单选题 1分

Forging is a process of forming the workpiece by compressive forces applied through various dies and tools, which usually produces discrete parts.

A True

B False

提交

单选题 1分

Compared to casting and machining, forging can produce parts with ( ).

A better surface finish

B better dimensional tolerances

C good strength and toughness

D low cost

提交

单选题 1分

Compared to cold forging, the advantage of hot forging is ( ).

A better surface finish

B better dimensional tolerances

C good strength and toughness

D smaller forces

提交

单选题　1分

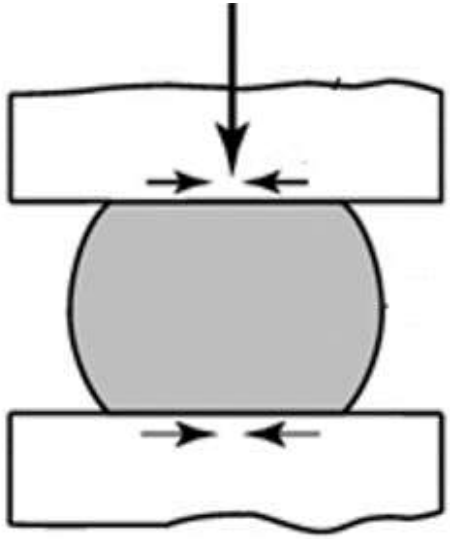
The figure shows the phenomenon of（　　）in upsetting, which is caused by frictional forces at the die-workpiece interfaces and also by thermal effects in hot forging.

A bending

B barreling

C expanding in diameter

D reduction in height



提交

单选题 1分

In upsetting, barreling caused by frictional forces at the die-workpiece interface can be minimized if an effective lubricant is used.

A True

B False

提交

单选题 1分

Barreling also develop in upsetting hot workpiece between cold dies, and it can be minimized by using heated dies.

A True

B False

提交

雨课堂 Rain Classroom

单选题 1分

In cogging, also called drawing out, the length of a long bar is increased by tensile forces.

A True

B False

提交

雨课堂 Rain Classroom

单选题 1分

In cogging, because the contact area between die and workpiece is small, a long section of a bar can be reduced in thickness without requiring large forces or heavy machinery.

A True

B False

提交

雨课堂 Rain Classroom

单选题 1分

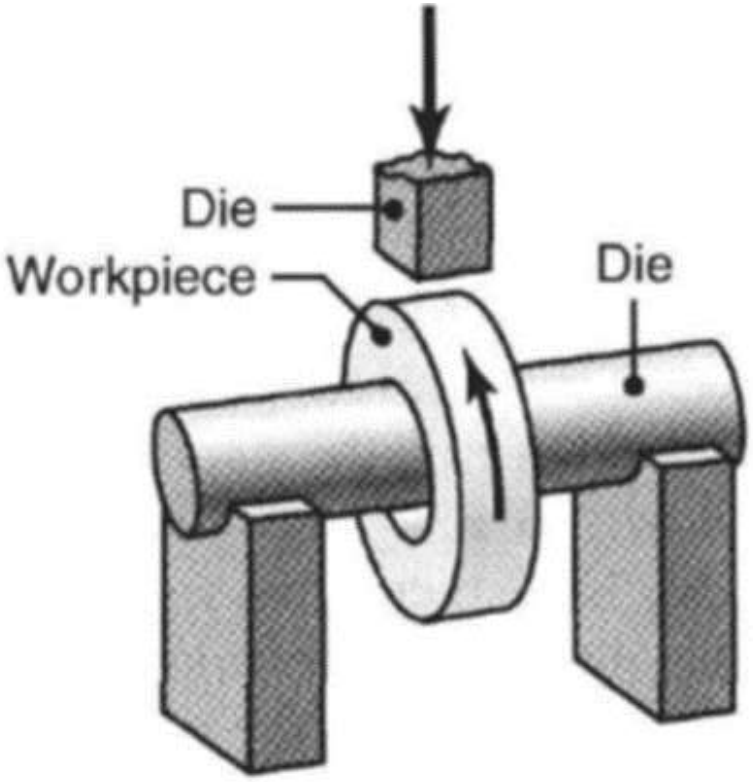
This figure shows the process to reduce the thickness of a ring by（ ）.

