



CAE

- Forging Process :AFDEX

| About | Case Study | Testimonial | Package |

About   

Introduction

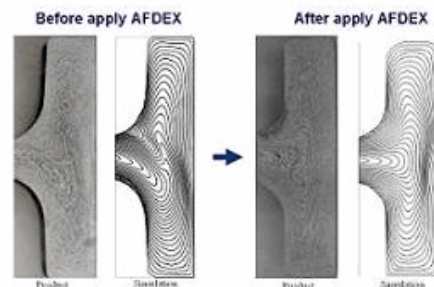
The tendency toward various-item & small-lot production is arising in the manufacturing field. Meanwhile, the number of highly skilled engineer is decreasing. In the global market, the major factor for competitive power is the reduction of lead-time and cost. Reflecting these conditions, an intelligent forging simulator that improves the process design has been developed.

Therefore, AFDEX(Adviser for Forging Design EXpert) is designed for Verification of Forging process and Development of Forging Die.

Features

Accuracy

From over 500examples, which include not only simple upsetting processes - but also complex multi-stage forging processes found from the hot, warm, cold forging industries, accuracy and capability have been verified.



Suitable for Everyone

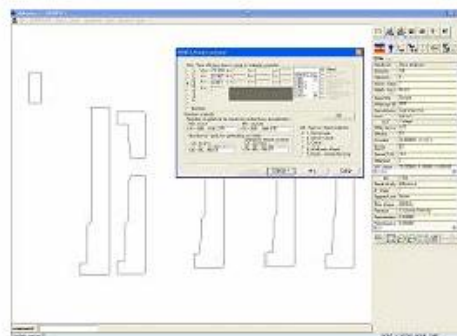
- AFDEX dose not enforce the related theory and FEM(Finite Element Method) on users?forging process design engineers. AFDEX has been developed under concept that even novices can use it with ease.

~~FEM Expert,
High Educated Engineer,
Professor~~

• Suitable For Every one

Easy to USE

he wizard method of AFDEX and various examples help you analyze the - forging process with ease. AFDEX has been never discouraged you at all.



Designed for PC Environment

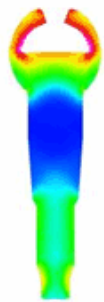
- AFDEX dose not require an expensive UNIX machine. This feature helps you apply AFDEX more conveniently. AFDEX is more stable than other systems that are downsized from UNIX to PC environment.

Various simulation Result

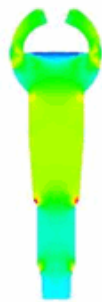
- AFDEX shows following various results : Deformed shape, Nodal velocity, Strain, Strain-rate, Stress, Metal flow line, Metal point flow, Boundary nodal force, Interfacial stress, Temperature-distribution, Damage, Wear, Volume change, Load, Power, etc.



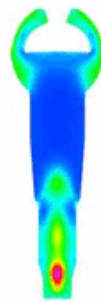
**Metal Flow
Lines**



**Effective
Strain**



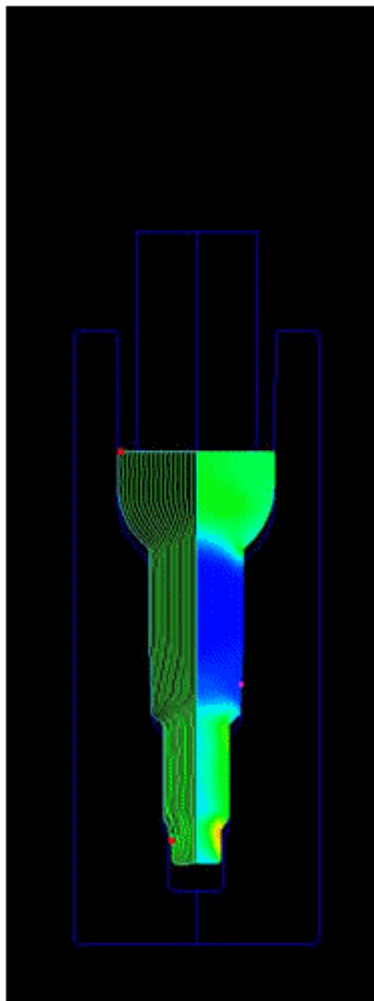
**Hydrostatic
Pressure**



Damage

Automatic Analysis of Multi-Process

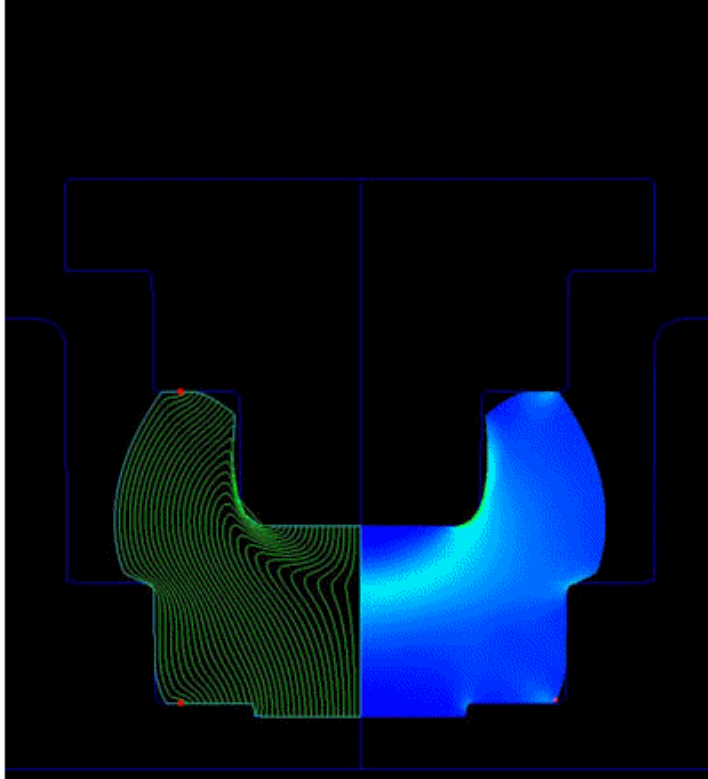
- The multi-stage forging processes can be simulated automatically without user interference.



▢ Analysis Examples

Process Design Evaluation

_ You can see whether material fills the die entirely or not. The multi-stage forging processes can be simulated automatically without user interference.



Coupled Analysis

