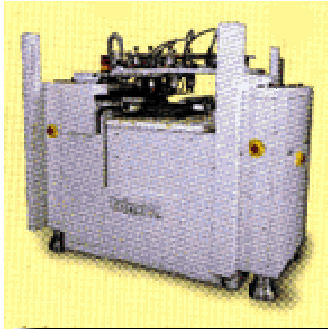


SL13.6

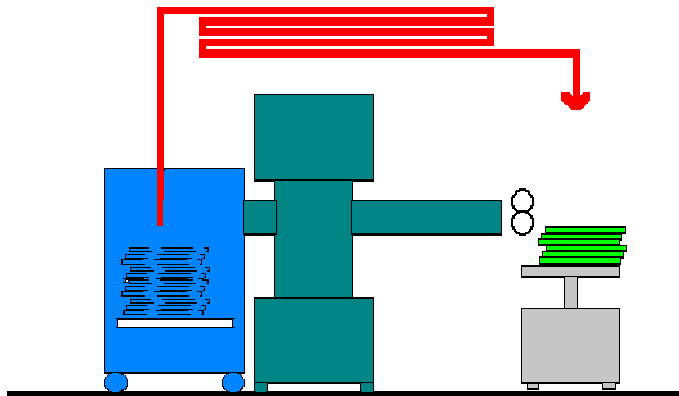


SL13.6 is an automatic loader, developed by Telmec for the CNC scoring machine model SL13.9. SL13.9 already include as standard an automatic off-loader able to remove the boards from the reference pins and from there evacuate them to a self-levelling stacker. **SL13.6** has been designed to offer together with the SL13.9 a definitive answer to the problem of automating the scoring process. With it, SL13.9 become a fully automatic, high speed, high precision scoring machine capable of working hours without operator. The main structure of the **SL13.6** is a robust trolley,

that by means of four wheels can be easily moved around and removed from the scoring machine if not required. The **SL13.6** is hooked to the conveyor of the scoring machine by a self centering device that also assures the perfect registration between the reference system of the scoring machine (the pins) and the one of the auto-loader.

SL13.6 is equipped with its own computer that communicates with the scoring machine by an external plug.

The boards are piled over a self levelling table, which always



keeps the top board at the same level. Four lateral pushers assure that the last four-five boards on top are well pressed against two sides (a corner) that represents the reference system of the auto-loader. Every cycle the pushers shove the boards on top three times while a flow of air is blown through them to minimise the friction. Because the registration of the boards over the **SL13.6** is obtained using their edges, it is required a certain tolerance for the distance of the tooling holes from the two references edges. This tolerance is strictly related to the diameter of the holes. The calibration between the two reference systems (the pins of the scoring and the corner of the auto-loader) is electronically assisted. In fact the registration corner of the **SL13.6** is adjustable along the X and Y axes by turning two external knobs and its position is showed on two separate digital displays. To calibrate the position, it is only necessary to turn the two knobs till the two displayed measures match the correspondent X and Y distances of the centre of the tooling hole from the edges as given in the drawing of the board. The **SL13.6** is then ready to work.

On top of the **SL13.6** the carrier is located equipped with adjustable vacuum suckers.

The vacuum is obtained with an internal vacuum pump to assure constant hold and high loading capability. The carrier is moved down to pick up the first board on top. Then it lifts up the board with a two step movement to avoid any incidental adherence between the boards.

The board is then translated horizontally and, due to the previous calibration, when the carrier stops, the tooling holes of the board are exactly located over the reference pins of the scoring machine.

At this time, a pressing bar pushes and guides the board down assuring that it is properly and completely inserted in the registration pins. The pressure of the bar is adjustable to avoid any damage of thin boards and the value of the pressure is constantly displayed on an external indicator.

If the insertion fails, the loader stops and an alarm is given.

All the movements of the **SL13.6** have been optimised, obtaining a loading time of about three seconds only.

The user friendly front panel control of the SL13.6 allows to operate it both in automatic or manual mode. Each single movement of the auto-loader in fact can be performed independently for a complete and simple diagnostic.

Particular care has also been taken for the safety of the systems.

SL13.6 offers a simple way to the total automation of the scoring process, an investment easily recoverable in short time

TECHNICAL CHARACTERISTIC	
Maximum working width	610 x 610 mm
Acceptable PCB thickness	0.6-2.4 mm
Compatible	SL13.9 - SL13.10
Max number of piled panels	250 x 1.6 mm thickness
Vacuum requirement	450 m3/h
Ref. Hole-edge tolerance	+/- 1.3 mm
Weight	600 kg
Power consumption	3 Kw