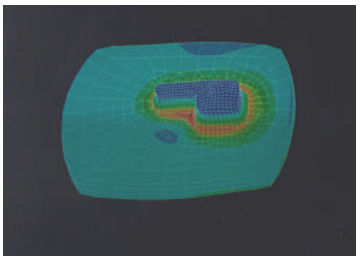
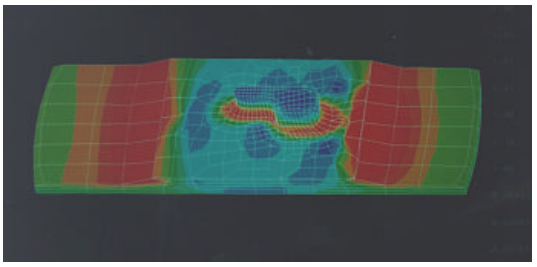
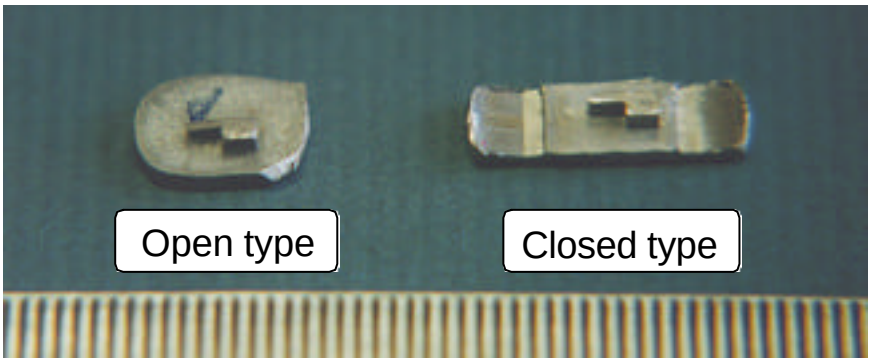
RESEARCH REPORT

● Research Title	Design and analysis for precision forging of electronics parts using progressive dies
● Research Field	CAE in Metal Forming (Ref. no: MF-01)
● Research Period	March 1995 ~ Sep. 1996
● Related Publications	K. Park, D. Y. Yang, and Y. S. Kang, "Precision forging design and analysis in electronics parts manufacturing", *Proc. Instn. Mech. Engrs. Part B: J. Engng. Manufact.* Vol. 213, pp. 11 ~ 20 (1999).
● Summary	▪ Precision forging using progressive dies ▪ Open die forging vs. Semi-closed die forging ▪ Three-dimensional finite element analysis for forging processes ▪ Three-dimensional remeshing scheme



