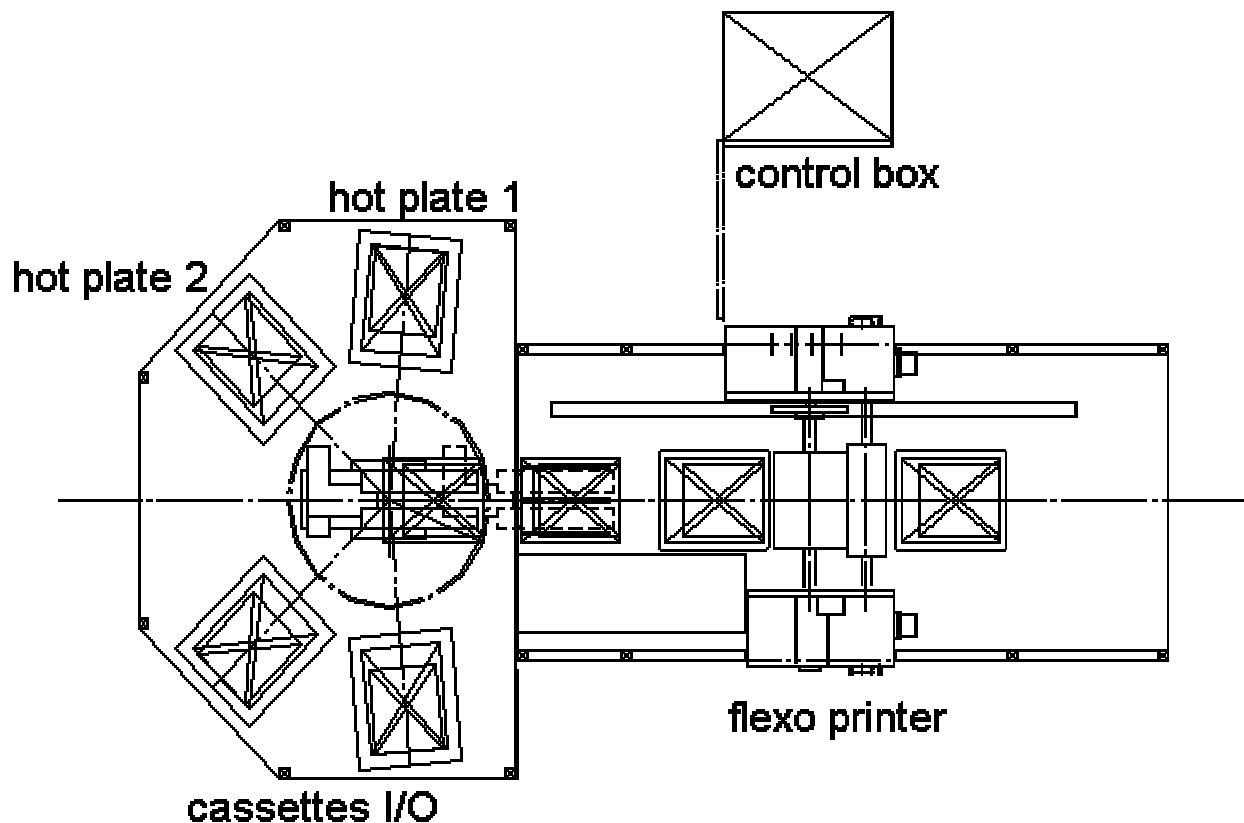
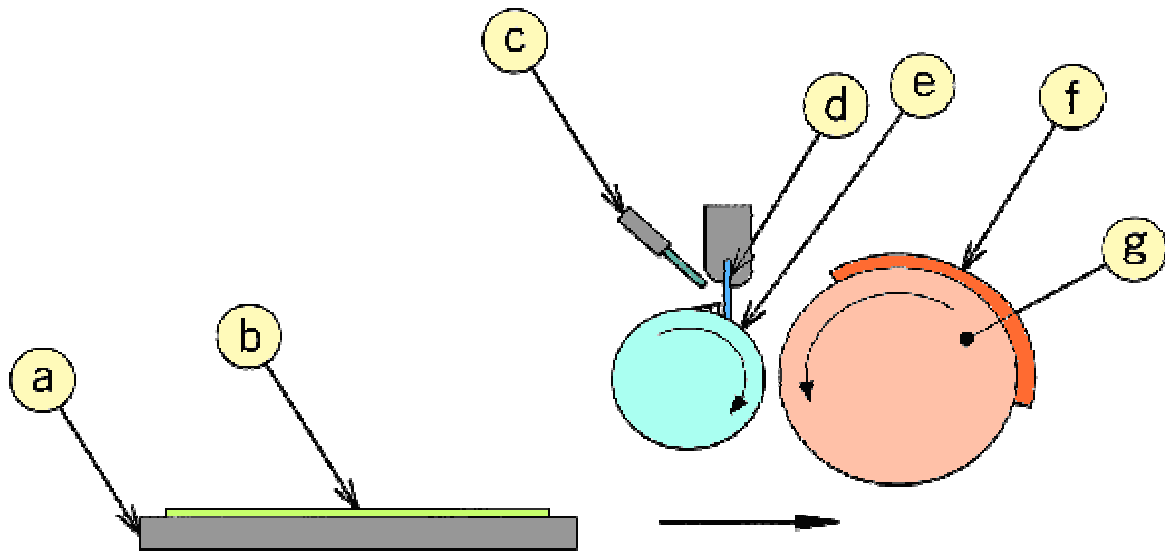


Flexographic printing

Flexographic (off-set) printing is used in order to form polyimide layers on the inner-surfaces of the glass substrates during LCD manufacturing. These machines can be integrated in an in-line production cycle or in a cluster, consisting of a polyimide printing machine, a coupled hot plate curing system and related automation including loading and unloading devices.



The thin film deposition technology is based on both flexographic (off-set) printing technology and gravure printing technology. The doctor blade distributes a layer of the polyimide on the anilox roll. This roll carries a pattern of gravures which are filled with a volume of polyimide corresponding to a layer 3.5 times thicker than the desired printing thickness. This ensures a good material transfer. The polyimide layer is thereafter transferred to the printing roll with the desired pattern. The printing roll is covered by a compressible polymer, called letterpress. From there the coating material is transferred to the glass substrate. The resolution of this technology is better than screen printing. The printed layers are thin films with a thickness of less than a micrometer (40-100nm).



a printing table, **b** LCD glass plate, **c** dispenser, **d** doctor blade, **e** anilox role, **f** resin letterpress, **g** printing role