A ring rolling

B impression-die forging

C open-die forging

D precision forging



提交

单选题　1分

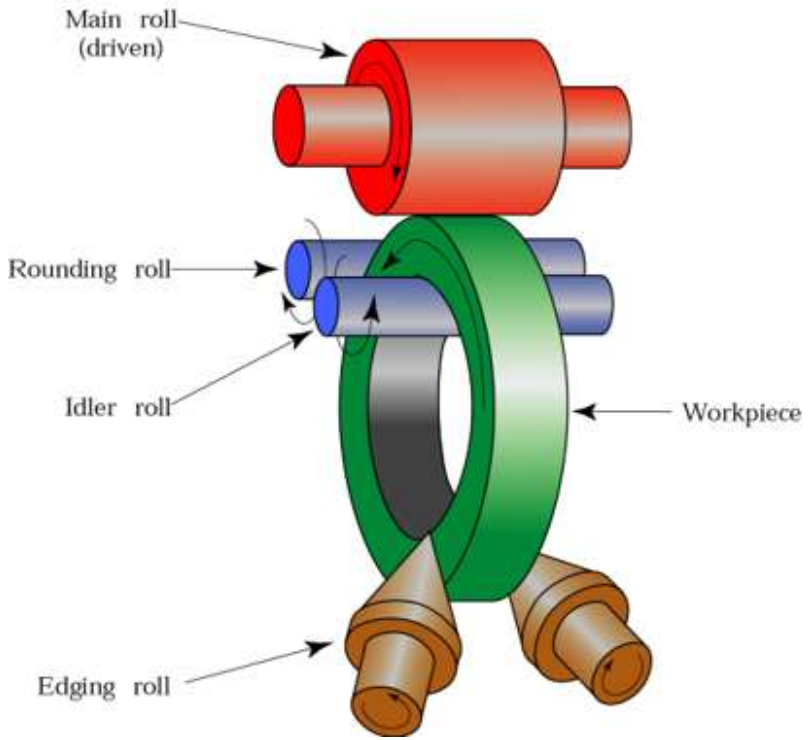
This figure shows the process to reduce the thickness of a ring by（　）.

A　ring rolling

B　cogging

C　open-die forging

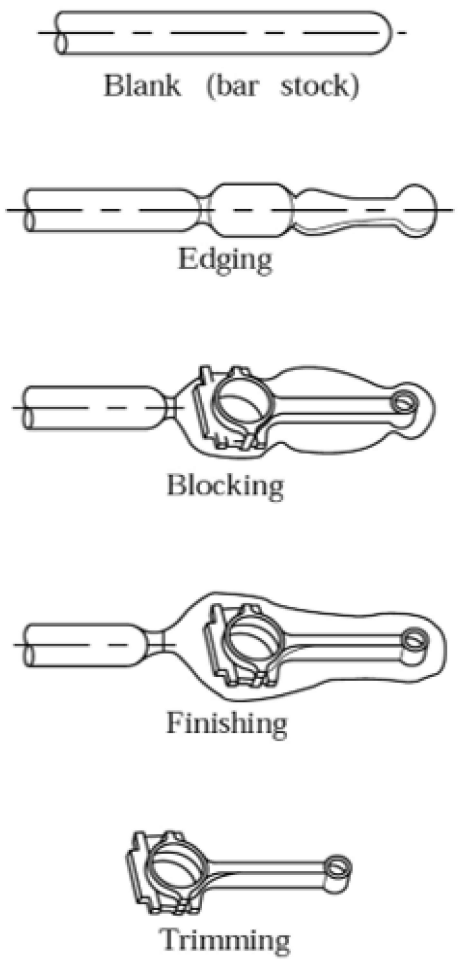
D　upsetting



提交

单选题　1分

This figure shows the stages in the (　　) process of a connecting rod.



