

TECHNICAL STANDARD

**THE SUPPLY OF 305 mm DIAMETER WELDED
STEEL VENT TUBES
(TS 12 & TS 97 accompany this TS)**



Issued by: Standards Manager Networks Infrastructure

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Approval may be granted by the Asset Owner to deviate from the requirements as stipulated in this Standard if the functional requirements (e.g. Asset Life) for the asset differs from those stated in the Standard, but is assessed as still being acceptable by the Asset Owner's nominated representative.

Any approval to deviate from the stated requirements of this Standard will not be seen as creating a precedent for future like project. Any request to deviate from this Standard must be carried out on a project by project basis where each alternate proposal will be individually assessed on its own merit.

NO CHANGES REQUIRED IN THE JANUARY 2007 EDITION

The following lists the major changes to the September 2002 edition and published in the September 2004 edition of TS 55:

1. Reformatted from DS to TS (Departmental Standard to Technical Standard), and updated referenced Australian Standards.
2. Conversion to a technical standard by removal of contractual conditions (to be included in the contract that references this specification).
3. Corrected Title to 305 mm not 350 mm.

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REFERENCED DOCUMENTS

AS/NZS 1554:	Structural Steel Welding
AS 1579:	Arc-welded steel pipes and fittings for water and waste-water
AS 3768:	Guide to the effects of temperature on electrical equipment
AS 3894:	Site testing of protective coatings
AS/NZS ISO 9001:	Quality management systems – Requirements
Drawing No. 94-0168-03A:	Page J3 in the Sewer Construction Manual Drawings
TS 12	Surface Preparation and Protection of Steelwork Using an Inorganic Zinc Silicate Coating
TS 54	Supply of Steel Vent Tube Bases and Vent Base Holding Down Bolts (TS 84 accompanies this TS)
TS 97	Surface Preparation and Protection of Steelwork Using Potable Water Approved Epoxy High Build 2-Pack Solventless

SECTION 1: GENERAL

This Technical Standard covers the fabrication of steel vent tubes. These vent tubes are assembled with the vent tube bases (to TS 54) as shown in TS 54 and on Drawing 94-0168-03A (Shown in Appendix A - Reference Drawing).

SA Water Technical Standard's (TS's) 12 and 97 accompany this TS.

SECTION 2: MATERIALS

2.1 Steel

The steel plate shall be Grade 250 in accordance with AS 3678.

2.2 Coating Materials

Coatings shall be in accordance with TS 12 and TS 97.

SECTION 3: MANUFACTURE

The vent tubes shall be fabricated from steel plate to form a tube to the following dimensions:

Outside diameter	305 mm
Wall thickness	3.5 mm
Length	15 metres

The manufacture of the tubes shall be in accordance with AS 1579 except that hydrostatic testing is not required. The tubes shall be manufactured by spiral butt welding coiled feedstock and shall conform to the relevant requirements of AS/NZS 1554. The external weld shall be ground flush with the outer surface for a minimum of 50mm from the bottom end to ensure correct location when tube is installed into base.

SECTION 4: COATING

4.1 Surface Preparation

The surface preparation, both internally and externally, shall be abrasive cleaned in accordance with TS 12 and TS 97.

4.2. Coating Application

4.2.1 External Surface

The external surface of the tubes shall be coated with Inorganic Zinc Silicate in accordance with TS 12. Acceptable products include:-

- Jotun Jotacote 5 applied at 100 microns DFT.
- Ameron D7 applied at 100 microns DFT.

4.2.2 Internal Surface

The internal surface of the tubes shall be coated with solventless epoxy in accordance with TS 97. One of the following products shall be used:-

- Wattyl Sigmaguard CSF 75 applied at 500 microns DFT.
- Jotun Jotacote 412 applied at 500 microns DFT.

4.2.3 Coating Inspection.

The surface preparation and coating application shall be inspected by a third party coating inspector who is qualified in the inspection of high performance coatings. A qualified inspector shall have attained the Australasian Corrosion Association Coating Inspectors Certificate and shall be able to demonstrate that coating inspection duties have been carried out on a regular basis. Inspection reports shall comply with AS 3894.10, AS 3894.11 and AS 3894.12, 'Site Testing of Protective Coatings' equipment and inspection reports.

