

Australian Standard<sup>®</sup>

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**STEEL DRUMS**

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This Australian standard was prepared by Committee PK/1, Metal Containers. It was approved on behalf of the Council of the Standards Association of Australia on 5 August 1986 and published on 6 October 1986.

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Australian Institute of Packaging  
Australian Institute of Petroleum Ltd  
Australian Paint Manufacturers Federation  
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*This standard was issued in draft form for comment as DR 84265.*

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AS K84 first published	1960
AS 1950 first published	1976
AS 1951 first published	1976
AS 2905 first published	1986

PUBLISHED BY STANDARDS AUSTRALIA  
(STANDARDS ASSOCIATION OF AUSTRALIA)  
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 4366 3

## PREFACE

This standard was prepared by the Association's Committee on Metal Containers under the direction of the Packaging Standards Board, to supersede AS 1950—1976, Fixed End and Removable End Steel Pails, AS 1951—1976, Fixed End and Removable End Steel Drums and AS K84—1960, All Welded Steel Drums.

In this amalgamated standard drums are classified according to types and performance levels rather than material specification.

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 CONTENTS

	<i>Page</i>
<b>SECTION 1. SCOPE AND GENERAL</b>	
1.1 SCOPE . . . . .	3
1.2 APPLICATION . . . . .	3
1.3 REFERENCED DOCUMENTS . . . . .	3
1.4 DEFINITIONS . . . . .	3
1.5 CLASSIFICATION . . . . .	6
1.6 MARKING . . . . .	6
<b>SECTION 2. DESIGN AND MANUFACTURING REQUIREMENTS</b>	
2.1 STEEL REQUIREMENTS . . . . .	7
2.2 MANUFACTURE . . . . .	7
<b>SECTION 3. PERFORMANCE REQUIREMENTS</b>	
3.1 GENERAL . . . . .	9
3.2 LEAKAGE TEST . . . . .	9
3.3 INTERNAL HYDRAULIC PRESSURE TEST . . . . .	9
3.4 DROP TEST . . . . .	9
3.5 STACKING TEST . . . . .	9
3.6 BAIL ATTACHMENT TEST . . . . .	9
<b>APPENDICES</b>	
A INFORMATION TO BE SUPPLIED WITH ENQUIRY OR ORDER . . . . .	10
B DROP TEST . . . . .	11
C METHOD OF TEST FOR LEAKAGE . . . . .	12
D HYDRAULIC PRESSURE TEST . . . . .	13
E METHOD OF TEST FOR BAIL EAR OR DROP HANDLE STRENGTH . . . . .	14
F NON-STOCK DRUM TYPES AND SIZES . . . . .	15

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## STANDARDS ASSOCIATION OF AUSTRALIA

**Australian Standard**  
**for**  
**STEEL DRUMS**

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This standard specifies stock sizes and performance requirements for steel drums up to 250 L capacity.

For the purpose of this standard, the term drum also includes containers commonly called pails.

NOTE: Appendix A sets out information which should be supplied by the purchaser with an enquiry or order.

**1.2 APPLICATION.** This standard applies principally to drums for the packaging of contents which require normal protection. Drums manufactured to this standard may also be used for the transportation of compatible dangerous goods if approved and marked in accordance with the requirements of the legislation applicable to the chosen mode of transport. For land transport within Australia, these requirements are as detailed in the Australian Code for the Transport of Dangerous Goods by Road and Rail published as a Periodical Gazette by the Australian Government Publishing Service, Canberra.

**1.3 REFERENCED DOCUMENTS.** The following standards are referred to in this standard:

- AS 1349 Bourdon Tube Pressure and Vacuum Gauges
- AS 1365 Tolerances for Hot-rolled and Cold-rolled Unalloyed Low Carbon Steels (Coils and Cut Lengths)
- AS 1517 Tinsplate and Blackplate  
Part 1—Sheet  
Part 2—Coil
- AS 1595 Cold-rolled Unalloyed Low Carbon Steel Sheet and Strip
- AS 2400 SAA Packaging Code  
Part 1—Glossary of Packaging Terms
- AS 2582 Complete, Filled Transport Packages—Methods of Test  
2582.3 Stacking, Compression Test  
2582.4 Vertical Impact Test by Dropping
- AS B201 Rolled Sheet Metal Screw Threads and Associated Threads in Moulded Plastics and Die-cast Materials for General Purposes
- US. Federal Specification PPP-P-420B—Plugs and Flanges (for drum closures)

The following standards are also relevant:

- AS 2348 Guide to the Determination of Optimum Dimensions of Packages for Unit Load Handling
- AS 2583 Complete, Filled Transport Packages—Distribution Trials—Information to be Recorded

- AS 2584 Complete, Filled Transport Packages—General Rules for the Compilation of Performance Schedules  
2584.1—General Principles  
2584.2—Quantitative Data

**1.4 DEFINITIONS.** For the purpose of this standard, the definitions given in AS 2400, Part 1 and the following apply:

**1.4.1 Bail**—a hoop shaped handle pivoting about the two points (bail ears) of attachment to a drum.

**1.4.2 Bail ear**—a device fastened to the body of the drum, to hold the ends of a bail.

**1.4.3 Capacity**—the internal volume of a drum with its closures secured as for transport.

**1.4.4 Capacity, fillable**—the capacity of a drum measured to the bottom of the filling opening, when a drum is in its normal filling position. However, for open-head drums the fillable capacity is identical with capacity (see 1.4.3).

**1.4.5 Capacity, nominal**—the volumetric quantity of contents for which the drum is designed.

**1.4.6 Chime**—the outer edge or rim of a drum including the end seams (see Fig. 1.1).

**1.4.7 Drum, closed-head**—a drum which has the head permanently attached by double seaming or some similar method (also called non-removable head drum, see Figs 2.2, 2.3, 2.5, 2.6 and 2.7).

**1.4.8 Drum, open-head**—a drum which has a fully removable head secured to the body by either a separate locking ring or by integral lugs formed on the cover (also called removable head drum, see Figs 2.1, 2.4 and 2.8).

**1.4.9 Filling margin**—the difference between fillable capacity and nominal capacity of a drum expressed as a percentage of the nominal capacity as follows:

$$\text{Filling margin} = \frac{\text{Fillable capacity} - \text{Nominal capacity}}{\text{Nominal capacity}} 100\%$$

**1.4.10 Friction closure**—sealing system consisting of a lid which presses into or onto a ring which is permanently formed in one end of the drum. The lid is held into the ring by the friction forces between the walls of the lid and the ring.

**1.4.11 Handle, drop**—an accessory attached to the top end of a drum for the purpose of holding or carrying. The drop handle, normally pivoting at its ends and lying flat when not in use, allows stacking of drums.