ABSTRACT

The present invention relates to a double or dual action self-locking mechanism that is used in conjunction with a hydraulic, pneumatic, cylindrical or equivalent similar component to achieve locking / unlocking action and a synchronous sliding movement when actuated. The self-locking mechanism can be applied onto plastic injection molds or in similar situations that require locking / unlocking action together with the synchronous sliding motion when actuated. Hence the present invention has many benefits such as smaller footprint as compared to using a traditional setup for injection molding that utilises larger hydraulic cylinder. The locking and unlocking motion are synchronous, hence eliminating any out of synchronization crash incidents. Hydraulic pump can be switched off when the mechanism is at lock or unlock during injection molding and part release cycle, unlike conventional method in which the hydraulic pump is always on. Thus, energy consumption of the hydraulic pump is reduced since only energy is required during unlocking / locking motions.

Use **Figure 1**.