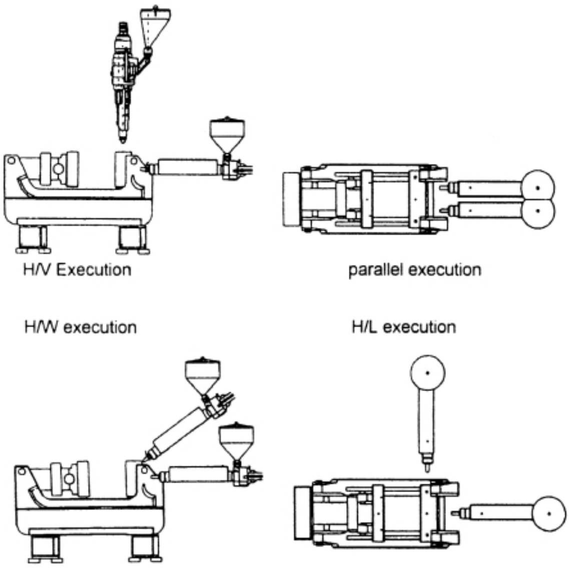
Special Information on Coinjection Moulding: Machines

1. Machine configuration

Basically, all machine configuration options are available in 2K injection moulding with THERMOLAST K. The decision of whether to work on two separate injection moulding machines with handling systems, or whether a 2K machine is used, depends on a range of factors. Material pairing, material contact surface, number of units to be produced, part geometry, available machines, etc. determine the most cost-effective alternative for the overall concept.The graphic below shows a few of the injection unit layouts which are possible.



Source: Engel

1. Processing Machinery

THERMOLAST K compounds can be processed on standard injection moulding machines for thermoplastics incorporating 3 screw zones.

Screws should have a compression ratio of at least 2:1 and an L/D ratio of at least 20:1. Barrier screws may be required in certain cases, e.g. to achieve an increased plasticizing rate.

Processing is possible with open nozzles. The use of shut-off nozzles and a backflow check valve at the tip of the screw can be advantageous.

2. Cleaning of Machines

Before processing THERMOLAST K, clean out the injection moulding system with polypropylene. If another material is to be used afterwards, run the system until empty and purge again with polypropylene.