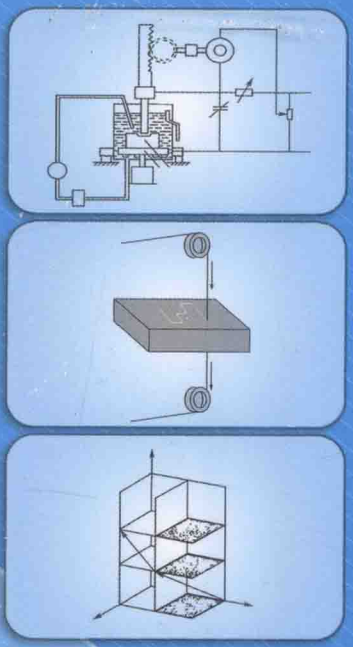
高职高专“十二五”规划教材

模具英语



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航空工业出版社

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English for Mold & Die

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北　京

内 容 提 要

本教材共七个单元，对模具专业领域的主要内容进行了立体化的介绍，内容分别为模具介绍、模具企业简介、开模客户服务流程、模具成型类型及产品、模具故障排除、模具的加工方法以及相应的设备、模具报价与合同等。

本教材是高职高专模具相关专业的英语教材，也可作为商务英语、应用英语专业学生的行业英语选修课教材。

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前　言

20 世纪 90 年代以来，我国模具业高速发展，行业规模日益壮大，技术水平不断提升。我国的模具外贸业务也在不断扩大，模具设计和模具制造等岗位对从业人员英语水平的要求越来越高。为帮助学生了解模具的相关背景知识和专业术语表达，提高学生阅读专业英语资料的能力，我们编写了本教材。

本教材共七单元，对模具专业领域的主要内容进行了立体化的介绍，内容包括模具介绍、模具企业简介、开模客户服务流程、模具成型类型及产品、模具故障排除、模具的加工方法以及相应的设备、模具报价与合同等。

每个单元基本框架及其特点如下：

（1）Warming-up：导入部分，利用图片、视频资料，引起学生对单元学习内容的兴趣；

（2）Situational Dialogue：情景对话均摘录一线模具外贸业务员与外商的真实对话，实用性高；

（3）Focus Reading（Text A, Text B, Text C）：焦点阅读共三篇，每篇之后都有相应的新单词释义和辅助练习帮助学生理解文章，熟记模具相关术语；

（4）Fast Reading：快速阅读，加大信息量，加深学生对专业词汇的印象，对所学内容进行深化；

（5）Field Training：实战训练，模拟真实场景，训练与外国模具同行有效沟通的能力；

（6）Supplementary Reading：补充阅读，适合对模具英语学习有浓厚兴趣的高职学生；

（7）Related Knowledge：相关背景知识，让学生了解模具相关知识。考虑到高职学生的英语能力，本部分用中文编写，便于学生读懂、学会。

本教材插图资料丰富，教材的设计注重重要知识点的重现和复习，并根据德国著名职教改革专家托马斯• 胡格教授的职业教育理念，特别设有 Team work，Presentation，Field training 等训练项目，让学生在做中学，从而更加牢固地掌握所学的知识。

本教材是高职高专模具相关专业的英语教材，也可作为高等院校商务英语、应用英语专业学生的行业英语选修课教材。

本教材由王维平总体策划；楼四骏担任主编，设置单元的基本框架和难度要求；蒋轶阳、杨晓青、许唱、张倩和邓琳担任副主编；李宏磊、翁晓梅、阳振林、王建成参与编写；并由董彦担任教材的主审工作。在编写过程中还得到宁波埃利特模具制造有限公司和宁波通成汽配有限公司的大力支持，在此表示感谢。

