



Thermal Spraying Manual



American Welding Society



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INTRODUCTION

This thermal spray manual is intended to be a working manual for its user. The user is expected to add and remove information as appropriate based on the users needs. This document provides fundamental information for a variety of intended users, such as:

- * **DESIGN ENGINEERS**
- * **THERMAL SPRAY ENGINEERS**
- * **PRODUCTION SHOP SUPERVISORS**
- * **JOURNEYMAN THERMAL SPRAY OPERATORS**
- * **SHOP PLANNERS**
- * **MACHINIST**

The purpose of this manual is to provide fundamentals and to assist in the use of the thermal spray processes in the refurbishment of shipboard machinery components by aiding individuals in:

- * **THE SELECTION OF APPROPRIATE APPLICATIONS**
- * **TRAINING METHODS**
- * **APPROPRIATE COATING SELECTIONS**
- * **METHODS OF PROCEDURE QUALIFICATION**
- * **SELECTION OF THERMAL SPRAY PROCESSES**
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- * **SPRAYING TECHNIQUES**
- * **ASSOCIATED MACHINING TECHNIQUES**

To aid individuals in making sound thermal spray decisions, applicable basic information is contained within various section of this manual.

It is the intent of this manual to provide some fundamental structure to be able to find basic information easily and to build upon it. Fundamental information about thermal spraying, coatings, procedure and operator qualification, coating selection, and applications is contained in this manual.

From a thermal spray engineering stand point, this manual is intended to aid designers in making the best decisions as to repair applications, and coating system selections.

INTRODUCTION

This manual is designed to be a guide in performing daily tasks, as a training aid, and as a foundation for building a sound thermal spray program and developing a dedicated staff with knowledgeable personnel.