For the purposes of this Technical Standard, the term "SA Water's representative" referred to in TS 12 and TS 97 shall mean "The third party coating inspector". At the completion of each production batch, the Inspection Reports shall be forwarded to:

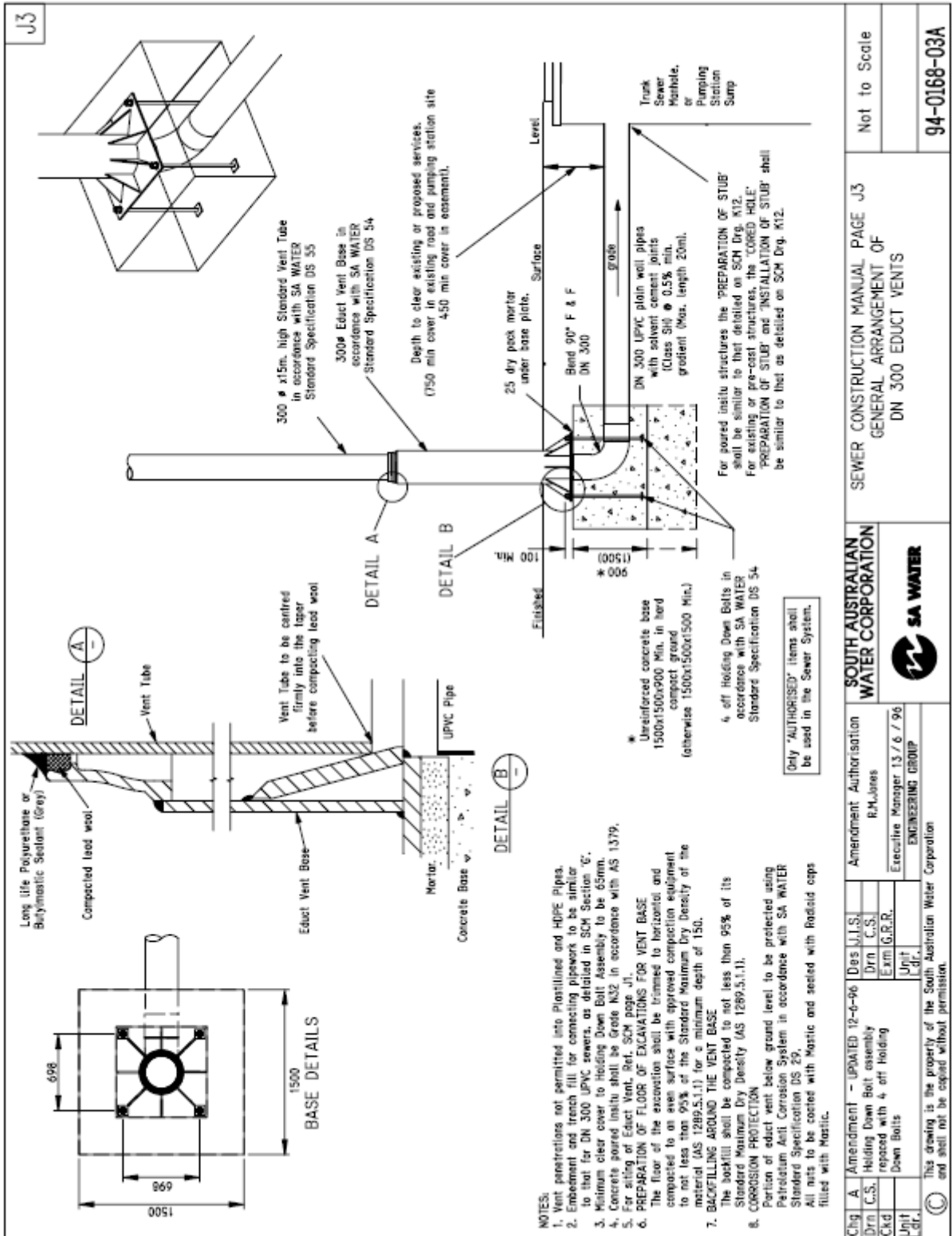
SA Water Infrastructure Standards Unit
PO Box 1751 ADELAIDE SA 5001

SECTION 5: QUALITY CONTROL AND ASSURANCE

The manufacturer shall implement and maintain an approved quality control/quality assurance system covering all testing and manufacturing processes, hardware, materials and workmanship used in the manufacture of the vent tubes.

Unless specified otherwise, the minimum quality control and assurance system shall be in accordance with AS/NZS ISO 9001 and shall be in accordance with all standards relevant to the manufacture of the vent tubes.

APPENDIX A REFERENCE DRAWING



SOUTH AUSTRALIAN WATER CORPORATION		SEWER CONSTRUCTION MANUAL PAGE J3		Not to Scale	
Amendment Authorisation R.M.Jones		GENERAL ARRANGEMENT OF DN 300 EDUC T VENTS		94-0168-03A	
Executive Manager 13 / 6 / 96		ENGINEERING GROUP			
Chg Dwn C.S. Ck'd	Amendment 12-6-96	Des Dwn C.S. E.xm	U.S.S. C.S. G.R.R.	Unit d.f.	
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