由于编写时间仓促，加之编者水平有限，书中疏漏与不当之处在所难免，敬请读者批评指正。

编　者

2012 年 12 月

CONTENTS

Unit 1 Introduction

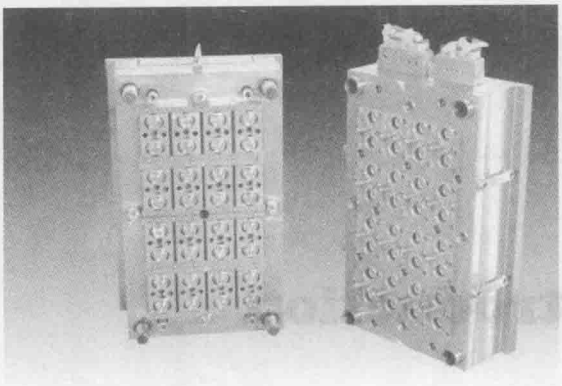
Warming-up

Task 1 Team work

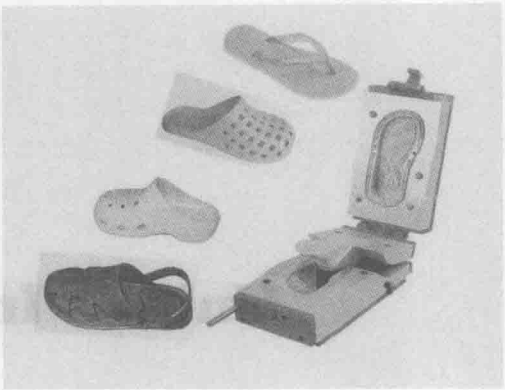
Do you have any idea of mold and mold products? Do you know what are they? What does mold have to do with our day-to-day life? Work in teams and get some information from your classmates.

Task 2 Pick out mold and mold products

Quite confused about mold? Don't worry, exam the following 10 pictures, you may get some ideas of mold. Warning! Not all of the pictures are mold or mold products, try to figure out the right ones.



Pic.1



Pic.2

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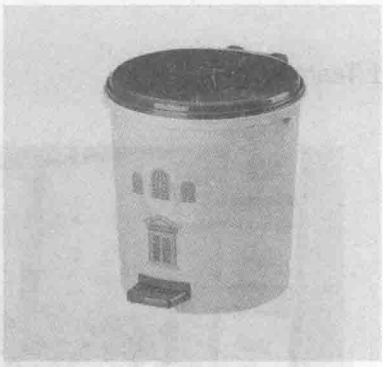

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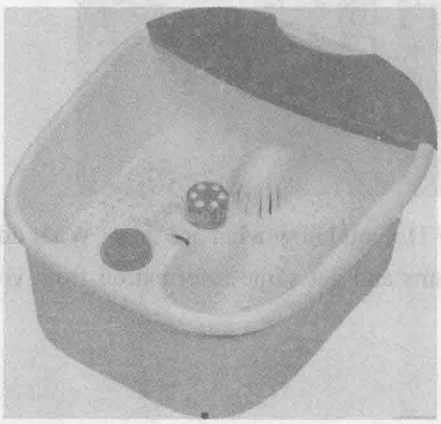

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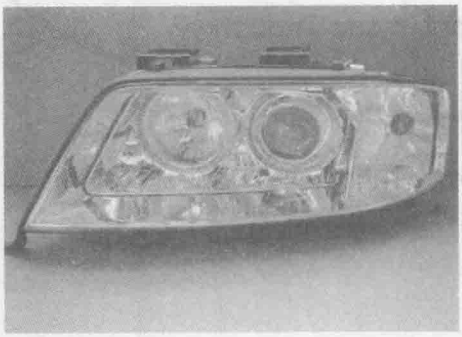

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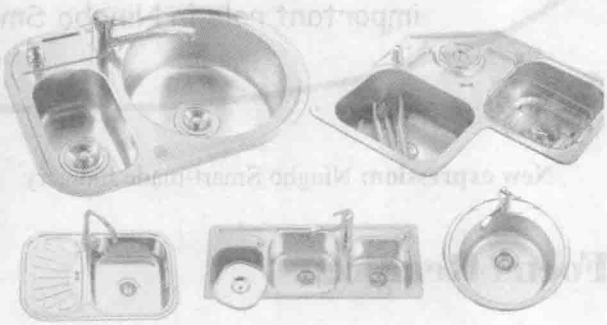


Pic.10

Situational Dialogue

A: Good morning, Lisa. Where are you going?

B: I am going to the library to borrow some books about molds, as my investigation thesis focuses on molds industry in Ningbo.