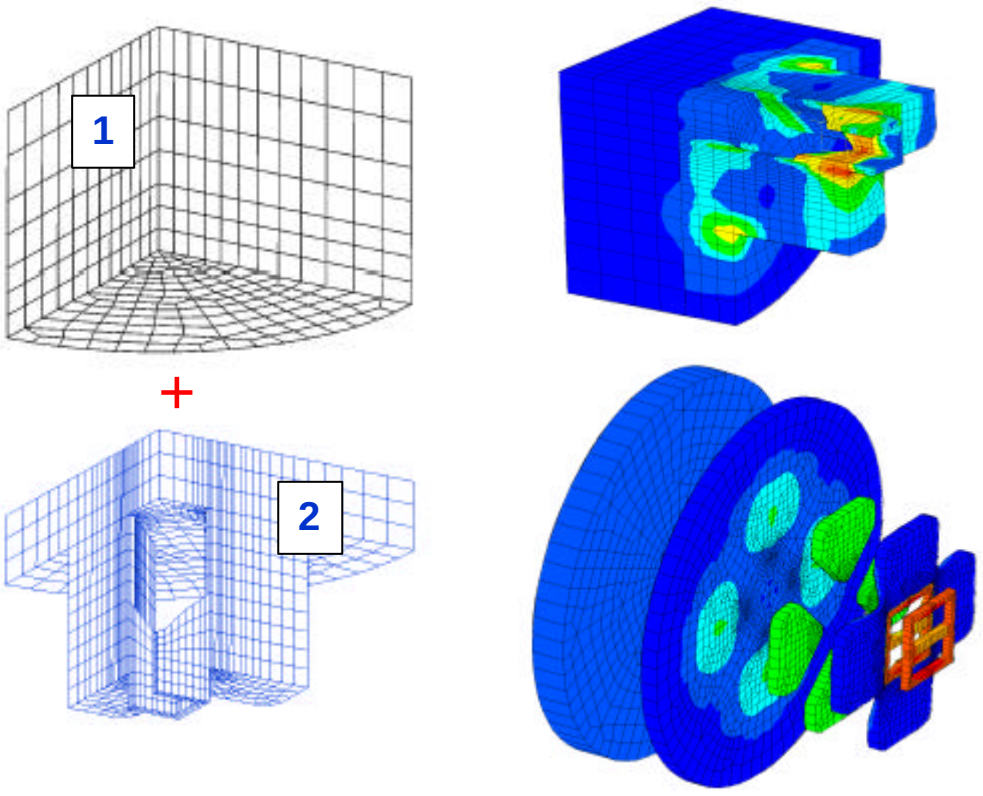




Ref. no: MF-01

RESEARCH REPORT

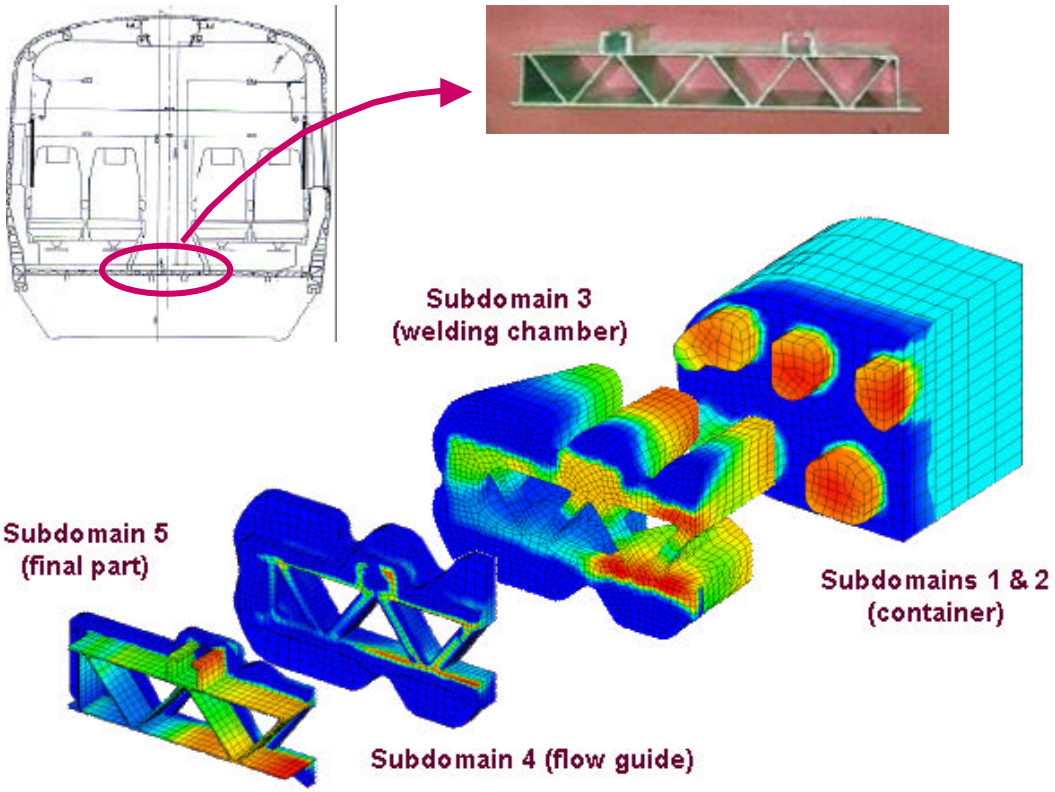
● Research Title	3D analysis for hollow section extrusion of a triply-connected section using mismatching refinement with domain decomposition
● Research Field	CAE in Metal Forming (Ref. no: MF-02)
● Research Period	Dec. 1997 ~ Sep. 1998
● Related Publications	K. Park, D. Y. Yang, and Y. S. Kang, "3D finite element analysis for hollow section extrusion of a triply-connected section using mismatching refinement with domain decomposition", *Engng. Computations,* Vol. 17, No. 3, pp. 235 ~ 254 (2000).
● Summary	▪ Hollow section extrusion of a triply-connected rectangular (日) section using a porthole die ▪ Implementation of the mismatching refinement with domain decomposition scheme



Ref. no: MF-02

RESEARCH REPORT

● Research Title	Design and analysis for hollow section extrusion for the underframe part of a railroad vehicle
● Research Field	CAE in Metal Forming (Ref. no: MF-03)
● Research Period	Sep. 1998 ~ Nov. 1999
● Related Publications	K. Park et al, "Design and analysis for hollow section extrusion for the underframe part of a railroad vehicle using mismatching refinement with domain decomposition", *Proc. Instn. Mech. Engrs. Part B: J. Engng. Manufact*. Vol. 215, No. 3, pp. 383 ~ 394 (2001)
● Summary	▪ Hollow section extrusion for the underframe part of a railroad vehicle ▪ Implementation of the mismatching refinement with domain decomposition scheme



RESEARCH REPORT

● Research Title	Finite element analysis for the lamination process of a precision motor core using progressive dies
● Research Field	CAE in Metal Forming (Ref. no: MF-04)
● Research Period	July 1999 ~ Feb. 2000
● Related Publications	K. Park and S. R. Choi, "Rigid-plastic finite element analysis for the lamination process of a precision motor core using progressive dies ", *J. of Kor. Soc. Machine Tool Engrs.,* Vol. 10, No. 5, pp. 45 ~ 52 (2001).
● Summary	▪ Finite element analysis for the embossing and the lamination process of a precision motor core ▪ Estimation of bonging strength ▪ Determination of optimal embossing stroke to increase bonding strength