英语翻译技巧(19)

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Whilst attempts are often made to baffle heads to give equal pressures and speeds at all points, this is rarely successful①. Die design problems are more complex than this, as different swells are normally obtained at different parts of the die and vary also with the overall die aperture. It is normal practice for the die to be the hottest part of the machine, the temperature being progressively increased to this point from the feed②.

Much can be done in compound design to improve the extrudability of a compound. In general terms, as discussed in Section 9. 3, the more plastic the compound, and the less its elasticity, the better is the quality of finish of the extrudate. The lower the viscosity of the compound, the greater is the throughput to be expected in unit time.

Sheets of compound can be obtained from extruders as welll as from calenders, one technique being to extrude a tube, cut it along its length, and open this up to form a flat sheet. Any slight eccentricity in the tube can, however, result in sheets with humps and hollows③. Whilst this system has been and is still used, a type of machine known as a roller die or roller head die has been developed (B. F. Goodrich Co., 1933; Farrel Corpn, 1965; Thomson and McAlpine, 1969). In this case, the head is used to distribute the compound from the berrel to a pair of calender rolls. The roller die possesses the better features of both a calender and an extruder, namely, the high throughput and freedom from air entrapment of the extruder, coupled with the precision of gauge control and the speed of thickness changes associated with a calender④. The range of thickness to be expected from such a machine is the same as that to be expected from a calender or extruder.

The two most important items in the design of a roller die are to ensure that it works at the minimum pressures, which must be kept constant as the compound leaves the head, and that the section presented to the calender is as near as possible to the ultimate shape required.

The methods of handling and vulcanising extrusions are described in Sections 9. 1. 1, 9. 2. 3 and 9. 2. 4.

生 词

baffle	缓冲,阻遏
swell	膨胀,膨胀率
aperture	孔径,孔洞
extrudability	挤出性能
eccentricity	偏心,偏心率
hump	凸起
hollow	坑凹
roller die	辊筒口型
entrapment	窝存,夹带

译 文

虽然常常有人试图缓冲机头压力,以便

使机头内任何一点的压力和速度都相等，但是几乎没有人获得成功①。口型设计中的问题比这复杂得多，因为口型不同部位胶料的膨胀率通常是不同的，而且它们还随整个口型孔不同而异。因为温度从进料口至口型逐步升高，所以口型通常是机器上最热的部位②。

在配方设计中有许多途径可改进胶料的挤出性能。一般说来，如9.3节所述，胶料塑性愈高，弹性愈低，挤出制品的最终质量也就愈好。胶料粘度愈低，单位时间的产量就愈高。

用挤出机和压延机都可以生产胶片，方法之一是挤出一根胶管，沿纵向割开胶管，然后摊开形成平胶片。但是胶管只要有轻微的偏心率，就会使胶片凸凹不平③。虽然这种设备一直而且仍在使用中，但已研制出一种辊筒口型或辊筒机头口型的挤出机（B. F. Goodrich 公司，1933；Farrel 公司，1965；Thomson 和 Mc Alpine，1969）。在这种挤出机上，机头的作用是把机筒里的胶料分配到一对压延辊筒上。辊筒口型挤出机兼有压延机和挤出机这两者的优点，即挤出机高产量、没有夹带的空气和压延机尺寸控制精确、改变厚度迅速的优点④。这种机器加工胶片厚度范围和挤出机或压延机相同。

辊筒口型挤出机设计中最重要的两条是：

①保证机头在最低压力下作业，当胶料离开机头时，该压力必须保持不变；②保证向压延辊筒提供的挤出产品的断面形状尽可能接近所要求的产品最终形状。

挤出制品的加工和硫化方法见9.1.1，9.2.3和9.2.4部分。

注：①本句中从句为无人称的被动语态句型，翻译时可加上“有人”。

②“The temperature being…”为独立分词结构，作句中原因状语。

③“result in sheets with humps and hollows”直译为“产生具有凸起和凹坑的胶片”，转译为“使胶片凸凹不平”更为通顺。

④此句中“speed”的意思不是速度，而是迅速。

英译汉常见错误实例

It is also reported that the new prevulcanization in hibitors give no undesirable side effects such as porosity or staining, and that they are effective over a wide range of primary accelerators (mainly sulphenamides), activators and compounding ingredients.

误：据报告，这些新的防焦剂具有不希望有的副作用，如起泡性和污染性，而且对主要促进剂（主要是次磺酰胺）、活化剂和其它配合剂超过一定范围后才有效。

正：又据报道，这些新的防焦剂没有诸如起泡和污染之类的不良副作用，而且对许多以次磺酰胺为主的主要促进剂、活化剂和其它配合剂都有效。

注：①“give no undesirable…”≠“give undesirable…”

②“over a wide range of…”不是“超过一定范围”，而是“在广泛范围内”、“许多”的意思。

国内消息

活性硫酸钡在轮胎钢丝胶中的应用

目前在轮胎胎圈中用的钢丝大都要进行酸处理，以除去表面油污，提高与胶料的粘合力，所以钢丝胶中有必要使用一定量的硫酸钡，以增强其耐酸性。以前使用沉淀硫酸钡，胶料与钢丝粘合力较低，钢丝圈表面喷霜严重，因此，用活性酸硫钡进行试验。

试验用基本配方：NR　100；硬脂酸　4；松焦油　1.5；松香　4；防老剂A　1；氧化锌　10；三氧化二铁　5；陶土　50；N330　20；