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Introduction

24.1 Establishing a Metallographic/Materialographic Laboratory

WHEN ESTABLISHING A METALLOGRAPHIC/MATERIALOGRAPHIC LABORATORY, many conditions have to be taken into consideration. The two main conditions are: (1) What is the purpose of the metallographic/materialographic examination? Is it quality control, research, education, etc.?; (2) What is the specimen volume; few or many specimens per day?

Another important condition is the degree of automation of the preparation process. This really depends on the volume of specimens to be prepared and the size of the specimens, as well as the specimen quality (reproducibility). The occupational situation for the persons performing the preparation should also be taken into consideration.

Chapter 25 discusses the above-mentioned conditions and other important matters connected to planning for and establishing a metallographic/materialographic lab, and suggestions for a number of laboratories suited for different purposes and capacities will be given.

24.2 Running a Metallographic/Materialographic Laboratory

The metallographic/materialographic laboratory should be considered a production unit, producing specimens of the desired quality at the lowest price. This means that correct planning must be made, covering both the day-to-day operation and preventive maintenance.

24.3 Occupational Safety and Health

The work in the laboratory involving machines, chemicals, etc., makes it imperative that all relevant rules and regulations covering occupational safety are followed. This subject is described in Chapter 26.