A: As far as I know, there's a wide range of molds and on which one you are going to investigate?

B: I've no idea about that. Please tell me more.

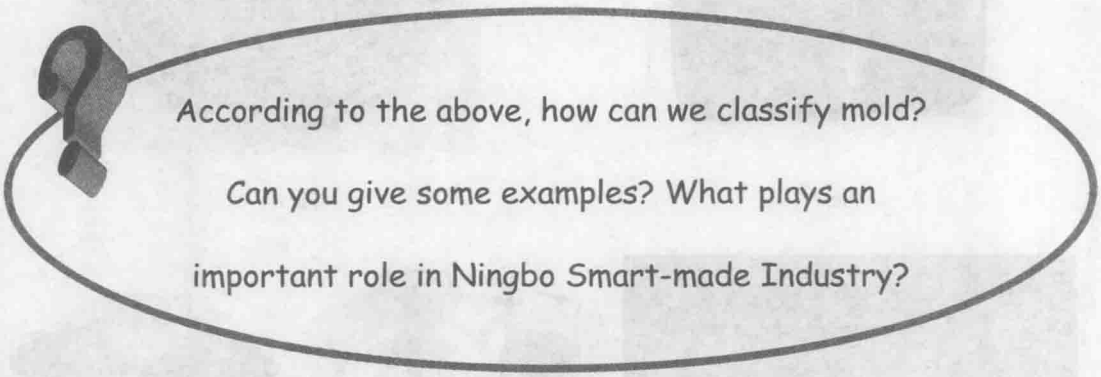
A: OK, usually we classify the mold in two groups: metal products mold and nonmetal products mold. For metal products mold, we have metal processing mold including cold-press mold, forging mold and pressing mold, metal casting mold and powder metallurgy mold. While for nonmetal products mold, we have plastic mold, ceramic mold, rubber mold, glass mold, food

mold, ornament mold and so on.

B: Whao… I never realized the mold family gets such amount of members. What type do you suggest me to investigate on, especially in the setting of Ningbo city.

A: If I were you, I will choose plastic mold, or to narrow down the topic, injection plastic mold, as it plays an important role in Ningbo Smart-made Industry.

B: Sounds sensible, thank you for giving me such precious suggestion!



New expression: Ningbo Smart-made Industry “宁波智造”

Focus Reading

Text A

Task 1 Pre-reading

Find the definition of Injection Molding and share it with your classmates.

Do it by yourself, not waiting for the teacher’s help.

_____

_____

_____

Injection Molding Affects Our Day-to-day Lives

Many products that we use in our everyday lives are made by the process of plastic injection molding. This process is used when large quantities of plastics items are made, as a single mold will produce the same item many times over. It is the most important part of the plastic

manufacturing process. A large range of different products are produced using this process.

The process itself used to be undertaken manually by people in the factory but today the process is fully automated and controlled by a central processing unit. The process involves powdered thermoplastic plastic being fed into the machine and the plastic is then melted down. The plastic is injected into the mold cavity, which is warmed to prevent the plastic from hardening before the mold is full, and then pressure is exerted to keep the plastic in the mold while it hardens. The end result is that the plastic takes on the shape of the mold cavity, which is the finished product, whatever that may be.

Food Industry

Fig1-1 Containers

Our food industry of today would struggle without this process as many containers and other plastic items that are used are made by this process. Bottles, ice cream containers and margarine containers are all made using this process, as are many other containers that hold food. Smaller items like bottle tops are also made using this process, as well as things like milk crates. Plastic bottles and containers have replaced glass with many food items. Plastic is cheap to produce and light to transport.

Around the home

Fig1-2 Toy car, laundry basket and disposable razor

Many of the plastic items you use around your home are made using the process of injection

molding. The plastic plug in your sink and bathtub is made using this process, as is your plastic rubbish bin, laundry basket, disposable razors, bottles, storage containers, as well as children's toys. There are many handy items around your house that are made using injection molding, items that now only exist because of this process.

Technology

Fig1-3 Computer, camera and photocopier

Technology also benefits from this process. Things like computers, printers, photocopiers and cameras have plastic parts in them that are produced by injection molding. Plastic items vary from the very large to the very small, including things like parts of industrial copiers and the keys on your computer keyboard.

