

Assembly Press

Mecelec Design Ltd has designed and built a machine for a pharmaceutical customer that carries out a push-fit operation on loosely-assembled parts placed into a nest on the machine.

The final overall length of the assembly was critical, and the machine demonstrates good capability (C_{pk}) in this respect.

The customer had an urgent requirement for this machine, which was delivered to them less than six working weeks after placing the order. To achieve this, careful consideration was made during the design phase to incorporate only parts which were readily available.

The machine uses pneumatic logic to control the sequencing of its two pneumatic cylinders. That is to say it has no need for an electrical supply and requires only a regular compressed air supply.

The machine requires extremely little maintenance. All parts are corrosion-resistant, in line with common practice for machines supplied by Mecelec Design Ltd.

The machine may be worktop-mounted, making it a straightforward task to achieve a correct working height for the Operator. The nest requires only a light push and pull action, making for excellent ergonomics.



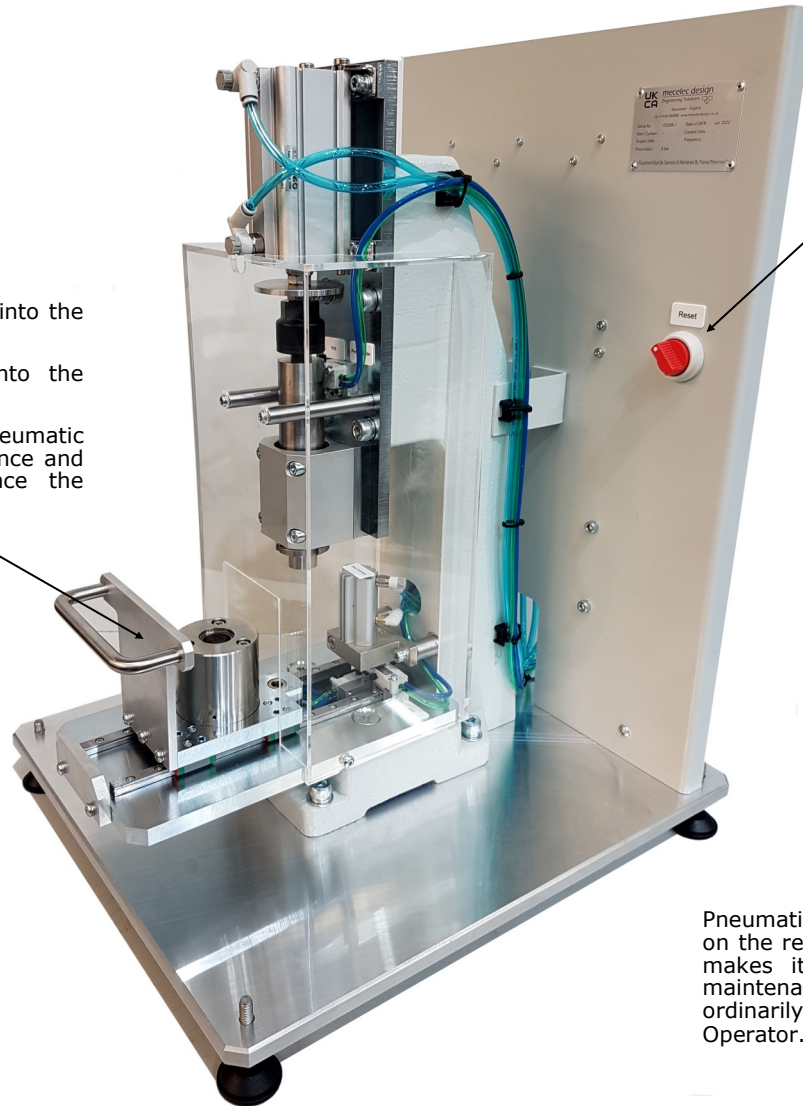
Technical Data

Air Supply	6 Bar
Electrical Power Supply	None
Controls Voltage	None
Control System	Pneumatic logic
Operator Interface	Mechanical only
Cycle Time	~5 seconds

Parts to be assembled are placed into the nest of the machine.

The nest is pushed forwards into the guarded area.

Once in the guarded area, the pneumatic logic initiates the assembly sequence and the nest is released again once the assembly is complete.



A 'Reset' switch is available to the Operator, to interrupt the pneumatic sequencing and release the nest.

This would be required in the event of an obstruction being present in the nest, which would cause the pneumatic sequence not to complete.

Pneumatic equipment is located on the rear of the machine. This makes it easily accessible for maintenance purposes whilst not ordinarily being visible to the Operator.

