COMPUTER AIDED DESIGN

OF WELDED JOINTS

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1. INTRODUCTION

1.1 WELDED JOINTS

Welded joints are permanent joints obtained by localised heating and are based on molecular attraction.Welding is performed by heating the metal to the molten state(fusion arc welding,electro-slag welding,e.t.c.)or to a paste-like(plastic)state but with the application of mechanical force(resistance welding).

Welded joints are the most advanced type of permanent joints because the properties of the welded component and the weldment are closest to those of a solid member.

Furthermore very complicated members can be fabricated by welding

The strength of welded joints subject to static or impact loads reaches that of the base metal.

All stractural steels, including high-alloy grades,nonferrous alloys and plastics can be efficiently welded.

Robots have been very effectively used in welding processes, reducing the cost and improving quality.

Semiautomatic welding is applied where the seams are short and located at various random places on the weldment.

Hand arc welding is employed for a small volume of welding work.

1.2 VISUAL BASIC PROGRAMMING

The earliest programming languages were designed in the 1950s and were primarily for solving complex mathematical problems.

But people realised that computer technology could be useful for more than math and in response, a language called BASIC was developed early in the 1960s.A whole generation of programmers used BASIC to write an amazing variety of programs.

Over the years, this programming language was enhanced and developed but a problem remains usolved.

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