A　flashless forging

B　impression-die forging

C　open-die forging

D　precision forging

提交

单选题　1分

In impression-die forging, the flash is totally useless because it is excess metal flowing out of die cavity and subsequently trimmed off.

A　True

B　False

提交

单选题 1分

In impression-die forging, preforming operations typically are used to distribute the material into various regions of the blank using simple shaped dies of various contours.

A True

B False

提交

雨课堂 Rain Classroom

单选题 1分

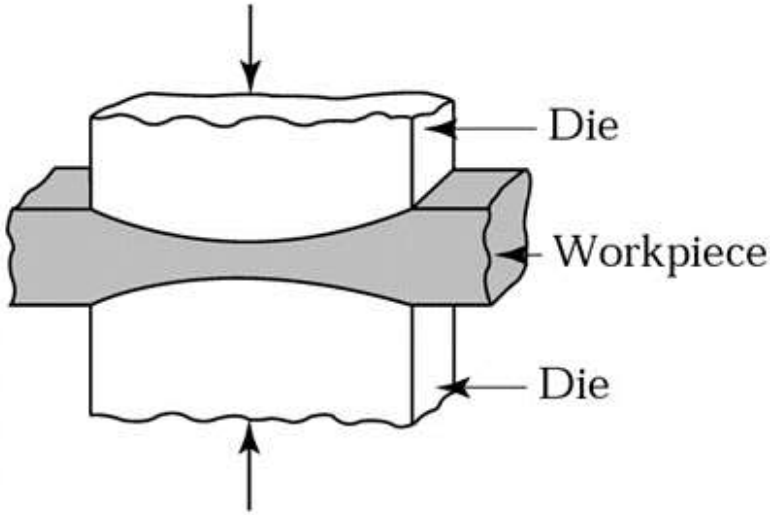
This figure shows the preforming operation of（ ）
to distribute the material away from an area.

A blocking

B edging

C fullering

D trimming



提交

单选题 1分

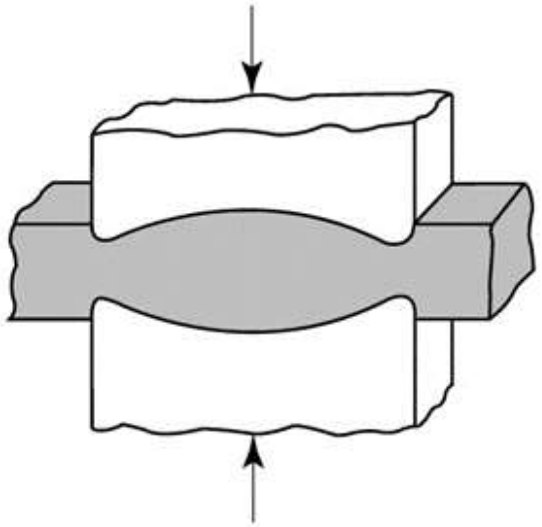
This figure shows the preforming operation of（ ）
to gather the material into a localized area.

A blocking

B edging

C fullering

D trimming



提交

单选题 1分

In the ( ) operation, the preformed part is formed into the rough shape of the final part.

A blocking

B edging

C fullering

D trimming

提交

单选题 1分

In impression-die forging, flash has a significant role in the flow of material for it subjects the material in the die cavity to high pressures, thereby encouraging the filling of the die cavity.

A True

B False

提交

雨课堂 Rain Classroom

单选题 1分

In impression die forging, the flash is removed later by ( ) operation.

A blocking

B edging

C fullering

D trimming

提交

多选题 1分

Which of the following descriptions are correct about die inserts?

A They are usually made of stronger and harder materials.