Recreation and Travel

Fig1-4 Water craft, kit car and plastic tray

We use many different things made from plastic in our everyday lives, including things used for sports, recreation and entertainment. Today's water sports are made possible because of injection molding as sometimes hulls of boats and parts of other water craft are made using this process. Plastic sports equipment is made this way, which is often used in junior competitions, as well as training aids like plastic cones. Even when we travel we come across things made by this process. The meals on an air plane come served on a plastic tray, there are plastic parts in the

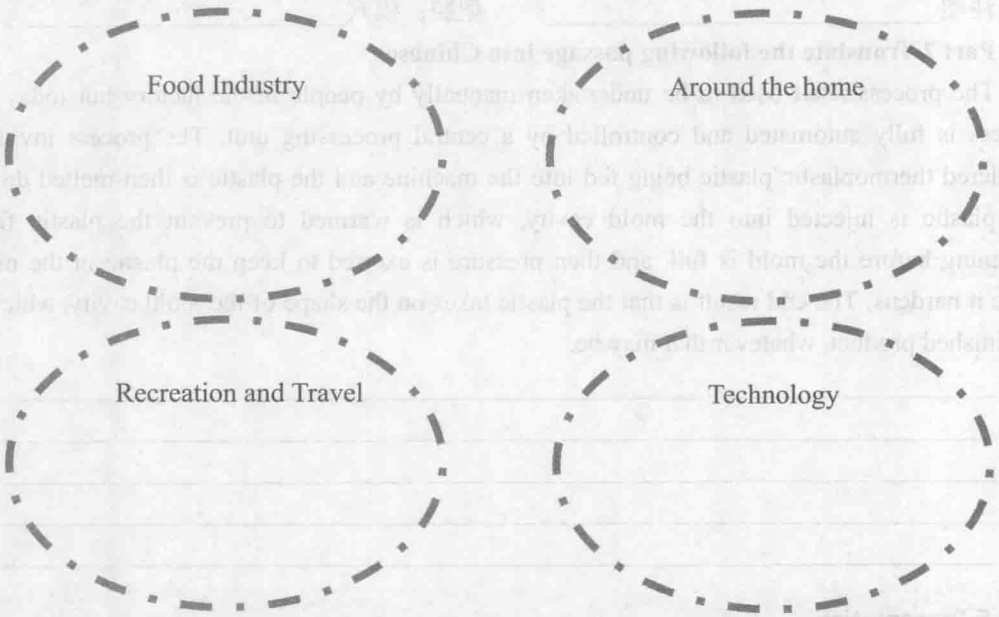
interiors of trains and even the body shells of kit cars are made from plastic which has been molded using injection molding.

Glossary

injection molding 注塑
automate *v.* 自动化；使自动化
thermoplastic *adj.* 热塑性的
cavity *n.* 型腔，模穴
exert *v.* 运用；发挥
crate *n.* 板条箱
plug *n.* 塞子；插头
razor *n.* 剃刀
photocopier *n.* 复印机
hull *n.* 船体；外壳
craft *n.* 小船；手艺
cone *n.* 圆锥体
tray *n.* 托盘
interior *n.&adj.* 内部；内部的
kit car 组装车

Task 2 Classification

Find the appropriate products in the text to match the relative fields in our lives.



Task 3 Reading Comprehension

Answer the following questions according to the text.

1. Can you list some products we use in our daily lives that are made by the process of plastic injection molding? You may not just list the products mentioned in the text.

_____

_____

2. Can we call a plastic crate a mold? Why?

3. Is a desktop computer a mold product? Why?

4. Have you got some ideas of mold and the products now? Are they closely related to the life?

Task 4 Translation

Part 1 Translate the following terms into English.

热塑性塑料_____ 船舶；水运工具_____

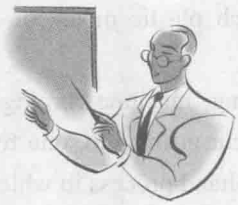
注塑_____ 型腔；模穴_____

Part 2 Translate the following passage into Chinese.

