UV 线吸盘自动上料机的设计

摘要：上料机在我们的生活中已经十分普及，在我们的生活中扮演着及其非常重要的作用。他可以帮助人们不费力的搬运木板，分捡东西，将人们从劳动中解放了出来，将人们的身份转换了过来，从生产者变成了支配的拥有者。很大的幅度实现了机械的现代化和自动化。它还有效的帮助了人们规避了很多的危险，让人们从危险当中远离。极大地程度上体现了人性化和效率化的结合，是我们在机械上的一种进步，因此，好多行业都开始模仿，例如机械的生产、物流的分捡、锻铁、冶金、甚至一些原子能这些危险的部门都在不断地创新争取机械的成本低，效率高，安全程度高。

这篇文章详细的叙述了上料机在我们机械的重要性，在之前许多的机械的基础上发展，结合了龙门山的机架的设计，机架的设计，对机架进行了从头到尾，从上而下的系统的分析和优化。上料机采用整体式到局部式的设计和分析。机臂采用了前所未有的汽缸设计，提出了气动的传动和电路的设计的方案。结合了之前的硬件和软件的长处，并将它们进行互补，使他们能够结构合理，传动效率高。对上料机的输入部分，伺服系统，主体部分，控制系统进行了分析和设计。驱动也采用之前没有的气动，抛弃了液压传动，因为气动的轻便和效率高，电动机选用的是三相异步电动机，这个电动机转子的转速低于旋转磁场的转速，可以双向的传动。控制系统选用的是我们熟知的单片机控制，从此，我们可以完成系统功能的初始化，上料机的上下左右以及实现木板的转向功能。

通过上述的这些功能，得出了经济型、高效率、安全可靠、便利性的真空吸盘上料机的设计方案，这对于机械无疑是一大好处，并且可以为以后的机械做出借鉴的价值。

关键词：真空吸盘上料机，三相异步电动机，高效率

Vacuum sucker feeder

ABSTRACT：Feeding machine has been very popular in our life, and plays a very

important role in our life. He can help people easily carry boards, pick up things,liberate people from labor, transform people's identity, and turn producers into dominant owners. It has greatly realized the modernization and automation of machinery. It also effectively helps people avoid a lot of dangers and keep people away from them. To a great extent, it embodies the combination of humanization and efficiency, which is our progress in machinery. Therefore, many industries begin to imitate, such as the production of machinery, sorting of logistics, forging iron, metallurgy, and even some dangerous departments such as atomic energy are constantly innovating, striving for low cost, high efficiency and high safety of machinery. This article describes in detail the importance of the feeding machine in our machinery, on the basis of many previous machinery development, combined with the gantry design of Longmenshan, the design of the rack, the rack from the top to the bottom of the system analysis and optimization. The feeding machine adopts the design and analysis from integral type to local type. The arm adopts the unprecedented cylinder design, and puts forward the design scheme of pneumatic transmission and circuit. It combines the advantages of the previous hardware and software, and complements them, so that they can have a reasonable structure and high transmission efficiency. The input part, servo system, main part and control system of the feeding machine are analyzed and designed. The drive also adopts the pneumatic drive which was not used before, abandoning the hydraulic drive. Because of the portability and high efficiency of the pneumatic drive, the motor is a three-phase asynchronous motor. The speed of the motor rotor is lower than the speed of the rotating magnetic field, so it can be driven in two directions. From then on, we can complete the initialization of the system functions, the loading and unloading of the machine and the turning function of the board. Through the above functions, the design scheme of the economical, high efficiency, safe, reliable and convenient vacuum sucker feeding machine is obtained, which is undoubtedly a great advantage for the machinery, and can be used for reference for the future machinery. key word: Vacuum suction feeding machine, three-phase asynchronous motor, high efficiency.