B They can be replaced easily in the case of wear or failure in a particular section of the die

C They can reduce the cost of making dies, particularly for complex shapes.

D They make the manufacturing of dies more difficult because there are more pieces.

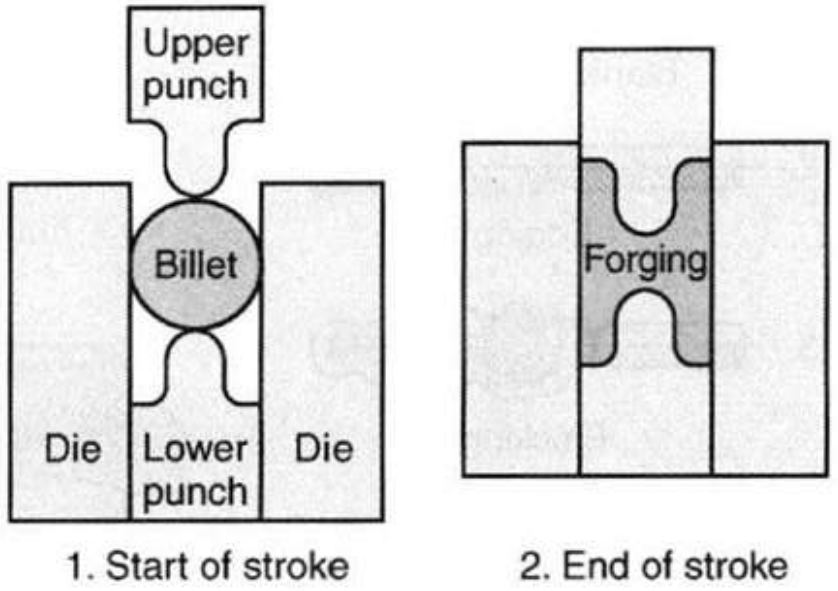
提交

单选题　1分

In closed-die forging, or flashless forging, as shown in this figure, the accurate control of blank, proper die design and high forging pressure are essential to produce a forging with the desired dimensional accuracy.

A　True

B　False



提交

单选题 1分

The term “开式模锻” refers to ( ).

A flashless forging

B impression-die forging

C open-die forging

D precision forging

提交

多选题 1分

Which of the following descriptions are correct about precision forging?

A It is a net-shape or near-net-shape forming process.

B The part formed is at or close to the final dimensions of the desired component.

C It is usually done above the recrystallization temperature of the metals.

D It can reduce the number of additional finishing operations.

提交

单选题 1分

Which one of the following does NOT describe the characteristic of precision forging?

A Parts being produced require no or little further machining.

B High capacity equipment, accurate control of billet volume are necessary.

C Essentially a closed-die forging or flashless forging.

D Lubrication can not be used.

提交

单选题 1分

Lubrication cannot be applied in coining, because they can become entrapped in the die cavities and (being incompressible) prevent the full reproduction of die surface details and surface finish.

A True

B False

提交

单选题 1分

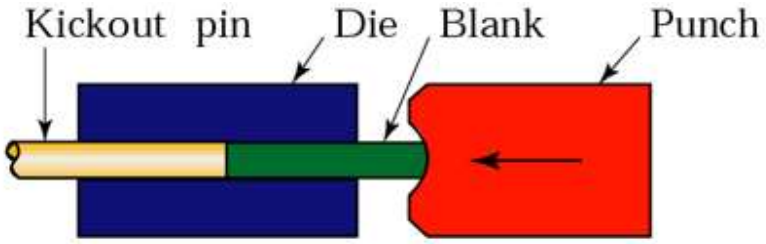
This figure shows the （ ） process of a round solid bar.

