용접 공정변수 예측시스템 개발

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A Study on Development of System for Prediction of Welding Process Parameters

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Key Words: CO_2 gas arc welding(탄산가스 용접), Width of Back-bead(이면비드 폭), Depth of back-bead(이면비드 깊이), Laser vision sensor(레이저 비전 센서), Image processing (화상처리), Multiple regression analysis(다중회귀 분석), Artificial neural network(인공 신경망), Inverse transformation(역함수)

Abstract : In this study, a prediction system was formulated for the geometry prediction of the back-bead in gas metal arc welding where a root gap exist. The multiple regression analysis was used for the prediction system. As the results, it is notable that prediction of the root opening is the most difficult in comprising a welding process parameter prediction system in order to obtain the desired back-bead geometry in butt-welding where a root opening exists.

미소형계 방식의 동시사출성형 공법 개발

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Development of Multi-component Injection molding Process based on Core-back system

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Key Words: Multi-component Injection molding(일체사출성형), skin layer (표피재) ,core back(미소형계), Mold(금형)

Abstract : Injection molding has gained an enormous importance for producing plastic parts. this is due both to the development of sophisticated products and to the efforts being generally made to economise. The machine and mold technigues as well as the process technology have developed quickly since the early nineties. Today this evolution results in multi-component solutions for new products. This paper presents a method of this new technique so called Multi-component injection molding. These process are described, important aspects of processing illustrated and typical fields of application shown.