

PLC 在注塑机掌握系统中的应用

摘要

由于注塑过程是一个非稳定、非恒温的过程，在合模、注射、升 (降) 温等各生产过程中的工艺参数将直接影响塑料制品的品质，因而对注塑机的掌握系统提出了很高的要求。随着电子技术的不断进步和进展，此传统掌握方法的缺点越来越显著地表现出来，如修理量大，继电器寿命短，接线相当简单。承受有触点的开关动作，工作频率低，牢靠性差，易出故障。继电器动作慢，定时不准确，系统掌握精度差等。因而，对注塑机的掌握系统进展改造很有争论必要。文章对注塑机构造进展分析，并进对西门子 S7-200 PLC 的编程方法以及使用的方法进展简洁介绍。通过组态软件的仿真协作，设计出一个完整的由 PLC 掌握的注塑机系统，实现低能耗、低噪音、锁模力简洁掌握、运行平稳、安全牢靠和便于修理的目标！

关键词： 注塑机，西门子 S7-200，组态仿真

Application of the injection molding machine control system of PLC

ABSTRACT

As the injection process is a non stable, non isothermal process, the mold, injection, or (descending) temperature of the production process parameters in the process of plastic products will directly affect the quality of the injection molding machine, the control system has put forward higher request. Along with the electronic technology continues to progress and develop, the traditional control method has been more and more obviously shown, such as repair a large quantity, relay for life is short, the wiring is quite complex. The contact switches action, low working frequency, poor reliability, easy fault. Relay action slow, timing is not accurate, system control accuracy. Thus, the injection molding machine control system reformation is the research necessary to, The injection molding machine structure is analyzed, and the inlet of Siemens S7-200PLC programming method and the use of the method are introduced in this paper. Through with the configuration software in the simulation , designing of a complete control by PLC injection molding machine system, and achieve low power consumption, low noise, easy to control the clamping force, stable running, safe and reliable and is convenient to repair target!

KEY WORDS: injection molding machine, Siemens S7-200, configuration
simulation