A coining

B heading

C piercing

D punching



提交

单选题　1分

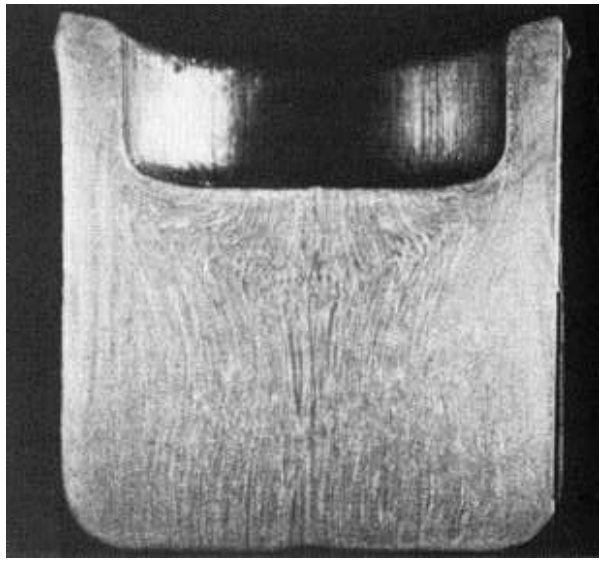
This figure shows the（　　）process of a workpiece.

A　coining

B　heading

C　piercing

D　punching



提交

单选题 1分

Forgeability is generally defined as the capability of a material to undergo deformation without cracking.

A True

B False

提交

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多选题 1分

The two most commonly used tests to quantify forgeability are:

A cogging test

B hot-twist test

C tension test

D upsetting test

提交

单选题 1分

In hot forging, the higher the forging temperature indicates greater difficulty in forging that material.

A True

B False

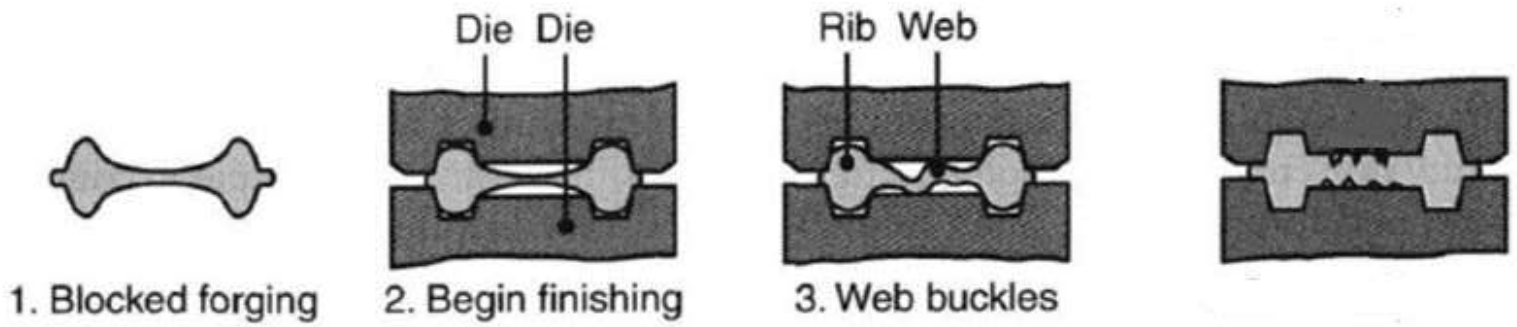
提交

单选题 1分

This figure shows the defects of （ ） formed in forging.

A cracks

B laps



提交

单选题 1分

For most forgings, the parting line is located at the smallest cross section of the part.

A True

B False

提交

单选题　1分

Which one of the die feature facilitates the removal of the forging from the die cavity?

