APT TECHNICAL DATA FILE

<1/1>

General

## **Cutting Edge**

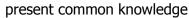
Cut and open the boundary of common knowledge.

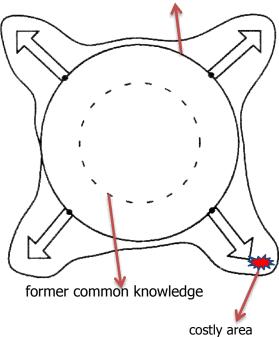
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## [1]





Please imagine one circle.

Inside of this circle is the normal technical range. This is the place of present common knowledge, like normal cutting, blanking, piercing, and normal deep drawing, etc.

Even now this place is being extended, little by little, through the efforts of engineers.

There are many competitors in this area, and product prices are forced to be cheap.

If we grip the boundary of this circle and expand it out, we could make another area.

This place is the very field where we can make gains as a researcher or developer.

But development in the new area is so costly and we can not make a large profit at the time of the development; nevertheless, we have to keep our information new and continue our development.

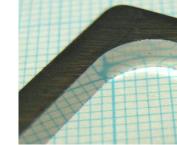
The development's investments only change into profit after the challenge, a mass-produced component, is accomplished.

Sheet metal forging and accurate deep drawing technologies are important. Particularly, fine cutting by normal press machines is very important. (not *fine blanking*)

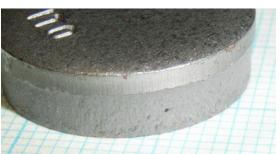
Owing to these technologies we can make excellent stamped components compared to machine-cut or ground components. We can change the method of making components from machining to metal stamping.

## [2] Samples

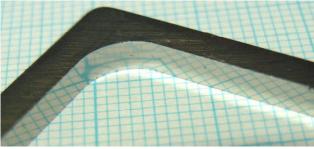
A sheared surface is dull and consists of breaks and burrs. Is it natural?



No, it is not natural at all.



conventional cutting



fine cutting like a mirrored face. This is "cutting edge" literally.