positioning table</p> <p>(2500X1250)</p> <p>(2500x1500)</p> <p>(3000x1500)</p>		
<p>Gantry over/under type double loading-positioning table</p> <p>(2500X1250)</p> <p>(2500x1500)</p> <p>(3000x1500)</p>		

<p>Additional unload-lifting table with rails</p> <p>(2500X1250)</p> <p>(2500x1500)</p> <p>(3000x1500)</p>		
<p>Stocker (3 ton max) +6 drawers of single sheet storage + loading system with magnet separation device</p> <p>(2500X1250)</p> <p>(2500x1500)</p> <p>(3000x1500)</p>		

<p>Same side L/UL</p> <p>(2500x1250)</p> <p>(2500x1500)</p> <p>(3000x1500)</p>	<ol style="list-style-type: none"> 1. One loading cart – movable 2. Magnet separation device 3. C-type suction loading device 4. Pushing type unloader 5. One unload cart – movable 6. PLC control 	
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