A　die insert

B　draft angle

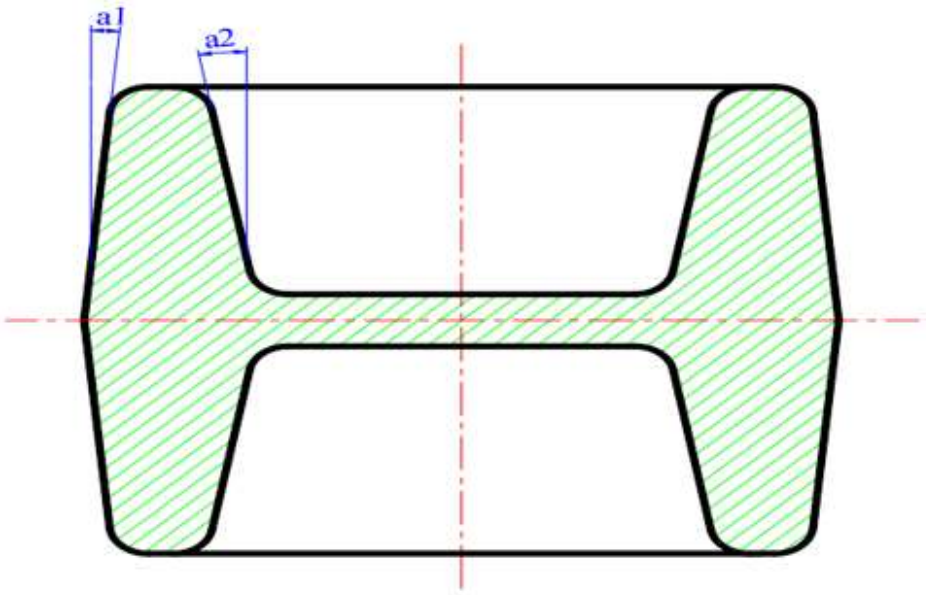
C　machining allowance

D　proper radii for corners and fillets

提交

单选题　1分

As shown in the picture of forging, which one is the external draft angle?



A　a1

B　a2

C　both of them

D　none of them

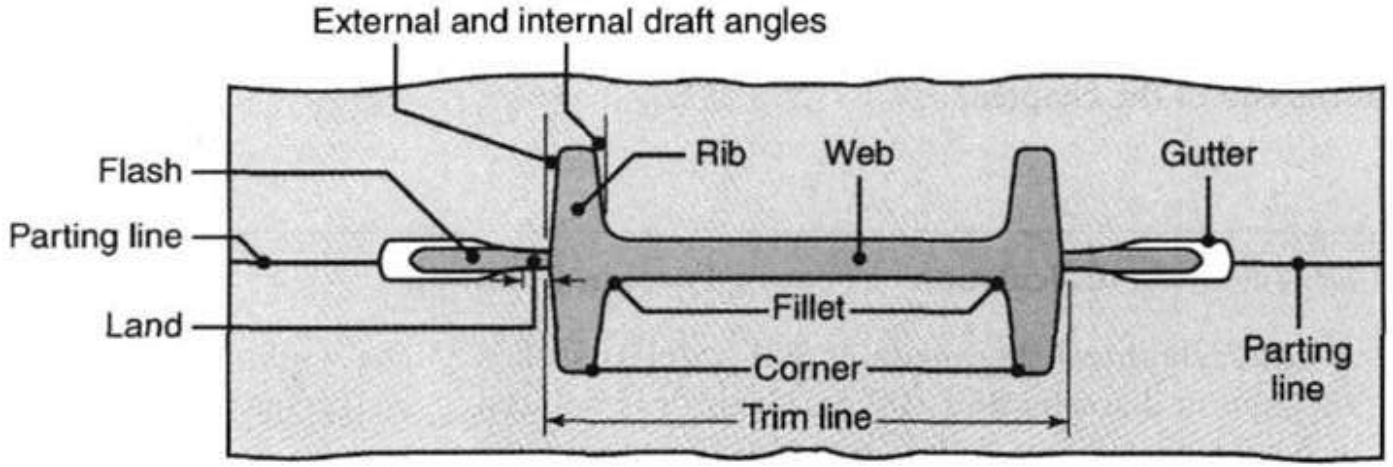
提交

单选题　1分

In impression-die forging, upon cooling, the forging shrinks both radially and longitudinally, so internal draft angles are made larger than external ones.

