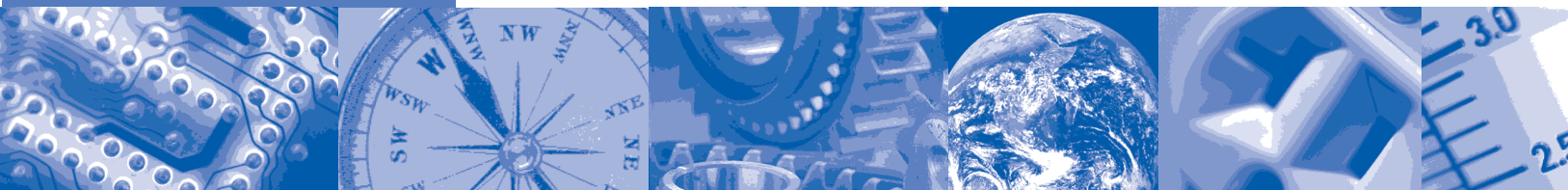


ISA-RP60.11-1991



Crating, Shipping, and Handling for Control Centers



**ISA—The Instrumentation,
Systems, and
Automation Society**

Approved 14 December 1990



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ISA-RP60.11-1991, Crating, Shipping and Handling for Control Centers

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Preface

This preface is included for informational purposes and is not part of ISA-RP60.11-1991.

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Foreword

This recommended practice is one of a series that makes up the control center recommended practices, ISA-RP60. The individual sections provide continuity of presentation, convenience of reference, and flexibility of revision. The complete recommended practice consists of the following sections:

SECTION	TITLE	SCOPE
RP-60.1	Control Center Facilities	Guide for preparation of engineering designs and specifications for control center facilities.
RP60.2	Control Center Design Guide Terminology	Design methods and terminology used in the specification of control center facilities.
RP60.3	Human Engineering of Control Centers	Design concepts accommodating man's physiological and psychological capabilities.
RP60.4	Documentation for Control Centers	Guide to the documentation associated with control center specifications.
RP60.5	Control Center Graphic Displays	Guide to the use of available graphic display techniques.
RP60.6	Nameplates, Labels, and Tags for Control Centers	Guide to the methods of identification of control center equipment and parts.
RP60.7	Control Center Construction	Guide to control center profiles, fabrication and finish methods, and enclosure selection.
RP60.8	Electrical Guides for Control Centers	Design concepts for control center electrical requirements.
RP60.9	Piping Guide for Control Centers	Design concepts for control center piping requirements.
RP60.10	Control Center Inspection and Testing	Guide to the methods of inspection and testing prior to control center acceptance.
RP60.11	Crating, Shipping, and Handling for Control Centers	Guide to the available methods for control center crating, shipping, and handling.

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1 Scope

This recommended practice describes general crating methods available for protection against physical damage, vibration, pilferage, and climate. It also describes the various procedures and problems involved in handling, shipping, and storage. It is the intent of this recommended practice to present a broad outline of the various practices so that due consideration may be given during the design and specification stages. The final selections will depend upon size and type of control center, ultimate destination, construction schedules, and owner preference.

2 Definitions

For the purposes of this recommended practice, the following definitions apply.

air ride: An air suspension system installed on some moving van trailers to provide shock and vibration control for handling delicate equipment.

container: A special-purpose, reusable enclosure for shipping cargo via truck, rail, and ship.

control center: An equipment structure or group of structures from which a system is measured, controlled, and monitored.

clinched: The bending of the excess length of a nail so that the sharp, protruding point is forced back into the nailed material.

crate: A temporary enclosure used to provide protection of an item during shipping, handling, and storage.

dunnage: Loose material used around an item to prevent damage during shipment.

hygroscopic: Material that will readily absorb and retain moisture.

nailing and blocking clip: A special fastener for joining fiberboard sheet material to wood framing.

ULD, unit load devices: A special-purpose, reusable enclosure for shipping cargo via aircraft.

3 Design considerations

Much of the detail involved in crating, shipping, and handling will be satisfactorily provided for by traffic managers, brokers, trained shipping personnel, and skilled carpenters. However, if certain methods are preferred or required because of conditions, these must be included in the specifications. [Table 1](#) provides an outline of shipping methods, size limitations, and other general handling considerations that can be used as a design checklist.

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