

专家论坛

## 粉末直接压片工艺：制药工业整体发展的助推剂

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收稿日期 2008-12-10 修回日期 网络版发布日期 2009-2-6 接受日期

**摘要** 片剂具有工艺简单、服用方便、剂量准确以及稳定性好等优点, 因而一直是临床最常用的剂型。与传统的湿法制粒工艺相比, 直接压片工艺是一种简单、经济的新型片剂制造方法, 正日益引起人们的关注。该工艺在体现出简单经济的同时有自身的技术特征需要重点理解和掌握, 如粉末的流动性、可压性、稀释潜力、含量均一及润滑敏感性等。目前片剂生产正向直接压片和高速生产转变, 要求辅料工业不断推出新型辅料。预混复合型辅料由于能满足现代制药工业的需求, 将是今后辅料工业发展的重点方向。随着直接压片工艺技术的不断推广和应用, 包括药物研发、辅料供应以及设备创新等在内的制药工业将会得到整体水平上的提升。

**关键词** [直接压片](#); [流动性](#); [可压性](#); [复合辅料](#)

分类号 [R944.4](#)

## Direct compression technique: a promoter of pharmaceutical industrial development

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### Abstract

Tablets are the most common oral dosage forms in clinics because of ease of manufacturing, convenience for the patient, accurate dose administration, and better stability than liquids and parenteral dosage forms. Direct compression is considered the simplest and the most cost-effective process for manufacturing pharmaceutical tablets. Due to the simplicity and cost-effectiveness the direct compression has positioned as an attractive alternative to traditional granulation technologies. Although simple in terms of unit processes involved, the direct-compression process is highly influenced by powder characteristics, such as flowability, compressibility, dilution potential, uniformity, and lubricity. The shift in tableting toward direct-compression and high-speed manufacturing has forced the excipient industry to search for new excipients in terms of flow and compression properties. Co-processed directly compressible excipients are very suited to modern tablet manufacturing processes. With direct compression having been introduced into tableting process increasingly, pharmaceutical industry would make great advancement, especially in reformulating an approved product, developing excipients, and innovation in the equipment.

**Key words** [direct compression](#) [flowability](#) [compressibility](#) [co-processed excipients](#)

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