A　True

B　False



提交

单选题 1分

Which one of the die features is designed in order to ensure smooth flow of the metal into the die cavity and to improve die life?

A draft angle

B fillet or corner

C machining allowance

D parting line

提交

单选题 1分

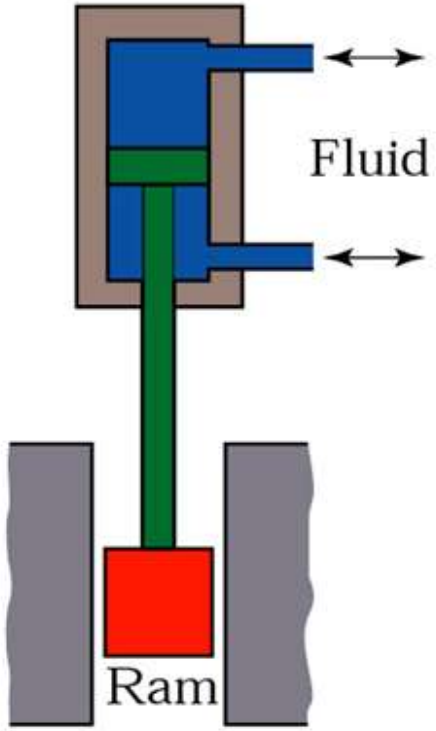
Machining allowance should be provided in forging-die design when machining the forging is necessary to obtain final desired dimensions and surface finish.

A True

B False

提交

This figure shows the principle of a ( ).



A hydraulic press

B mechanical press

C screw press

D hammer

提交

单选题 1分

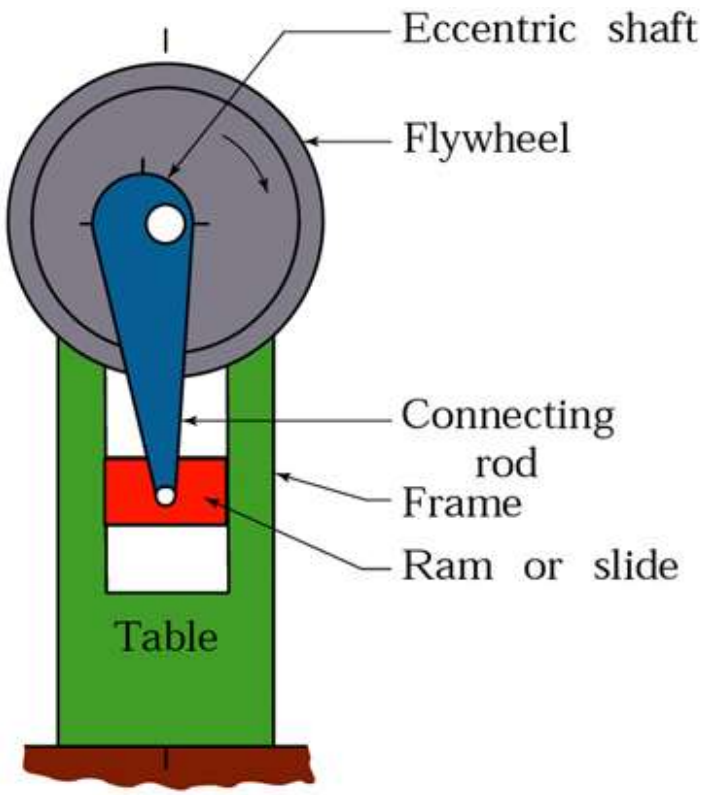
This figure shows the principle of a ( ).