The process itself used to be undertaken manually by people in the factory but today the process is fully automated and controlled by a central processing unit. The process involves powdered thermoplastic plastic being fed into the machine and the plastic is then melted down. The plastic is injected into the mold cavity, which is warmed to prevent the plastic from hardening before the mold is full, and then pressure is exerted to keep the plastic in the mold while it hardens. The end result is that the plastic takes on the shape of the mold cavity, which is the finished product, whatever that may be.

Task 5 Presentation

Use the pictures from Warming-up(Task 2) and Text A as your references to make a presentation in your group about the influence of injection molding on our day-to-day lives.



Text B

Task 1 Pre-reading

Search the following terms on the Internet and write down your own understanding about them.

1. blanking die

2. bending die

3. drawing die

4. forming die

What Is Mold or Die?

Mold is a shaped hollow container into which a liquid material is poured so that it can set in a particular shape when it hardens.

Die is a device used for cutting out, forming, or stamping material, especially:

(1) An engraved metal piece used for impressing a design onto a softer metal, as in coining money.

(2) A part on a machine that punches shaped holes in, cuts, or forms sheet metal, cardboard, or other stock.

(3) A metal block containing small conical holes through which plastic metal, or other ductile material is extruded or drawn.

Die is used for drawing wire, and for blanking, bending, cutting, machine forging, and embossing. Die used for striking, or stamping, coins and medals are cut in intaglio, one for the front, another for the back, of the coin. Diemaking, formerly entirely a hand process in which the graver (a cutting tool), riffler (a file), and chisel were employed, has been accelerated in mordern times by the use of diemaking machines supplemented by hand finishing. Sheet metal or other material is blanked out, shaped , or embossed between the dies by power-operated levers or drop hammers, or by die-casting. The die used for drawing wires or extruding rods is made of hard metal with a hole or a series of progressively smaller holes through which the metal is forced. For making screws or threading pipe, a hollow hard metal die with internal threading is used.

Glossary

hollow *adj.* 凹的，中空的
container *n.* 容器，箱
pour *v.* 灌注，倾倒
die *n.* 冲模，钢型，硬模
stamp *v.* 牙印，压花，冲压
engrave *v.* 雕刻
coin *v.* 冲制，模压，压花纹
punch *v.* 冲孔，打孔
sheet metal 金属板（片），钣金件
cardboard *n.* 纸板
stock *n.* 原料，材料
conical *adj.* 圆锥的，圆锥形的
ductile *adj.* 可延展的，可锻的
extrude *v.* 挤出，挤压成
draw *v.* 拉深，拉拔
mold *n.* 模具
drawing wire 金属拉丝
blank *v.* 冲裁，下料，冲切
bend *v.* 弯曲
forge *v.* 锻造，锤炼
emboss *v.* 压纹，轧花，浮雕
intaglio *v.* 凹雕，阴雕
graver *n.* 雕刻师
riffler *n.* 曲锉（用来雕模）

file *n.* 锉刀
chisel *n.* 錾子
accelerate *v.* 加速，促进
supplement *v.&n.* 补充，补足
power-operated 机（电／自）动的，动力驱动的
lever *n.* 杆，控制杆，杠杆
drop hammer 落锤，吊锤，打桩锤
die-casting 压（模）铸法，压模铸件
rod *n.* 杆，棒
progressive *adv.* 渐进地
screw *n.* 螺钉，螺旋，螺杆，螺孔
thread *n.* 螺线 *v.* 攻螺纹，套螺纹
internal *adj.* 内在的，内部的
progressive die 级进模
scrap strip 废料板

Task 2 What's the difference between mold and die? Examine the following statements and decide whether they are True or False.

☐ 1. A mold is a specialized tool used in manufacturing industries to cut or shape material using a press.

☐ 2. A mold shapes things. A die cuts things to a shape.

☐ 3. Products made with dies range from simple screws to complex pieces used in advanced technology

☐ 4. The process of moldmaking is undertaken manaully by people while the process of diemaking is automated and control by a machine.

Task 3 Translation

Translate the following sentences into Chinese.

1. Mold is a shaped hollow container into which a liquid material is poured so that it can set in a particular shape when it hardens.

_____

_____

_____

2. Die is a device used for cutting out, forming, or stamping material.

_____

_____