

Australian Standard[®]

**HELICAL LOCK-SEAM
CORRUGATED STEEL PIPES**

This Australian standard was prepared by Committee WS/11, Corrugated Metal Drainage Pipes and Arches. It was approved on behalf of the Council of the Standards Association of Australia on 30 October 1984 and published on 31 January 1985.

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Confederation of Australian Industry
Department of Public Works, N.S.W.
Metal Trades Industry Association of Australia
National Association of Australian State Road Authorities
Public Works Department, Victoria
Railways of Australia Committee
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CORRUGATED STEEL PIPES**

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PREFACE

This edition of this standard was prepared by the Association’s Committee on Corrugated Metal Drainage Pipes and Arches to supersede AS 1761—1979.

The principal change in this edition is the introduction of a new corrugation profile and inclusion of requirements for coupling systems.

The main purpose of the standard is to lay down the essential requirements for the manufacture and purchase of helical lock-seam corrugated steel pipes as distinct from riveted, nestable and bolted corrugated steel structures that are specified in AS 2041, Corrugated Steel Pipes, Pipe-Arches and Arches.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
HELICAL LOCK-SEAM CORRUGATED STEEL PIPES

1 SCOPE. This standard specifies requirements for full circular shape corrugated steel pipes manufactured from galvanized steel strip. The pipe is formed by a continuous helical lock-seam.

The standard deals only with those pipes in which the direction of the corrugations run helically to the longitudinal axis of the pipe.

NOTE: Guidelines to purchasers on requirements that must be specified by the purchaser and by the manufacturer, and those that must or may be agreed upon at the time of the enquiry or order, are detailed in Appendix A.

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

AS 1111	ISO Metric Hexagon Commercial Bolts and Screws
AS 1397	Hot-dipped Zinc-coated or Aluminium/Zinc-coated Steel Sheet in Coil and Cut Lengths
AS 1650	Galvanized Coatings
AS 1789	Electroplated Coatings of Zinc on Iron and Steel
AS 2105	Inorganic Zinc Silicate Paint
AS 2204	Zinc-rich Organic Priming Paint
AS 2205	Methods of Destructive Testing of Welds in Metal 2205.3.1—Part 3—Bend Tests—Transverse Guided Bend Test
AS B118	Dimensions of Small Rivets for General Purposes
CAN3-G401-M81	Corrugated Steel Pipe Products.

3 DIMENSIONS.

3.1 Preferred dimensions. Preferred combinations of corrugations and internal diameters for the pipes are given in Table 1.

The internal diameter is taken as the clear distance between internal crests of corrugations.

3.2 Internal diameter and corrugations. The internal diameter and corrugations of the pipes shall be as specified by the purchaser, subject to the tolerances specified in Clause 3.4 (diameter) and Clause 5.2 (corrugation).

3.3 Length. Pipes shall be supplied in lengths in multiples of 1000 mm.

3.4 Tolerances. Pipe tolerances shall comply with the following requirements:

- Diameter.* The internal diameter of the pipe shall not differ from the specified diameter by more than ± 1 percent.
- Length.* The actual length of a pipe section shall not differ from the specified length by more than ± 1 percent.

4 MATERIAL.

4.1 Base metal. The steel strip shall comply with the requirements of AS 1397 for steel base grade G250.

TABLE 1
PREFERRED CORRUGATIONS AND INTERNAL
DIAMETERS FOR PIPES

Corrugation* mm $\times$ mm	Internal diameter mm	Area mm ²
38 $\times$ 6.5	150	0.02
	200	0.03
	250	0.05
68 $\times$ 13	300	0.07
	375	0.1
	450	0.2
	600	0.3
	750	0.4
	900	0.6
	1050	0.9
	1200	1.1
	1350	1.4
	1500	1.8
	1650	2.1
75 $\times$ 25	1800	2.5
	900	0.6
	1050	0.9
	1200	1.1
	1350	1.4
	1500	1.8
	1650	2.1
	1800	2.5
	1950	3.0
	2100	3.5
	2250	4.0
	2400	4.5
	2550	5.1
	2700	5.7
	2850	6.4
	3000	7.1
125 $\times$ 25	3300	8.6
	3600	10.2
	1200	1.1
	1350	1.4
	1500	1.8
	1650	2.1
	1800	2.5
	1950	3.0
	2100	3.5
	2250	4.0
	2400	4.5
	2550	5.1
	2700	5.7
	2850	6.4
	3000	7.1
	3300	8.6
	3600	10.2

* Corrugations are designated pitch by depth.