A hydraulic press

B mechanical press

C screw press

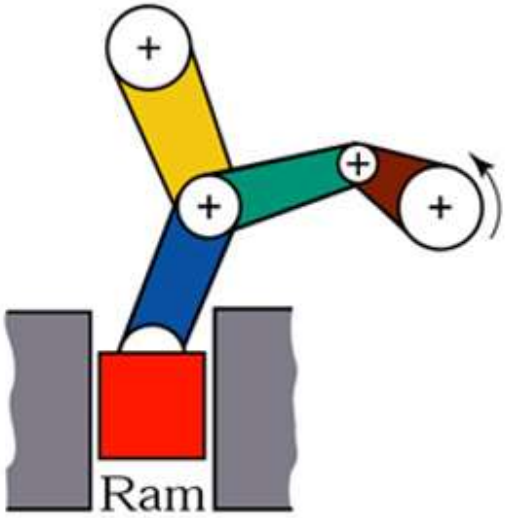
D hammer



提交

单选题　1分

This figure shows the principle of a (　　).



A　hydraulic press

B　mechanical press

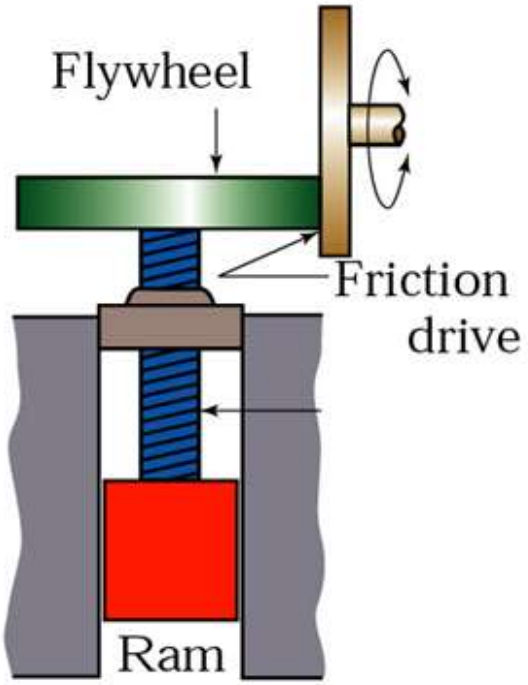
C　screw press

D　hammer

提交

单选题　1分

This figure shows the principle of a (　　).



A　hydraulic press

B　mechanical press

C　screw press

D　hammer

提交

单选题　1分

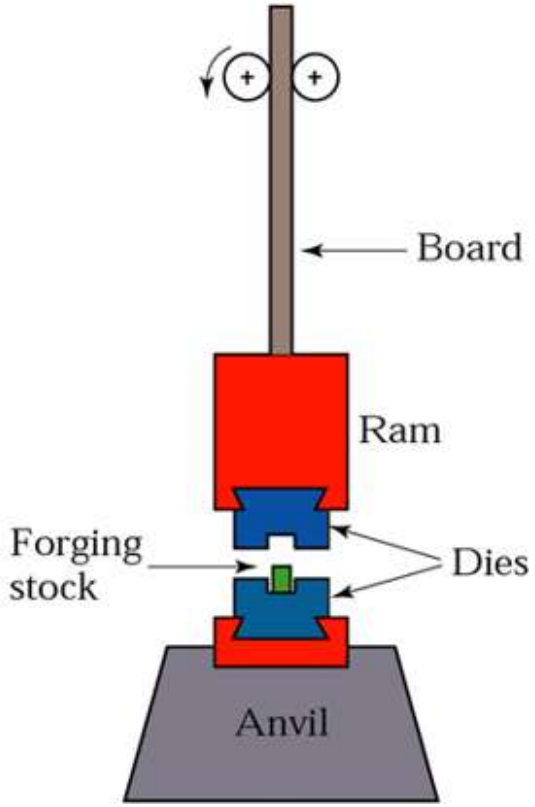
This figure shows the principle of a (　　).

A　hydraulic press

B　mechanical press

C　screw press

D　hammer



提交

单选题　1分

Which one of the following forging machines operates at the highest speed?

A　hydraulic press

B　mechanical press

C　screw press

D　hammer

提交